



# Emergency Sahel Shelter Kit - Niger

## Review in Ngourtoua Camp. Diffa region

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## 1. Overview

The “Aide internationale de la Croix-Rouge Luxembourgeoise” (AI CRL) has been working since 2013 in Diffa, Niger. In close collaboration with the Nigerian Red Cross (NRC), it carries out interventions in the field of shelters for displaced populations, refugees and returnees in the Diffa region.

In September 2017, a new transitional shelter model was developed by IFRC-SRU and implemented by AI CRL and CRN in the Diffa region.

The IFRC-SRU has been requested to provide technical support to review the ongoing shelter project implemented in DIFFA.

## 2. Used Methodology

The security situation in the region remains unstable with continuous incidents recorded lately. In this context, the access to the field for any IFRC-SRU member is currently restricted.

Therefore, the overall objective of IFRC-SRU’s consultancy is to provide remote technical assistance to assist the local team (AI CRL) in the collection of the information and review of the shelter project currently implemented in DIFFA.

The technical support will include the development of data collection tools, the briefing and coaching of the local team (AI CRL) in charge to evaluate the project and the analysis of the finding and report with recommendations to improve the housing project.

The technical support is organized as follows:

- *Preparation of the data collection tools and review process*
- *Briefing on the use of the tools and modalities of data collection*
- *Follow-up of the data collected during the mission of evaluation*
- *Capturing the information collected and reporting with key recommendations*

## 3. Context identification and limits

The “Aide internationale de la Croix-Rouge Luxembourgeoise” (AI CRL) carries out Shelter and WATSAN interventions for displaced populations, refugees and returnees in the Diffa region in the context of the Lake Chad crisis.

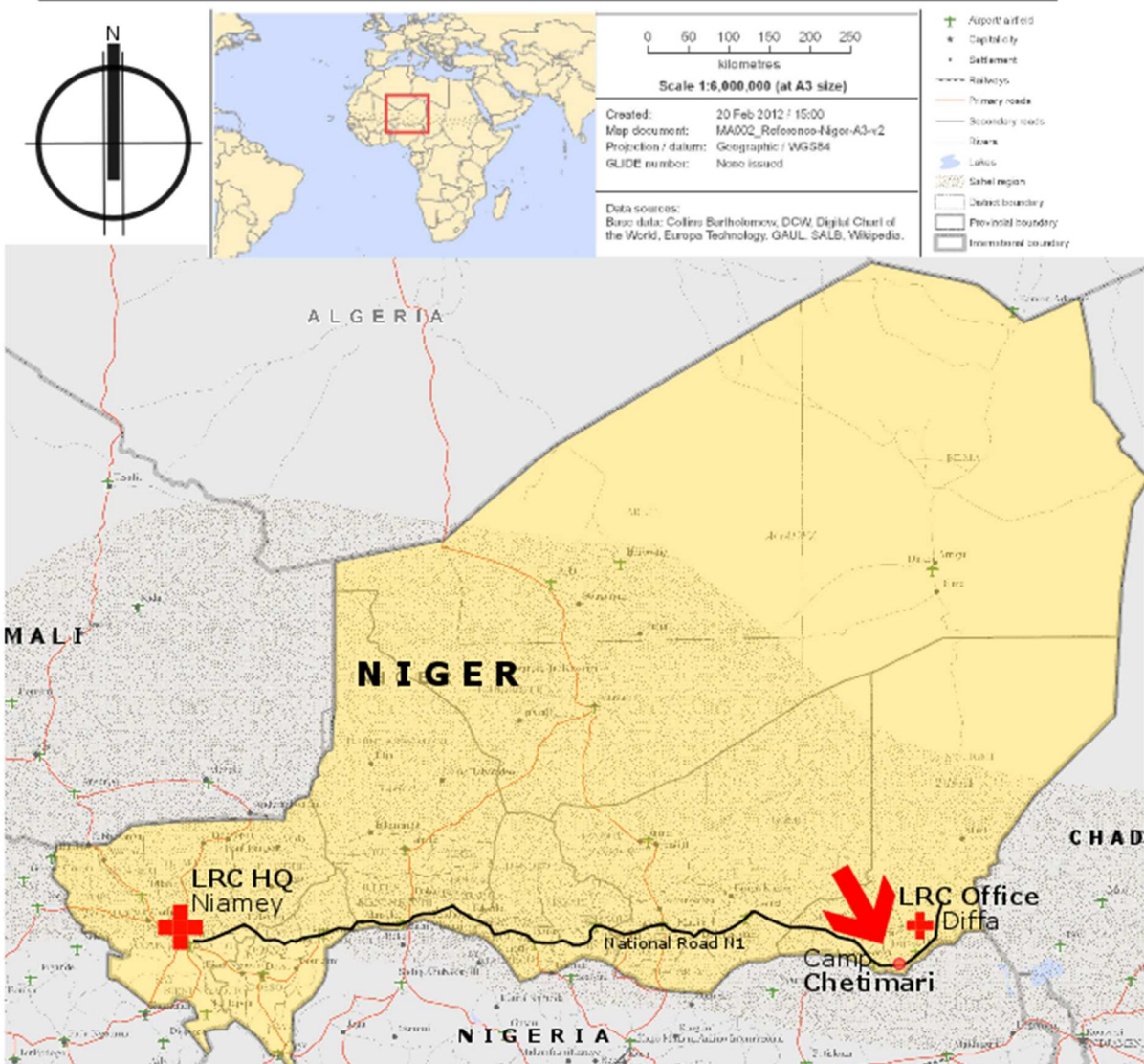
The intervention in the Diffa region focusses on the construction of 2 types of Shelters, about 1,200 houses in adobe and 14,000 emergency shelters as well as family latrines and emergency latrines.

The current review will focus on the 700 transitional shelters set up in Ngourtoua site for displaced persons and refugees with 4,256 people, located not far from Chetimari on national road number 1.



The following map shows the approx. location of the camp.

### CONTEXT MAP identification and limits







**Chetimari - Ngouroutua Cmap**

National Road 1 - DIFFA region

  
 Sahel shelter kit  
**700 units distributed by LRC**

  
 Sahel shelter kit  
**526 units to analyze for review**



	Refugees	<b>80 families</b>	 <b>305 Woman Interviewed</b>
	IDP	<b>387 families</b>	
	Returnees	<b>59 families</b>	

**Review date: April 2018**

**700 visited shelters - 68 temporarily unoccupied - 106 reviews with damaged information 526 full sample**

## 4. Preparation of the data collection tools and review process

### 4.1 Sample size

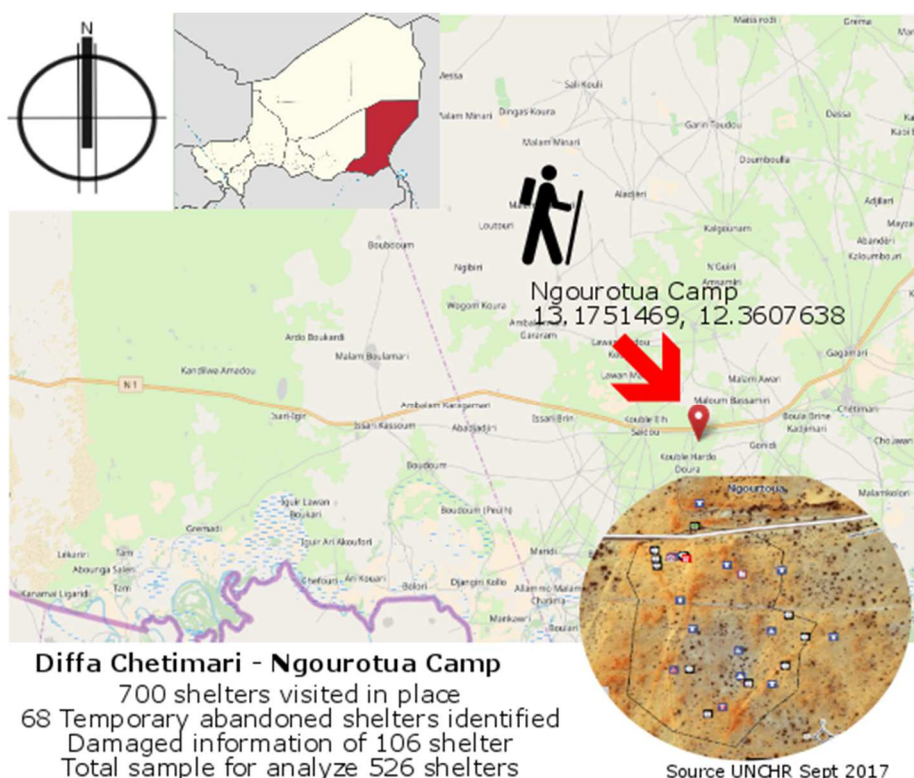
In order to ensure the common agreed condition, we have defined with the AI CRL desk a base line of 5% margin of error and a 95% confidence interval.

Sample size determination is the act of choosing the number of observations or replicates to include in a statistical sample. The sample size is an important feature of any empirical study in which the goal is to make inferences about a population from a sample (Wikipedia).

We have used the REASOR website for support (<http://www.raosoft.com/>) to define and calculate the minimum values as follow:

Margin of error accepted	5%
Defined minimum confidence level	95%
The considered population size (in shelters)	700
The response distribution	50%
<b>SAMPLE SIZE</b>	<b>249</b>

The field team visited the 700 shelter built in the Ngourtua site, identified 68 Shelter temporary abandoned (*see Information gathering – Selection and exclusion criteria*) and 106 review were damaged due the difficulties for IT communications in place. The final size of the sample to analyze is 526 shelters reviewed.

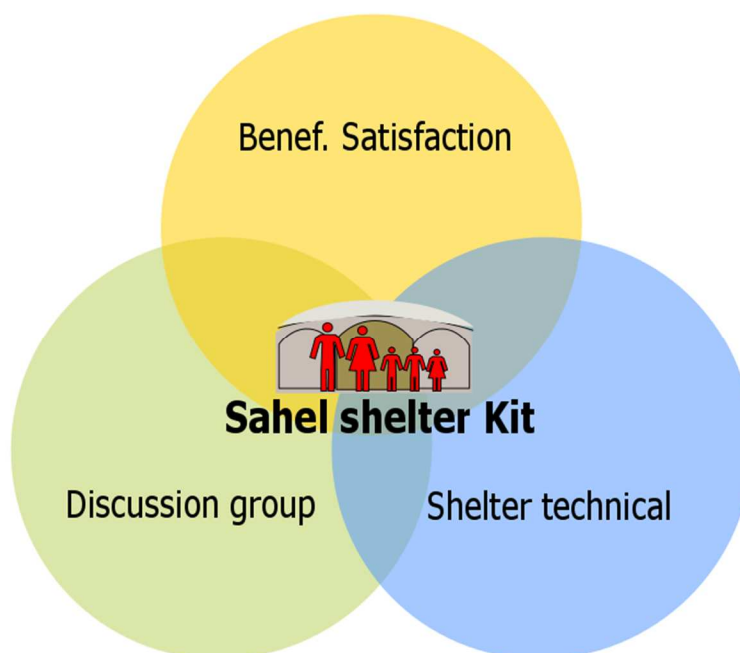


### 4.2 Review tools

With the aim of recording extensive and consistent information from the field, the IFRC-SRU in collaboration with the AI CRL team has developed a package of specific review tools. These tools are questionnaires that focus on different predefined aspects to review.

In order to facilitate the analysis and provide a logical structure that facilitates the understanding and future dissemination, we have divided the review in 3 main aspects: Beneficiaries satisfaction (social), Shelter solution review (Technical – field observation), Focus group (direct experience).

The following schema shows the correlation between the review tools:



The *Beneficiaries Satisfaction* and the *Shelter Technical* questionnaires have been designed with different structures to collect a specific information related to the particular thematic.

Please notice that the content of the questionnaires was translated in local language with the support of volunteers of the NRC.

- *Beneficiaries Satisfaction* questionnaire organized with the following structure:
  - Respondent information
  - Shelter Occupancy – Evaluation Question of Effectiveness
  - Appropriateness of the Shelter Solution
  - Implementation – Support and participation
  - Appropriateness of the Latrines mobilization
  - Community Mobilization and assistance provided by the RC
  - Plans for Adaptation and improvements for the future.
  
- *Shelter Technical* questionnaire organized with the following structure
  - Shelter identification
  - General aspect – Stake out and dimensions
  - Shelter structure – Pillars and dome arches
  - Cladding – Water proof layer, inner dome layer, walls and doors
  - Maintenance – actions and materials
  - Modifications and/or improvements
  
- The Focus group information collected during field dynamics conducted by the local team in place and later reported to HQ.

## 5. Information gathering

### Monitoring system

In order to ensure the accountability of the data collection, the volunteers' work was guided along the entire process. The purpose was to overcome the difficulties encountered by the volunteers, in particular the ones related to the new technologies and taking of GPS points which were impossible due to bad weather conditions or IT difficulties.

The data collection process was conducted during five days from March 28th to April 1st 2018, with the seven trained volunteers deployed to the Ngourtoua site. At the start of each day, a briefing session gave instructions to the volunteer team. At the end of the day, a debriefing was held to collect collected during the day facilitating analysis. The difficulties encountered and to provide answers to the volunteers' concerns. Digital files created for each interviewer made it possible to store the data.

### ODK and RC volunteers

The data collection process was coordinated in place by the RC Consultant, lead of this mission Prosper Zombre, and executed with RC volunteers. The data were obtained by personal interviews and recorded in place by using Smartphones with pre-loaded ODK software.

A specific training was conducted about the use of the data collection tool ODK (open data kit). Eight volunteer were initially identified but only seven performed training and one volunteer withdrew before the activity.

Initially, this training consisted in reviewing the questionnaire with a view to agreeing on the terminology in order to translate the questionnaire to be administered correctly into the local language of the beneficiaries.

Two main languages are spoken on the Ngourtoua site. These are the "Kanouri" and the "Haoussa". The volunteers identified speak either one or both languages correctly. By going through the questionnaire, the exchanges allowed us to agree on the terminologies.

The last objective for this training was to "Ensure the proper use of the system in Smartphones" (transparency of the data traceability). This was an opportunity for the participants to familiarize themselves with the ODK tool and to understand the use of Smartphones. This participatory exercise enabled the volunteers to formulate recommendations to the Trainer with a view to improving the tool and facilitating the administration of the questionnaire.



*Training session with local team*



### Selection and exclusion criteria

Data collection was carried out on a sample basis. The site had been divided in four sectors by the shelter team of the local branch of Red Cross of Diffa who helped beneficiaries to build their shelters. By using this division, the volunteers were in charge of collecting the information in the inhabited shelters. Due to the number of volunteers and in order to reach a maximum number of beneficiaries, the main exclusion Criteria was the “*temporary abandoned*” shelters by their owners. Indeed, due the unstable security situation, some households have temporary left the site abandoning their shelters. Other reason to find the *temporary abandoned* shelters was that some households returned to their villages of origin for economic reasons (especially to cultivate their fields) - survival strategy. Thus, temporary abandoned shelters were excluded from the survey.

*Note: At the moment of the review 68 temporary abandoned shelters where identified.*



*Temporary abanoned Shelter*

### Field procedure

The information gathering strategy consisted of door-to-door visits. However, the questionnaire could not be administered to a family member under 15 years of age. The majority of those surveyed were heads of households. Each interviewer was equipped with his Smartphone and visited households and administered the questionnaire. An identification system had been created to avoid double visits to households. Therefore, at the end of the survey, the initials of the volunteers were marked on the shelter to prevent the household from having the questionnaire administered twice.

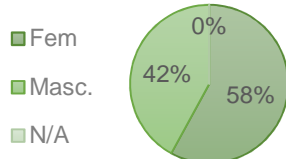


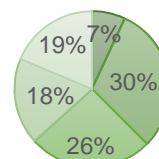
*Identification code*

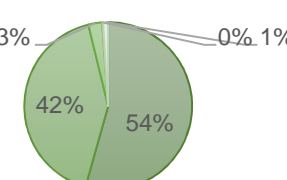
## 6. Data review and comments

The analysis of the collected data is organized in the three review tools and each question/group of questions is analyzed in an individual matrix.

## 6.1 Beneficiaries satisfaction survey

Respondent Information	
<b>1.1</b> Gender of respondent ?	
<b>Criteria</b> <ul style="list-style-type: none"> <li>Feminine</li> <li>Masculine</li> <li>N/A</li> </ul>	<b>Data</b> 
<b>Comment</b> The total percentage of Feminine beneficiaries interviewed is slightly higher than the masculine. The recorded difference in percentage is 16%.	
<b>Conclusion/Recommendation</b> A possible explanation of the small difference is that the interviews were conducted in the shelters themselves, so the gender specific activities of the population could be the reason for this difference.	

Respondent Information	
<b>1.2</b> Age distribution?	
<b>Criteria</b> <ul style="list-style-type: none"> <li>Less than 20</li> <li>Between 20 and 30</li> <li>Between 31 and 40</li> <li>Between 41 and 50</li> <li>More than 50</li> </ul>	<b>Data</b> 
<b>Comment</b> The reviewed population under 20 years is only 7% and the population over 50 is 18%. The big % of the sample are between 21 and 30 years with 30%. The population between 31 and 40 represent 26% of the sample.	
<b>Conclusion/Recommendation</b> The edge of the example has a homogeneous distribution with 50% of the population between 20 and 40 years. The beneficiaries that have participated in the review are in different ages that provide an extensive picture of the reality and appreciations in the camp.	

Respondent Information	
<b>1.3</b> Relationship with the head of household occupying the shelter	
<b>Criteria</b> <ul style="list-style-type: none"> <li>Head of family</li> <li>Wife</li> <li>Children</li> <li>Grandparents</li> <li>Others</li> </ul>	<b>Data</b> 
<b>Comment</b> 54% of interviewed were the head of family and 42% the wife of head of family.	
<b>Conclusion/Recommendation</b> The close percentage between head of family and wife of head of family, would provide a more or less balanced sample in regards to gender.	

Respondent Information	
<b>1.4</b> Current status situation?	
<b>Criteria</b> <ul style="list-style-type: none"> <li>Refugee</li> <li>IDP</li> <li>Returned</li> </ul>	<b>Data</b> 

*Comment*

Refugee and returnee are together the 26% of the sample distributed on 11% returnees and 15% refugees. The biggest portion of the sample (74%) are Internally displaced Populations (IDP).

*Conclusion/Recommendation*

Almost ¾ of the sample are IDPs that are familiar with the geographic and cultural context. This would provide a relative uniformization in the results and could facilitate the exchange and community mobilisations.

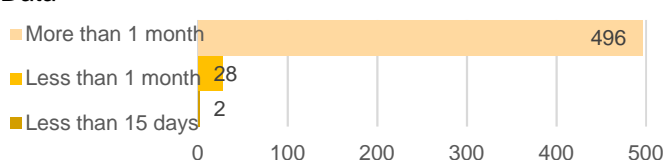
**Shelter Occupancy**

**2.1** How long, after your arrival on the site, do you receive the shelter?

*Criteria*

- Less than 15 days
- Less than 1 month
- More than 1 month

*Data*



*Comment*

496 respondents received the shelter more than 1 month after their arrival and only 2 respondents have received the shelter within the first 15 days of arrival.

*Conclusion/Recommendation*

94% of the respondents have received the shelter after one month in the location. We can conclude that the time of response in terms of shelter is over 30 days after the arrival. Could be interesting to analyse if during the critic seasons (rain or extreme heat) the time of response is the same. In addition, a historic analysis could provide relevant information like the evolution of the shelter response in the last year.

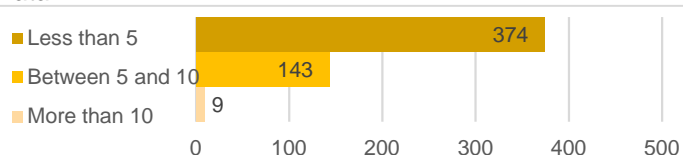
**Shelter Occupancy**

**2.2** How many persons are living in the shelter?

*Criteria*

- Less than 5
- 5 to 10
- More than 10

*Data*



*Comment*

374 shelters have an occupancy rate of less than 5 persons, 143 shelters accommodate between 5 and 10 and only 9 shelters over 10 persons.

*Conclusion/Recommendation*

The Sahel shelter kit design has a covered surface of 22,4m<sup>2</sup> that according to the sphere norms will be sufficient for a family of 6.4 persons (3.5m<sup>2</sup> pers. in emergency). Therefore, we can conclude that around ¾ of the shelter in the place are following the Sphere std.

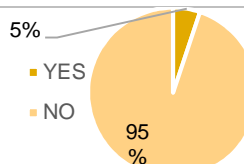
**Shelter Occupancy**

**2.3** Does the family include people with disabilities?

*Criteria*

- YES
- NO

*Data*

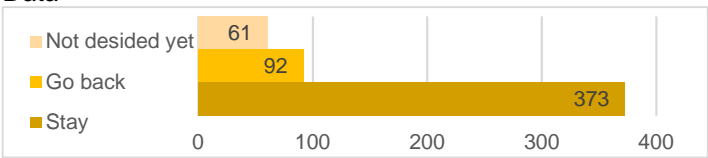


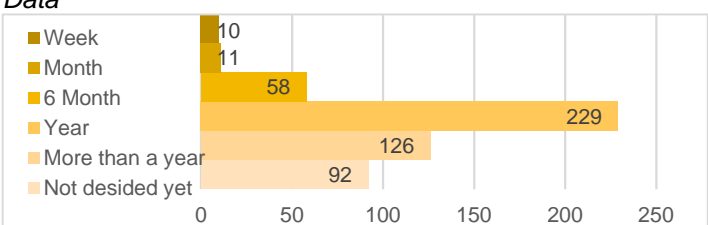
*Comment*

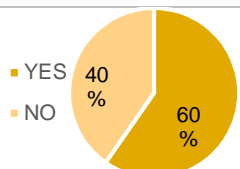
5% of the interviewed families have some persons with disabilities living in the shelter. That represent 27 families over 526.

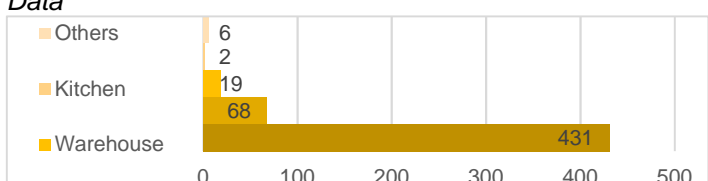
*Conclusion/Recommendation*

The percentage of persons with some type of disability is 5%. The 27 families in this situation have been identified. A suggestion can be an individual evaluation according to the specific needs of these beneficiaries.

<b>Shelter Occupancy</b>									
<b>2.4</b>	Do you want to settle in or go back?								
<b>Criteria</b>	<b>Data</b>								
<ul style="list-style-type: none"> <li>Stay</li> <li>GO back</li> <li>Not decided yet</li> </ul>	 <table border="1"> <thead> <tr> <th>Response</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Stay</td> <td>373</td> </tr> <tr> <td>Go back</td> <td>92</td> </tr> <tr> <td>Not decided yet</td> <td>61</td> </tr> </tbody> </table>	Response	Count	Stay	373	Go back	92	Not decided yet	61
Response	Count								
Stay	373								
Go back	92								
Not decided yet	61								
<b>Comment</b> 373 respondents want to stay in the camp and 92 want to go back. 61 are not decided yet.									
<b>Conclusion/Recommendation</b> At the moment of this interview (April 2018) more than 70% of the respondents want to stay in the camp, which could be interpreted as the living conditions in the camp are better than in the place of origin. A monitoring process that includes the time parameter could be a good tool to implement in order to obtain the evolution of the situation.									

<b>Shelter Occupancy</b>															
<b>2.5</b>	How long do you plan to live in the shelter?														
<b>Criteria</b>	<b>Data</b>														
<ul style="list-style-type: none"> <li>Week</li> <li>Month</li> <li>6 month</li> <li>Year</li> <li>More than one year</li> <li>Not decided yet</li> </ul>	 <table border="1"> <thead> <tr> <th>Response</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>More than a year</td> <td>229</td> </tr> <tr> <td>Not decided yet</td> <td>126</td> </tr> <tr> <td>6 Month</td> <td>58</td> </tr> <tr> <td>Year</td> <td>92</td> </tr> <tr> <td>Month</td> <td>11</td> </tr> <tr> <td>Week</td> <td>10</td> </tr> </tbody> </table>	Response	Count	More than a year	229	Not decided yet	126	6 Month	58	Year	92	Month	11	Week	10
Response	Count														
More than a year	229														
Not decided yet	126														
6 Month	58														
Year	92														
Month	11														
Week	10														
<b>Comment</b> 355 respondents are thinking of settling in the shelter for one year or more. Almost 100 (92) have not decided yet and just a small quantity of 21 plan to move soon (within less than one month).															
<b>Conclusion/Recommendation</b> If we consider that the shelter was designed for a life response of at least one year, most of the population in the camp would like to stay longer than the designed lifespan of the shelter solution. Monitoring and analysis of possible substitution of items could be a good strategy to follow in the coming months.															

<b>Shelter Occupancy</b>							
<b>2.6</b>	Could the shelter become a permanent house?						
<b>Criteria</b>	<b>Data</b>						
<ul style="list-style-type: none"> <li>YES</li> <li>NO</li> </ul>	 <table border="1"> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>YES</td> <td>60%</td> </tr> <tr> <td>NO</td> <td>40%</td> </tr> </tbody> </table>	Response	Percentage	YES	60%	NO	40%
Response	Percentage						
YES	60%						
NO	40%						
<b>Comment</b> 60% of the respondents think that the provided shelter kit solution could become a permanent house.							
<b>Conclusion/Recommendation</b> More than 315 families think that the provided shelter kit could provide a definitive housing solution for them. A particular technical and social reflexion would be a good action to deepen in to the transitional phase of the provided shelter solution (emergency to permanent house).							

<b>Shelter Occupancy</b>											
<b>2.7</b>	What is the main activity that you realise in the shelter?										
<b>Criteria</b>	<b>Data</b>										
<ul style="list-style-type: none"> <li>Sleep</li> <li>Shade</li> <li>Warehouse</li> <li>Kitchen</li> <li>Others</li> </ul>	 <table border="1"> <thead> <tr> <th>Activity</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Warehouse</td> <td>431</td> </tr> <tr> <td>Kitchen</td> <td>68</td> </tr> <tr> <td>Others</td> <td>19</td> </tr> <tr> <td>Shade</td> <td>2</td> </tr> </tbody> </table>	Activity	Count	Warehouse	431	Kitchen	68	Others	19	Shade	2
Activity	Count										
Warehouse	431										
Kitchen	68										
Others	19										
Shade	2										

*Comment*

The main activity of the respondents in the shelter is to sleep at night with more than 431 positive responses. Kitchen and/or warehouse represent a very small quantity for respondents.

*Conclusion/Recommendation*

The night protection function of the shelter is well appreciated with 80% of the respondents sleeping during night in the shelter. A monitoring of the activities performed in the shelter could be a good indicator of the flexibility of the shelter solution.

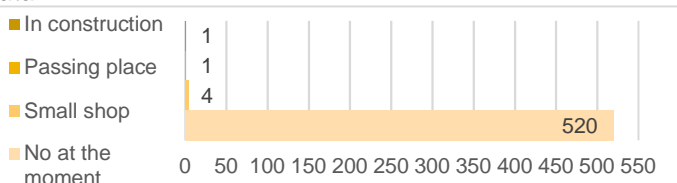
**Shelter Occupancy**

**2.8** There are any other important activities to include?

*Criteria*

- *In construction*
- *Passing place*
- *Small shop*
- *Not at the moment*

*Data*



*Comment*

520 are not performing any other important activities in the shelter.

*Conclusion/Recommendation*

The open question could suggest that the occupants of the shelter plan or would like to perform additional activities in the shelter.

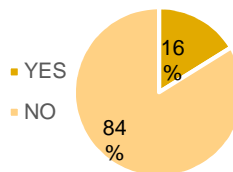
**Shelter Occupancy**

**2.9** Can the shelter be used for livelihood activities?

*Criteria*

- YES
- NO

*Data*



*Comment*

84% of the respondents are thinking that the shelter is better prepared for living than for developing additional livelihood activities.

*Conclusion/Recommendation*

84% of the respondents (more the 440 users) think that to perform some livelihood activities they will need a different space than the shelter. A deep evaluation of the livelihood capacities would be needed in case of a long term operation.

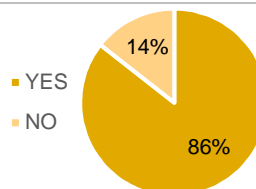
**Shelter Occupancy**

**2.10** Are you feeling safe in the shelter?

*Criteria*

- YES
- NO

*Data*

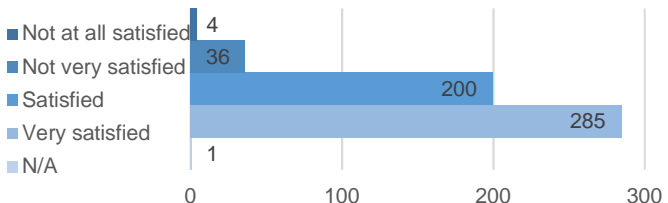


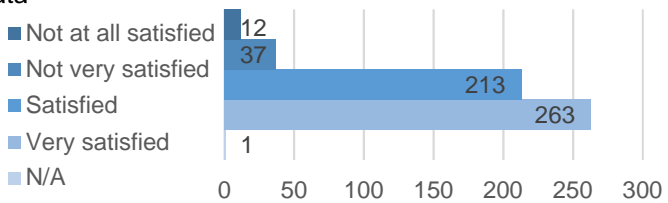
*Comment*

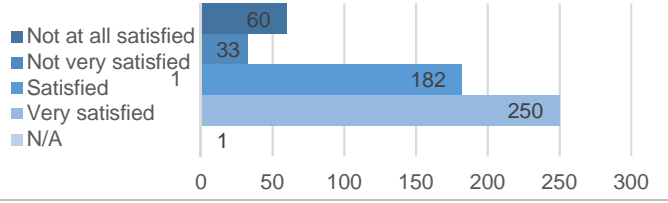
86% of the respondents (more than 450) are feeling safe in the shelter.

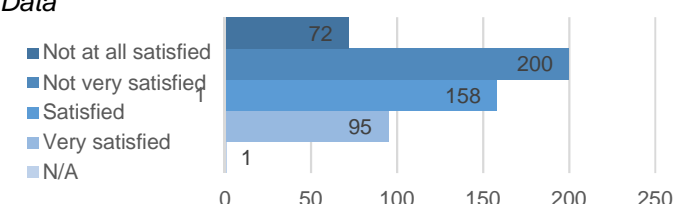
*Conclusion/Recommendation*

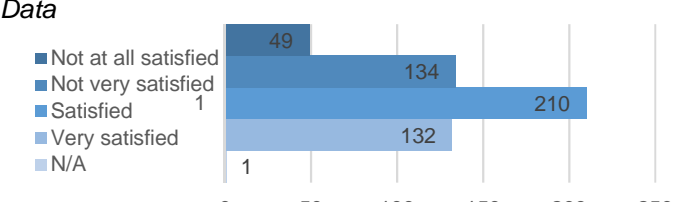
The main objective of the shelter is to bring protection to its inhabitants; in this case, the feeling of protection is common for more than 86% of the sample. An individualized review to identify the worries of the other 14% could be a good action to take. In addition, a monitoring system to follow up the “feeling of safety” would provide key information about the safety in the camp.

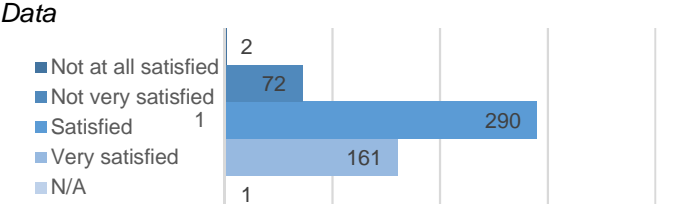
Appropriateness of the Shelter Solution													
<b>3.1</b> The location and orientation of the shelter?													
<b>Criteria</b> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>• N/A</li> </ul>	<b>Data</b>  <table border="1"> <thead> <tr> <th>Satisfaction Level</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Not at all satisfied</td> <td>4</td> </tr> <tr> <td>Not very satisfied</td> <td>36</td> </tr> <tr> <td>Satisfied</td> <td>200</td> </tr> <tr> <td>Very satisfied</td> <td>285</td> </tr> <tr> <td>N/A</td> <td>1</td> </tr> </tbody> </table>	Satisfaction Level	Count	Not at all satisfied	4	Not very satisfied	36	Satisfied	200	Very satisfied	285	N/A	1
Satisfaction Level	Count												
Not at all satisfied	4												
Not very satisfied	36												
Satisfied	200												
Very satisfied	285												
N/A	1												
<b>Comment</b> 485 responses with different levels of positive satisfaction, 200 satisfied and 285 very satisfied. 4 not satisfied at all and 36 not satisfied.													
<b>Conclusion/Recommendation</b> 92% of the respondent are satisfied or very satisfied with the shelter orientation and location. This shows the acceptance of the place and in particular the possibility of the users to orient the shelter according to their convenience.													

Appropriateness of the Shelter Solution													
<b>3.2</b> Are you satisfied with the available covered space?													
<b>Criteria</b> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>• N/A</li> </ul>	<b>Data</b>  <table border="1"> <thead> <tr> <th>Satisfaction Level</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Not at all satisfied</td> <td>12</td> </tr> <tr> <td>Not very satisfied</td> <td>37</td> </tr> <tr> <td>Satisfied</td> <td>213</td> </tr> <tr> <td>Very satisfied</td> <td>263</td> </tr> <tr> <td>N/A</td> <td>1</td> </tr> </tbody> </table>	Satisfaction Level	Count	Not at all satisfied	12	Not very satisfied	37	Satisfied	213	Very satisfied	263	N/A	1
Satisfaction Level	Count												
Not at all satisfied	12												
Not very satisfied	37												
Satisfied	213												
Very satisfied	263												
N/A	1												
<b>Comment</b> 263 very satisfied and 213 satisfied are showing the different levels of positive satisfaction in the sample. 12 are not at all satisfied and 37 not satisfied.													
<b>Conclusion/Recommendation</b> 476 respondents with different levels of positive satisfaction showing that more than 90% of the sample are satisfied with the covered surface that the shelter offers. With more than 20 m <sup>2</sup> the Sahel shelter kits provide a high percentage of satisfaction in the sample. A personalized follow up of the non-satisfied respondents could be a key to better understand their response.													

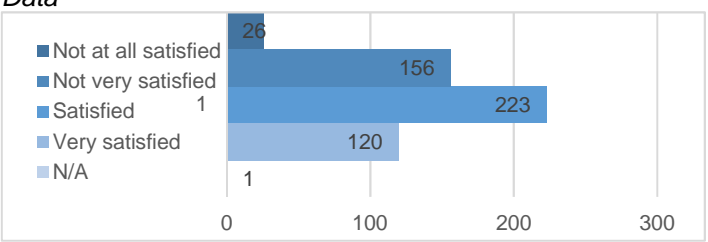
Appropriateness of the Shelter Solution													
<b>3.3</b> Are you satisfied with the privacy in the shelter?													
<b>Criteria</b> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>• N/A</li> </ul>	<b>Data</b>  <table border="1"> <thead> <tr> <th>Satisfaction Level</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Not at all satisfied</td> <td>60</td> </tr> <tr> <td>Not very satisfied</td> <td>33</td> </tr> <tr> <td>Satisfied</td> <td>182</td> </tr> <tr> <td>Very satisfied</td> <td>250</td> </tr> <tr> <td>N/A</td> <td>1</td> </tr> </tbody> </table>	Satisfaction Level	Count	Not at all satisfied	60	Not very satisfied	33	Satisfied	182	Very satisfied	250	N/A	1
Satisfaction Level	Count												
Not at all satisfied	60												
Not very satisfied	33												
Satisfied	182												
Very satisfied	250												
N/A	1												
<b>Comment</b> 250 are very satisfied with the privacy, 182 satisfied and 93 respondents with different levels of no satisfaction.													
<b>Conclusion/Recommendation</b> More than the 80% of the sample are satisfied with the shelter privacy. This shows the high adequacy of the shelter in terms of cultural acceptance. 17% of the sample are not satisfied with the privacy of the shelter. An individualized follow up appears as the most logic action to better understand parameters like the context (distance to other shelter) quantity of occupants in the shelter or cultural preferences of the users.													

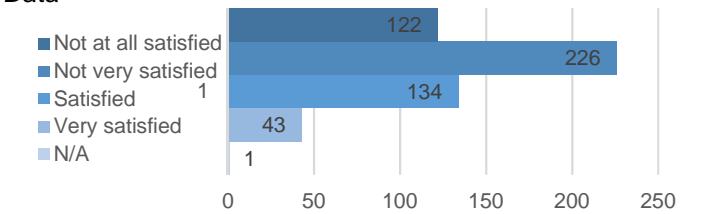
Appropriateness of the Shelter Solution													
<b>3.4</b> Are you satisfied with safety from intrusion in the shelter?													
<b>Criteria</b> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>N/A</li> </ul>	<b>Data</b>  <table border="1"> <thead> <tr> <th>Satisfaction Level</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Not at all satisfied</td> <td>72</td> </tr> <tr> <td>Not very satisfied</td> <td>200</td> </tr> <tr> <td>Satisfied</td> <td>158</td> </tr> <tr> <td>Very satisfied</td> <td>95</td> </tr> <tr> <td>N/A</td> <td>1</td> </tr> </tbody> </table>	Satisfaction Level	Count	Not at all satisfied	72	Not very satisfied	200	Satisfied	158	Very satisfied	95	N/A	1
Satisfaction Level	Count												
Not at all satisfied	72												
Not very satisfied	200												
Satisfied	158												
Very satisfied	95												
N/A	1												
<b>Comment</b> 200 respondents are not very satisfied with the safety against intrusion that the shelter provides and 72 are not at all satisfied. 253 respondents are satisfied at different levels; 158 satisfied and 95 very satisfied.													
<b>Conclusion/Recommendation</b> 50% of the reviewed sample are not satisfied with the security against intrusion that the shelter provides. This can be related to the general situation of instability in the region and in particular in the place. The shelter as a temporary lightweight construction can provide only a limited protection against intrusion. It would be recommended a deeper study about the general security situation in the place and how the shelter response can be improved in this terms.													

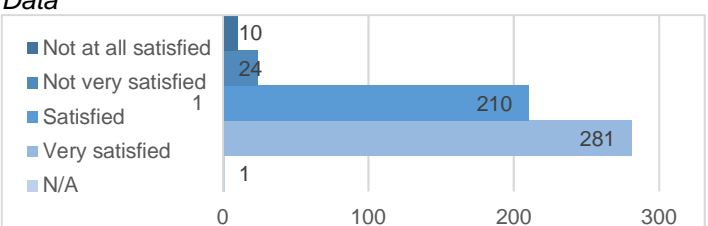
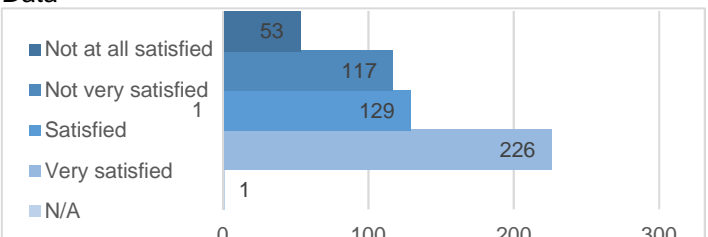
Appropriateness of the Shelter Solution													
<b>3.5</b> The security provided from natural disaster?													
<b>Criteria</b> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>N/A</li> </ul>	<b>Data</b>  <table border="1"> <thead> <tr> <th>Satisfaction Level</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Not at all satisfied</td> <td>49</td> </tr> <tr> <td>Not very satisfied</td> <td>134</td> </tr> <tr> <td>Satisfied</td> <td>210</td> </tr> <tr> <td>Very satisfied</td> <td>132</td> </tr> <tr> <td>N/A</td> <td>1</td> </tr> </tbody> </table>	Satisfaction Level	Count	Not at all satisfied	49	Not very satisfied	134	Satisfied	210	Very satisfied	132	N/A	1
Satisfaction Level	Count												
Not at all satisfied	49												
Not very satisfied	134												
Satisfied	210												
Very satisfied	132												
N/A	1												
<b>Comment</b> 342 respondents are satisfied in different levels with the protection against natural disasters. 134 not very satisfied and 40 not at all satisfied.													
<b>Conclusion/Recommendation</b> 65% of the population are satisfied or very satisfied with the protection against natural disaster. In a temporary construction like this emergency shelter, the effectiveness of the protection is a subjective parameter. A good idea can be to develop specific communication and sensitization training with the affected population to better understand the needs and provide tools for disaster risk reduction.													

Appropriateness of the Shelter Solution													
<b>3.6</b> Are you satisfied with the type of material used in the shelter?													
<b>Criteria</b> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>N/A</li> </ul>	<b>Data</b>  <table border="1"> <thead> <tr> <th>Satisfaction Level</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Not at all satisfied</td> <td>2</td> </tr> <tr> <td>Not very satisfied</td> <td>72</td> </tr> <tr> <td>Satisfied</td> <td>290</td> </tr> <tr> <td>Very satisfied</td> <td>161</td> </tr> <tr> <td>N/A</td> <td>1</td> </tr> </tbody> </table>	Satisfaction Level	Count	Not at all satisfied	2	Not very satisfied	72	Satisfied	290	Very satisfied	161	N/A	1
Satisfaction Level	Count												
Not at all satisfied	2												
Not very satisfied	72												
Satisfied	290												
Very satisfied	161												
N/A	1												
<b>Comment</b> 451 respondents are satisfied or very satisfied with the materials used in the shelter. 72 not very satisfied and 2 not at all satisfied.													
<b>Conclusion/Recommendation</b> The high % of satisfaction (over 85% of the sample) shows the good acceptance and cultural appropriation of the materials. Some of the materials used in the shelter are not well known by the population in the region. This can be a factor to monitoring in terms of acceptance at mid/long term.													

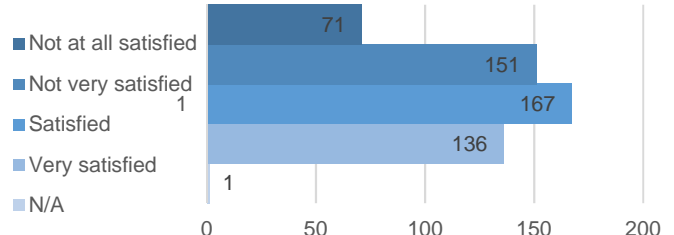
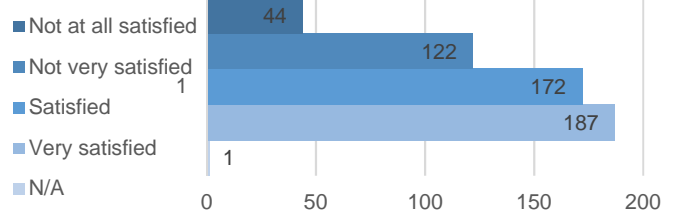
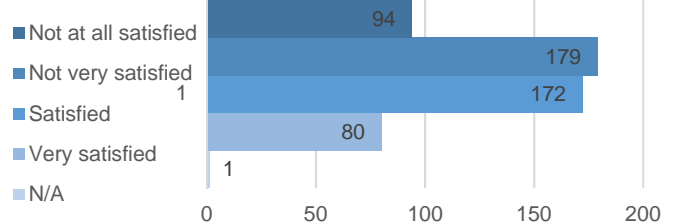
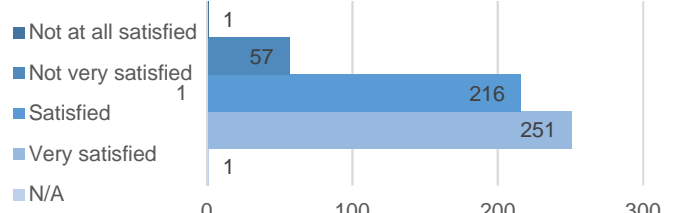
**Appropriateness of the Shelter Solution**

3.7 Are you satisfied with the ventilation in the shelter ?											
<p><b>Criteria</b></p> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>N/A</li> </ul>	<p><b>Data</b></p>  <table border="1"> <tr><td>Not at all satisfied</td><td>26</td></tr> <tr><td>Not very satisfied</td><td>156</td></tr> <tr><td>Satisfied</td><td>223</td></tr> <tr><td>Very satisfied</td><td>120</td></tr> <tr><td>N/A</td><td>1</td></tr> </table>	Not at all satisfied	26	Not very satisfied	156	Satisfied	223	Very satisfied	120	N/A	1
Not at all satisfied	26										
Not very satisfied	156										
Satisfied	223										
Very satisfied	120										
N/A	1										
<p><b>Comment</b>                  223 respondents are satisfied with the ventilation in the shelter and 120 very satisfied. 182 are not very satisfied or not at all satisfied with the shelter.</p>											
<p><b>Conclusion/Recommendation</b>                  The natural ventilation in a hot dry context is a key factor to obtain a minimum comfort inside the shelter. More than 65% of the reviewed sample are satisfied with the ventilation inside the shelter. It would be recommended to develop a sensitisation package to inform the users on the flexibility of the proposed shelter solution. Inspired by the “tuareg” culture, the shelter solution provides different configurations to improve the user’s comfort in terms of natural ventilation.</p>											

Appropriateness of the Shelter Solution											
3.8 Are you satisfied with the thermal comfort inside the shelter?											
<p><b>Criteria</b></p> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>N/A</li> </ul>	<p><b>Data</b></p>  <table border="1"> <tr><td>Not at all satisfied</td><td>122</td></tr> <tr><td>Not very satisfied</td><td>226</td></tr> <tr><td>Satisfied</td><td>134</td></tr> <tr><td>Very satisfied</td><td>43</td></tr> <tr><td>N/A</td><td>1</td></tr> </table>	Not at all satisfied	122	Not very satisfied	226	Satisfied	134	Very satisfied	43	N/A	1
Not at all satisfied	122										
Not very satisfied	226										
Satisfied	134										
Very satisfied	43										
N/A	1										
<p><b>Comment</b>                  226 respondents are not satisfied and 122 not at all satisfied. The other 177 are satisfied at different levels.</p>											
<p><b>Conclusion/Recommendation</b>                  The use of plastic materials (tarpaulin) increase the interior temperature. The use of this material as waterproof layer in the roof can be an explanation why 66% of respondent are not satisfied with the feeling of thermal comfort inside the shelter. A specific review on this topic can be conducted and using parameters like the question before related ventilation inside the shelter.</p>											

Appropriateness of the Shelter Solution											
3.9 Are you satisfied with the quality of the shelter elements/materials?											
<p><b>Criteria: Quality of the poles?</b></p> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>• N/A</li> </ul>	<p><b>Data</b></p>  <table border="1"> <tr><td>Not at all satisfied</td><td>10</td></tr> <tr><td>Not very satisfied</td><td>24</td></tr> <tr><td>Satisfied</td><td>210</td></tr> <tr><td>Very satisfied</td><td>281</td></tr> <tr><td>N/A</td><td>1</td></tr> </table>	Not at all satisfied	10	Not very satisfied	24	Satisfied	210	Very satisfied	281	N/A	1
Not at all satisfied	10										
Not very satisfied	24										
Satisfied	210										
Very satisfied	281										
N/A	1										
<p><b>Criteria: Quality of the PVC tubes?</b></p> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>N/A</li> </ul>	<p><b>Data</b></p>  <table border="1"> <tr><td>Not at all satisfied</td><td>53</td></tr> <tr><td>Not very satisfied</td><td>117</td></tr> <tr><td>Satisfied</td><td>129</td></tr> <tr><td>Very satisfied</td><td>226</td></tr> <tr><td>N/A</td><td>1</td></tr> </table>	Not at all satisfied	53	Not very satisfied	117	Satisfied	129	Very satisfied	226	N/A	1
Not at all satisfied	53										
Not very satisfied	117										
Satisfied	129										
Very satisfied	226										
N/A	1										



<p><b>Criteria: Quality of the wall?</b></p> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>• N/A</li> </ul>	<p><b>Data</b></p>  <table border="1"> <thead> <tr> <th>Satisfaction Level</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Not at all satisfied</td> <td>71</td> </tr> <tr> <td>Not very satisfied</td> <td>151</td> </tr> <tr> <td>Satisfied</td> <td>167</td> </tr> <tr> <td>Very satisfied</td> <td>136</td> </tr> <tr> <td>N/A</td> <td>1</td> </tr> </tbody> </table>	Satisfaction Level	Count	Not at all satisfied	71	Not very satisfied	151	Satisfied	167	Very satisfied	136	N/A	1
Satisfaction Level	Count												
Not at all satisfied	71												
Not very satisfied	151												
Satisfied	167												
Very satisfied	136												
N/A	1												
<p><b>Criteria: Quality of the roof?</b></p> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>• N/A</li> </ul>	<p><b>Data</b></p>  <table border="1"> <thead> <tr> <th>Satisfaction Level</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Not at all satisfied</td> <td>44</td> </tr> <tr> <td>Not very satisfied</td> <td>122</td> </tr> <tr> <td>Satisfied</td> <td>172</td> </tr> <tr> <td>Very satisfied</td> <td>187</td> </tr> <tr> <td>N/A</td> <td>1</td> </tr> </tbody> </table>	Satisfaction Level	Count	Not at all satisfied	44	Not very satisfied	122	Satisfied	172	Very satisfied	187	N/A	1
Satisfaction Level	Count												
Not at all satisfied	44												
Not very satisfied	122												
Satisfied	172												
Very satisfied	187												
N/A	1												
<p><b>Criteria: Quality of the Door and their fixation system?</b></p> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>• N/A</li> </ul>	<p><b>Data</b></p>  <table border="1"> <thead> <tr> <th>Satisfaction Level</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Not at all satisfied</td> <td>94</td> </tr> <tr> <td>Not very satisfied</td> <td>179</td> </tr> <tr> <td>Satisfied</td> <td>172</td> </tr> <tr> <td>Very satisfied</td> <td>80</td> </tr> <tr> <td>N/A</td> <td>1</td> </tr> </tbody> </table>	Satisfaction Level	Count	Not at all satisfied	94	Not very satisfied	179	Satisfied	172	Very satisfied	80	N/A	1
Satisfaction Level	Count												
Not at all satisfied	94												
Not very satisfied	179												
Satisfied	172												
Very satisfied	80												
N/A	1												
<p><b>Criteria: Satisfaction in comparison with other shelters?</b></p> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>• N/A</li> </ul>	<p><b>Data</b></p>  <table border="1"> <thead> <tr> <th>Satisfaction Level</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Not at all satisfied</td> <td>1</td> </tr> <tr> <td>Not very satisfied</td> <td>57</td> </tr> <tr> <td>Satisfied</td> <td>216</td> </tr> <tr> <td>Very satisfied</td> <td>251</td> </tr> <tr> <td>N/A</td> <td>1</td> </tr> </tbody> </table>	Satisfaction Level	Count	Not at all satisfied	1	Not very satisfied	57	Satisfied	216	Very satisfied	251	N/A	1
Satisfaction Level	Count												
Not at all satisfied	1												
Not very satisfied	57												
Satisfied	216												
Very satisfied	251												
N/A	1												

**Comment**

In this section the satisfaction in relation to the different elements/materials of the Sahel shelter kit are all together in order to have a general picture of the satisfaction level. In general, the satisfaction from the respondents is positive with values between 352 satisfied respondents in relation the PVC pipes or 491 satisfied respondents with the metallic pillars. The lowest satisfaction levels are recorded with the quality of the wall materials (222 not satisfied respondents) and with the door fixation system (273 not satisfied respondents).

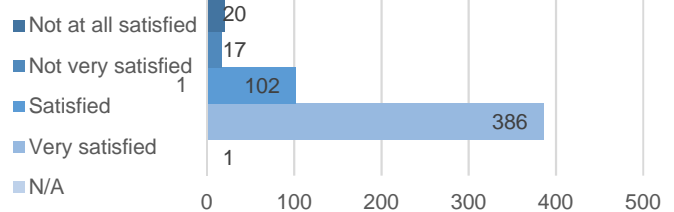
**Conclusion/Recommendation**

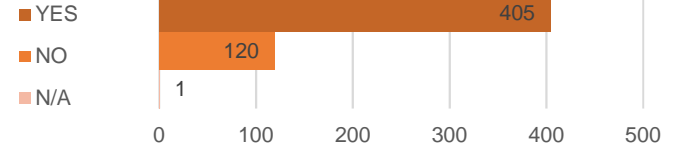
The overall appreciation of the quality of the material is positive with average values over 75% positive satisfaction from the reviewed sample. The not satisfied responses are pointing the fixation system of the door and the quality of the walls. The two of them related also with the satisfaction in terms of security from intrusion in the shelter 3.4. The % of not satisfaction responses are between 42% (walls) and 50 % for the door fixation system. Community participation to understand the use of the shelter and the worrying of the users appears as the logic actions to take. In addition, a participatory design process can provide an adapted specific solution for door fixation and walls.

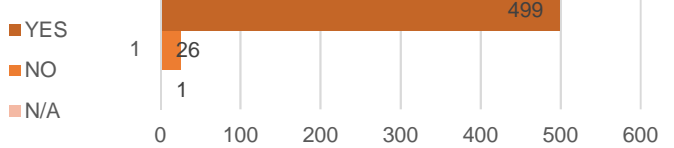
**Appropriateness of the Shelter Solution**

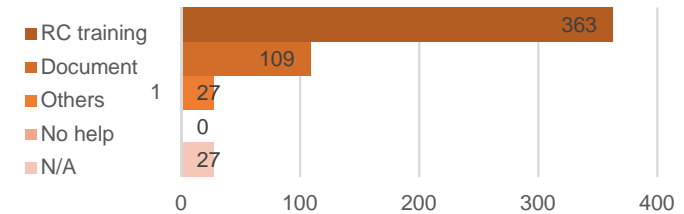
**3.10** How you perceive the shelter dimensions in general?

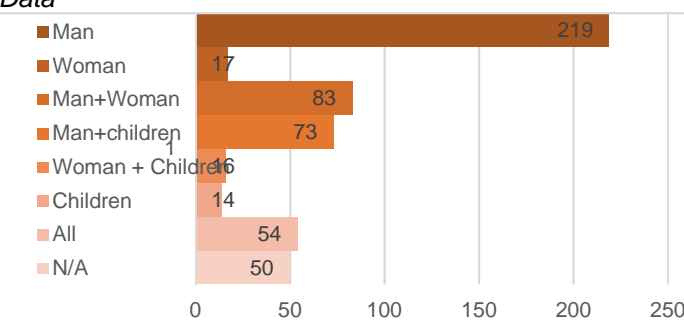
<p><b>Criteria: Long side of the shelter</b></p> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>• N/A</li> </ul>	<p><b>Data</b></p>  <table border="1"> <thead> <tr> <th>Satisfaction Level</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Not at all satisfied</td> <td>5</td> </tr> <tr> <td>Not very satisfied</td> <td>13</td> </tr> <tr> <td>Satisfied</td> <td>106</td> </tr> <tr> <td>Very satisfied</td> <td>401</td> </tr> <tr> <td>N/A</td> <td>1</td> </tr> </tbody> </table>	Satisfaction Level	Count	Not at all satisfied	5	Not very satisfied	13	Satisfied	106	Very satisfied	401	N/A	1
Satisfaction Level	Count												
Not at all satisfied	5												
Not very satisfied	13												
Satisfied	106												
Very satisfied	401												
N/A	1												

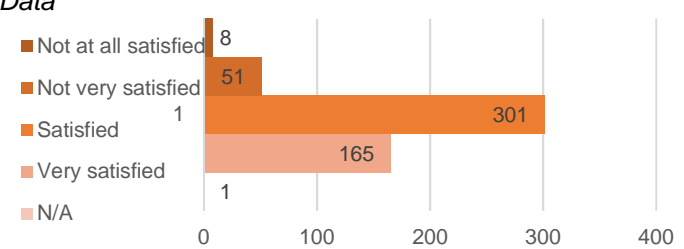
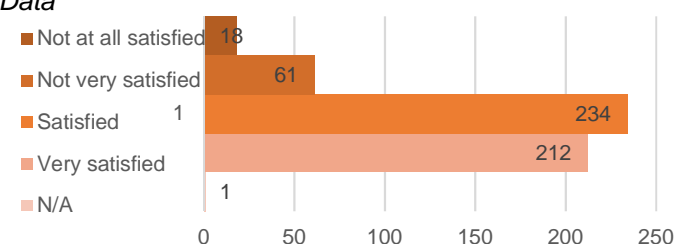
<p><i>Criteria: short side of the shelter</i></p> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>• N/A</li> </ul>	<p><i>Data</i></p>  <table border="1"> <thead> <tr> <th>Satisfaction Level</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Not at all satisfied</td> <td>1</td> </tr> <tr> <td>Not very satisfied</td> <td>12</td> </tr> <tr> <td>Satisfied</td> <td>114</td> </tr> <tr> <td>Very satisfied</td> <td>398</td> </tr> <tr> <td>N/A</td> <td>1</td> </tr> </tbody> </table>	Satisfaction Level	Count	Not at all satisfied	1	Not very satisfied	12	Satisfied	114	Very satisfied	398	N/A	1
Satisfaction Level	Count												
Not at all satisfied	1												
Not very satisfied	12												
Satisfied	114												
Very satisfied	398												
N/A	1												
<p><i>Criteria: high side of the shelter</i></p> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>• N/A</li> </ul>	<p><i>Data</i></p>  <table border="1"> <thead> <tr> <th>Satisfaction Level</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Not at all satisfied</td> <td>20</td> </tr> <tr> <td>Not very satisfied</td> <td>17</td> </tr> <tr> <td>Satisfied</td> <td>102</td> </tr> <tr> <td>Very satisfied</td> <td>386</td> </tr> <tr> <td>N/A</td> <td>1</td> </tr> </tbody> </table>	Satisfaction Level	Count	Not at all satisfied	20	Not very satisfied	17	Satisfied	102	Very satisfied	386	N/A	1
Satisfaction Level	Count												
Not at all satisfied	20												
Not very satisfied	17												
Satisfied	102												
Very satisfied	386												
N/A	1												
<p><i>Comment</i> The dimension as satisfaction parameters are all together to better understand the responses. In general, the satisfied and very satisfied respondents are between 488 and 512 satisfied responses.</p>													
<p><i>Conclusion/Recommendation</i> The % of satisfaction shows an average over 95% of the respondents. That shows the good acceptance of the shelter solution in terms of space/dimensions.</p>													

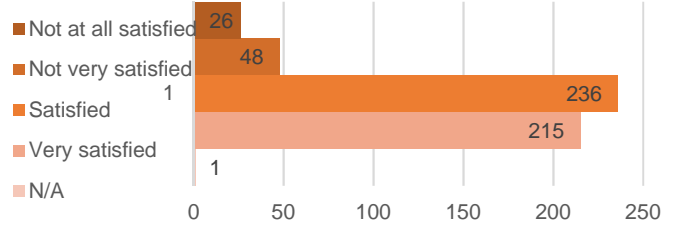
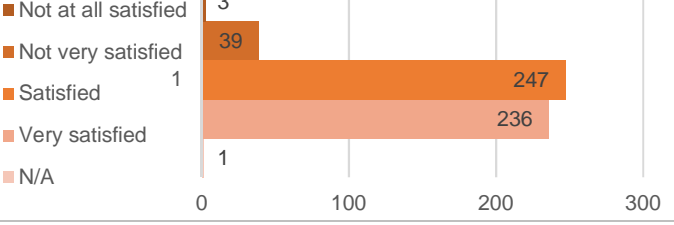
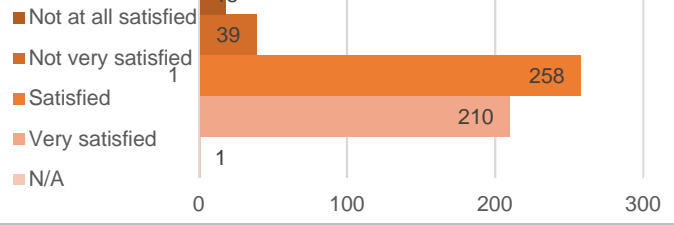
<p><b>Implementation – Support and participation</b></p>									
<p><b>4.1</b> Have you participated in the shelter construction?</p>									
<p><i>Criteria</i></p> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• N/A</li> </ul>	<p><i>Data</i></p>  <table border="1"> <thead> <tr> <th>Response</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>YES</td> <td>405</td> </tr> <tr> <td>NO</td> <td>120</td> </tr> <tr> <td>N/A</td> <td>1</td> </tr> </tbody> </table>	Response	Count	YES	405	NO	120	N/A	1
Response	Count								
YES	405								
NO	120								
N/A	1								
<p><i>Comment</i> High level of participation during the construction with 405 positive replies.</p>									
<p><i>Conclusion/Recommendation</i> The high participation in the construction of the shelters is an indicator that can show the involvement of the beneficiaries and the effectivity of the community mobilization. Promote activities with this level of participation would be a good recommendation to implement future actions in place.</p>									

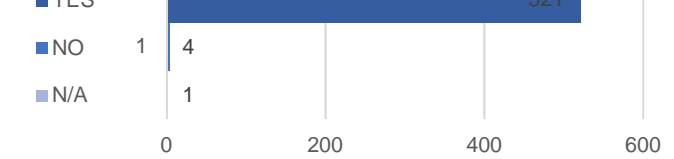
<p><b>Implementation – Support and participation</b></p>									
<p><b>4.2</b> Have you received assistance, indications or technical support to build the shelter?</p>									
<p><i>Criteria</i></p> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• N/A</li> </ul>	<p><i>Data</i></p>  <table border="1"> <thead> <tr> <th>Response</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>YES</td> <td>499</td> </tr> <tr> <td>NO</td> <td>26</td> </tr> <tr> <td>N/A</td> <td>1</td> </tr> </tbody> </table>	Response	Count	YES	499	NO	26	N/A	1
Response	Count								
YES	499								
NO	26								
N/A	1								
<p><i>Comment</i> 499 respondents of the sample have received a RC training prior to setting up the shelter. 26 haven't receive training.</p>									
<p><i>Conclusion/Recommendation</i> The correlation between the number of respondents having received RC training together with the high level of participation in the construction shows the good acceptance and effectivity of the RC activities in place.</p>									

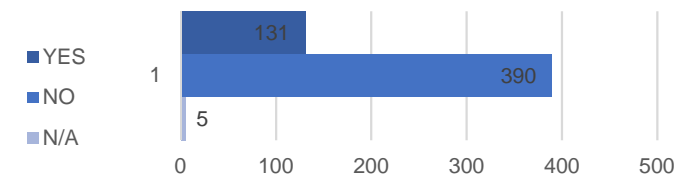
Implementation – Support and participation													
<b>4.3</b> What kind of help?													
<b>Criteria</b> <ul style="list-style-type: none"> <li>• RC training</li> <li>• Document</li> <li>• Others</li> <li>• No help</li> <li>• N/A</li> </ul>	<b>Data</b>  <table border="1"> <thead> <tr> <th>Category</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>RC training</td> <td>363</td> </tr> <tr> <td>Document</td> <td>109</td> </tr> <tr> <td>Others</td> <td>27</td> </tr> <tr> <td>No help</td> <td>0</td> </tr> <tr> <td>N/A</td> <td>27</td> </tr> </tbody> </table>	Category	Count	RC training	363	Document	109	Others	27	No help	0	N/A	27
Category	Count												
RC training	363												
Document	109												
Others	27												
No help	0												
N/A	27												
<b>Comment</b> 363 trainings delivered and 109 respondents that received documentation.													
<b>Conclusion/Recommendation</b> The difference between training and documentation is not clear on this set of questions. It would be necessary to define if the documentation was part of the training or not? In addition, were all beneficiaries able to understand the document? In order to improve the impact of these activities, it would be recommended to redesign the training/communication actions. Defining groups of beneficiaries, follow-up, monitoring are some of the possible actions to put in place.													

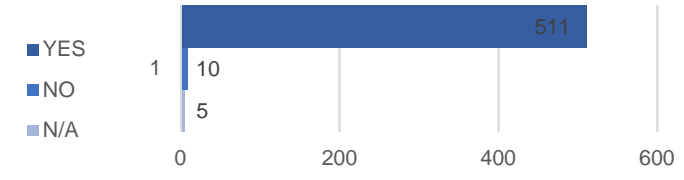
Implementation – Support and participation																			
<b>4.4</b> Which members of your family were involved in building the shelter?																			
<b>Criteria</b> <ul style="list-style-type: none"> <li>• Man</li> <li>• Woman</li> <li>• Man + Woman</li> <li>• Man + Children</li> <li>• Woman + Children</li> <li>• Children</li> <li>• All</li> <li>• N/A</li> </ul>	<b>Data</b>  <table border="1"> <thead> <tr> <th>Category</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Man</td> <td>219</td> </tr> <tr> <td>Woman</td> <td>17</td> </tr> <tr> <td>Man+Woman</td> <td>83</td> </tr> <tr> <td>Man+children</td> <td>73</td> </tr> <tr> <td>Woman + Children</td> <td>6</td> </tr> <tr> <td>Children</td> <td>14</td> </tr> <tr> <td>All</td> <td>54</td> </tr> <tr> <td>N/A</td> <td>50</td> </tr> </tbody> </table>	Category	Count	Man	219	Woman	17	Man+Woman	83	Man+children	73	Woman + Children	6	Children	14	All	54	N/A	50
Category	Count																		
Man	219																		
Woman	17																		
Man+Woman	83																		
Man+children	73																		
Woman + Children	6																		
Children	14																		
All	54																		
N/A	50																		
<b>Comment</b> The participation in the shelter construction was diverse with different combinations by gender and age. In general the man participation is higher alone and the women participation is higher together with other family members																			
<b>Conclusion/Recommendation</b> The possible explanation for this gender difference are culturally related factors.																			

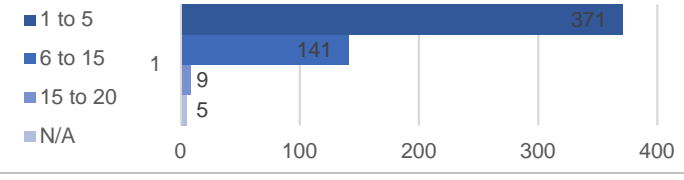
Implementation – Support and participation													
<b>4.5</b> Are you satisfied with the assistance provided to build the shelter?													
<b>Criteria: Training and technical assistance to build safe shelter</b> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>• N/A</li> </ul>	<b>Data</b>  <table border="1"> <thead> <tr> <th>Category</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Not at all satisfied</td> <td>8</td> </tr> <tr> <td>Not very satisfied</td> <td>51</td> </tr> <tr> <td>Satisfied</td> <td>301</td> </tr> <tr> <td>Very satisfied</td> <td>165</td> </tr> <tr> <td>N/A</td> <td>1</td> </tr> </tbody> </table>	Category	Count	Not at all satisfied	8	Not very satisfied	51	Satisfied	301	Very satisfied	165	N/A	1
Category	Count												
Not at all satisfied	8												
Not very satisfied	51												
Satisfied	301												
Very satisfied	165												
N/A	1												
<b>Criteria: Timing for start distribution of material</b> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>• N/A</li> </ul>	<b>Data</b>  <table border="1"> <thead> <tr> <th>Category</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Not at all satisfied</td> <td>18</td> </tr> <tr> <td>Not very satisfied</td> <td>61</td> </tr> <tr> <td>Satisfied</td> <td>234</td> </tr> <tr> <td>Very satisfied</td> <td>212</td> </tr> <tr> <td>N/A</td> <td>1</td> </tr> </tbody> </table>	Category	Count	Not at all satisfied	18	Not very satisfied	61	Satisfied	234	Very satisfied	212	N/A	1
Category	Count												
Not at all satisfied	18												
Not very satisfied	61												
Satisfied	234												
Very satisfied	212												
N/A	1												

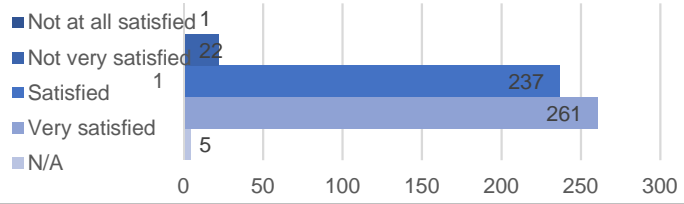
<p><b>Criteria: Timing to completed distribution</b></p> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>• N/A</li> </ul>	<p><b>Data</b></p>  <table border="1"> <thead> <tr> <th>Satisfaction Level</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Not at all satisfied</td> <td>26</td> </tr> <tr> <td>Not very satisfied</td> <td>48</td> </tr> <tr> <td>Satisfied</td> <td>236</td> </tr> <tr> <td>Very satisfied</td> <td>215</td> </tr> <tr> <td>N/A</td> <td>1</td> </tr> </tbody> </table>	Satisfaction Level	Count	Not at all satisfied	26	Not very satisfied	48	Satisfied	236	Very satisfied	215	N/A	1
Satisfaction Level	Count												
Not at all satisfied	26												
Not very satisfied	48												
Satisfied	236												
Very satisfied	215												
N/A	1												
<p><b>Criteria: Quality of distribution of material</b></p> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>• N/A</li> </ul>	<p><b>Data</b></p>  <table border="1"> <thead> <tr> <th>Satisfaction Level</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Not at all satisfied</td> <td>3</td> </tr> <tr> <td>Not very satisfied</td> <td>39</td> </tr> <tr> <td>Satisfied</td> <td>247</td> </tr> <tr> <td>Very satisfied</td> <td>236</td> </tr> <tr> <td>N/A</td> <td>1</td> </tr> </tbody> </table>	Satisfaction Level	Count	Not at all satisfied	3	Not very satisfied	39	Satisfied	247	Very satisfied	236	N/A	1
Satisfaction Level	Count												
Not at all satisfied	3												
Not very satisfied	39												
Satisfied	247												
Very satisfied	236												
N/A	1												
<p><b>Criteria: Site layout</b></p> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>• N/A</li> </ul>	<p><b>Data</b></p>  <table border="1"> <thead> <tr> <th>Satisfaction Level</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Not at all satisfied</td> <td>18</td> </tr> <tr> <td>Not very satisfied</td> <td>39</td> </tr> <tr> <td>Satisfied</td> <td>258</td> </tr> <tr> <td>Very satisfied</td> <td>210</td> </tr> <tr> <td>N/A</td> <td>1</td> </tr> </tbody> </table>	Satisfaction Level	Count	Not at all satisfied	18	Not very satisfied	39	Satisfied	258	Very satisfied	210	N/A	1
Satisfaction Level	Count												
Not at all satisfied	18												
Not very satisfied	39												
Satisfied	258												
Very satisfied	210												
N/A	1												
<p><b>Comment</b>          The questions of satisfaction regarding assistance to build the shelter are all together showing the positive satisfaction values (466 training and technical assistance received and 483 of quality of distribution materials).          The non-satisfied values are between 57 and 79 respondents.</p>													
<p><b>Conclusion/Recommendation</b>          The general positive satisfaction is common to all the questions. The satisfaction level over 85% on the timing to complete the distribution shows the efficacy in the distribution and operations of the RC in place. 90% satisfaction of the quality of the material in the distribution are linked with the results of the question 3.9 showing the good acceptance of the shelter kit materials.</p>													

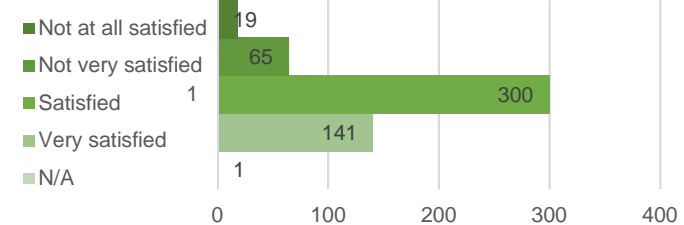
<p><b>Appropriation of the Latrines mobilization</b></p>									
<p><b>5.1</b> Do you have access to a latrine provided by the RC?</p>									
<p><b>Criteria</b></p> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• N/A</li> </ul>	<p><b>Data</b></p>  <table border="1"> <thead> <tr> <th>Response</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>YES</td> <td>521</td> </tr> <tr> <td>NO</td> <td>4</td> </tr> <tr> <td>N/A</td> <td>1</td> </tr> </tbody> </table>	Response	Count	YES	521	NO	4	N/A	1
Response	Count								
YES	521								
NO	4								
N/A	1								
<p><b>Comment</b>          521 respondent has access to latrine provided by the Red Cross. 4 respondent with no access latrine provided by the RC</p>									
<p><b>Conclusion/Recommendation</b>          99% of the interviewed has confirmed the access to a latrine provided by the Red Cross this shows the high impact of the implemented Latrine program by the RC. The rest of the interviewed are only the 1% . It would be relevant to identify if they have access to a latrine provided by a different organization.</p>									

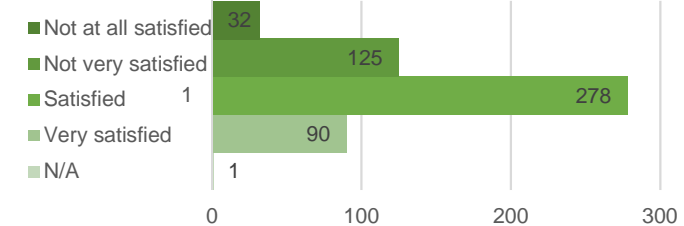
Appropriation of the Latrines mobilization									
<b>5.2</b> Have you receive the latrine materials together with the Shelter kit?									
<b>Criteria</b> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• N/A</li> </ul>	<b>Data</b>  <table border="1" style="display: none;"> <thead> <tr> <th>Response</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>YES</td> <td>131</td> </tr> <tr> <td>NO</td> <td>390</td> </tr> <tr> <td>N/A</td> <td>5</td> </tr> </tbody> </table>	Response	Count	YES	131	NO	390	N/A	5
Response	Count								
YES	131								
NO	390								
N/A	5								
<b>Comment</b> 390 respondent has received the latrine kit together with the shelter kit and 131 have received the latrine kit separately.									
<b>Conclusion/Recommendation</b> To different strategies of distribution that can represent different situations in the site. The security in place is a challenge for all the operation. This can be one possible reason to have alternatives techniques of distribution. It would be recommended to have a monitoring system in place to evaluate the pertinence and impact of the different logistics alternatives.									

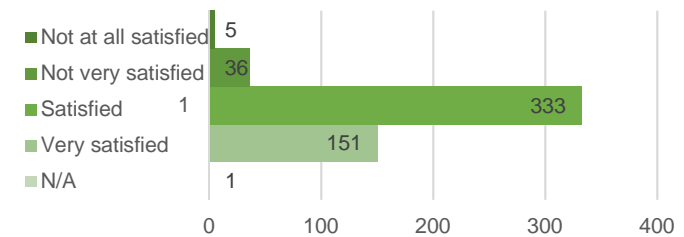
Appropriation of the Latrines mobilization									
<b>5.3</b> Do you have an exclusive latrine for your family?									
<b>Criteria</b> <ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> <li>• N/A</li> </ul>	<b>Data</b>  <table border="1" style="display: none;"> <thead> <tr> <th>Response</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>YES</td> <td>511</td> </tr> <tr> <td>NO</td> <td>10</td> </tr> <tr> <td>N/A</td> <td>5</td> </tr> </tbody> </table>	Response	Count	YES	511	NO	10	N/A	5
Response	Count								
YES	511								
NO	10								
N/A	5								
<b>Comment</b> 511 respondents have a latrines for his family. Only 10 responses are negative.									
<b>Conclusion/Recommendation</b> We can assume that the high percentage of families with individual latrines are in close relation with the percentage of latrines distributed by the RC. Only 2% of difference between one and other, it would be good idea to identify the reason of this 2% difference with a specific review.									

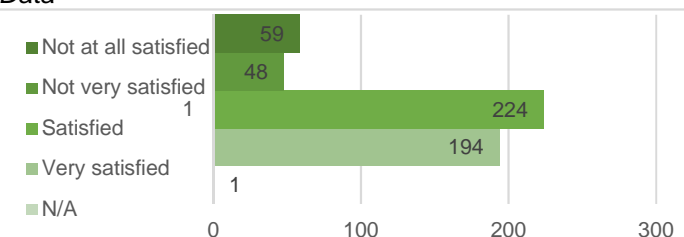
Appropriation of the Latrines mobilization											
<b>5.4</b> How many persons use the latrine ?											
<b>Criteria</b> <ul style="list-style-type: none"> <li>• 1 to 5</li> <li>• 6 to 15</li> <li>• 15 to 20</li> <li>• N/A</li> </ul>	<b>Data</b>  <table border="1" style="display: none;"> <thead> <tr> <th>Response</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>1 to 5</td> <td>371</td> </tr> <tr> <td>6 to 15</td> <td>141</td> </tr> <tr> <td>15 to 20</td> <td>9</td> </tr> <tr> <td>N/A</td> <td>5</td> </tr> </tbody> </table>	Response	Count	1 to 5	371	6 to 15	141	15 to 20	9	N/A	5
Response	Count										
1 to 5	371										
6 to 15	141										
15 to 20	9										
N/A	5										
<b>Comment</b> 371 Respondents use de latrine with 1 to 5 other persons 141 With other 6 to 15 persons 9 respondents with other 15 to 20 persons And 5 respondent can not reply											
<b>Conclusion/Recommendation</b> The use of the latrines can be in direct relation with the number of family members. The recorded cases are according to the Sphere Handbook – Excreta Disposal Standard 2 “A max. of 20 people use each toilet”											

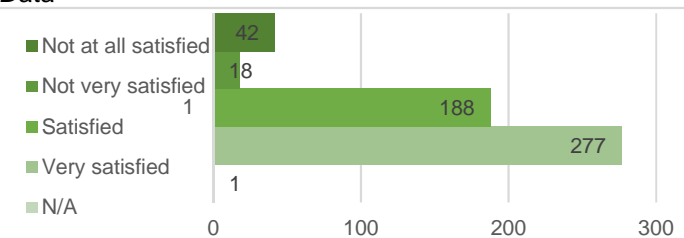
<b>Appropriation of the Latrines mobilization</b>													
<b>5.5</b> Are you satisfied with the latrine?													
<b>Criteria</b> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>• N/A</li> </ul>	<b>Data</b>  <table border="1"> <thead> <tr> <th>Satisfaction Level</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Not at all satisfied</td> <td>1</td> </tr> <tr> <td>Not very satisfied</td> <td>22</td> </tr> <tr> <td>Satisfied</td> <td>237</td> </tr> <tr> <td>Very satisfied</td> <td>261</td> </tr> <tr> <td>N/A</td> <td>5</td> </tr> </tbody> </table>	Satisfaction Level	Count	Not at all satisfied	1	Not very satisfied	22	Satisfied	237	Very satisfied	261	N/A	5
Satisfaction Level	Count												
Not at all satisfied	1												
Not very satisfied	22												
Satisfied	237												
Very satisfied	261												
N/A	5												
<b>Comment</b> 498 respondents are satisfied or very satisfied with the latrine and 23 not satisfied or not very satisfied.													
<b>Conclusion/Recommendation</b> 94% of the respondents are satisfied with the latrine that shows the good acceptance and effectivity of the solution. Identify the reason of not satisfaction of the other 6% , find the solution and keep the high levels of satisfaction will be the next challenge of the activity. Monitoring and community participation could be two of the possible actions to take.													

<b>Community Mobilization and assistance provided by the RC</b>													
<b>6.1</b> Are you satisfied with the process of community mobilisation													
<b>Criteria</b> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>• N/A</li> </ul>	<b>Data</b>  <table border="1"> <thead> <tr> <th>Satisfaction Level</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Not at all satisfied</td> <td>19</td> </tr> <tr> <td>Not very satisfied</td> <td>65</td> </tr> <tr> <td>Satisfied</td> <td>300</td> </tr> <tr> <td>Very satisfied</td> <td>141</td> </tr> <tr> <td>N/A</td> <td>1</td> </tr> </tbody> </table>	Satisfaction Level	Count	Not at all satisfied	19	Not very satisfied	65	Satisfied	300	Very satisfied	141	N/A	1
Satisfaction Level	Count												
Not at all satisfied	19												
Not very satisfied	65												
Satisfied	300												
Very satisfied	141												
N/A	1												
<b>Comment</b> 441 Respondents are satisfied or very satisfied. 65 are not satisfied and 19 not at all satisfied.													
<b>Conclusion/Recommendation</b> 83% of the sample are satisfied or very satisfied that shows the effectivity of the community mobilisation. To identify the reason of the 17% of unsatisfied respondents a deeper analysis have to be done. A individualized follow up of this respondent can be a good strategy to understand their needs.													

<b>Community Mobilization and assistance provided by the RC</b>													
<b>6.2</b> Relevance and timing of general information?													
<b>Criteria</b> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>• N/A</li> </ul>	<b>Data</b>  <table border="1"> <thead> <tr> <th>Satisfaction Level</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Not at all satisfied</td> <td>32</td> </tr> <tr> <td>Not very satisfied</td> <td>125</td> </tr> <tr> <td>Satisfied</td> <td>278</td> </tr> <tr> <td>Very satisfied</td> <td>90</td> </tr> <tr> <td>N/A</td> <td>1</td> </tr> </tbody> </table>	Satisfaction Level	Count	Not at all satisfied	32	Not very satisfied	125	Satisfied	278	Very satisfied	90	N/A	1
Satisfaction Level	Count												
Not at all satisfied	32												
Not very satisfied	125												
Satisfied	278												
Very satisfied	90												
N/A	1												
<b>Comment</b> 90 respondent very satisfied and 278 satisfied. 157 respondent are not very satisfied or not at all satisfied.													
<b>Conclusion/Recommendation</b> 69% of the interviewed persons reply with different levels of satisfaction. The time component together with the security situation would be a good explanation about the not satisfaction of the 31% of the interviewed. Time monitoring and regular assessment can provide the necessary information to implement future actions with higher level of satisfaction.													

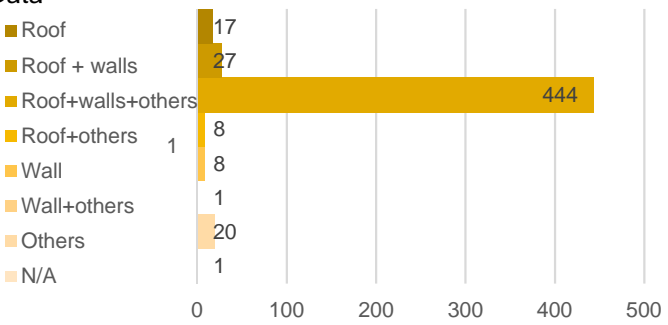
Community Mobilization and assistance provided by the RC													
<b>6.3</b> Consultation for the site selection/organisation?													
<b>Criteria</b> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>• N/A</li> </ul>	<b>Data</b>  <table border="1"> <thead> <tr> <th>Satisfaction Level</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Not at all satisfied</td> <td>5</td> </tr> <tr> <td>Not very satisfied</td> <td>36</td> </tr> <tr> <td>Satisfied</td> <td>333</td> </tr> <tr> <td>Very satisfied</td> <td>151</td> </tr> <tr> <td>N/A</td> <td>1</td> </tr> </tbody> </table>	Satisfaction Level	Count	Not at all satisfied	5	Not very satisfied	36	Satisfied	333	Very satisfied	151	N/A	1
Satisfaction Level	Count												
Not at all satisfied	5												
Not very satisfied	36												
Satisfied	333												
Very satisfied	151												
N/A	1												
<b>Comment</b> 151 very satisfied and 333 satisfied replies. 41 with different levels of no satisfaction.													
<b>Conclusion/Recommendation</b> The high number in the satisfaction responses could be related to the options that the beneficiaries has in a non-structured site. The direct participation on the site organization and community representation can be an explanation of the level of satisfaction.													

Community Mobilization and assistance provided by the RC													
<b>6.4</b> Technical information and assistance in the construction?													
<b>Criteria</b> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>• N/A</li> </ul>	<b>Data</b>  <table border="1"> <thead> <tr> <th>Satisfaction Level</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Not at all satisfied</td> <td>59</td> </tr> <tr> <td>Not very satisfied</td> <td>48</td> </tr> <tr> <td>Satisfied</td> <td>224</td> </tr> <tr> <td>Very satisfied</td> <td>194</td> </tr> <tr> <td>N/A</td> <td>1</td> </tr> </tbody> </table>	Satisfaction Level	Count	Not at all satisfied	59	Not very satisfied	48	Satisfied	224	Very satisfied	194	N/A	1
Satisfaction Level	Count												
Not at all satisfied	59												
Not very satisfied	48												
Satisfied	224												
Very satisfied	194												
N/A	1												
<b>Comment</b> 191 respondent very satisfied and 224 satisfied. The others 107 respondent shows different levels of not satisfaction.													
<b>Conclusion/Recommendation</b> 80% of the sample are satisfied with the assistance in the construction. Identify the reasons and need why the other 20% that is not satisfied, will be the challenge to improve next operations. Direct participation and more effective channels of communication could be two possible tools to facilitate this actions.													

Community Mobilization and assistance provided by the RC													
<b>6.5</b> Your involvement in the construction?													
<b>Criteria</b> <ul style="list-style-type: none"> <li>• Not at all satisfied</li> <li>• Not very satisfied</li> <li>• Satisfied</li> <li>• Very satisfied</li> <li>• N/A</li> </ul>	<b>Data</b>  <table border="1"> <thead> <tr> <th>Satisfaction Level</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Not at all satisfied</td> <td>42</td> </tr> <tr> <td>Not very satisfied</td> <td>18</td> </tr> <tr> <td>Satisfied</td> <td>188</td> </tr> <tr> <td>Very satisfied</td> <td>277</td> </tr> <tr> <td>N/A</td> <td>1</td> </tr> </tbody> </table>	Satisfaction Level	Count	Not at all satisfied	42	Not very satisfied	18	Satisfied	188	Very satisfied	277	N/A	1
Satisfaction Level	Count												
Not at all satisfied	42												
Not very satisfied	18												
Satisfied	188												
Very satisfied	277												
N/A	1												
<b>Comment</b> 277 very satisfied and 188 satisfied respondents. The Not very satisfied and not at all satisfied are 60 respondents in total.													
<b>Conclusion/Recommendation</b> 88% are satisfied or very satisfied that shows the good acceptance and the pertinence of the assistance provided by the RC. Define the reason of the 12% with different levels of not satisfaction and put in place the corrective measures are the future challenges for the RC assistance in place. Specific assessments and other participatory approach can be the proper tools the be implemented.													

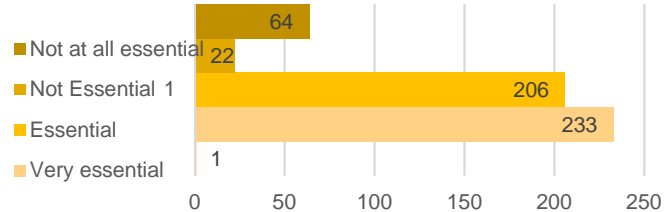
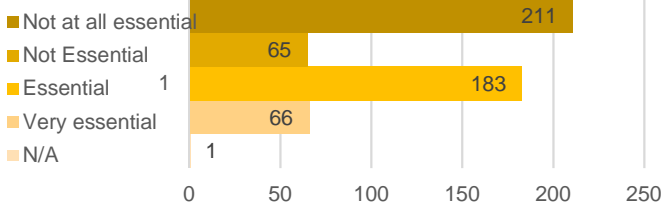
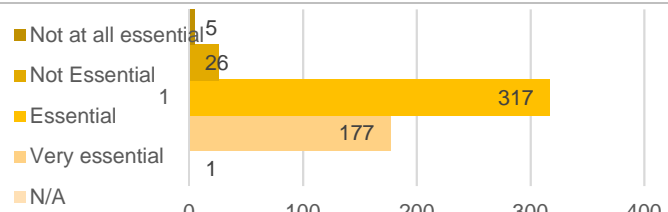
### Plans for Adaptation and improvements for the future

#### 7.0 Have you received advice on adaptation, reparation and maintenance?

<b>Criteria</b> <ul style="list-style-type: none"> <li>• Roof</li> <li>• Roof+walls</li> <li>• Roof +walls+others</li> <li>• Roof+others</li> <li>• Wall</li> <li>• Wall+others</li> <li>• Others</li> <li>• N/A</li> </ul>	<b>Data</b>  <table border="1"> <thead> <tr> <th>Category</th> <th>Count</th> </tr> </thead> <tbody> <tr><td>Roof</td><td>17</td></tr> <tr><td>Roof + walls</td><td>27</td></tr> <tr><td>Roof+walls+others</td><td>444</td></tr> <tr><td>Roof+others</td><td>8</td></tr> <tr><td>Wall</td><td>8</td></tr> <tr><td>Wall+others</td><td>1</td></tr> <tr><td>Others</td><td>20</td></tr> <tr><td>N/A</td><td>1</td></tr> </tbody> </table>	Category	Count	Roof	17	Roof + walls	27	Roof+walls+others	444	Roof+others	8	Wall	8	Wall+others	1	Others	20	N/A	1
Category	Count																		
Roof	17																		
Roof + walls	27																		
Roof+walls+others	444																		
Roof+others	8																		
Wall	8																		
Wall+others	1																		
Others	20																		
N/A	1																		
<b>Comment</b> All respondents have received advice in how to adapt, repair or maintain the shelter. The majority of the respondents (444) flagged that the received advice include the principal component of the shelter (roof+walls+others). Specific advice with in individual comments was received but in small percentages.																			
<b>Conclusion/Recommendation</b> 100% of the interviewed have received some advice in how to maintain, repair or adapt the shelter. That show the affectivity of the actions implemented by the RC in place. Keep having this high percentage in a mid-long term period will be a big challenge. Continuous monitoring and close community work are two of the possible tool to be developed in this context.																			

### Plans for Adaptation and improvements for the future

#### 7.1 What improvement have you done or have planned to do as essential?

<b>Criteria: interior separation</b> <ul style="list-style-type: none"> <li>• Not essential at all</li> <li>• Not essential</li> <li>• Essential</li> <li>• Very essential</li> <li>• N/A</li> </ul>	<b>Data</b>  <table border="1"> <thead> <tr> <th>Category</th> <th>Count</th> </tr> </thead> <tbody> <tr><td>Not at all essential</td><td>64</td></tr> <tr><td>Not Essential 1</td><td>22</td></tr> <tr><td>Essential</td><td>206</td></tr> <tr><td>Very essential</td><td>233</td></tr> </tbody> </table>	Category	Count	Not at all essential	64	Not Essential 1	22	Essential	206	Very essential	233		
Category	Count												
Not at all essential	64												
Not Essential 1	22												
Essential	206												
Very essential	233												
<b>Criteria: Expansion of the house</b> <ul style="list-style-type: none"> <li>• Not essential at all</li> <li>• Not essential</li> <li>• Essential</li> <li>• Very essential</li> <li>• N/A</li> </ul>	<b>Data</b>  <table border="1"> <thead> <tr> <th>Category</th> <th>Count</th> </tr> </thead> <tbody> <tr><td>Not at all essential</td><td>211</td></tr> <tr><td>Not Essential</td><td>65</td></tr> <tr><td>Essential 1</td><td>183</td></tr> <tr><td>Very essential</td><td>66</td></tr> <tr><td>N/A</td><td>1</td></tr> </tbody> </table>	Category	Count	Not at all essential	211	Not Essential	65	Essential 1	183	Very essential	66	N/A	1
Category	Count												
Not at all essential	211												
Not Essential	65												
Essential 1	183												
Very essential	66												
N/A	1												
<b>Criteria: Maintenance with New materials</b> <ul style="list-style-type: none"> <li>• Not essential at all</li> <li>• Not essential</li> <li>• Essential</li> <li>• Very essential</li> <li>• N/A</li> </ul>	<b>Data</b>  <table border="1"> <thead> <tr> <th>Category</th> <th>Count</th> </tr> </thead> <tbody> <tr><td>Not at all essential</td><td>5</td></tr> <tr><td>Not Essential</td><td>26</td></tr> <tr><td>Essential 1</td><td>317</td></tr> <tr><td>Very essential</td><td>177</td></tr> <tr><td>N/A</td><td>1</td></tr> </tbody> </table>	Category	Count	Not at all essential	5	Not Essential	26	Essential 1	317	Very essential	177	N/A	1
Category	Count												
Not at all essential	5												
Not Essential	26												
Essential 1	317												
Very essential	177												
N/A	1												
<b>Comment</b> 439 respondents consider essential or very essential the interior partition of the shelter; 276 respondents consider that a surface extension of the shelter is not essential or not essential at all; 494 respondents flagged the need of receive new materials for maintenance.													



**Conclusion/Recommendation**

In terms of future improvement of the shelter the distribution of new materials for “maintenance” is a priority for the beneficiaries. The inner partition is the second priority this shows that the design of the Sahel shelter respond to this need providing a structure to divide the interior space in 2 or 3 spaces. The beneficiaries just have to add the material of his preference to build the interior division. The increase in the surface is not a priority for the beneficiaries. Is important to highlight that according to the Sphere hand book is recommended a minimum surface 3,5m<sup>2</sup>/person in emergency situation (*Shelter and settlement standard 3: Covered living space –Guidance note n1*)

**6.2 Shelter technical survey**

The purpose of this survey was to focus in particular on the technical aspects of the construction of the shelters by the beneficiaries as well as their assessments. This Technical Questionnaire Matrix was designed in collaboration with the IFRC-SRU and covered different components of the shelter. 63 households have been addressed by this technical survey.

The door-to-door system of data collection was followed by a technical survey conducted by the evaluator with the support of the Logistic officer of Niger Red Cross, Issoufou BOUBACAR. The collection of the information for the technical review was done following specific guidelines designed in the IFRC SRU that includes structure, cladding among others topics to evaluate.

The local team deployed to collect the technical data did the interpretation of this information. Secondly, the information already processed was transmitted to the IFRC SRU to be compiled in a final document. Therefore, is important to flag that the comments in this section have a qualitative approach as a result of the different background of all the intervenient in the project.

**General aspects**

The main parameter to assess the shelter were the stakeout measures, which were defined in the project as 6,50m in length, 3,40m in width and 2,20m in height. General assessment: beneficiaries have reduced the planned dimensions. Up to 55% of the visited beneficiaries have reduced the initial dimensions of the shelter. This concerns around 300 identified shelters with this characteristics.



**Structure**

On the shelter structure, we can see that the materials used as well as the dimensions and numbers (square poles 30X30mm -12 units) are those initially planned in the project: dome formation, fasteners and PVC tubes in 32mm diameter. All materials as well as the Shelter structure in general remain stable after 5 months of use.



Field observation: the beneficiaries, by reducing the dimensions of the shelter did not use the rest of the materials for other proposes. Indeed, elements such as metal poles, PVC tubes were doubled to further strengthen the solidity of the shelter.



The general shape of the shelter remains as proposed but the geometry of the bracing systems was not well used. Most of the observed examples are not triangulated in the dome and or in the walls. Therefore, the structural resistance is weaker in comparison with the original model.



*Shelter structure without bracing systems*

### **Cladding system**

The materials distributed in the Sahel Shelter kit for covering the dome (water proof membrane) are two tarpaulins following IFRC standards, vegetable mats for walls and plastic mats for doors. As foreseen in the shelter construction plan, the covering materials can be observed on all shelters.



*Field observation:* In general the cladding materials are still in good condition and on more than 90% of the visited shelters, no mayor damages can be noted. The tarpaulins were mostly in good condition. We notice no holes, no cracks and the colour is stable.

No insect attacks noted on the vegetable mats.

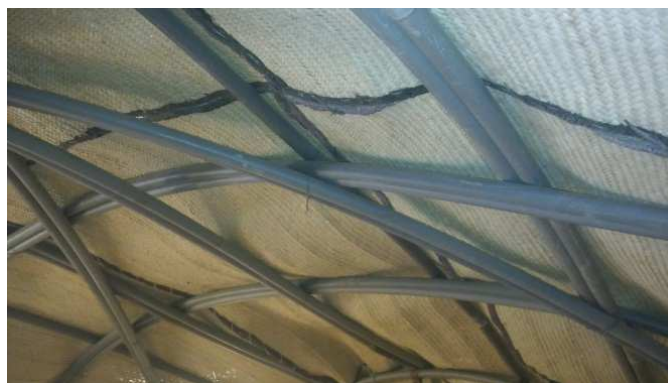
In most cases, plastic mats have been used as sleeping material. The doors are not closed with plastic mats. The beneficiaries have modified the door by adding a different door made with a metallic sheet over a wooden framework.



*Door with metallic sheet over wood framework*

### **Amendments & Maintenance**

The beneficiaries have made significant improvements. Indeed, due to heat and other extreme weather conditions (sand storms, wind, heavy rain, etc.), the shelter has undergone adaptations. Square poles were used twice to reinforce the solidity of the poles. In several cases, these square poles have been complemented with wood to have a solid structure.



*PVC tubes used twice in the dome structure*

Walls of vegetal mats were also reinforced with “secco”, millet stems woven together with tall grass, which at the same time forms a barrier against dust and provides natural thermal insulation. The shape of the dome is in some cases modified due to the additional use of wood, millet stems woven to attenuate heat. Inside the dome, loincloths used on the top of the roof serve as the ceiling.



*Vegetable layers over the shelter as thermic insulation*

A major change is concerning to the door. The beneficiaries with regard to the concerted material in the shelter wish to fix a secured protection. Thus, the fixing of the secured door concerns the major part of the shelters. However, it is important to note that ethnic Peulh beneficiaries now prefer the

prototype such with two doors without seeking to place a door there as a security measure. This is linked to the habits of each group of beneficiaries.



*Shelter with modifications in the door and insulation over the roof and walls*

### 6.3 Discussion group

The discussion group was organized following the technic of door-to-door surveys. Each group was composed of men and women in order to obtain feedback from the beneficiaries on the proposed prototype. The discussion group was created with the support of the Community leaders that are the current site managers and represent their own community. (Participation on the Discussion group: 11 women and 7 men.)

The main output of this discussion group, was:

#### **Women**

- Women find the dimensions built to meet their needs and the prototype adapted.
- They participated in the construction of the shelter alone or in company of other family members
- They were able to reproduce the model by themselves (with some differences according to traditions).
- The shelter protects their privacy and secures them and their belongings.
- They want more vegetable mats than are given (28 per shelter).
- The door is an essential element and they suggest that the door is integrated.
- Beyond the shelter, the women ask for a distribution of NFI (clothing for adults and children, sleeping material, kitchen equipment...).
- They would like to see a distribution of tarpaulins and mats to cope with the winter season. Finally, they comment about the lack of food to feed the family and also want shelter and food distributions.

#### **Men**

- The interventions of the men did not differ from those of the women and a particular emphasis is placed in the lack of food to feed the family.
- When they return to the shelter, the men find that it meets their needs and is adapted to their situation.
- They are asking for distribution before the winter season to reinforce the shelters.



*Picture during the discussion group*

## 7. General conclusion and recommendations

The report structure includes an individual matrix analysis for each question. This matrix includes particular comments, basic conclusions and if necessary recommendations.

This section will summarize the main conclusion and recommendations without excluding any of the previous one. To facilitate the lecture and traceability of the information, the following matrix is organized with the same structure than the analysis before, including references to the questions numbers.

### Shelter Occupancy

2.2 The ratio of person/m<sup>2</sup> is according to the Sphere standards if the shelter is built as designed (Shelter and settlement standard 3: Covered living space Guidance note 1 - 3,5m<sup>2</sup> person in emergency). To keep these positive values it is recommended to reinforce the sensitization training and put in place a monitoring system to ensure the minimum standard quality in the shelter.

2.3 In 5% of the shelters reviewed there are persons with disabilities but no mention of any specific action to cover the specific needs. It would be a good idea to assess the particular needs of these beneficiaries and develop a group of related actions. Example, no architectural barriers to access to the shelters, adapted latrines and specific education programs if needed.

2.4 & 2.5 A high percentage of the reviewed population express their will to stay in place for at least one more year. In addition, an important number of beneficiaries have not decided yet the time of permanence in the camp. The Sahel Shelter was designed to resist at least one year in normal conditions. In this context, a package of combined actions appears as the most logical solution. A basic suggestion can be a provision for maintenance and reparation in the logistic chain, a monitoring system to evaluate the possible damages to the shelters and a strategy of fluent communication with beneficiaries.

2.8 high number of respondents show interest in developing livelihood activities in place.

2.9 the 84% of respondents are thinking that the shelter is better prepare for living that for livelihood activities. The link between the shelter solution and the livelihoods is very strong in this case. The suggestion is to put in place a specific assessment including expert participation to develop a particular program that takes into account the beneficiaries' needs and the link shelter-livelihoods.

### Appropriateness of the Shelter Solution

3.1 to 3.3 & 3.10 The high level of satisfaction is constant in all these questions from surface to materials, and from height to resistance, the respondents are showing a high level of satisfaction. Keeping up these high levels will be a challenge. It can be a good suggestion to setup a continuous monitoring system that provides a constant flux of information and facilitates the communication with beneficiaries.

3.4 The lack of feeling of security against intrusion in the shelter is common up to the 50% of the respondents. The feeling of security is one of the main functions of the shelter. Therefore, actions will be needed to reduce this feeling of lack of safety in the shelter. Design improvements, different materials, and strong communication strategies are just some of the possible actions to be taken.

3.9 The quality of the doors and walls is one of the expressed concerns from the respondents and they are linked with the feeling of lack of security in the shelter. Defining a participatory approach to solve this topic together with the users appears as the most logical solution. The design and improvements can be focussed on a different door system, locking tools and evaluating the possibility of new elements in the walls to increase the rigidity of the panels.

#### **Implementation – Support and participation**

4.1 to 4.3. The procedure implemented by the RC in place with training and the direct involvement of the beneficiaries in the construction and maintenance of the shelter have shown good results and appears as the correct strategy. Similar than in previous questions, keeping the high acceptance and positive results are the current challenges. The logical suggestion is to put a good coordination, monitoring and communication system in place.

In general, the satisfaction % are high with recorded information over 85% of the sample. A monitoring process that includes the time parameter could be a good tool to implement in order to obtain the evolution of the situation.

#### **Summary of suggested actions**

- Design and implement a continuous monitoring system that includes a temporal parameter to follow-up the evolution of the beneficiaries' satisfaction.
- Improve the communication systems with more effective channels to create awareness about the adequate use of the Sahel Shelter Kit and promote the maintenance
- Adapt the doors and locking system of the shelter design and provide alternative options to improve the thermal comfort inside the shelter. The inclusion of local available materials like secco mats or tiffa, would be a good starting point for this reflection. This activity will provide better results if performed in close collaboration with the beneficiaries and local RC team. A specific project/action can be implemented to provide adequate response.
- Prevision of logistic actions in order to respond to the future needs (distribution, warehouse, security and others)

#### **Additional comments**

From the available information, we conclude that the Sahel Shelter kit is providing a flexible shelter solution that meets the real needs of people affected by disasters in this particular context.

The flexibility provided by the Sahel Shelter kit allow the beneficiaries to adapt the shelter to their convenience. The beneficiaries appreciated the fact that they can gather easily the elements of the shelter when they would like to establish in another place. This shows the efficiency of the "transitional" component of the Sahel Shelter Kit.

## **8. Annex**

## 8.1 QUESTIONNAIRE OF BENEFICIARY SURVEY

### Respondent information

Name of the respondent:  
gender of the respondent :  
Age of the respondent:  
Picture of respondent  
Relation to the head of household who occupy the shelter  
Current status: Refugee IDP Returned

### Shelter Occupancy

How long after your arrival to the site you receive the shelter  
How many persons are living in the shelter?  
Does the family include people with disabilities?  
Do you want to settle or go back?  
How long do you plan to live in the shelter?  
Could the shelter become a permanent house?  
What is the main activity that you realise in the shelter ?  
There are other important activities included?  
Can the shelter be used for livelihood activities?  
Are you feeling safe in the shelter?

### Appropriateness of the Shelter Solution

*Rank from 1 to 4 ( 1 not satisfied at all, 4 very satisfied)*  
The location and orientation  
The available covered space  
The privacy  
The safety from intrusion  
The security provided from natural disaster  
The type of material  
The ventilation  
The thermal comfort  
Are you satisfied with the quality of the shelter elements/materials?  
*Rank from 1 to 4 ( 1 not satisfied at all, 4 very satisfied)*  
Quality of the poles  
Quality of the arches and dome.  
Quality of the wall  
Quality of the roof  
Quality of the Door and their fixation system  
Satisfaction in comparison with other shelters?  
How you perceive the shelter dimensions in general?  
*Rank from 1 to 4 ( 1 not satisfied at all, 4 very satisfied)*  
Long side  
Short side.:  
High.:

### Shelter implementation

Have you participate in the shelter construction?  
Have you receive assistance, indications or technical support to build the shelter?  
What kind of help?  
Members of your family that participated in the shelter construction?  
Are you satisfied with the assistance provided to build the shelter?  
*Rank from 1 to 4 ( 1 not satisfied at all, 4 very satisfied)*  
Training and technical assistance to build safe shelter  
Timing for start distribution of material  
Timing to completed distribution  
Quality of distribution of material  
Site layout

### Shelter and latrines

*Rank from 1 to 4 ( 1 not satisfied at all, 4 very satisfied)*  
Do you have access to a latrine provided by the RC?  
Have you receive the latrine materials together with the Shelter kit?  
Do you have an exclusive latrine for your family?  
How many persons use the latrine?  
Are you satisfied with the latrine?

## Community Mobilization and assistance provided by the RC

Rank from 1 to 4 ( 1 not satisfied at all, 4 very satisfied)

Are you satisfied with the process of community mobilisation

Relevance and timing of general information

Consultation for the site selection/organisation

Technical information and assistance in the construction

Your involvement in the construction

## Plans for Adaptation and improvements for the future

Have you received advice on adaptation, reparation and maintenance?

What improvement have you done or have planned to do as essential?

Room separation

Extension for living

Maintenance with new materials

## 8.2 Matrix with guidelines for technical review

### 1. Shelter identification

#### General aspect

Stakeout	Value in project	Observed in the field
<i>L.:</i>	<i>6,50 m</i>	
<i>W.:</i>	<i>3,40m</i>	
<i>H.:</i>	<i>2,20m</i>	
<i>Fiscal review (objective appreciation)</i>		

### 2. Structure

Pillars	Value in project	Observed in the field
<i>Material and dimension</i>	<i>Metallic tube 30x30 mm</i>	
<i>Number of elements</i>	<i>12 units</i>	
<i>Rust</i>	<i>No rust</i>	
<i>Fiscal review (objective appreciation)</i>		

Dome Arches	Value in project	Observed in the field
<i>Material and dimension</i>	<i>PVC 32mm (grey colour)</i>	
<i>Geometry</i>	<i>Same geometry than in plans</i>	
<i>Attached to the pillar head</i>	<i>Attached with metallic wire</i>	
<i>Attached point between arches</i>	<i>Attached with metallic wire</i>	
<i>Fiscal review (objective appreciation)</i>		

Wall Arches (brazing)	Value in project	Observed in the field
<i>Material and dimension</i>	<i>PVC 32mm (grey colour)</i>	
<i>Geometry</i>	<i>8 Arches in plan</i>	
<i>Attached to the pillar</i>	<i>Attached with metallic wire</i>	
<i>Attached point arch top</i>	<i>Attached with metallic wire</i>	
<i>Fiscal review (objective appreciation)</i>		

### 3. Cladding Materials

Dome waterproof layer (tarpaulin)	Observed in the field		
<i>The used tarp is IFRC standard (visual inspection)</i>	YES		NO
<i>Time of exposition</i>			
<i>General aspect of the tarp (visual inspection)</i>	<i>Please describe</i>		
<i>Close inspection</i>	Holes	Cracks	Others



Dome inner layer (vegetal mat)	Observed in the field		
<i>General aspect of the mat (visual inspection)</i>	<i>Please describe</i>		
<i>Close inspection</i>	Insect attack	Cracks	Others

Walls (vegetal mat)	Observed in the field		
<i>General aspect of the mat (visual inspection)</i>	<i>Please describe</i>		
<i>Close inspection</i>	Insect attack	Cracks	Others

Doors (plastic carpet)	Observed in the field		
<i>General aspect of the carpet</i>	<i>Please describe</i>		
<i>Bar in the low sections</i>	YES	NO	
<i>Closing system</i>	YES	NO	
If yes please describe			

#### 4. Maintenance

	<i>If NO marck here</i>	<i>If YES Please describe if action taken</i>
<i>Ropes</i>		
<i>Stitches</i>		
<i>Tarpaulin</i>		
<i>Vegetal mat</i>		
<i>Plastic carpets</i>		
<i>Metallic poles</i>		
<i>PVC tubes</i>		
<i>Others</i>		

#### 5. Modifications

There are important modifications in the shelter?	
YES.....	NO .....
<i>If yes, please explain</i>	
<i>General description</i>	
Structure	
<i>Pillars</i>	
<i>Dome</i>	
<i>Walls</i>	
Cladding	
<i>Dome tarpaulin</i>	
<i>Dome inner layer</i>	
<i>Walls</i>	
<i>Doors</i>	
Other comments	



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