

ShelterCluster.org
Coordinating Humanitarian Shelter

AFGHANISTAN (NORTH) FLOOD RESPONSE EVALUATION ASSESSMENT

Report

AFGHANISTAN

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About REACH

REACH is a joint initiative of two international non-governmental organizations - ACTED and IMPACT Initiatives - and the UN Operational Satellite Applications Programme (UNOSAT). REACH's mission is to strengthen evidence-based decision making by aid actors through efficient data collection, management and analysis before, during and after an emergency. By doing so, REACH contributes to ensuring that communities affected by emergencies receive the support they need. All REACH activities are conducted in support to and within the framework of inter-agency aid coordination mechanisms. For more information please visit our website: www.reach-initiative.org.

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EXECUTIVE SUMMARY

Afghanistan is a country at constant risk of natural disaster, in addition to the humanitarian crisis associated with ongoing conflict. Over the past ten years, there has been an average of seven natural disasters per year in the country, with an average mortality rate of more than 400 people.¹ Moreover, the 2017 Humanitarian Needs Overview (HNO) foresees that 211,000 individuals will be affected by natural disaster in Afghanistan in 2017.² A specific example occurred between April and June 2014, when the country suffered its worst seasonal flooding in over 100 years. More than 112,000 people were affected by the disaster and over 8,000 households were destroyed in the eight provinces of Badakhshan, Baghlan, Balkh, Faryab, Jawzjan, Samangan, Sar-e Pul and Takhar.³ As such, decisive and constructive evaluations of the 2014 disaster response intervention by the humanitarian community provide a valuable tool in order to assess the effectiveness of relief efforts provided and inform future assistance.

In February and March 2015, the Shelter Cluster conducted an initial review of the humanitarian response to the 2014 flood to review the humanitarian response, which assisted 6,480 fully damaged and 5,264 partially damaged households after the disaster in the eight northern provinces. The shelter cluster identified that more than 5,000 households in accessible and inaccessible areas remained unassisted⁴, indicating also that a lack of reliable and comprehensive data negatively impacted relief assistance. Additionally, there was a lack of information about the remaining shelter and other pressing needs of the 2014 flood affected population in the northern provinces.

To address these research needs, REACH, in collaboration with the Afghanistan Shelter Cluster, conducted a comprehensive shelter flood response evaluation assessment in eight of Afghanistan's northern provinces between October 2016 and March 2017, funded by the Common Humanitarian Fund (CHF). The evaluation aimed to assess the levels of self-recovery, remaining needs and coping strategy adopted amongst flood affected households. More specifically, it strived to do so by identifying the coping strategies used by affected households and their prevalence, as well as shelter and other sectoral needs, recovery levels and vulnerabilities, while emphasising differences between assisted and unassisted households. The evaluation builds upon the Review of the 2014 Flood Response Lessons Learnt report prepared by the Afghanistan Shelter and NFI Cluster (North) published in March 2015, which outlines the key areas of flood response and provides much of contextual basis of this assessment.

The present evaluation implements a mixed methodological approach, consisting of household level surveys and focus group discussions, designed in collaboration with the Shelter Cluster. Accordingly, 4,839 household level surveys and 24 focus group discussions were carried out across the eight northern provinces between 17 February and 3 April 2017. Limitations surrounding the finding of relevant participants as well as a general unwillingness of individuals to take part in the assessment prevented equal proportions of respondents in each stratum. These strata divided the population by damage to the overall community, individual household damage and whether the household received assistance after

¹ Prevention Web, *Afghanistan: Disaster and Risk Profile*, 2017.

² OCHA, *Afghanistan: Humanitarian Needs Overview*, January 2017.

³ Afghanistan Shelter and NFI Cluster (North), *A Review of the 2014 Flood Response: Review of the 2014 Flood Response*, March 2015.

⁴ Ibid.

the flood. As such, all of these population groups are represented and thus findings are overall valid and statistically significant.

The following sections summarise key findings by first presenting the demographic profile of affected households and outlining assistance received. After that, the main research aims of the assessment are presented, discussing coping strategy use, shelter and other needs of households, and an outline of further priority needs of these vulnerable populations is provided.

DEMOGRAPHICS AND VULNERABILITIES

- Households were comprised of 51% female and 49% male residents, while children aged less than 16 years represented half of the targeted population.
- On average, a household consisted of nine people, residing in shelters of three rooms. The dependency ratio of households was high, each breadwinner being responsible for an average of four other individuals. **Many breadwinners were reliant upon flood-affected income sources**, such as cash crop or livestock farming, highlighting a particular area of economic vulnerability.
- **Households with a greater number of children** were more likely to receive a **higher amount of financial assistance**, indicating that the flood response effectively targeted this vulnerable category.
- The average age of household heads was 46. Households with older heads were considered to present greater vulnerabilities amongst the flood-affected communities. Eighty per cent of **households headed by an individual over the age of 64** received some level of assistance, making this the **most likely group to receive assistance**. Therefore, the flood response was effective in targeting those in need.
- Although **female headed households** comprised only 2% of the surveyed population, they were **significantly more likely to have had fully damaged house** (71%, compared to 60% for male counterparts). Despite this, they were **not statistically significantly more likely to receive assistance**, indicating that interventions could potentially further support female headed households.
- Only 6% of household heads reported having a disability. **Disabled headed households received a statistically significantly higher amount of financial assistance** (average of 6,687 Afghanis⁵) than non-disabled household heads (average of 4,466 Afghanis), showing that the assistance was once more well targeted towards vulnerable groups.
- There was little insight between the different strata in terms of the proportions of vulnerable household members, including those with at least one disabled, pregnant, breastfeeding or chronically ill member. Findings indicated that, whilst there was a significant difference between the strata, no clear relationship could be inferred. As such, it can be deduced that all strata have a varied cross section of vulnerabilities which ought to be considered more explicitly in future interventions.

ASSISTANCE

- Across all interviewed households, 60% of houses were initially fully damaged and 40% were partially damaged by the flood. Of all these, 69% received assistance in response to the

⁵ 1 USD = 68 AFN – Conversion according to XE (<http://www.xe.com>) as of June 2017.

damage, while the remaining 31% did not. **Fully damaged households were significantly less likely to receive some level of assistance (63%) than partially damaged households (77%).**

- **Non-Food Item (NFI) cash vouchers were the most common assistance type** received by households (37%), with 22% of partially damaged and 16% of fully damaged households benefitting from NFI cash vouchers. This is followed by 26% of all surveyed households receiving shelter assistance in-kind.
- The **average amount of cash assistance** received by households was reportedly **4,459 Afghanis**. Fully damaged households reportedly received a significantly higher amount of 5,329 Afghanis, compared to 3,434 Afghanis provided on average to partially damaged households.
- Amongst households which coped with flood damage by moving locations, 64% received some level of assistance, while 71% which stayed in the same site received some type of assistance.
- In terms of the situation of households three years after the flood, 11% of houses have been fully repaired. However, the **largest proportion of households (48%) remain partially damaged**. Following this, 28% of sites that were damaged are no longer occupied, while 13% of households still reside in fully damaged houses.
- Considering the stratifications, **the most significant driver in encouraging displacement was tied to residing in a highly damaged community, receiving assistance and having a fully damaged house**. In comparison, households in low damaged communities, who received no assistance and were in partially damage houses were most inclined to remain in the same site. These findings indicate the relevance of initial damage and assistance received in leading to displacement.

COPING STRATEGY USE

- Long term coping strategies used by flood-affected households consisted of common Build Back Better (BBB) methods to improve the flood-resistant capabilities of households. As such, the most prevalent coping strategies were **including lintels on doors and windows (92%), introducing draining systems (72%) and placing windows within a safe distance from corners (66%).**
- It was found that receiving flood response **assistance significantly improved the likelihood of incorporating all BBB coping strategies**; therefore, the response can be considered as a successful intervention in improving the long-term coping capacity of flood-susceptible households.
- With particular reference to the stratifications, **households which were in highly damaged communities and had received assistance, including both fully and partially damaged households, implemented the most BBB coping strategies**. This indicates that receiving assistance played an important role in ensuring measures were taken to improve the structural integrity of houses.
- In terms of negative coping strategies, **many households (40%) kept livestock in parts of the household intended for residents**, resulting in overcrowding and hygiene issues. However, **receiving assistance significantly reduced the likelihood of this strategy**.
- A high proportion of **households with disabilities chose to move to a different site** after flooding rather than to rebuild in the same site, indicating potential barriers to repairs for this vulnerable group.

SHELTER

- The accommodation situation of households varied, with the largest proportion **(75%) living in houses they own (with documentation)**. This tends to tie households to the property and places damage repair responsibility solely on these individuals. This is followed by 15% which own households without documentation and 5% which rent.
- In terms of structural integrity, **55% of house walls were made of mud brick and 18% were constructed of timber**. These structure types were highly vulnerable to flood damage, with 56% of fully damaged households consisting of mud brick walls and 20% of timber walls, comprising the largest proportions of fully damaged households.
- Shelter repairs were an important aspect of the flood response strategy. **Most households (47%) had placed repairs on hold, while 33% had not yet started and 11% had repairs ongoing on their house**. The main barriers to repairs were reportedly having **no money for materials (58%), no money for labour (33%) and being unable to reach markets due to financial limitations (9%)**.
- Finally, 56% of households reported having space specifically for female residents, with the likelihood of having female-only space increasing with a higher number of rooms in houses.

EXPENDITURE, LIVELIHOODS AND WASH

- Within 30 days prior to assessment, total household expenditure was 28,058 Afghanis on average. **Households which received some type of assistance had a significantly higher average expenditure** amount of 29,278 Afghanis compared to 25,368 Afghanis for households without assistance.
- Most commonly, households were dependent on cash crop farming (32% of households), unskilled daily labour (28%) and livestock farming (14%), all of which were impeded by the 2014 floods.
- Assistance, however, seemed to target some economically vulnerable households, as **75% of cash crop farmers received some level of assistance**, while others categories seemed to be less prioritized, with **only 61% of farming households receiving assistance**. As such, more income-based indicators could be incorporated into targeted flood response.
- When assessing WASH facilities, hand pumps were identified as the most common drinking source, accessed by 30% of the population. This was followed by 19% using surface water and 17% reaching municipal pipelines. **Assistance had an impact on the type of water source available**, with 32% of assistance receiving households having access to a hand pump.
- However, **assistance did not positively influence the availability and use of hygienic latrines or solid waste disposal methods**. Fifty-one per cent of households used an open pit latrine, while 43% used a covered pit latrine. Similarly, 49% of households were found to throw their solid waste into the street, while 20% buried their waste.

PRIORITY NEEDS

- Following the assessment of the main priority needs of flood affected households, **shelter** was still considered the most relevant need, as reported by 38% of households. Following this, 15% reported **food** and 14% were in need of **agriculture and livestock support**.

- Partially damaged households were found to have a broader variety of needs, while fully damaged households continued to focus on more specific requirements, predominantly shelter needs (19%).
- All except one stratification prioritised shelter assistance. The stratification with the most post-flood security, in a low damaged community, with partial damage and assistance received, had a broader range of needs, with healthcare indicated as the most relevant.

CONCLUDING REMARK

The above key findings indicate that the flood response had a positive impact on improving the efficient repair and the overall shelter status of damaged households, while providing higher amount of financial assistance to fully damaged houses and vulnerable household. As such, households which received assistance were more likely to have started repairs on the house compared to unassisted households. Furthermore, assistance has encouraged the implementation of positive coping strategies, designed to increase community resilience to flooding. However, as a high proportion of households remain in need of repairs, taking into account that a large number did not receive any assistance, and the vast majority of households continue to prioritise shelter assistance, there is a need for further targeted interventions both in terms of financial and shelter assistance.

CONTENTS

EXECUTIVE SUMMARY	2
CONTENTS	8
INTRODUCTION	10
METHODOLOGY	11
Key Concepts	11
Objectives.....	11
Sampling strategy	12
Data Collection	14
Limitations	14
FINDINGS.....	16
Demographic Profile	16
Assistance	22
Shelter	25
Expenditure and Livelihoods	29
WASH.....	30
Priority Needs	31
CONCLUSION.....	32
Key Findings.....	32
ANNEX 1 HOUSEHOLD SURVEY QUESTIONNAIRE	35
ANNEX 2 FOCUS GROUP DISCUSSION QUESTIONNAIRE.....	37

ACRONYMS AND ABBREVIATIONS

BBB	Build Back Better
CGI	Corrugated Galvanised Iron
HH	Household
NFI	Non-Food Items
WHO	World Health Organisation

FIGURES, TABLES AND MAPS

Figure 1: Demographic overview	16
Figure 2: Number of breadwinners in households, by assistance received	17
Figure 3: Household head age, by current household situation.....	19
Figure 4: Initial household flood damage, by household head gender	19
Figure 5: Household head gender, by assistance received	20
Figure 6: Proportion of households in same location, by disabled household head	20
Figure 7: Proportion of households with at least one pregnant member, by stratification	22
Figure 8: Assistance received, by initial household flood damage	22
Figure 9: Type of assistance received, by initial household flood damage.....	23
Figure 10: Shelter status by stratification.....	23
Figure 11: Average amount of cash assistance, in Afghanis, received by households in each current situation.....	25
Figure 12: Assistance received, by current repair status of households.....	26
Figure 13: Implementation of shelter coping strategies	27
Figure 14: Livestock in indoor living space, by assistance received.....	28
Figure 15: Space for females in the household, by total number of rooms in household	29
Figure 16: Household economic and livelihood sources, by assistance received	30
Figure 17: Household priority needs, by initial household flood damage.....	31
Figure 18: Proportion of households prioritising shelter assistance in each stratum	31
 Map 1: Reference map of assessed provinces in northern Afghanistan.....	 12
 Table 1: Focus group discussion sampling strategy.....	 13
Table 2: Household survey sampling strategy.....	14

INTRODUCTION

Natural disasters are common in Afghanistan, with floods, earthquakes, landslide and avalanches occurring every year. Between April and June 2014, significant flooding arose in the northern regions of the country – namely in the northern provinces of Badakhshan, Baghlan, Balkh, Faryab, Jawzjan, Samangan, Sar-e Pul and Takhar. The poor structural integrity of houses, thick muds and a general lack of flood awareness led to large scale damage amongst affected communities. More than 112,000 individuals residing in nearly 17,000 households were impacted. As a result, the humanitarian community mobilized to assist 6,480 fully damaged households and 5,264 partially damaged households.⁶ This assistance consisted of both shelter and non-food item (NFI) assistance, and winter needs support.

In February and March 2015, the Shelter Cluster conducted an initial review of the humanitarian response to this flood, to review all phases of the response. It found that more than 5,000 households in accessible and inaccessible areas remained unassisted.⁷ This review also indicated that a lack of reliable and comprehensive data prevented and delayed relief assistance. This information gap is of key importance, taking into account that, in the upcoming year 2017, it is anticipated that across Afghanistan 211,000 individuals will be affected by natural disasters.⁸ A thorough understanding of the effectiveness of humanitarian interventions, particularly in response to flooding, is necessary for informing efficient and accurate assistance throughout 2017 and beyond.

In light of the information gap identified in the Shelter Cluster Review of the 2014 Flood Response report, the present evaluation intends to provide information on the amount of self-recovery, consisting of the level and type of coping strategies used by both assisted and non-assisted households since the flooding in 2014. Therefore, the evaluation aims to provide Shelter Cluster partners with the information they need to plan for effective and targeted intervention and advocate for further response on behalf of vulnerable households. The findings of the Shelter Cluster Review of the 2014 Flood Response report will shape and inform the areas of assessment in this evaluation.

To carry out this evaluation, qualitative focus group discussions and quantitative household level surveys were conducted. The survey, as well as the focus group discussion question route, were designed by REACH in collaboration with the Afghanistan Shelter Cluster. This resulted in the conducting of 24 focus group discussions and 4,839 household surveys. All focus groups were completed between 27 February and 8 March 2017, while all household surveys were carried out from 7 March until 3 April 2017.

This report begins with further details of the data collection methods used to conduct this evaluation. Following this section, the main findings of the assessment are presented in six parts. Firstly, the key demographics of flood-affected households are presented, followed by discussions surrounding assistance received, shelter-specific findings, expenditure and livelihoods of households, and availability of WASH facilities; it is concluded by a brief overview of the key priority needs of the communities. Finally, a conclusion summarises the key results and provides recommendations for future interventions.

⁶ Afghanistan Shelter and NFI Cluster (North), [A Review of the 2014 Flood Response: Review of the 2014 Flood Response](#), March 2015.

⁷ Ibid.

⁸ OCHA, *Afghanistan: Humanitarian Needs Overview*, January 2017.

METHODOLOGY

Throughout February, March and April 2017, REACH conducted data collection for the flood response evaluation in the northern provinces of Afghanistan, in collaboration with the Afghanistan Shelter Cluster. The purpose of the evaluation was to identify the coping strategies and level of recovery used by both assisted and non-assisted households affected by 2014 floods. Data collection consisted of focus group discussions, conducted throughout February and March 2017, and household level surveys, carried out between 7 March and 3 April 2017.

KEY CONCEPTS

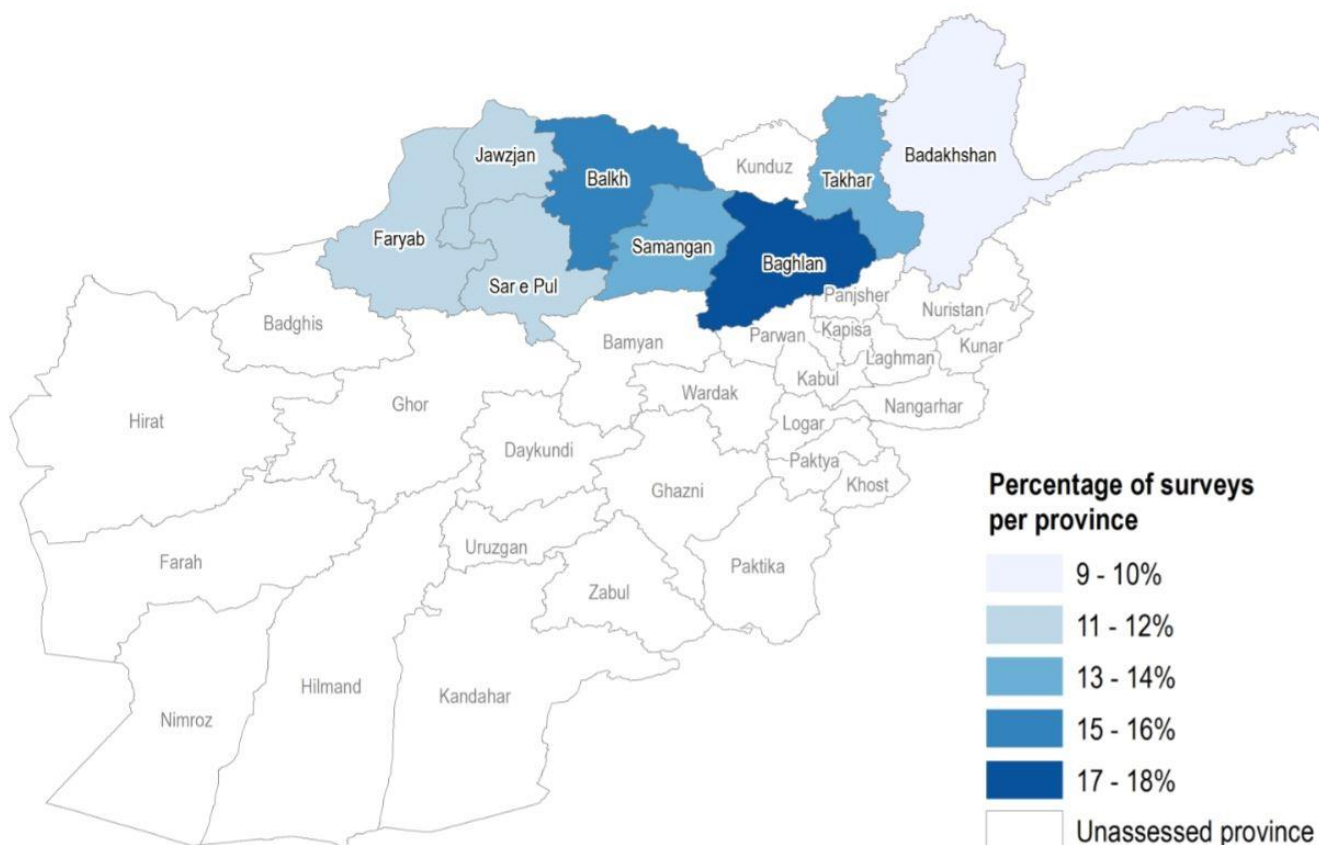
For clarification and consistency purposes with regards to concepts and terminology, some of the key definitions which apply throughout this evaluative report are as follows:

- Household – A housing unit in which there is one clearly defined head of household, with all other individuals residing within the boundaries of the compound and regularly sharing meals, including family and non-family members.
- Category A Household – Houses which have been completely destroyed beyond the point of safe or hygienic living have been classified by the Shelter Cluster as Category A households.
- Category B Household – Houses which have been partially damaged, indicating that they have some damage caused by the flood but remain in a liveable condition, and thus reduce the living standard of residents have been classified by the Shelter Cluster as Category B households.
- Assisted and Unassisted Households – An assisted household is one which benefitted from humanitarian assistance as a direct result of the flooding in 2014. This can be in the form of Non-Food Item (NFI) cash vouchers, shelter assistance or any other assistance, including winter needs assistance. Unassisted households were not beneficiaries of such interventions.

OBJECTIVES

The primary objective of the evaluation was to assess self-recovery levels, ongoing needs and use of coping strategies amongst households affected by the flooding in 2014 in the provinces of Badakhshan, Baghlan, Balkh, Faryab, Jawzjan, Samangan, Sar-e Pul and Takhar, as displayed in Map 1. More specifically, it aimed at identifying the types of coping strategies used by households since 2014 and measuring the prevalence of the strategies in use, shelter and other sector needs, different levels of shelter recovery and main vulnerabilities. Furthermore, differences between assisted and unassisted households in these key areas were identified. To do so, the research identified the key demographic profiles of affected households, the types and level of assistance received, expenditure patterns and livelihoods of households, available WASH facilities and the priority needs within the communities.

Map 1: Reference map of assessed provinces in northern Afghanistan



SAMPLING STRATEGY

Since the purpose of the assessment was, in part, to identify differences between assisted and unassisted households, a specific sampling strategy was devised to allow for this. As such, the following three characteristics specifications were applied:

- Community level resilience – Communities assessed have been divided into two groups based on the proportion of shelters which suffered flood impact. This divide has been made at the district level.⁹ Communities located in a district in which more than 60% of households overall had suffered some degree of damage were classified as ‘higher percent of community damaged’, while all other communities were grouped as a ‘lower percent of community damaged’.
- Household level damage – By using the Shelter Cluster beneficiary list, in each community, the list of households originally damaged have been used to categorise households as either partially (Category B) or fully damaged (Category A), based on their Category status as a direct result of the 2014 floods. These category statuses were assigned by the Shelter Cluster.
- Household level assistance – The third stratification characteristic is defined by identifying whether a household received some level of assistance during the Shelter Cluster’s intervention process after the floods, or whether they did not.

⁹ Each of Afghanistan’s regions are divided into provinces comprised of districts. Overall, the assessment covers 41 districts throughout the eight provinces. As in this assessment, communities refers to villages, these districts include a total of 236 affected villages/communities, and a total of 17,071 households.

These groups were used for sampling participants for the 24 focus group discussions and 4,839 household level surveys. Firstly, for focus group discussions, male only and female only focus groups were formed, to allow for different voices and opinions to be appropriately heard. Initially, equal proportions of each group to be included in the discussions were intended, however, the inability on the ground to find equal number of participants resulted in variation in the groups.¹⁰ The following Table 1 outlines the focus groups conducted in each category, with six participants in each. A significant difficulty in carrying out these discussions revolved around the fact that there was a general unwillingness to participate (this difficulty is further described under the Limitations section). Another issue was tied to locating flood affected individuals, particularly as many households were located in difficult to reach areas. This accounts for the lower numbers of discussions. However, in some focus group and household level surveys, participants were found in strata which it was supposed participants would not be found. As such, the reality of data collection provided a broader array of insights than initially expected.

Table 1: Focus group discussion sampling strategy

Community Level Resilience →	Higher % of community damaged		Lower % of community damaged		
HH level resilience ↓	Assisted HH	Unassisted HH	Assisted HH	Unassisted HH	TOTAL
Category B HH (Female)	0	4	1	1	6
Category A HH (Female)	2	0	2	3	7
Category B HH (Male)	1	0	1	3	5
Category A HH (Male)	1	1	1	3	6
TOTAL	4	5	5	10	24

For the household level surveys, to allow for generalisation of findings based on research characteristics, a probability sampling strategy was implemented.¹¹ The list of flood affected sites provided by the Cluster was initially used to randomly select communities. After this, flood affected households in each site were stratified according to assistance received and damage level, at both the household and community level, resulting in eight strata. Within each of these strata, a random sample was then drawn. This sampling was conducted in a way which allows a 90% confidence level and 5.2% margin of error when comparing each group, and a 95% confidence level and 2.2% error margin overall.

Table 2 details the number of surveyed households in each stratum. Again, the numbers are slightly different from the initially intended proportions in each group. In particular, there is a lower number of assisted - Category A households - in lower damaged communities, and the number of unassisted households in these same communities is higher. Again, locating relevant households, particularly in hard to reach areas, as well as a general unwillingness to take part in the survey affected proportions of

¹⁰ Initially, two focus group discussions were intended for each strata, while 330 surveys were intended for each strata at the household level.

¹¹ A method of sampling in which participants are randomly selected.

participants. As such, it was noted that unassisted households were more inclined to take part, resulting in the high number of households in this category.

Table 2: Household survey sampling strategy

Community Level Resilience →	Higher % of community damaged		Lower % of community damaged	
HH level resilience ↓	Assisted HH	Unassisted HH	Assisted HH	Unassisted HH
Category B HH	494	669	361	2314
Category A HH	314	156	134	397
TOTAL	808	825	495	2711

DATA COLLECTION

Initially, extensive secondary data review, including the previously mentioned Shelter Cluster Review of the Flood Response, the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) needs assessment data,¹² and other relevant sources on the flood affected areas,¹³ were used to contextualise this evaluative process. These sources were used to inform the indicator list for the evaluation and to develop the focus group discussion question route. The Shelter Cluster Review of the 2014 Flood Response indicated the geographical scope of the assessment and shaped the primary data collection sampling strategy.

Having developed the household level survey questionnaire and focus group discussion question route in collaboration with the Shelter Cluster, both of these were translated into Dari and Pashtun. All household level surveys were conducted using a mobile data collection tool (Kobo) and uploaded daily. As the household level surveys were uploaded daily to Kobo online, the data was regularly checked and cleaned, with common errors being discussed with enumerators on a regular basis to avoid repetition. Focus group discussions were recorded on semi-structured paper forms and were audio recorded, subject to participant consent. These recordings were transcribed in their original language and supplemented by written notes, then translated into English for analysis. Enumerators carrying out both the focus group discussions and household surveys were recruited and trained by REACH.

LIMITATIONS

A number of limitations and challenges occurred throughout the assessment, most of which were previously considered during the assessment planning process.

- As previously mentioned, there were difficulties in conducting equal proportions of surveys and focus group discussions in each of the identified strata. This was largely due to issues related to finding relevant beneficiaries, particularly in hard to reach areas, and the fact that individuals were unwilling to participate in the process. A sufficient number of participants was identified, ensuring the validity of the research; however, proportions of these groups varied from the initially foreseen one. As such, weights were applied throughout the analysis to correct bias.

¹² OCHA, *Flood responses (by province)*, Updated May 2014.

¹³ Save the Children, *Situation Report: Afghanistan Flood Response 2014*, May 2014.

- Whilst the Shelter Cluster's Review of the Flood Response was intended to be a form of baseline for this evaluation, it can most accurately be considered indicative. Although the 2015 report provides a valuable narrative overview of humanitarian action, it contains limited analysis of the effectiveness of the response. Therefore, the report broadly informs the area of focus for the evaluation and provides context, without being able to act as a baseline for statistical comparison.
- A thematic concern of the evaluation is the lack of representation of women. Focus group discussions provided valuable insight into the perspectives of affected women, with overall more female discussants than males involved in the process. However, the proportions of flood-affected female headed households were far fewer than male headed ones; the former are thus far less represented in the household level surveys. As women in Afghanistan are more likely to spend more time than men in the household due to cultural norms, and as such are prone to face greater risks after a natural disaster, it is imperative that female narratives are included in an evaluation of the shelter flood response. Therefore, distinct and insightful responses garnered throughout focus group discussions with women are specifically noted throughout the findings of this report.

FINDINGS

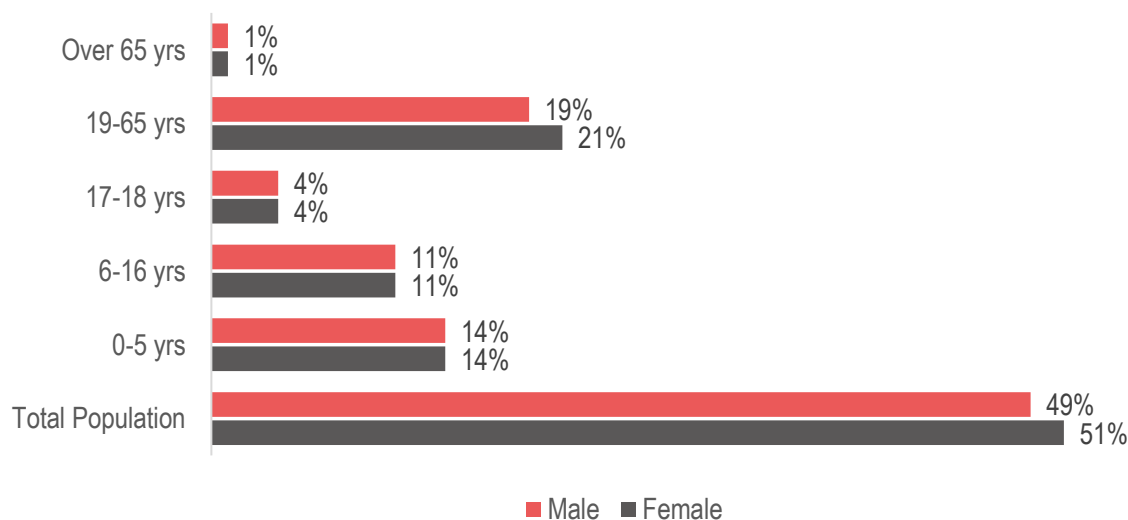
The following section presents the main results of this evaluation. Firstly, the key demographics of households affected by flooding in 2014 are discussed, followed by an outline of the types of assistance received. An analysis of the main shelter situation of households is then presented, with a discussion of the economic livelihood and expenditure patterns of affected households. Finally, an outline of the main available WASH facilities, followed by the main priority needs of households are displayed. Overall, this section details the key information required for evaluating the flood response in 2014, highlighting the differences between assisted and unassisted households. Further to this, where relevant, comparisons have been made between the eight different strata, noting differences in assistance received, community and household damage levels. These comparisons focus primarily on vulnerabilities, shelter situations, coping strategies and priority needs.

DEMOGRAPHIC PROFILE

As the main purpose of the evaluation was to assess the impact of assistance for flood-affected households, it was pertinent to identify key proportions of the population according to the damage levels of their houses. During the 4,839 household surveys, it was identified that 60% of the population's houses were fully destroyed by the floods in 2014, falling into damage Category A, while the remaining 40% of houses were partially destroyed, falling into Category B. Across all affected households, 69% received some level of assistance in response to the damage and 31% did not.

With regards to household demographics, as displayed in Figure 1, flood-affected populations are nearly equally comprised of females (51%) and males (49%). Children under the age of 16 constitute 50% of the population. On average, each household consisted of an average of nine members, making up on average two families. Household size played a role in receiving assistance, with larger, potentially more vulnerable households¹⁴ being significantly more likely to benefit from some level of assistance after the flood.¹⁵

Figure 1: Demographic overview



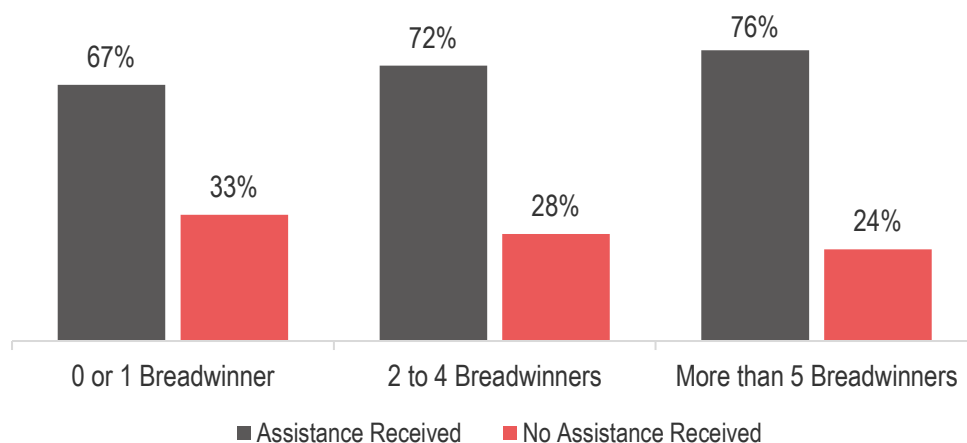
¹⁴ Afghanistan Shelter and NFI Cluster (North), [A Review of the 2014 Flood Response: Review of the 2014 Flood Response](#), March 2015.

¹⁵ A t-test indicates whether the mean value significantly differs amongst defined groups. A p-value less than 0.05 indicates a significant difference. In this case, the t-test p-value = 0.000.

From the available population information, an average derived dependency ratio of four was calculated. This indicates that in each household, each breadwinner has four dependents on average. Given that a dependency ratio above one highlights vulnerability, this average of four dependents is very high, indicating an area of concern for flood affected households. With such a high level of dependency, it is likely that breadwinners are very reliant upon their sources of livelihood to maintain the economic wellbeing of the household. Since agricultural and livestock livelihoods were negatively affected by the 2014 floods, this is a particular area of concern.¹⁶ When calculating a second dependency ratio based on the proportion of children and adults over the age of 65 to the number of working age adults, this average hypothetical ratio would be much lower, standing at two. As such, humanitarian interventions could consider employment assistance as a potential long-term coping strategy for reducing the consequences of flood damage, aiming to increase the employment rate of adults in affected communities.

Having grouped the number of breadwinners in households, as seen in Figure 2, a significant relationship was identified between the number of breadwinners and the likelihood of receiving assistance.¹⁷ However, this relationship is perhaps not as expected, since 76% of households with more than five breadwinners received some level of assistance compared to only 67% of households with zero or one breadwinner. This may be attributed to the accessibility to assistance, in that individuals in employment may have documentation which allows them to access assistance more easily. Additionally, households with higher numbers of breadwinners may live in more accessible locations, as they tend to seek and travel to jobs, and consequently are more easily accessed by flood response interventions. This could indicate that more effort must be made by disaster response teams to reach appropriate households. However, it should be noted that no conclusion can be made based on this finding, as it highlights a relationship between the number of breadwinners and the likelihood of receiving some level of assistance, without commenting on the amount of assistance. No significant correlation was identified between number of breadwinners and amount of assistance received by a given household; therefore, other indicators may provide more valuable insight into accessibility to assistance.¹⁸ Furthermore, it should be noted that a high number of breadwinners is not necessarily an indication of economic stability as this is contingent on the number of dependents.

Figure 2: Number of breadwinners in households, by assistance received



¹⁶ Afghanistan Shelter and NFI Cluster (North), [A Review of the 2014 Flood Response: Review of the 2014 Flood Response](#), March 2015.

¹⁷ Pearson's chi-square test p-value = 0.006.

¹⁸ Pearson Correlation value = 0.008 and p-value = 0.585.

Alternatively, a significant correlation at the 99% confidence level was identified between the number of children in a household and the amount of financial assistance received.¹⁹ This indicates that the 2014 flood response successfully targeted households with a higher number of children - a more vulnerable category of the population. This is further confirmed by the finding that having a higher number of children significantly increased the likelihood of receiving some level of assistance, whether it is financial, shelter or other type of support in response to the flood.²⁰

It was found that these households have an average of three rooms. It was supposed that male headed households may be more likely to have a higher number of rooms in their home than female headed households, due to the significant economic vulnerability of female headed household in Afghanistan.²¹ This was indeed found to be the case, with male headed households residing in houses with more rooms on average than female headed households.²² Amongst all households, it was found that they contained a mean crowding index of three, indicating that on average three household members reside in each room. This is not a particularly high crowding index and overcrowding is thus not a particular area of vulnerability for flood affected households.²³

Some interesting findings noted the relevance of household head characteristics throughout the flood response. The average age of affected household heads was 46. The proportion of young household heads was very low, with only 3% of the heads aged less than 26 years. Most household heads were aged between 26 and 44 (42%), or 45 and 64 (47%), with 8% being over the age of 64. Household heads aged over 64 years were most likely (80%) to receive some level of assistance. This is compared to 55% of household heads aged under 26, 63% of heads aged between 26 and 44 years and 74% aged between 45 and 64. As such, the flood response effectively targeted vulnerable older household heads, of which a large proportion (64%) had fully destroyed houses.

Use of this assistance is also reflected in the data, with household heads aged over 64 having the highest proportion of no longer damaged households (14%), as seen in Figure 3. This older category also has the lowest proportion of houses which are no longer occupied (20%), indicating that shelter assistance was invested into the rebuilding of houses as opposed to relocating. In contrast, younger household heads, which were the least likely to receive flood response assistance were found to have the highest proportion of households remaining in partially damaged houses. Therefore, whilst it is important to target older household heads, it is necessary to provide sufficient assistance to all households affected by flooding.

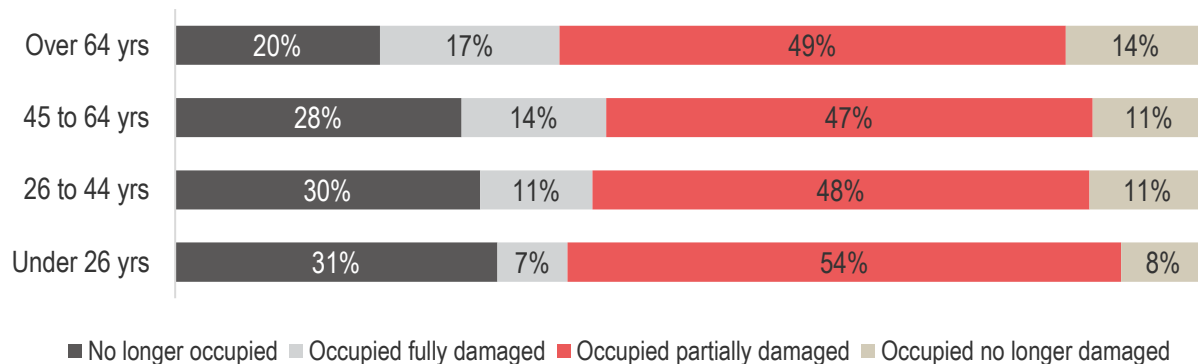
¹⁹ Pearson Correlation value = 0.111 and p-value = 0.000.

²⁰ T-test p-value = 0.000.

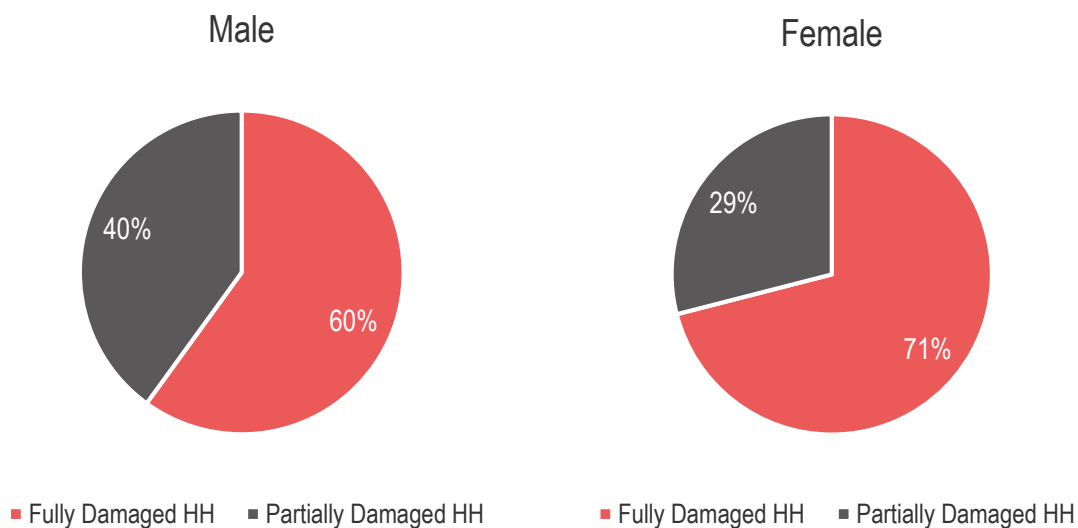
²¹ Groupe URD, *Research on Chronically Poor Women in Afghanistan*, March 2008.

²² T-test p-value = 0.004.

²³ As per WHO overcrowding thresholds.

Figure 3: Household head age, by current household situation

In terms of gender, the vast majority of household heads were male, with only 2% female. As seen in Figure 4, female headed households were significantly more likely (71%) to have a fully damaged household after the 2014 floods, compared to 60% of male headed households.

Figure 4: Initial household flood damage, by household head gender

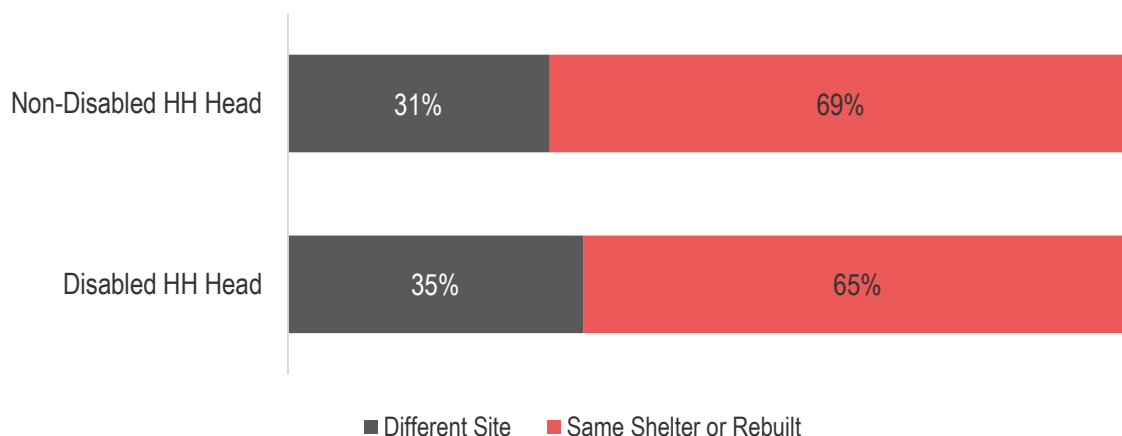
However, despite a higher level of damage, women were not statistically significantly more likely to receive assistance than their male counterparts.²⁴ More accurately, as seen in Figure 5, male headed households were very slightly more likely to receive assistance than women. This may perhaps be because it is easier for men to access assistance in Afghanistan, due to documentation ownership. There was also no significant difference between the current shelter status or the damage level of households headed by men and women, indicating that gender does not play a significant role in the shelter recovery and coping of households. However, it was found that gender significantly affected the amount of assistance received, with male headed households receiving, on average, 4,650 Afghanis compared to only 2,580 Afghanis for women.²⁵ The fact that women receive a lower amount of assistance, despite in this case having more severely flood-damaged households, indicates that interventions perhaps ought to more directly target female headed households.

²⁴ Pearson's chi-square test p-value = 0.263.

²⁵ T-test p-value = 0.000.

Figure 5: Household head gender, by assistance received

Another indicator of vulnerability surrounds whether a household head is disabled. Overall, few households are headed by individuals with disabilities (6%). Similarly, there was no difference in the proportion of houses of disabled headed households which were partially or fully damaged during the floods, nor was there any significant difference in the likelihood of the household having moved to a new site or remaining in the same location. However, it resulted in slightly more disabled headed households from the survey moving to a different site, as displayed in Figure 6. Moving to a new site entails a loss of their physical home and of the site in which the house was located, and bears the cost of establishing a new house, potentially furthering economic vulnerability. This movement of households may be explained by the fact that disabled headed households were not more likely to receive some type of assistance after the floods than non-disabled household heads, despite their heightened vulnerability and potential need for increased assistance. Furthermore, in terms of cash assistance, disabled headed households received a significantly higher amount on average (6,687 Afghanis) than non-disabled household heads (4,466 Afghanis), perhaps facilitating the choice of disabled heads to move location rather than invest in rebuilding.²⁶

Figure 6: Proportion of households in same location, by disabled household head

A set of characteristics, in addition to those tied to the household head, have a tendency to increase vulnerability of households in Afghanistan. These include having household members which are

²⁶ T-test p-value = 0.001.

disabled, breastfeeding, pregnant or who are chronically ill. These vulnerabilities likely existed prior to the flooding, but this analysis serves as a proxy for noting especially vulnerable households and thus serves as an indicator for whether interventions did target those in particular need. Households with these members are more likely to spend a higher proportion of their income on healthcare and can have a reduced earning potential. Therefore, effective flood response would be expected to provide these households with a higher level of assistance. Findings indicated that flood-affected households had on average 0.2 disabled residents, with 16% of households having at least one disabled member. There was a significant correlation between the number of disabled members and the amount of cash assistance these households received, indicating that the more disabled people in a household, the higher the amount of assistance received.²⁷ Consequently, flood assistance sufficiently targeted these vulnerable households.

Similarly, households on average had 0.2 breastfeeding household member, with 67% of households having at least one breastfeeding individual. Again, a significant correlation between the number of breastfeeding residents and the amount of assistance received by the household was identified.²⁸ Pregnant women comprised an average of 0.3 individuals in the household, while 27% of households included at least one pregnant member. Another significant correlation was identified between the number of pregnant individuals and the amount of financial assistance,²⁹ further indicating that vulnerable households were efficiently targeted during the flood response. Finally, the assessment found an average of 0.2 chronically ill household members, while 20% of households had at least one chronically ill resident. However, in this case, a significant negative correlation was identified, indicating that the fewer chronically ill residents in the house, the higher the amount of assistance received.³⁰ The reason for this is not known. As such, it can be deduced that, whilst the flood response in 2014 did reach many households in need, interventions could be improved by more specifically targeting particularly vulnerable sectors of the community.

Furthermore, a significant difference in having at least one vulnerable household member amongst the eight strata in this analysis was identified. However, this finding provides limited insight since the highest proportion of households with at least one disabled member were in low damaged communities, were unassisted and had fully damaged houses (21%), followed by households in high damaged communities, which did receive assistance but which houses were partially damaged (19%). Regarding breastfeeding, households which did not receive assistance but were fully damaged in both high (81%) and low (73%) damaged communities were most likely to have at least one breastfeeding member. This indicates that vulnerabilities such as having a disabled or breastfeeding household member were not factors directly considered when providing assistance. However, it was found that of households containing at least one chronically ill member, most were in fully damaged households, which were in low damaged communities and were unassisted (25%), low damaged communities and were assisted (23%) or were in high damaged communities and were assisted (21%). Similarly, as seen in Figure 7, the most households with at least one pregnant woman fell into the four highly damaged community strata, with assisted fully damaged households (38%) and unassisted fully damaged households (35%) containing the highest proportions. These latter findings further indicate the vulnerability of fully damaged households and communities, but demonstrates that vulnerabilities such as chronic illness and

²⁷ Pearson Correlation value = 0.040 and p-value = 0.008.

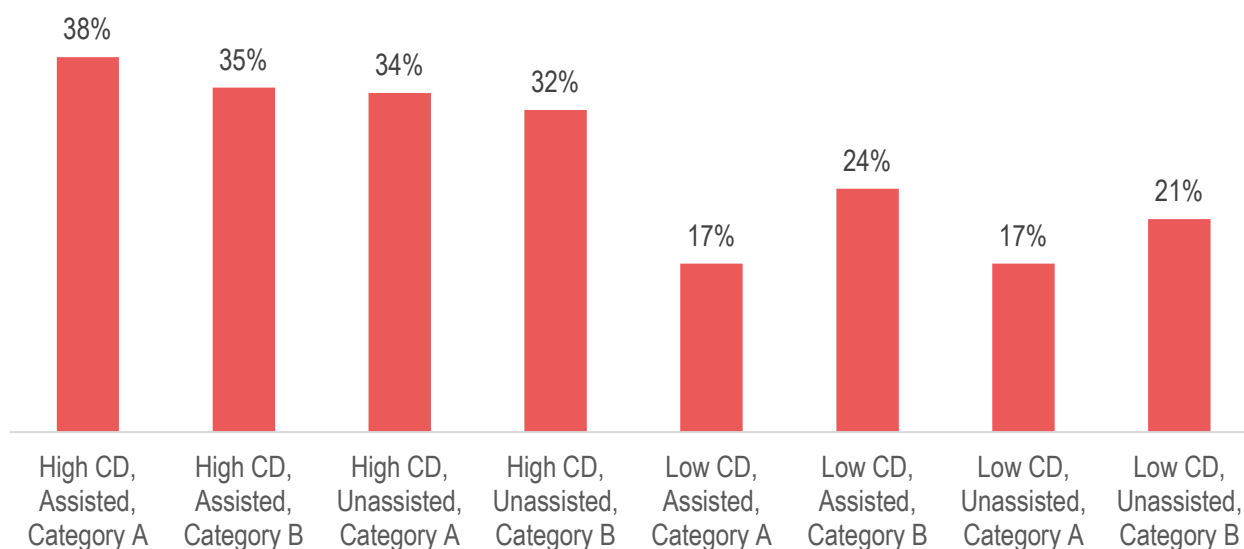
²⁸ Pearson Correlation value = 0.046 and p-value = 0.002.

²⁹ Pearson Correlation value = 0.102 and p-value = 0.000.

³⁰ Pearson Correlation value = -0.033 and p-value = 0.030.

pregnancy were not a priority during assistance distribution. In all instances, a greater inclusion of vulnerability targeting, particularly in fully damaged households, would strengthen interventions.

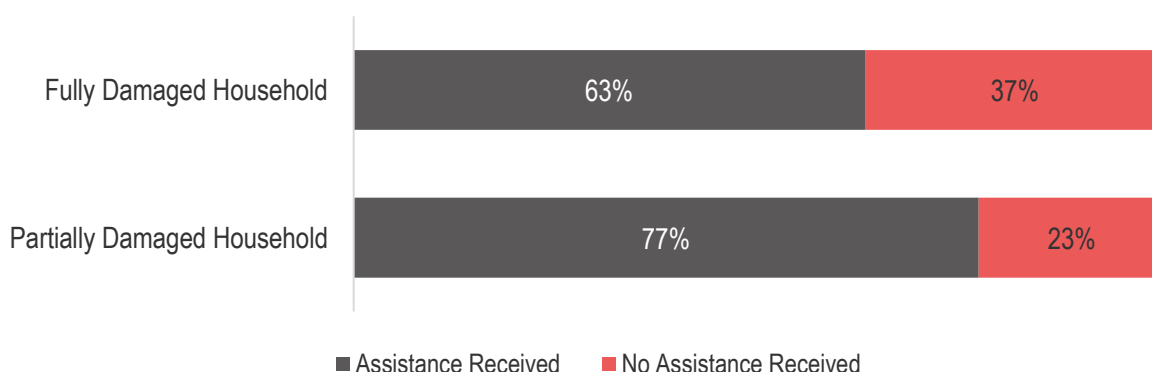
Figure 7: Proportion of households with at least one pregnant member, by stratification



ASSISTANCE

Specifically regarding assistance and the consequent shelter implications, this section begins by assessing the likelihood of having received some level of assistance by initial household damage. Effort was made to target particularly vulnerable households, including female headed households, elderly, disabled and large families, however in all cases, level of damage played a dominant role.³¹ As can be seen in Figure 8 below, partially damaged households were significantly more likely to receive some level of assistance (77%) than fully damaged households (63%). Overall, 37% of all flood-affected households benefited from NFI cash vouchers, followed by households receiving shelter assistance (26%). A small proportion of affected communities (6%) received other type of assistance, most commonly consisting of food and blankets, with some provision of household equipment.

Figure 8: Assistance received, by initial household flood damage

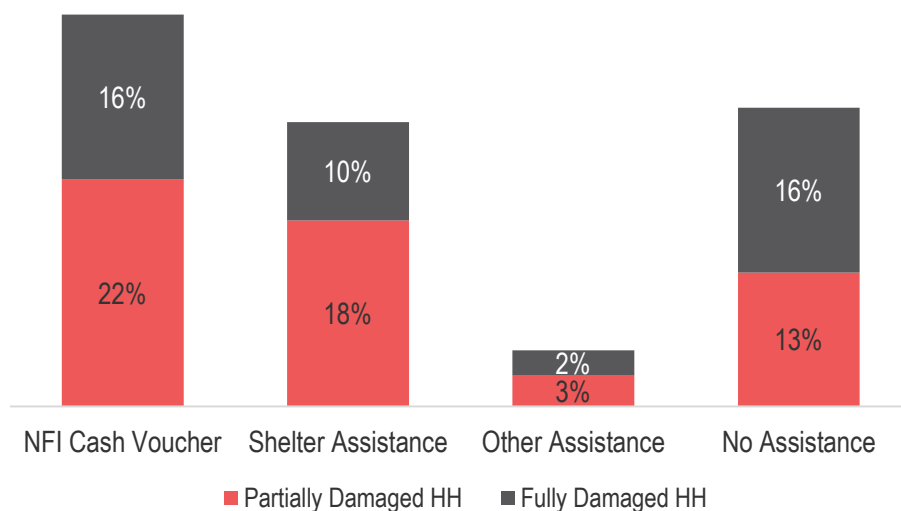


As displayed in Figure 9 below, the type of assistance varied depending on the initial level of damage to the household. Households which received no assistance were more likely to be fully destroyed (16%).

³¹ Afghanistan Shelter and NFI Cluster (North), [A Review of the 2014 Flood Response: Review of the 2014 Flood Response](#), March 2015.

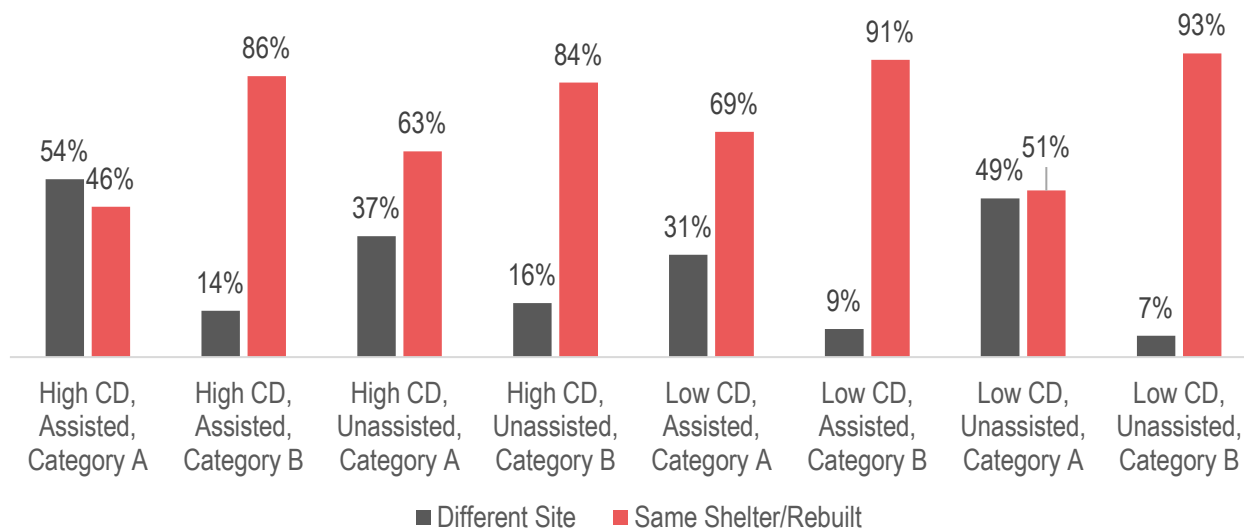
This may be attributed to household accessibility, with fully damaged households located in hard to reach areas. Of those which received some type of assistance, both partially (22%) and fully (16%) damaged households were most likely to benefit from NFI cash vouchers, followed by shelter assistance.

Figure 9: Type of assistance received, by initial household flood damage



Regarding the current location situation of affected households, a significant difference between households which are now residing in a different location and those which have rebuilt in the same site was identified, dependent on receiving some level of assistance. Of households which moved location, 64% received some level of assistance, while 71% of households which stayed in the same site received post-flood support. With reference to the stratification of this analysis, as displayed below in Figure 10, households which moved to a different site were most likely to be a) from a highly damaged community, assisted and with fully damaged houses (54%), or b) from a low damaged community, unassisted but also with a fully damaged house (49%). Alternatively, households which fall into the strata of low community damage, were partially damaged and either did (94%) or did not (91%) receive assistance, were most likely to remain in the same shelter site.

Figure 10: Shelter status by stratification



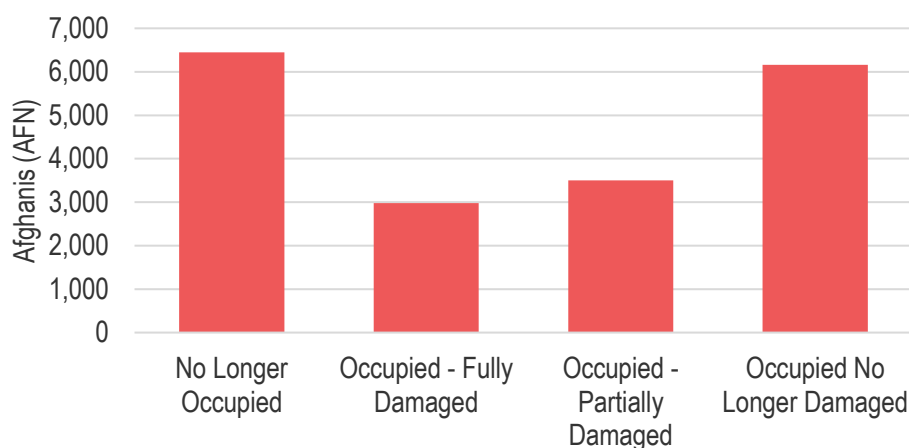
Regarding cash assistance specifically, the average amount received overall was 4,459 Afghanis. A significant difference was identified between the amount of cash assistance received by partially and fully damaged households, with partially damaged households receiving on average 3,434 Afghanis and fully damaged households receiving 5,329 Afghanis.³²

It is also relevant to consider the ongoing damage situation of households, three years after the flood. Currently, 48% of all households were occupied with partial damage, comprising the largest proportion. It was found that the stratification containing households in low damaged communities, have been unassisted and partially damaged were most likely to remain in partially damaged houses (92%). A further 28% of all originally damaged households were no longer occupied, reflecting the proportion of houses which coped with the flooding by relocating to a new site. In terms of stratifications, the households most likely to no longer occupy their house were in high damaged communities, that have been assisted and had fully damaged houses (51%), followed by houses in low damaged communities, that have been unassisted and also had fully damaged houses (41%). This implies that the level of damage to the household is the most pivotal element in determining whether households move site. Overall, 11% of households occupy their no longer damaged houses, having carried out all necessary repairs. Of the strata, households which were in low damaged communities, have been assisted and were either fully (18%) or partially (14%) damaged were most likely to occupy fully repaired houses. Alternatively, 13% of households overall reside in fully damaged households. Most households in this case fell into the stratification consisting of high community damaged, that have been assisted and with fully damaged houses (22%), followed by those in low damaged communities, with fully damaged houses and that have been either unassisted (22%) or assisted (21%).

As seen in Figure 11, the proportions of current damage statuses are, to some extent, explained by the level of cash assistance received. Households which moved site, which is the most expensive coping strategy, received the highest average amount of assistance (8,378 Afghanis). Households which implemented the necessary repairs, and thus no longer have damaged households, received the second highest amount of assistance (6,506 Afghanis), facilitating repairs. Households which remain damaged received the lowest amounts of cash assistance. It can thus be deduced that financial provisions during the flood response have largely been effective in improving the current situation of households.

³² T-test p-value = 0.000.

Figure 11: Average amount of cash assistance, in Afghanis, received by households in each current situation



SHELTER

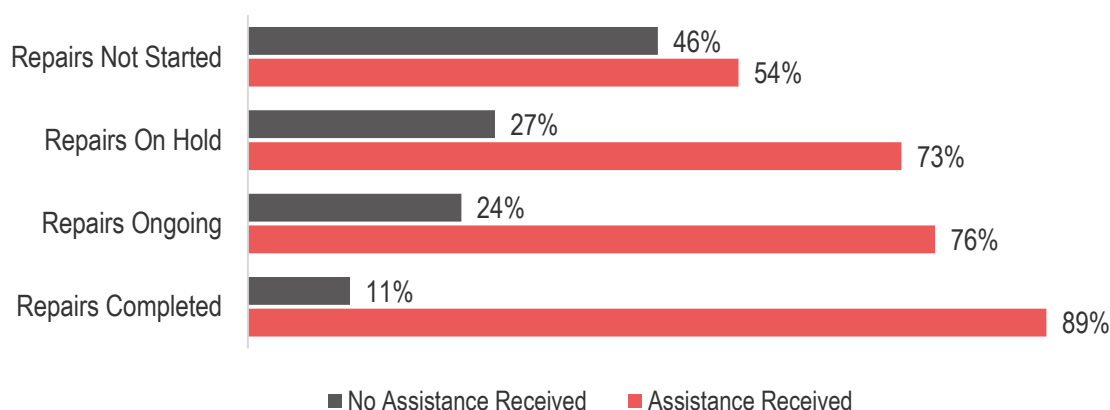
This section outlines the key shelter findings of the report, ultimately detailing the use of shelter coping strategies implemented by flood-affected households. Initially, it was identified that the vast majority of households in all flood-affected communities were owned by the residents with documentation (75%), providing stability and a low risk of eviction. However, this can reduce mobility as households are tied to this location, and the burden in situations such as flooding falls entirely on the home owners. Secondly, 15% of households were owned without documentation, while 5% of households were rented. Since a coping strategy commonly cited during the focus group discussions included renting another property in which household members can safely reside, it is possible that many of these households comprise the 5% renting category.

Structural composition of houses can play a pivotal role in determining the level of damage caused by a flood. As such, analysis of the main wall material of houses at the time of the flood identified mud brick as the most prevalent one (55%), followed by timber (18%). These materials are susceptible to water damage. This is reflected in other findings throughout this report which indicated that the largest proportions of fully damaged households had walls made of mud brick (56%) and timber (20%). Roof materials played less of a significant role in damage to houses as 98% of roofs were made of mud and grass, and consequently does not provide valid insight on its damage impact.

A main aspect of the flood response intervention encouraged efficient house repair, however this process was highly dependent on the provision of assistance. Firstly 9% had completed all repairs, however the largest proportion of all households (47%) had begun repairs which are now on hold. A further 33% of these households had not yet started and the remaining 11% had work ongoing in their household. For households which had not yet begun repairs, the most commonly reported barriers were no money for materials (58%), no money for labour (33%) and cannot reach markets due to financial restrictions (9%). All of these barriers relate to economic hardship. This is reflected in the amount of assistance received on average by households at each stage of the repair process. Those which had not started repairs received an average of 3,623 Afghanis, compared to 5,112 Afghanis received on average by households which had started repairs. This information is reflected in Figure 12 below, in which 89% of households with completed repairs received assistance. Alternatively, the highest proportion of households which received no assistance (46%) falls into the not started repairs category.

As such, the provision of financial assistance is effective in facilitating the repair of households; however, more is needed for households with continued damage.

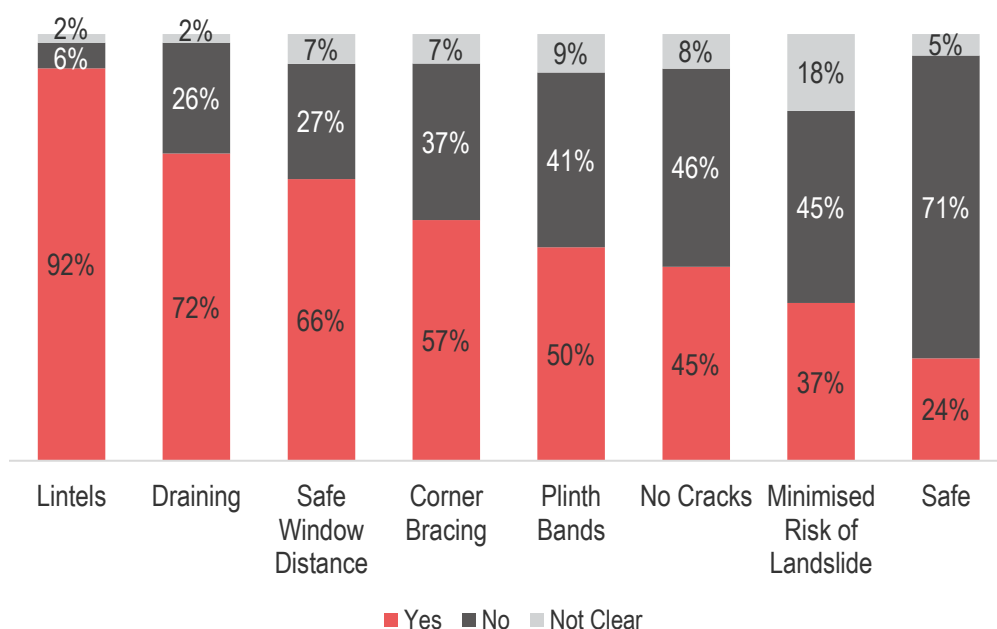
Figure 12: Assistance received, by current repair status of households



Amongst the stratifications, households which fell into low community damage, were unassisted and were either partly (56%) or fully (48%) damaged were the most likely to have not yet started repairs to their house. Alternatively, those which had ongoing repairs were most likely to have been assisted, but were either from low community damaged areas and fully damaged households (13%), or high community damaged and had partially damaged households (11%). Similarly, those which had begun repairs which are now on hold had partially damaged households, have been assisted, and either came from low (57%) or high (54%) damaged communities. This indicates that receiving assistance is the primary motivator in starting repairs.

The following section discusses the primary shelter-based coping strategies implemented by households in response to the flood. This part is a crucial element of the main purpose of this evaluation, to identify the main coping strategies used and note differences between unassisted and assisted households. Consequently, the main coping strategies were classified according to the eight long-term structural improvement methods applied when rebuilding houses, in line with the Shelter Cluster's Build Back Better (BBB) guidance.³³ The coping strategies include building in a safe site, having a crack-free foundation, integrating corner bracing, having plinth bands, incorporating lintels on doors and windows, strategically placing windows away from corners, installing effective draining and ensuring trees in the surrounding area have been removed. As seen in Figure 13, of these strategies, the most prevalent was ensuring doors and windows had lintels, used by 92% of households. Following this, 72% of households implemented efficient drainage systems and 66% placed windows and doors at a safe distance from corners. Alternatively, only 24% of households were located in a safe area and 37% had excavated hillsides and removed surrounding trees which could cause risk of landslide. From this, it can be deduced that actions are being taken to implement more internal coping strategies which directly affect the house, but more external strategies, which involve the surrounding area, are less prevalent.

³³ Shelter Cluster, [Build Back Better: Guidance on Building Flood Resistant Communities](#), 2015.

Figure 13: Implementation of shelter coping strategies

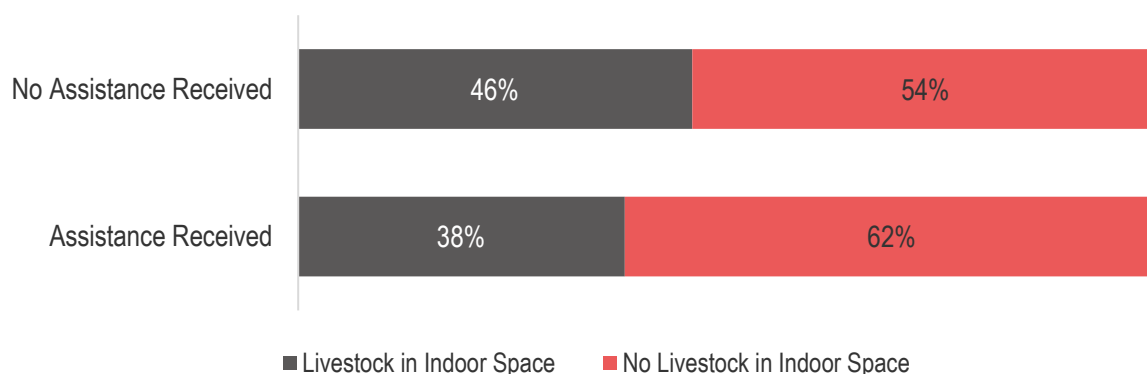
As an intention of flood response assistance was to improve the long-term coping strategy of households, in that these households would be less affected by floods in the future, it is integral to assess the impact of assistance on the likelihood of implementing these strategies. As such, it was found that receiving some type of assistance at the time of flooding significantly increased the likelihood of every BBB strategy being incorporated into household repairs. For example, this is particularly the case for the elimination of cracks in foundations and for including corner bracing, with 73% of households which implemented this strategy, having received assistance. Additionally, 71% of households which rebuilt in a safe site and 70% of households including lintels in their rebuilt shelter had received assistance. It can thus be deduced that households which received assistance are significantly more likely to implement strategic coping strategies compared to those which did not receive assistance, highlighting at the same time the effectiveness of flood response and the need for further support for unassisted households. More specifically, it was found that amongst the stratifications, households which were in highly damaged communities, have received assistance and had houses fully or partially damaged implemented the most BBB coping strategies, while the stratum containing unassisted households implemented the fewest.

In addition to the findings of the household level survey, focus group discussions primarily provided significant insight into a wider range of coping strategies. Overall, it was found that there were clear short and long term coping strategies put in place. For instance, nearly all groups reportedly informed the local authorities immediately after flooding, in the hope of receiving government assistance, but none of the respondents reportedly received support. Other short term strategies included moving to homes of family and friends, or renting houses while repairs of their owned houses were ongoing. In the longer-term, many groups reported sending family members to work in Iran or permanently sending children away to find work in other parts of Afghanistan. A difference in implemented coping strategies between groups which received assistance and those which did not was also noted. For instance, households which received assistance were less inclined to use saving, sell livestock or sell their assets to repair their house. In the same vein, groups which received assistance did not resort to strategies such as begging or sending their children to beg, while those which did not receive assistance did implement

these negative coping strategies. As such, it can be deduced that assistance provided households with the means to cope with damage.

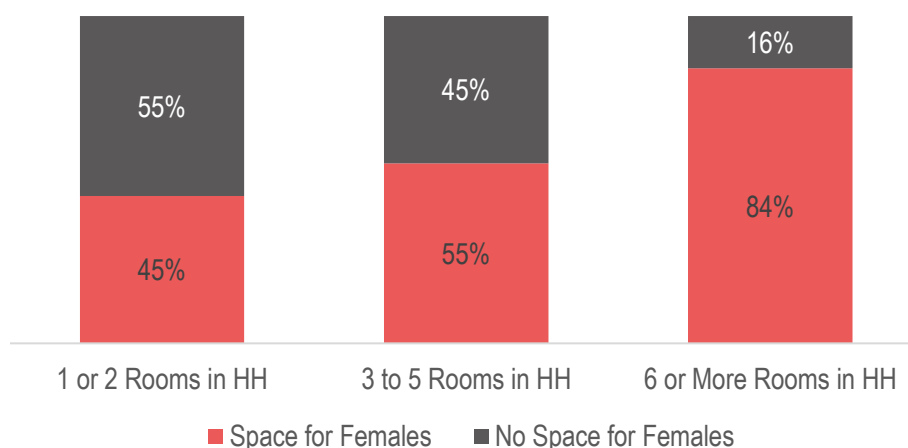
Alternatively, negative coping strategy used by households involved keeping livestock in areas intended for household residents. Analysis of household level surveys found that 40% of all households moved livestock into their home. It was also found, however, that the provision of assistance significantly reduced the likelihood of relying upon this negative coping strategy.³⁴ As seen in Figure 14, of the households with no livestock in indoor spaces, 62% had received assistance while 54% had not. Similarly, focus group discussions in all provinces indicated that many households also moved to shelters intended for livestock, in cases where these were less damaged than the main household. This increases overcrowding and lowers hygiene levels. As such, provision of assistance can be considered effective in mitigating the use of negative coping strategies, however more could be provided to those still in need, such as the 40% living with livestock.

Figure 14: Livestock in indoor living space, by assistance received



Finally, it is relevant to identify the proportion of households which have space specifically for female residents, and to identify whether flooding has reduced the likelihood of having space for women due to capacity restraints within the house. Overall, 56% of all households reported having space for females. Having grouped the overall number of rooms in the household, Figure 15 displays the perhaps expected finding that the likelihood of having space for females is significantly higher provided there are a greater number of rooms in the household. For instance, 84% of houses with six or more rooms provide space for women, compared to just 45% of houses with only one or two rooms. However, it was found that receiving assistance did not have any significant impact on the likelihood of having space for females in the house.

³⁴ Pearson's chi-square test p-value = 0.000.

Figure 15: Space for females in the household, by total number of rooms in household

EXPENDITURE AND LIVELIHOODS

Many of the flood-affected households were economically vulnerable prior to the floods. Furthermore, as the floods had a significant negative impact on the level of livestock and agricultural land available to individuals, economic factors are an important area of analysis. Overall, in the 30 days prior to survey, total household expenditure was 28,058 Afghanis on average across all households. A significant difference was noted between the expenditures of fully and partially damaged households, with partially damaged households spending an average of 29,807 Afghanis compared to 26,908 Afghanis for fully damaged households.³⁵ Similarly, there was a significant difference between expenditures in the last month of households which received some level of assistance and those without assistance.³⁶ Households which received some type of assistance had the higher average expenditure of 29,278 Afghanis compared to only 25,368 Afghanis expended by households which did not receive flood-related assistance. This indicated the long-term benefits of the flood response, perhaps as it allowed households to efficiently recoup losses after the flood, having fewer long-term financial consequences.

Interestingly, it had been supposed that there might be a correlation between the amount of assistance received by households and recent expenditure on shelter materials and labour. However, no such relationship was identified. This implies that financial assistance received during flood response interventions have since been spent and no longer contribute to household repairs. This highlights the effectiveness of assistance at the time but emphasises the need for follow-up support after the initial intervention, particularly as so many households remain in need of repairs.

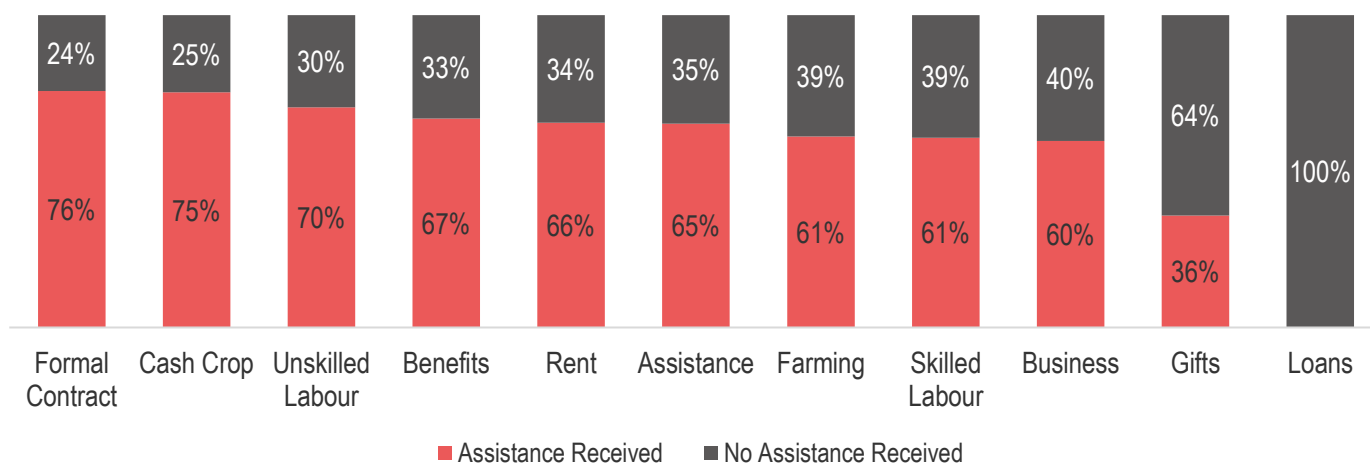
An understanding of the primary economic and livelihood sources is integral for understanding reliance on potentially flood-destroyed sources, such as agriculture and farming. As such, the most common income source was cash crop farming, comprising 32% of the population. This is followed by 28% of households primarily dependent on unskilled daily labour and by 14% which conduct livestock farming. Cash crop and livestock farming, and potentially unskilled daily labour depending on the type, were heavily affected by flooding. This highlights the particular vulnerability of these households in the northern provinces and indicates the need for economic assistance as part of interventions. Figure 16 visually outlines the proportion of households which received some level of assistance by their primary

³⁵ T-test p-value = 0.019.

³⁶ T-test p-value = 0.002.

expenditure source. As can be seen below, 75% of cash crop households received assistance, indicating the effectiveness of targeted assistance in reaching some households which would have suffered economic losses due to the flood. However, only 61% of farming households received assistance. Whilst this proportion is still relatively high, these households likely had a similar level of economic hardship resulting from the flood as cash crop farming households. Consequently, flood response interventions could perhaps review the economic indicators used when targeting beneficiaries.

Figure 16: Household economic and livelihood sources, by assistance received



WASH

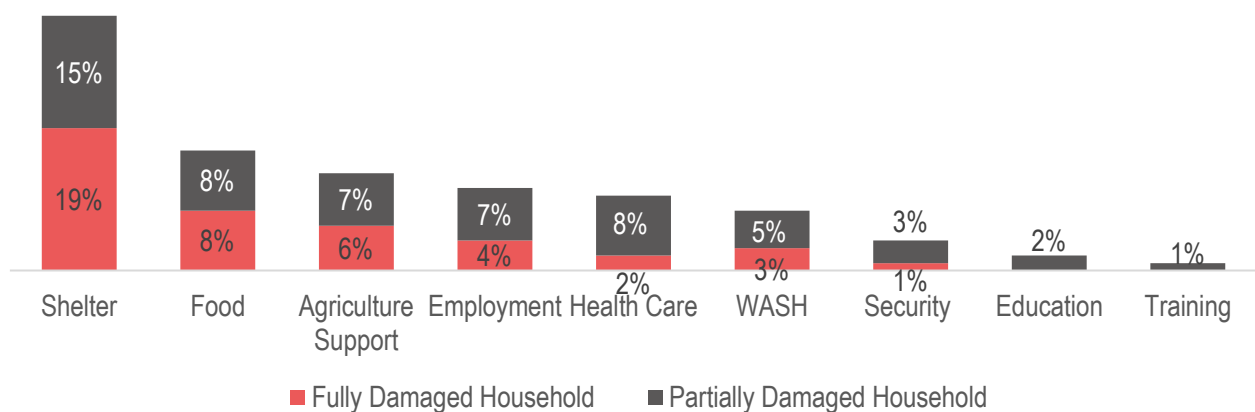
An integral component of a shelter evaluation includes accessibility of households to water, sanitation and hygiene facilities. Following a flood, these facilities can be damaged and an effective response includes recovery of drinking water, latrine and solid waste disposal services. Therefore, it was identified that hand pumps are the most common drinking source, available to 30% of the population. Surface water was used by a further 19%, followed by 17% accessing municipal pipelines. A significant relationship was noted between access to drinking water sources and having received assistance, with the highest proportion (32%) of households which received some level of assistance having a hand pump available as their main source. This indicates that the flood response was effective in providing sanitary drinking conditions to affected households and ought to continue prioritising this area in future interventions.

However, the effective influence of interventions on availability and use of latrines was not identified in this research. The majority of household's (51%) main accessible facility was an open pit latrine, which is generally considered unsanitary. This was followed by 43% of households accessing a covered pit latrine. It was however found that, despite very low instances in the data, households which did have access to suitable latrines, which flush to a sewer system (71%) or flush to a septic tank (75%), were the highest proportion of assistance-receiving households. Similarly, interventions were not useful in preventing unhygienic solid waste disposal. Of all flood-affected households, the highest proportion (49%) throw waste onto the streets. After this, 20% of households buried waste, while only 19% engaged in the best practice of having solid waste collected. As such, further flood response interventions could take more extensive WASH factors into consideration, providing both immediate and longer term hygiene benefits to vulnerable communities.

PRIORITY NEEDS

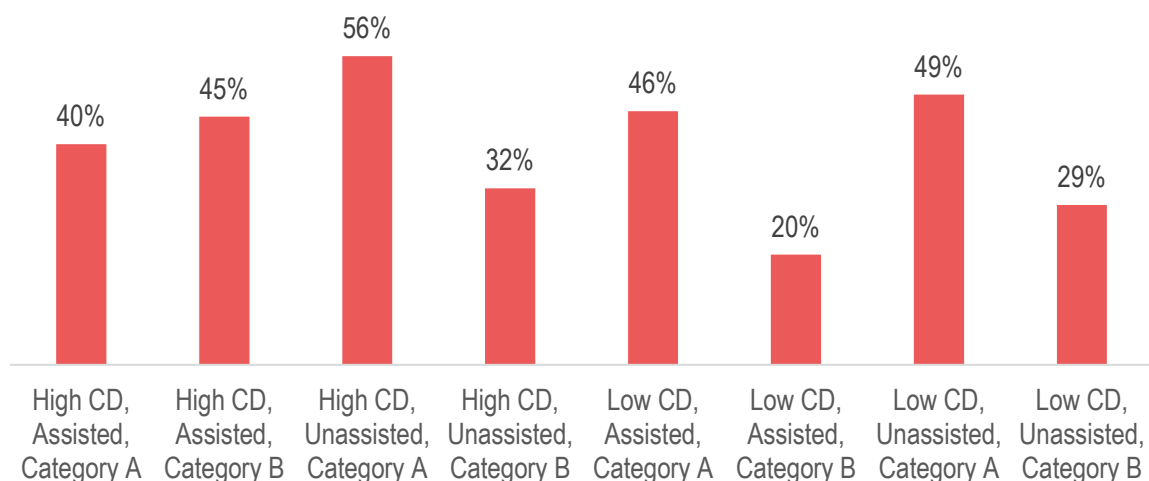
Finally, having discussed the provision of assistance to meet the needs of households at the time of flooding, a current analysis of the priority needs of households three years after the flooding was conducted. Overall, the highest proportion of households (38%) continued to prioritise shelter needs. This was followed by food needs (15%), agriculture and livestock support (14%) and employment assistance (10%). Figure 15 below displays the proportion of fully damaged and partially damaged households prioritising each need. As can be seen, partially damaged households have slightly more variety in their priority needs, whilst fully damaged households remain heavily focussed on shelter needs.

Figure 17: Household priority needs, by initial household flood damage



Regarding stratifications, all strata except one reported shelter assistance as the priority need, supporting the fact that shelter assistance remains a key area of concern for the vast majority of households, as displayed in Figure 16. One strata, in which households were in low damaged communities, had received assistance and were partially damaged, were most in need of healthcare assistance (21%), followed by shelter (19%). This could perhaps be expected for this stratum, as it is the most stable and thus have a wider variety of needs.

Figure 18: Proportion of households prioritising shelter assistance in each stratum



CONCLUSION

The purpose of this report was to evaluate the humanitarian response to severe flooding in Afghanistan's northern provinces of Badakhshan, Baghlan, Balkh, Faryab, Jawzjan, Samangan, Sar-e Pul and Takhar, which occurred in 2014. As such, the assessment sought to: a) identify the main coping strategies used by flood affected households, b) measure the prevalence of usage of these strategies, and c) differentiate between assisted and unassisted households. Specifically, this included an analysis of the use of Build Back Better methods, a discussion of shelter and other needs and vulnerabilities of affected households, and the identification of current recovery levels of houses. This information aimed to fill a research gap as identified by the Shelter Cluster in its Review of the 2014 Flood Response report, in which it was emphasised that a lack of reliable data prevented effective interventions. To support the Shelter Cluster, this report informs on the specific strengths of the 2014 interventions, whilst highlighting areas in need of further assistance throughout 2017. As such, the following section outlines the key findings of this assessment.

KEY FINDINGS

After the flooding, it was found that most households fell into damage Category A, with 60% of houses having been fully destroyed by the floods. The remaining 40% fell into Category B. However, despite extensive damages, not all of these households benefited from the flood response, with around **a third of the population remaining unassisted**. It should be noted that affected households presented some key vulnerabilities, independent of flooding, which could be expected to impede recovery and would consequently increase the need for targeted post-flood interventions.

For instance, with 50% of the population comprised of children, a high household dependency ratio of four was calculated. This places a significant level of responsibility on breadwinners in the household, who were also found to be highly dependent on income sources impacted by the flood. Cash crop and livestock farming were two of the most common income sources, which were also most drastically damaged by flooding. In addition to the cost of household repairs, such households have also suffered considerable financial losses in the long-term. Interventions in 2014 successfully considered the need to support households with a higher number of children, as the amount of financial assistance provided was tied to the number of children in the households. However, **more economic indicators could be incorporated into flood responses, to further target economically vulnerable households**.

This assessment also found that certain characteristics of household heads had implications on the level of assistance received and the subsequent recovery of houses. These characteristics more prominently surrounded age, gender and disability of household heads. Since there was no identified relationship between these three characteristics and the likelihood of a household being damaged, it can be concluded that none of these particular groups are more vulnerable to flooding. However, these more vulnerable household heads were more likely to implement drastic coping strategies, such as relocating to a new site, rather than carrying out repairs.

The 2014 flood response did take steps to provide such households with support. Although age or disability did not play a significant role in terms of the overall likelihood of receiving assistance, households of each of these groups received a significantly higher amount of financial assistance. This may explain why more of these vulnerable households were inclined to implement the more expensive coping strategy of moving location, compared to households which received a lower average amount of

financial assistance and chose to remain in the same location. However, as **more vulnerable household heads in terms of age, gender and disability may overall have fewer resources or capabilities with which to recover after a flood, they would benefit from specifically targeted interventions.**

A particularly relevant finding in this evaluative assessment identified that **fully damaged households were significantly less likely to receive assistance than partially damaged households.** However, fully destroyed households received a significantly higher amount of financial assistance than partially destroyed households. As such, flood response did successfully target the households most in need. Also, **three years after the floods, it was found that the majority of households still have some level of damage, regardless of initial damage or amount of assistance received.** This indicates that the implemented interventions did prioritise the most vulnerable in terms of damage, but that the overall level of support might have been insufficient, with many households remaining vulnerable.

A significant majority of households were found to be owned by residents, either with or without documentation. This represents a vulnerability as house ownership is often a household's most valuable asset, with damage to this asset decreasing their absolute wealth, in addition to the cost of repairs. Furthermore, as houses are owned by their occupants, the sole responsibility of the damage falls on the owner. In cases where flood damaged houses that are rented, the occupants would have potentially benefitted from moving to another rented house; however, this was often not an option for land owners. **Consequently, efforts should be made to encourage the resilient building of houses by land owners, to ensure a damage resistant community is built.**

The assessment found that steps were indeed being taken by the assessed communities to implement long-term BBB coping strategies, which sought to improve the overall integrity of households and reduce risk of flood damage in the future. As such, the prevalent coping strategies used included ensuring windows and doors had lintels, making sure water drained away from the house, and locating windows and doors within a safe distance from corners of the house. **Households which received assistance were significantly more likely to include each type of commonly recognised BBB technique,** highlighting the positive impact of receiving assistance on implementing BBB strategies. Furthermore, in terms of repairs, **households which received assistance were more likely to have started repairs on the house** compared to unassisted households, again outlining the positive impact of assistance.

This assessment also identified that **households which received assistance were less likely to employ negative coping strategies.** Indeed, a large proportion of the population used the negative coping strategy, involving either sheltering livestock within the household or household members moving into areas intended for livestock. However, assisted households were significantly less likely to use this strategy than unassisted households, again highlighting the positive implications of the 2014 flood response interventions.

Flooding negatively impacted household income, particularly through farming or unskilled daily labour. This resulted in the lowering of overall household expenditures. It was noted that assisted households had a higher average expenditure than unassisted households, emphasising the long term financial benefits of the flood response. Furthermore, economic situations are integral for the recovery of a household, with the main barriers to repairs cited as being unable to afford materials or labour, or to reach a market due to financial limitations. Therefore, the evaluation highlighted the need for **more**

specific inclusion of livelihood factors, as well as income sources when prioritising vulnerable households throughout shelter interventions.

The likelihood of having access to hygienic drinking water sources, latrines and solid waste disposal methods, was greater amongst households having received assistance. However, despite this relationship, **still very few households used sanitary latrines or waste disposal units**. As such, future interventions could prioritise the provision of these services, particularly as they can provide for the wider community, beyond benefitting just at the household level.

Despite overall very positive findings of the impact of the 2014 flood response, shelter assistance for both fully and partially damaged households remained a priority need for many households. This ongoing requirement, combined with the high proportion of households with continued repairs, highlights that there remains a large proportion of flood affected communities still in need of support. It suggests that flood interventions in the future could focus on further financial assistance made available for recovery, in addition to shelter assistance, as this seemed to have the most direct impact on the use of positive coping strategies and long term resilience.

ANNEX 1 HOUSEHOLD SURVEY QUESTIONNAIRE

1. GENERAL INFORMATION
1.1 Province
1.2 District
1.3 Village

2. INTERVIEW
2.1 Interviewer name
2.2 Interviewer sex
2.3 Interview date

3. HOUSEHOLD DEMOGRAPHIC
3.1 Household head age?
3.2 Household head sex?
3.3 Household head has disability?
3.4 Household composition
3.4.1 Number of families in the household
3.4.2 Total number of family members
3.4.3 Number of household members that are breadwinners (currently working and above 16)
3.4.4 Number of household members that are Female New born (under 1yr)
3.4.5 Number of household members that are Male New born (under 1yr)
3.4.6 Number of household members that are female Children (1-5yrs)
3.4.7 Number of household members that are male Children (1-5yrs)
3.4.8 Number of household members that are School-aged girls (6-16yrs)
3.4.9 Number of household members that are School-aged boys (6-16yrs)
3.4.10 Number of household members that are female Adolescents (17-18yrs)
3.4.11 Number of household members that are male Adolescents (17-18yrs)
3.4.12 Number of household members that are female Adults (19-49yrs)
3.4.13 Number of household members that are male Adults (19-49yrs)
3.4.14 Number of household members that are older female Adults (50-65yrs)
3.4.15 Number of household members that are older male Adults (50-65yrs)
3.4.16 Number of household members that are female Elders (65+)
3.4.17 Number of household members that are male Elders (65+)

4. ADDITIONAL VULNERABILITIES
4.1 Number of HH members with disability
4.2 Number of female HH members breastfeeding
4.3 Number of pregnant HH members
4.4 Number of chronically ill members

5. EXPENDITURES
5.1 How much did the HH spend on the following expenses in the last 30 days?:
5.1.1 Food
5.1.2 Loan repayments
5.1.3 Livestock
5.1.4 Agricultural inputs (e.g. fodder, seeds, tools)
5.1.5 Health care
5.1.6 Education
5.1.7 Shelter materials/labour
5.1.8 Rent
5.1.9 Fuel
5.1.10 Clothing, household items

5.1.11 Transport
5.1.12 Communication
5.1.13 Other
5.1.13.1 If other (Specify)
5.2 What was the primary source that covered these household expenditures incurred in the last 30 days?
5.2.1 If other (Specify)
5.3 What was the secondary source that covered these household expenditures incurred in the last 30 days?
5.3.1 If other (Specify)
5.4 What was the tertiary source that covered these household expenditures incurred in the last 30 days?
5.4.1 If other (Specify)

6. ASSISTANCE RECEIVED

6.1 What amount did you receive in assistance? (in AFN)
6.2 What type of shelter assistance was received by the 2014 flood affected household?
6.2.1 If other (Specify)
6.2.1 What was the level of household damage at the time of the 2014 flooding?
6.3 What is the current accommodation situation of the household affected by the 2014 flooding?
6.4 What is the current damage status of the shelter affected by the 2014 flooding?
6.4.1 What is the current repair status on the flood affected shelter?
6.4.1.1 Why are repairs currently on hold?
6.4.1.1.1 If other (Specify)
6.5 What is the current accommodation arrangement of the flood affected household?
6.6 What is the main wall material (primary infill) of this household's EQ damaged main shelter?
6.6.1 If other (Specify)
6.7 What is the is the main roof material (covering) of this household's EQ damaged main shelter?
6.7.1. If other (Specify)
6.8 How many rooms are occupied by this household?

7. BUILD BACK BETTER

7.1 Is the shelter safe from site hazards?
7.2 Is the shelter foundation free from cracks?
7.3 Does the shelter have ANY plinth bands?
7.4 Does the shelter have ANY corner bracing?
7.5 Do ANY doors and/or windows have lintels?
7.6 Are all door and window edges starting AT LEAST 60 cm from all corners?
7.7 Does water drain away from the shelter?
7.8 Have any trees been cut down and/or hillsides been excavated?
7.9 Is there a separate room available for female household members?
7.10 Are livestock kept in the same indoor living space as household members?

8. WASH

8.1 What is the primary drinking water source of the household?
8.1.1 If other (Specify)
8.2 What type of latrine is AVAILABLE to household members?
8.2.1 If other (Specify)
8.3 What type of latrine is most USED by household members?
8.3.1 If other (Specify)
8.4 How does the household mainly dispose of solid waste?
8.4.1 If other (Specify)

9. PRIORITY NEEDS

9.1 Current priority needs of the household

ANNEX 2 FOCUS GROUP DISCUSSION QUESTIONNAIRE

Shelter Cluster Flood Response Evaluation: Focus Group Discussion Question Route (Coping strategies)

ADD TRANSLATION

Date __/__/__ تاريخ	Province _____ و لايت	District _____ ولس والي	Village _____ کمپ		
Moderator _____ Name _____ اسم اشتراك كنده					
Note-taker _____ Name _____ ياداشت كنده					
Key informant participant details معلومات تفصيلي سروى كنده					
First name (اسم اول)	Family name (اسم فاميلی)	Age (Years) عمر	Gender جنس	Home fully or partially damaged by 2014 floods?	Household received shelter / NFI assistance following 2014 floods?
		--	<input type="checkbox"/> مرد M <input type="checkbox"/> زن F	Fully <input type="checkbox"/> DARI Partially <input type="checkbox"/> DARI	Assistance <input type="checkbox"/> DARI No assistance <input type="checkbox"/> DARI
		--	<input type="checkbox"/> مرد M <input type="checkbox"/> زن F	Fully <input type="checkbox"/> DARI Partially <input type="checkbox"/> DARI	Assistance <input type="checkbox"/> DARI No assistance <input type="checkbox"/> DARI
		--	<input type="checkbox"/> مرد M <input type="checkbox"/> زن F	Fully <input type="checkbox"/> DARI Partially <input type="checkbox"/> DARI	Assistance <input type="checkbox"/> DARI No assistance <input type="checkbox"/> DARI
		--	<input type="checkbox"/> مرد M <input type="checkbox"/> زن F	Fully <input type="checkbox"/> DARI Partially <input type="checkbox"/> DARI	Assistance <input type="checkbox"/> DARI No assistance <input type="checkbox"/> DARI
		--	<input type="checkbox"/> مرد M <input type="checkbox"/> زن F	Fully <input type="checkbox"/> DARI Partially <input type="checkbox"/> DARI	Assistance <input type="checkbox"/> DARI No assistance <input type="checkbox"/> DARI
		--	<input type="checkbox"/> مرد M <input type="checkbox"/> زن F	Fully <input type="checkbox"/> DARI	Assistance <input type="checkbox"/> DARI

			Partially <input type="checkbox"/> DARI	No assistance <input type="checkbox"/> DARI
<ul style="list-style-type: none">- Facilitator's welcome, introduction and instructions to participants [5 minutes]- Welcome and thank you for volunteering to take part in this discussion group. You have been asked to participate as your point of view is important. We appreciate your time.- This discussion is designed to understand how you coped after the floods in 2014, to help humanitarian actors better assist households like yours.- Please note that this meeting does not have any impact on whether you or your family receives any assistance in the future. These discussions are only meant to help inform humanitarian actors.- Anonymity: We assure you that the discussion will be anonymous and REACH will not share your details with any other party without first contacting you to check if you agree. I and the other group participants would therefore appreciate that you do not discuss the comments of other group members outside the group.- Ground rules [2 minutes]- The most important rule is that only one person speaks at a time. There may be a temptation to jump in when someone is talking but please wait until they have finished.- You do not have to speak in any particular order- When you do have something to say, please do so. There are many of you in the group and it is important all your views are included- There are no right or wrong answers- You do not have to agree with the views of other people in the group- If there are any questions or discussions that you do not wish to answer or participate in, you do not have to do so; however please try to answer and be as involved as possible, your views are important.- We will use this flip chart to help record our discussion, it will not be shared externally but is here to make sure we don't forget anything.- Does anyone have any questions?- We try to keep the discussion shorter than 2 hours.- Instructions to Moderators:	<ul style="list-style-type: none">- خوش آمدید تنظیم کننده، معرفی و هدایات برای اشتراک کننده گان: (۵ دقیقه)- خوش آمدید و یک دنیا ممنون کی در این بحث گروهی به شکل دعوه طلب اشتراک نمودید. از شما بخاطر اینکه نظر شما مهم است خواسته شده که اشتراک کنید.- این بحث قسمی ترتیب شده تا که وضعیت کمپ شما را بفهمیم که شما به کدام خدمات دسترسی دارید و ضروریات شما و کمپهای مثل شما چی است تا ارگانهای و موسسات کمک کننده بدانند.- به یاد داشته باشید که این مجلس کدام تاثیر در آینده نخواهد داشت که به شما یا به فامیل شما کدام کمک خواهد رسید. بلکه این مجالس و گفتگوها فقط به خاطر اینکه حالت و وضعیت کمپ های شما را بفهمیم و ارگانهای کمک کننده را آگاه سازیم.- ایهامی: ما معلومات شما را به بخاطر یادداشت می کنیم تا در آینده همراهی شما تماس بگیریم، ما شما را مطمئن می کنیم که دفتر ریچ معلومات شما را همراهی هیچ کس بدون موافقه شما شریک نمی سازد و در این مورد اولتر به شما تماس می گیریم. ما و همکاری ما این را تقدیر می کنیم که بحث اعضای گروهی را با دیگران شریک نسازید.- قوانین مربوط ساحه کار:- مهم تر از همه اینکه یک نفر در یک وقت صحبت می کند. اگر کدام کس دیگر مداخله می کند لطفاً صبر کنید انها صحبت خود را اختتام نمایند.- شما نباید در مورد کدام موضوع مشخص صحبت نماید.- اگر شما میخواهید که کدام چیز بگوید، لطفاً بگوید. شما در گروپ زیاد افراد هستید این مهم است که نظر همه شمار را داشته باشیم.- در اینجا جواب ها صحیح و غلط نیست.- برای شما ضرور نیست که همراهی نظر هر کس در گروپ موافق باشید.- اگر کدام سوال را نمیخواستید که جواب بدهید یا بحث را نمیخواستید که اشتراک کنید، شما مجبور نیستید. ولی کوشش کنید که تا حدی جواب بدهید و سهم بگیرید چرا که نظر شما مهم است.- ایا کدام کس سوال دارد؟- ما کوشش می کنیم که بحث را کمتر از دو ساعت سازیم. بخاطریکه کدام موضوع فراموش نشود ما یاداشت میگیریم. این ریکارد بخاطری می کنیم تا خود را مطمئن سازیم که کدام موضوع را فرامشو نکردیم. آیا شروع کنیم؟ (اگر بلی، ریکارد را روشن کنید)- <ul style="list-style-type: none">o تنظیم کننده ریکارد را روشن می کند و به شکل واضح می گویند:o اسم تنظیم کننده و کسی که نوت می گیرند.o تاریخo موقعیت (ولایت، ولسوالی/ناحیه، کمپ)			

- Please write each coping strategy that is identified on the flip chart.

QX: *How has life changed in this community since the floods in 2014?* [5 minutes]

ADD TRANSLATION!

ADD TRANSLATION

Q1: *We are interested in how your household coped when your home was damaged by the floods in 2014. Thinking back to that time, which of the following coping strategies on this list did you deploy to rebuild/repair your home?* [10 minutes]

Present A3 poster of the list below, explain each coping strategy on the list, and ask participants if they have used each coping strategy. Remove poster afterwards, but moderators and scribes keep a copy for future reference.

- Probing Questions:
- If participants state they do not use a particular strategy, ask why
- Do not ask for alternative strategies yet, but if participants suggest

<p>additional strategies, please write them down on the flip chart</p> <p>Coping strategy list</p> <ul style="list-style-type: none"> • Stayed in damaged house or in makeshift shelter on the site of the damaged house • Stayed in space usually occupied by livestock • Rented temporary accommodation • Stayed with relatives or friends • Sent some household members away to reduce cost of rent/space needed for the household • Reduced essential expenditures such as education/health to pay for rent/materials/labour • Spent savings on rent/materials/labour • Sold household goods (jewelry, phone, furniture, electro-domestics, bicycle etc) to pay for rent/materials/labour • Sold productive assets or means of transport (sewing machine, wheel barrow, bicycle, car, motorbike) to pay for rent/materials/labour • Paid for rent/materials/labour on credit or borrowed money to purchase materials/labour • Adults sent to do high risk, illegal, socially degrading or exploitative temporary jobs (describe in comments if revealed) to pay for rent/materials/labour • Children (under 18) sent to work to pay for rent/materials/labour • Sent adult household members to beg • Sent children household members to beg (under 18) 	
<p>Q2: Thinking back after the 2014 floods, what strategies did your household deploy in particular to cope with your home being damaged? In other words, what specific things did you do to try to make sure everyone in the</p>	<p>ADD TRANSLATION</p>

<p>household had somewhere safe to stay? [15-20 minutes]</p> <p>This question is crucial, so feel free to let discussion run on. Aim here to identify as many different coping strategies as possible and note them on the flip chart.</p> <ul style="list-style-type: none"> – Probing Questions ➤ Did they send family members away? If yes who, where; with whom, why? ➤ When participants mention strategies they have used, ask the group if their households, or households like theirs have used the same or similar strategies. 	
<p>Q3: In particular, at the time when your home had been damaged by the floods, how did your household change the way you used your home, for example, by using rooms for different purposes than before? [5 minutes]</p> <ul style="list-style-type: none"> – Probing Questions ➤ When participants mention strategies they have used, ask the group if their households, or households like theirs have used the same or similar strategies. ➤ If participants are repeating answers that they have given in previous questions, move to the next question 	<p>ADD TRANSLATION</p>

<p>Q4: In particular, at the time when your home had been damaged by the floods, what measures did your household take to rebuild / repair your home? [10 minutes]</p> <p>– Probing Questions:</p> <ul style="list-style-type: none"> ➤ Encourage participants to consider alternative materials and sources of materials that they may not usually rely on. ➤ Encourage participants to discuss ways they increase resources so they can purchase more materials / labour ➤ When participants mention strategies they have used, ask the group if their households, or households like theirs have used the same or similar strategies. ➤ If participants are repeating answers that they have given in previous questions, move to the next question 	<p>ADD TRANSLATION</p>
<p>Conclusion [5 minutes]</p> <ul style="list-style-type: none"> ➤ <u>Is there anything you would like to add that we have not discussed and that it is related to 2014 floods?</u> 	<p>ADD TRANSLATION</p>

<ul style="list-style-type: none"> ➤ <i>Thank you for participating. This has been a very successful discussion</i> ➤ <i>Your opinions will be a valuable asset to the study</i> ➤ <i>We hope you have found the discussion interesting</i> ➤ <i>I would like to remind you that any comments featuring in this report will be anonymous</i> 	
<div style="display: flex; justify-content: space-between;"> Moderator comments نظريات سروى كننده </div>	