



Haiti

## Final Evaluation of the Leogane/Jacmel CRC Shelter Project



### Evaluation Report

*February 2013 (final)*



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## Acronyms

Acronym	Definition
CAD	Canadian Dollar
CASEC	Conseil d'Administration de la Section Communale (Municipal District Council)
CCCM	Camp Coordination and Camp Management
CIDA	Canadian International Development Agency
CMO	Community Mobilization Officer (CRC staff)
CRC	Canadian Red Cross
CRH	Croix-Rouge Haïtienne
FGD	Focus Group Discussions
IFRC	International Federation of Red Cross and Red Crescent Societies
GEG	Global Emergency Group
MTPTC	Ministère des Travaux Publics, Transports et Communications (Ministry of Public Works, Transports and Communication)
NGO	Non-Governmental Organization
NLRC	Netherland Red Cross
PaP	Port-au-Prince
PNS	Partner National Society
UCLBP	Unité de Construction de Logements et de Batiments Publics

# A. Summary

## A.1. Evaluation framework and objectives

Between March 2010 and September 2012, the CRC implemented a massive shelter program of 7,514 shelter units and 7,189 latrine units in response to the January 2010 earthquake. The CRC strategy was aligned to that of the Shelter Cluster, namely: (i) to provide basic shelter to all displaced populations whilst working to clear sites of rubble and identify high-risk areas, (ii) to provide temporary shelter solutions to all those affected by the earthquake. From the outset, CRC has focused its activities on two cities: Jacmel and Leogane, located 85 km and 35 km from Port-au-Prince respectively.

The evaluation aims not only to assess the project's achievements and impacts on the living conditions of those people, but also to provide recommendations for future CRC shelter programs.

## A.2. Synthesis of the evaluation results

The overall evaluation of the project is positive. The anticipated results have been achieved and the beneficiaries declare themselves to be satisfied with the program.

- **Relevance: the analysis is mixed.** While the CRC shelter program was well coordinated with other agencies' programs, the CRC chose to make a trade-off between emergency and shelter quality. As a result, the high-quality shelters were longer and more expensive to construct and the program ended up in a difficult position, still providing shelters while for the same cost, others were able to start reconstruction. The beneficiary selection process was relevant and gave good results.
- **Effectiveness: the analysis is highly positive.** The main output sought by the project, namely the construction of more than 7,500 Shelter Units in Jacmel and Leogane, has been achieved. In addition, these shelters provided a safe hurricane and earthquake resistant housing for beneficiaries. The beneficiary satisfaction for this project was also high.
- **Efficiency: the results are mixed.** The high cost and the long construction time exceed the standards seen in other organizations. But the overall ratio of human resources employed in the project is very satisfying (an average 1 person for every 2 shelters).
- **Impact: the results are generally positive.** The project had not an impact on community construction capacities (knowledge of how to modify the shelters) nor on local market capacities, but capacity building is not usually expected from an emergency program. The most important is that the project has provided stability to victims of the earthquake and this regardless of their status (landowner/tenant).
- **Sustainability: the analysis is generally negative.** Ownership by beneficiaries is very good, but there is little actual possibility for owners to modify and improve their housing. The project did not succeed in raising the local construction standards, beneficiaries and local constructors are likely to continue with inexpensive traditional constructions. No evidence of replication was found, and the CRC shelter is not deemed to help the transition towards permanent reconstruction.

## A.3. Results and recommendations

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• The CRC demonstrated, through the implementation of this project, its capacity to deliver housing solutions in the difficult post-disaster context. More than 7,500 shelters were effectively constructed, with robust logistics and appropriate human and financial resources.</li> <li>• The selection of implementation areas and the</li> </ul>	<ul style="list-style-type: none"> <li>• The delays in the implementation put the programme in an awkward position, in between post-disaster response and transition towards sustainable reconstruction. With shelter design, procurement and shipping entirely outsourced to a subcontractor, the project had no flexibility (shelters were ordered, initial budget already exceeded) to revise its strategy when</li> </ul>

- coordination with other organization enable a very efficient allocation of available shelters, with no overlapping and a relevant community targeting.
- The CRC was able to improve its beneficiary selection methodology to reduce the risk of inequity and target the most urgent needs.
  - The feed-back from beneficiaries is very positive in terms of satisfaction towards the project intervention.
  - The model of shelter distributed has inherent qualities (wind and earthquake resistance, better housing quality than many traditional houses in rural Haiti) for a transitional shelter (type A and B shelters) and for a permanent shelter (Diakonie shelters).
  - Cooperation with community members, local authorities, the HRC as well as main stakeholders (such as DPC and IOM) was maintained and proactive.

the timeframe began to require it.

- The model of shelter distributed favoured inherent robustness over adjustment to the beneficiaries demand. It lacks some assets for being a definitive housing solution (definitive flooring, partitioning, kitchen, porch, concrete walls) while it does not encourage beneficiaries to reconstruct.
- The unit cost of the shelters is among the highest of the category, while other less expensive models offered more features, flexibility and were more demand-responsive. And finally, this level of investment, out of a post-disaster context (i.e. with a slower construction pace), should allow for durable reconstruction.
- The project exit strategy was partial, the capacity of beneficiaries was not improved. Basic information on the possibilities of modifications was not given to the beneficiaries and the fact that the program was completed was not even known in some locations.

### Issues

- It is surprising that the project was able to make substantial re-orientation during implementation (the move from the initial tarpaulin shelter towards a high-quality wooden shelter, the allocation of 78% of extra funding, the partnerships with NLRC and Diakonie) but had no flexibility to revise the strategy in light of cluster and national recommendations (mainly because the supply chains imposed on CRC to make bulk orders for shelter materials).
- In the early stage of the project, the beneficiary selection in Jacmel appeared to be very poor, to the extent that the shelter construction was stopped in February 2011 to give sufficient time to implement the revised process developed in Leogane. Surprisingly, the occupancy survey shows what seems to be a better targeting efficiency in Jacmel (92.4% of beneficiaries met at least one of the vulnerability criteria, against 47.4% in Leogane). This result could indicate that the CRC program was able to assist more earthquake affected families per affected population in Leogane than in Jacmel or alternatively indicate that the needs are still not addressed in Jacmel (too few shelters were distributed) while the lower rate in Leogane could be an indication that the number of distributed shelters “saturated” the needs.
- The partnership with NLRC was an efficient way to address the sanitation issues and share a significant part of the work (beneficiary selection). Eventually, it allowed CRC to achieve its commitment for sanitation (but not quite for water), without allocating budget for this. It raised the question of the initial budget design, which could obviously not bear the WASH component.

More detailed results can be seen in a synthetic view, in the Evaluation Matrix, page 67. Several recommendations have been made on the basis of this analysis. They are intentionally few in number (9 in total) and targeted so as to render them both pragmatic and realistic. They relate to four thematic actions:

Theme	Action
Optimize knowledge and experience	Build on past experience and sustain a minimal in-house knowledge, to help prepare new shelter programs according to the lessons learnt.
Escape from the transitional shelter impasse	CRC already made a move to avoid very temporary and unsafe shelters, and gained experience with Diakonie for concrete houses. Keeping this momentum, there should be food for thought on how Diakonie's model (upgraded for resistance) could be constructed on a higher pace.
Give more focus on local capacity	Built local capacity, use local market, empower community representative to make decisions.

As a conclusion, CRC went as far as possible with the transitional shelter concept, providing very good quality shelters to the beneficiaries. If there are lessons to be learnt from this program and from the Haitian experience after the 2010 earthquake, one of them is that more efficient and prepared future interventions could probably introduce reconstruction activities earlier, reducing the relevance of transitional shelters.

## B. Introduction and Methodology

### B.1. Context of Canadian Red Cross Intervention in Leogane and Jacmel Following the Earthquake of January 2010

#### B.1.1. Overview of shelter program implementation in Haiti - Focus on the situation in Jacmel and Leogane

The earthquake of January 2010 gave rise to an unprecedented need for housing in Haiti. Less than a month later, the rainy season further compounded the situation of those 900,000 to 1,100,000 people left homeless as a result of the earthquake. Thus, the international community, with the United Nations (OCHA), came together and set up “thematic clusters”, one of which was the “shelter cluster”. The cluster determined that ‘Transitional Shelter’ was the best way of responding to the urgency of the situation. The strategy was: (i) to provide basic shelter to all displaced populations whilst working to clear sites of rubble and identify high-risk areas, (ii) to provide temporary shelter solutions to all those affected by the earthquake.

As a result of the strong response from the Canadian public and governmental agencies, the Canadian Red Cross, in partnership with the Canadian International Development Agency (CIDA), was able to fund the construction of a total of 15,000 shelters to support efforts to meet the housing needs of the population of Haiti.

Not only has the CRC contributed to the IFRC shelter program by co-funding 7,500 shelter solutions in Port au Prince, the CRC also committed to directly providing shelters for 7,500 families in Jacmel and Leogane, which is the subject of this evaluation. CRC shelter operations were run in coordination with IFRC but were managed by the CRC directly and materials were provided via its own pipeline and construction processes. Netherlands Red Cross also worked with CRC to raise awareness of sanitation issues as well as provide complementary water and sanitation services to the beneficiary populations identified by the CRC Shelter Program.

From the outset, CRC focused its activities on two locations: Jacmel (and other locations in Sud-Est Province) and Leogane (and surrounding areas including Fondwa), located 85km and 35km from Port-au-Prince respectively.

- **Jacmel:** according to the local authorities, 8,000 families within the urban area were directly affected by the earthquake; over 1,500 houses were destroyed and at least a further 5,400 were damaged. In addition to this, the earthquake also affected 3,500 families living in outlying rural areas, destroying 1,400 homes and damaging over 2,000 houses.
- **Leogane:** the damage to Leogane was even more extensive as between 70 and 80% of buildings were destroyed by the earthquake, forcing 4,000 to 5,000 people to take refuge in makeshift camps.

The direct CRC shelter program covers the activities undertaken between March 2010 and September 2012:

- The first phase of the program took place between March 2010 and March 2011, during which CRC constructed 1,523 shelters and NLRC around 700 latrines.
- A second phase was initiated in March 2011 and ended in September 2012, following the signature of a no-cost extension agreement and also a contract agreement with external partners aimed at increasing the pace of construction. It was during this second phase that a German NGO, Diakonie, began the construction of permanent shelters.

The entire project has now been completed and CRC has no plans to continue its ‘shelter’ activities in Haiti.

## B.2. Methodology

### B.2.1. Evaluation Objectives

CRC employed the services of the consultancy firm, Urbiconsulting, to evaluate the activities undertaken in Jacmel and Leogane as part of the project carried out between March 2010 and July 2012 with financial support from CIDA.

The main objective of this evaluation is to analyze the results achieved and to compare these to the initial intervention objectives set by CRC at the start of the project. The key questions to be answered by the evaluation need to ensure the following 3 objectives are met:

- **Objective 1:** provide an analysis of the activities undertaken as part of the program and compare these with the results;
- **Objective 2:** analyze CRC partner and sub-contractor results with regard to the provisions put in place to oversee their activities (contracts, control system, etc.);
- **Objective 3:** carry out an overall programmatic and technical evaluation of the approaches used and develop recommendations for improvement.

To this end, particular focus will be placed on questions relating to:

- the institutional set-up of the project and the involvement of the different stakeholders (CRC, local authorities, sub-contractors for materials and logistics, Haiti RC staff, beneficiaries, etc.);
- the monitoring and evaluation system put in place and used during the project;
- the organization and technical and financial management of the program;
- the selection, integration and community mobilization methods and the methodological approach used, as well as achievement of the anticipated results, particularly those pertaining to beneficiary satisfaction.

### B.2.2. A Methodology Combining Interviews, Document Review and Field Observations

In accordance with the Terms of Reference, provided in Appendix G.1, the evaluation took place in three consecutive phases.

#### *a) Designing the evaluation*

An initial kick-off meeting enabled the consultants to work with CRC to draw up a preliminary list of documents to be consulted and key resource persons to be contacted. This list was subsequently finalized during the final conference call meeting before departure of the consultant team to Haiti.

Once these documents had been reviewed and analyzed, the evaluation team defined the methodology for the evaluation activity. This involved developing an evaluation matrix, which is provided in Chapter E.4 and includes all the questions that the evaluation sought to answer.

The team subsequently used this matrix to create observation checklists, semi-structured interview checklists and focus group discussions protocols, each tailored to the people to be interviewed and the information required. These checklists, along with the methodological approach and evaluation matrix, were submitted to CRC for review (Revised Inception Report, 16 January 2012) and then used both during the field mission and during the phone meeting phase that followed the field mission.

#### *b) Collecting the data*

Data was collected on the sample selected by the evaluation team. In order to ensure the full and open cooperation of the people interviewed, the team was accompanied on each visit by a current or former staff member of the CRC (who had been involved in the CRC shelter project). The sites initially selected for field visits are listed below:

**Table 1: Sites initially selected for field visits**

	Jacmel	Leogane
Location	Jacmel Ville Jacmel Bellevue Jacmel Gaillard Jacmel Macary	Leogane Brossier Leogane Ça ira Leogane Lafferonay Leogane Belval Leogane Chatulet

Initially the consultant randomly selected the site with the concern, in both Jacmel and Leogane, to mix rural/urban area and difficult/easy access communities in order to:

- have the opportunity to identify the difference in terms of perception from urban/rural communities (generally they have not the same expectation or the same facilities regarding the construction of their house),
- understand if distance or poor road condition could be a constraint for the implementation of the project.

All these sites, except two (Bellevue in Jacmel and Lafferonay in Leogane), were visited by the evaluation team.

- **Bellevue in Jacmel** was not visited both due to the logistical constraints inherent in accessing the CRC areas of intervention and due to the lack of availability of the former local committee members.
- The decision was taken not to visit **Lafferonay in Leogane** following a field meeting with Isabelle Hachette, former Community Mobilization Delegate for Leogane, on the first day of evaluation. The decision was taken according to her knowledge of the territory and due to the short stay of our team in Leogane. It was replaced by Brossier and Baussan, more concentrated locations allowing more beneficiary visits for the same time.

It has to be noted that, due to very short stays in each towns, it was not possible to collect the same type and the same amount of data for Jacmel and Leogane. As a result in the report, some analyses cover both of towns while other are more limited to one of them, where a given type of data proved to be difficult to collect.

In addition, some of the documentation used during the evaluation is segregated between Jacmel and Leogane. While most of the data are symmetrical and could be aggregated, some particular analyses were only possible in Jacmel or Leogane, but not on both as the same time.

The next table lists the areas actually visited by the consultant and outlines the types of activity carried out in each.

**Table 2: Final field visits undertaken as part of the shelter project evaluation**

Areas	Number of shelters built	Context	Number of shelters visited (interview)	Site observations	Beneficiary Interviews	Validation Committee Focus Group Discussion(FGD)	Local Authority Interview (CASEC)
<b>Jacmel</b>							
Macary (Haut & Moyen)	531	Rural	6	✓	✓		
Gaillard	533	Rural	5	✓	✓	✓*	
La Vallée (Ridoré, Musac, Ternier)	601	Rural	12	✓	✓		
La Montagne	317	Rural	4	✓	✓		
Jacmel Ville (Morne Augé)	154	Urban	0	✓			
Jacmel Ville (Monchill 1 and 2)	163	Urban	6	✓	✓	✓	
<b>Leogane</b>							
Brossier	176	Peri-urban	4	✓	✓	✓	
Baussan	671	Peri-urban	8	✓	✓	✓	
Buteau	481	Peri-urban	4	✓	✓	✓	
Belval (2 areas of intervention)	1032	Peri-urban	3	✓	✓		
Binot	393	Peri-urban	2	✓			
Chatuley (2 areas of intervention)	611	Urban	6	✓	✓		
Ça ira	355	Urban	3	✓	✓		
Bwalam	383	Urban	4	✓	✓	✓	✓

One of the methodologies selected during the inception phase was the Focus Group Discussion (FGD). Six FGD were held during the field mission, as outlined in the table below:

**Table 3: FGD undertaken as part of the shelter project evaluation**

#	Town	Location	Target audience	Participants	Women	Result
1	Jacmel	Gaillard	Former HRC Volunteers + Beneficiaries	8	4	Negative
2		Monchill 1 & 2	Validation Committee Members + Beneficiaries	6	4	Positive
3	Leogane	Brossier	Validation Committee Members + Non beneficiaries + Beneficiaries	40	13	Positive
4		Bwalam	Validation Committee Members + Non beneficiaries + Beneficiaries	> 100	30 %	Positive
5		Buteau	Validation Committee Members + Non beneficiaries + Beneficiaries	13	5	Positive
6		Baussan	Validation Committee Members + Non beneficiaries + Beneficiaries	12	4	Positive

Illustration 1 : from left to right, FGD in Monchill, Baussan, Butteau and Bwalam



We would like to highlight the valuable assistance provided not only by the current (in Jacmel) and former (in Leogane) CRC staff, who took the time to accompany the consultant team in the field, but also by the validation committees we met, who made themselves available to the team despite no longer being involved in either the project or any other CRC programs. The work of the evaluation team was greatly facilitated by their cooperation.

The complete list of the institutions met is detailed in the table below.

Table 4: persons interviewed as part of the project evaluation

Names	Position or former position	Location	Brief meeting	Interview	Phone meeting	E-mail contacts
Current or Former CRC Staff						
<b>Karsten Voigt</b>	Country Representative	PaP	✓			
<b>Ricky Munday</b>	Head of Business Services Unit	PaP	✓			
<b>Isabelle Hachette</b>	Resettlement Delegate (former Community Mobilization Delegate for Leogane)	PaP		✓		
<b>Stephane Vaugon</b>	Head of Construction Management Unit	Jacmel		✓		
<b>Mohan Hewavithana</b>	Field Support Coordinator (former Logistics Delegate, Leogane)	On leave				✓
<b>Valerie Verougstraete</b>	Design Architect (former Shelter Delegate, Jacmel)	On leave				✓
<b>Janet Porter</b>	Transition Coordinator (was heavily involved with the shelter project from 2010-12)	Canada				✓
<b>Michael Watson</b>	Community Mobilization Delegate for Jacmel (2010-11)	Canada				✓
<b>Fred Elias</b>	Shelter Program Manager, Leogane (2010-11)	Canada				✓
<b>Maxime Watkins-Lenis</b>	Shelter Delegate for Jacmel (also involved in overseeing the Diakonie project)	Canada				✓
<b>Jean-Philippe Tizi</b>	Director, Haiti Operations	Canada	✓			
<b>Martin de Vries</b>	Haiti Senior Program Manager	Canada			✓	
<b>Wartini Pramana</b>	Manager, Planning, Evaluation & Knowledge Management	Canada			✓	
<b>Munir Momtaz</b>	Manager, Logistics	Canada				✓
<b>Laxman Chhetry</b>	Senior Shelter Advisor	Canada				✓
CRC Direct Partners						
<b>Komi Gbonsike Eklou</b>	Netherlands Red Cross Wat/San Delegate	Leogane		✓		
<b>Jean Philippe Mondesir</b>	Diakonie	Jacmel		✓		
CRC Suppliers						
<b>Pierre Tremblay</b>	SNC Lavalin	Canada				✓
<b>Stéphane Lessard</b>	Dir. Général Laprise (timber supplier)	Canada				✓
<b>Leonardo Fonseca</b>	Schenker of Canada Limited	Canada				✓

Names	Position or former position	Location	Brief meeting	Interview	Phone meeting	e-mail contacts
IFRC or other PNS						
Kenneth Chulley	IFRC Settlement Movement Coordinator	PaP		✓		
Hugh Brennan	Senior Construction Manager	PaP		✓		
Olivier Le Gall	Construction/Wash Delegate Belgium and Swiss Red Cross	Leogane		✓		
Betisa Egea	Former Spanish Red Cross Shelter Delegate (currently working for CRC as a Construction Delegate based in Jacmel)	Jacmel		✓		
Jesus Baena	Spanish RC WatSan delegate based in Leogane	Leogane		✓		
International Office of Migrations						
Giovanni Cassani	E-Shelter and CCCM Cluster Coordinator	PaP		✓		
Rafaelle Robelin	Emergency preparedness and response/Préparation et réponse aux urgences	PaP		✓		
Alberto Preato	Field coordinator - Zone des Palmes/E-Shelter and CCCM Cluster	PaP		✓		
Unité de Construction de Logements et de Batiments Publics (UCLBP)						
Clément Belizaire	Head of the Neighborhood Rehabilitation and Relocation Division	PaP			✓	
<b>Total</b>				<b>3</b>	<b>12</b>	<b>3</b>
<b>Total</b>				<b>11</b>		

### c) Analyzing the data and producing the draft report

Data analysis was undertaken on several levels. The evaluation team both analyzed the field interviews and observations, and compiled a series of statistics from the documents made available by the CRC staff (Occupancy and Satisfaction Survey, database, budget, timelines, etc.).

All this information was collated to produce this present evaluation report, the findings of which are presented as follows:

- A breakdown of the main evaluation findings, in accordance with the five themes used in the evaluation matrix (Cf. section DC.3; page 2018 to 65)
- A description of the main recommendations, prioritized into selected key areas (cf. section F; page 70)
- A clear overview, in matrix form, providing an at-a-glance summary of the main evaluation results (cf. section E.4, page 67).

#### B.2.3. Team and Agenda

The team consisted of 3 people: the team leader, the evaluation specialist and the resettlement specialist. All team members possess sound knowledge of the post-disaster context.

- **Cédric Estienne** is a hydraulic engineer (Ecole des Arts et Metiers, Paris). He specializes in undertaking evaluation missions, especially for projects carried out by NGOs. He also has extensive knowledge of the Haitian context, thus ensuring that the evaluation will be conducted as close as possible to realities in the field. These assets will be of particular use when undertaking the supervision of experts on this project.

Within the team, Cédric has supervised all activities, ensuring there is a continuous follow-up of the tasks carried out by each expert and controlling the quality of all the outputs. He had specific input in defining the evaluation tools.

- **Audrey Crocker** holds a dual degree in spatial planning and urban services management. Through her participation in various projects, notably in Pakistan (following the 2005 earthquake), Madagascar, the Democratic Republic of Congo, the Central African Republic and Haiti, she has consolidated her knowledge of post-emergency contexts and worked on intervention strategies for emergency and development actors working in reconstruction and urban services.

For the last 3 years, Audrey has been specializing in project evaluations: she has most notably conducted evaluations for UNICEF and the Spanish Red Cross in the field of water and sanitation, but also for Catholic Relief Services on waste management in Haiti.

- **Clémentine Tribouillard** is a resettlement specialist. She holds a Master's Degree in Urban Policies and another in Urban Sociology. She has 10 years of experience of leading urban development assignments in developing countries, with specific focus on housing issues and access to basic services. She specializes in project monitoring and evaluation, and has already carried out 7 evaluations, the last 3 as team leader. She has been based in Port-au-Prince since February 2012.

Within the team, Clémentine has provided a broader perspective to the shelter approach. In particular, she has focus on the land issues, the "transition" or "sustainable" nature of the shelters built under this program and their ownership by the beneficiary.

The entire study was completed within a 9-week schedule (from methodology preparation to the evaluation report), which included only 12 days for the field mission in Jacmel and Leogane. The detailed timetable for the assignment is provided in Appendix G.2.

## C. CRC Shelter Program Description

### C.1. The Shelter Project at a glance

**Table 5: project data sheet**

<b>Name</b>	Haiti Earthquake - Transitional Shelter Response
<b>Location</b>	Municipalities of Jacmel and Leogane
<b>Target</b>	7,500 affected families with approximately 37,500 inhabitants <sup>1</sup>
<b>Beneficiaries</b>	37,500 people (vulnerable individuals who lost their homes and had no housing aid from other organizations)
<b>Interventions</b>	7,517 shelter Units built and 7,189 water and sanitation facilities provided to the same beneficiaries
<b>Total Amount</b>	CAD 64,461,654, of which 19,150,000 from a CIDA grant, 45,224,096 from CRC's equity and public donations and the rest from Interest Income on CIDA Funds <sup>2</sup>
<b>Duration</b>	30 months (March 2010 to September 2012)

### C.2. Geographical Scope and Actors Involved in the Project

#### C.2.1. Scope of intervention

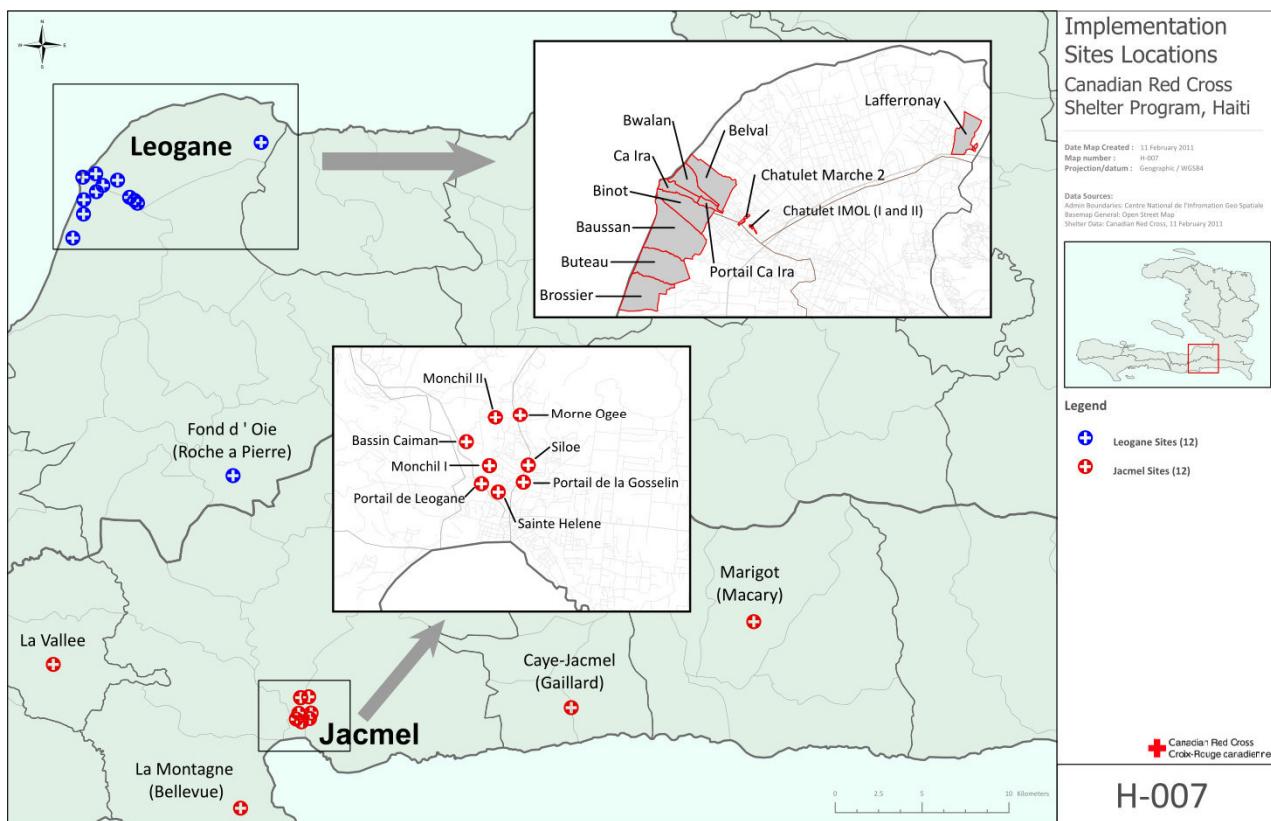
The project document does not fully define the CRC scope of intervention. It indicates only that the sites of intervention are located within the “areas impacted by January 12<sup>th</sup> earthquake and subsequent aftershocks”.

CRC has focused its efforts in two locations: Jacmel and Leogane, with 12 areas of intervention for each of these two sites. The sites of intervention are shown in the following map.

<sup>1</sup> Source: Consultant calculation, considering an average of five people per shelter.

<sup>2</sup> Note: this budget summary report does not include the costs of the water and sanitation program wholly funded by Netherlands RC.

Figure 1: Intervention areas



### C.2.2. Actors involved

The CRC project in Haiti mainly involved CRC staff based in Ottawa, Port-au-Prince and the 2 project field offices in Jacmel and Leogane. These staff members consisted of:

- ‘Direct’ Staff for Leogane & Jacmel (Shelter Delegates, Community Mobilization Officers, engineers, etc.), as well as the support staff (finance administration, legal, drivers, logistics, security, etc.)
- ‘Indirect’ Staff in Port au Prince (drivers, security, logistics, etc.), as these would not have been hired if there had been no shelter program (particularly for 2010-11)<sup>3</sup>.

Table 6: Total CRC Staff involved in the CRC Shelter project<sup>4</sup>

	Direct Staff	Indirect Staff	Volunteers	Contractors and daily workers	Total
PAP	5	106	-	-	111
LEOGANE	285	-	111	306	702
JACMEL	132	-	82	2,225	2,439
TOTAL	422	106	193	2,531	3,252

<sup>3</sup> Source: CRC Haiti Earthquake Shelter Response: Final Report to CIDA; December 21, 2012

<sup>4</sup> According to CRC Ottawa, the number of staff in Leogane (702) might be just at a given point in time. The total staff employed overall should be much higher and close to Jacmel, as the daily workers were regularly rotated. This table is only based on information given by CRC in Leogane during the evaluation process.

As part of project implementation, the CRC also employed over 2,500 local staff members and daily workers in Jacmel and Leogane.

Two partnerships were also established during the project:

- The Netherland Red Cross (NLRC) and the CRC signed on 11<sup>th</sup> May 2010 a partnership agreement to address the issues of access to water and sanitation for the CRC shelter beneficiaries;
- Diakonie (a German NGO) and the CRC signed on 3<sup>rd</sup> May, 2011, a partnership agreement to provide 600 permanent shelters in La Vallée to accelerate the pace of construction of the program in Jacmel.

Finally, an agreement was signed with a construction management consultant in Canada, SNC Lavalin, on March 12, 2010 which was involved in the design of the CRC shelters as well as the procurement and transportation of materials for the non-Diakonie component of the project.

### C.3. Main Project Objectives

Initial project documents do not provide particularly detailed descriptions of the overall objective of the project, specific objectives and expected results. A logframe was subsequently prepared (late February 2011), detailing the following objectives:

**Table 7: revised logframe**

<b>Ultimate Outcome:</b>	Improved housing condition of beneficiaries of CRC shelters in Jacmel and Leogane
<b>Intermediate Outcomes:</b>	Strengthened relationship and participation of community members in the planning and implementation of the shelter project; and sustained involvement of local authorities
	Enhanced occupation of the shelters by CRC beneficiaries
	Improved collaboration between CRC and Netherlands RC on providing access to watsan facilities to CRC shelter beneficiaries
<b>Immediate Outcome:</b>	Improved skills and knowledge of CRC staff, volunteers and community members, as well as systems to enable community members to take an active role in decision-making processes and activities that affect them.
	Improved access to safe hurricane and earthquake resistant shelters, as well as secure tenure for at least 3 years for CRC eligible beneficiaries

This logframe considered the following activities:

- **Activity 1:** Sourcing of materials through tendering
- **Activity 2:** Transporting materials within Haiti (PaP then to 1 of the 2 bases)
- **Activity 3:** Debris Removal, Salvaging, and Disposal
- **Activity 4:** House to House Survey to identify eligible families
- **Activity 5:** Construction process

This project is aligned to the 3 areas of intervention identified by CIDA, namely:

1. Improved or maintained health
2. Improved physical security

3. Improved or maintained household and community livelihoods

# D. Main Evaluation Results

## D.1. Relevance and Coherence: Appropriateness of the Project in Relation to the Context, Needs, Demand and National Strategies

### D.1.1. Sector Coordination and Institutional Alignment Mechanisms

#### a) Alignment with the strategies for shelter solutions defined by the Shelter Cluster

During the first few weeks after the disaster, a coordination committee was set up to deal with “non-food item/shelter” issues. CRC took part in many meetings and played an active role in the Shelter Cluster, as stated in the reports (presence sheets and several project presentations made).

In March 2010, an overview of the intervention strategy supported by the Cluster was circulated. This document included proposed phases of intervention for different types of situation (cf. Figure 3), as well as the initial standards to be respected by the various NGOs during the design of their Shelter programs.

**Figure 3: Recommendations on shelter intervention, March 2012**

Summary of the response for		displaced populations		Summary of the response for non-displaced populations	
Rural self-settlement	Urban self-settlement	Host families	Planned and self-settled sites	Owners	Tenants
					
<b>Phase 1 Shelter within 3 months, before the hurricane season</b>					
Tarpaulins with rope	Phase 1 transitional shelter – tarpaulins, rope when available			Priority given to displaced	
Tents	Household support items and cook sets			Unsafe structures demolished	
Household support items and cook sets	Tents for prioritised groups			Public information	
	Public information				
<b>Phase 2 Full transitional shelter within 12 months</b>					
Phase 2 transitional shelter - roof of corrugated metal sheeting, frame of timber, bamboo or steel		Self-help		Relocation assistance	
Support provided through public information campaigns and technical advice over seismic and hurricane resistance		Phased materials distribution		Rent assistance	
Cash, vouchers and additional materials distribution will also be considered		Technical advice		Extending credit	
Coordinated rubble clearance					
<b>Durable housing in less vulnerable locations, built back safer</b>					

*Source:* [https://sites.google.com/site/shelterhaiti2010/files/100324\\_Presentation\\_TS\\_programming\\_Haiti.pdf?attredirects=0](https://sites.google.com/site/shelterhaiti2010/files/100324_Presentation_TS_programming_Haiti.pdf?attredirects=0)

On 21<sup>st</sup> April 2010, Technical Guidance Notes were made available to all “shelter” actors. These set out 43 standards to be respected during shelter design and construction. In order to determine the extent to which the CRC program was aligned to these standards, the consultant created an analysis matrix, provided in

Appendix G.4 of this document. We established that the CRC had fully taken 25 standards (58%) into consideration. Only 5 standards (12%) had not (or partially) been taken into account. Namely:

1. Unit cost: US\$ 1,000 to US\$ 1,500 recommended (tax exclusive, including materials, transport and labour, for basic 1 storey transitional shelter, assuming additional input of material and labour from home owners); actual CRC unit cost (for a more durable shelter, demountable and requiring no additional input from the owners except painting): US\$ 6,347<sup>5</sup>);
2. Water drainage (shelters must be connected to a site drainage solution): there was no drainage solution with CRC shelters, although those installed in flood-prone areas in Leogane were constructed on raised foundations;
3. Accessibility for people with disabilities;
4. Beneficiaries must have an understanding of the construction techniques and materials;
5. The capacity to accommodate a first floor on some sites.

Lastly, as regards coordination, we found no overlapping of activities between the CRC and other shelter NGOs working in Jacmel and Leogane. It would appear that, despite certain communication issues between the different organizations involved, the spatial distribution of areas of intervention has meant the number of families benefiting from shelter programs has been optimized and there were very few duplicates. The maps of the areas of intervention for both Jacmel and Leogane are provided in Appendix A.1. Furthermore, even though some organizations (ACTED, CHF, Samaritan's Purse, Care, Food for the Poor, Habitat for Humanity, CRWRC, FLM, BRAC etc...) were working in the same localities (e.g. Baussan, Binot, Chatuley, Portail, Brossier, Butteau, Belval and Ca Ira), CRC managed to obtain lists of the beneficiaries from these organizations to ensure that beneficiaries would not receive shelters from more than one agency.

 **The project is aligned to the main guidelines defined by the Shelter Cluster<sup>6</sup>. At the same time, CRC participation in Cluster meetings, coupled with the CRC's proactive approach to meeting other NGOs working in Jacmel and Leogane, ensured the geographic areas of intervention were fully defined and respected.**

#### **b) Alignment with the national strategies for shelter solutions defined by Haiti authorities**

During the first year and a half after the earthquake, there was no specific relocation/resettlement strategy defined by Haiti authorities. The Shelter Cluster played this coordination role, but there was no official government representative involved until after Mr Martelly's government was formed.

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<sup>5</sup> The total cost of the CRC panelized shelter is US\$ 8,113 including International transport cost (USD 1,536), Local transportation Cost (USD 501), Land site preparation cost (USD 189), Material cost (USD 4,656), Tool Kit & Fuel cost (USD 44), Labour cost (USD 957) and other cost (USD 230). *Source: Cost-benefit analysis for RC/RC shelter solution, Oct. 2012.* Diakonie shelters unit cost was much less. The CRC shelter design is very different from what was expected from the shelter cluster for T-shelter solution.

<sup>6</sup> According to the CRC team, there was no consensus, even in the UN Shelter Cluster, on the definition of a 'T-shelter', 'emergency shelter', etc.

The first position adopted by the government of Haiti regarding reconstruction guidelines to NGOs dates from mid-2011, when government representatives started to take part and lead the Shelter Cluster meetings. The official position was to smoothly switch from transitional shelter solutions to sustainable housing: first as a recommendation, and then as a clear request, at least for rural areas:

- “The government commits to supporting the displaced and improving their living conditions in the camps and neighborhoods by promoting sustainable solutions. T-Shelters remain a temporary solution”, 16 August 2011.
- “The Government will need to agree to the use of temporary shelter solutions in view of the fact that permanent solutions are still being developed or will take too much time (particularly in rural and some urban areas)” and
- “Those agencies still constructing transitory shelters may complete their projects. The Government would obviously prefer to have permanent housing; however, depending on the circumstances and the area (the provinces and in specific urban areas), transitory shelters may be used. The transitory shelter must be considered as *one of* the rehousing options available to those living in the camps”, 7 October 2011.
- “The Government of Haiti accepts, in particular cases, the building of transitory shelters (in rural and peri-urban areas)”, 28 October 2011.

These guidelines evolved throughout 2012 into a stronger desire to end the use of shelters.

The CRC position regarding these guidelines was mixed: on the one hand, due to long supply chains it continued to build 18 m<sup>2</sup> shelters during 2012<sup>7</sup>, in spite of the government's request to shift to longer-lasting solutions; on the other hand, when (in October 2011) the Government of Haiti was still forming its position on temporary shelters, the CRC had already started to provide permanent homes to the community of La Vallée in Jacmel (601 in total), which were constructed by Diakonie (initially brought in to accelerate the pace of construction).

 Due to lack of national leadership on the issue of rehousing the population following the earthquake, there were initially no clear governmental guidelines for the CRC to follow. Once formulated, the CRC project was not totally aligned to the guidelines provided.

### D.1.2. Relevance of the Methodological Approach

#### a) Relevance of the chosen technology

- **T-shelter, Core Shelter, Permanent Shelter: between emergency and recovery**

From the interviews carried out with both CRC staff and the representatives of different organizations, we established that this issue divided (in 2010) and continues to divide opinion. The T-shelters are relevant in that they are able to rapidly provide a large number of people with a roof over their heads, thus providing them with some security against the weather. However, according to sector experts, to enable the population to recover, this phase should not last longer than one year following the disaster.

The CRC program, initially designed to be completed by March 2011, was created with this in mind, but without using the “core shelters” that are quick and easy to put up. Instead, the T shelters built by the CRC are robust

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<sup>7</sup> The last of the 18 m<sup>2</sup> shelters were completed in early April 2012.

and have a quite sophisticated design; however, the additional time required to build these meant that only half of the 7,500 shelters had been constructed one year after the earthquake<sup>8</sup>.

The approach used by the CRC, relevant for a project lasting a maximum of one year, thus became less appropriate over time and the CRC was unable to evolve the approach further: the no-cost extension that the CRC requested from CIDA in February 2011 indicates that 5,750 shelters had already been ordered (and, in some cases, built) by that date. Of the 1,750 shelters remaining, only 600 constitute an evolution: the permanent houses provided by Diakonie.

 **The type of shelters put in place with panelized wall provided the beneficiaries with security (the “T-shelters” with tarpaulin walls were severely criticized in this regard); The CRC chose to make a trade-off between shelter quality and emergency: with a much higher quality than tarpaulin T-shelters, CRC was still able to put a roof over the head of many beneficiaries to face hurricane seasons<sup>9</sup>. At the same time, providing shelters instead of permanent re-housing after more than 18 months after the earthquake was less relevant.**

- **Impact of the shelter design on the implementation of the project**

The choices made during shelter design had an impact on project implementation, during both the procurement and construction phases.

Firstly, most of the materials used for shelter construction were imported (except sand, cement, aggregates and cement blocks for Diakonie’s shelters and, to a lesser extent, type A shelter foundations). This facilitated procurement<sup>10</sup> and ensured the continual supply of materials: the chosen suppliers were able to guarantee materials in both volume and quality. However, some delays occurred in receiving the materials due to hold ups at Haitian customs.

Consequently, most of the procurement of materials did not have a positive impact on the local market. This decision may have been taken early after the earthquake when the national market would have not been able to provide the necessary material in a sufficient quantity. But given the actual pace of implementation of the project, later on, a local procurement may have been possible as it was the case for the Diakonie project and some available hardware and paint products for type A and B shelters. However timber was internationally sourced for both CRC and Diakonie shelters.

Secondly, the decision to use prefabricated solutions helped accelerate and facilitate implementation of the construction work: no on-site modification required and local carpenters required little training.

 **The outsourcing of procurement activities worked well for the CRC, who recognized that they did not have the necessary resources. The procurement of materials from outside Haiti had both a positive and negative impact: it ensured high quality standards were adhered to, yet did not benefit the local economy within the intervention area.**

- **Adaptation of the shelter design to the needs of the beneficiaries**

When addressing housing priorities after a natural disaster, the international standard is:

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<sup>8</sup> And ¾ of the 7,500 shelters were completed by December 2011

<sup>9</sup> Approximately 2,750 shelters were constructed before the second hurricane season (2011), and 7,400 before the third one.

<sup>10</sup> Procurement was entirely outsourced to SNC Lavalin, based in Canada. As the importers of materials were also Canadian, transactions were both simplified and expedited.

<b>For the population:</b>	<b>For national and international institutions:</b>
<ol style="list-style-type: none"> <li>1. Shelter (roof over their heads)</li> <li>2. Physical security (reduced fear of disaster)</li> <li>3. Safety (safe from theft, rape, etc.)</li> <li>4. Privacy</li> </ol>	<ol style="list-style-type: none"> <li>1. Rapid decongestion of camps</li> <li>2. Land tenure of the populations</li> </ol>

The shelter designed by the CRC for this project meets the priority needs of the population:

1. The shelter provided is not a precarious solution but a 'sturdy' structure with walls and a roof made of robust materials.
2. The shelter is disaster resistant: it is proven to be hurricane resistant and engineered to be resistant to earthquakes (see D.2.2.d) for further details). The strength of the shelter also means that after an hurricane, the CRC beneficiary may have less cost reparation.
3. With regard to physical security, people are aware that the CRC shelters provide greater security than the tarpaulin shelters constructed by other organizations. However, they complain about certain weaknesses, such as the window latches and the sturdiness of the lock (see D.2.3.a) for further details).
4. The only need not properly taken into account by the CRC shelter model (like many other organizations) is that of space and privacy for the beneficiaries: the size of the shelters is restrictive for large families ( $18\text{ m}^2$ ).

As far as the institutions' priorities are concerned:

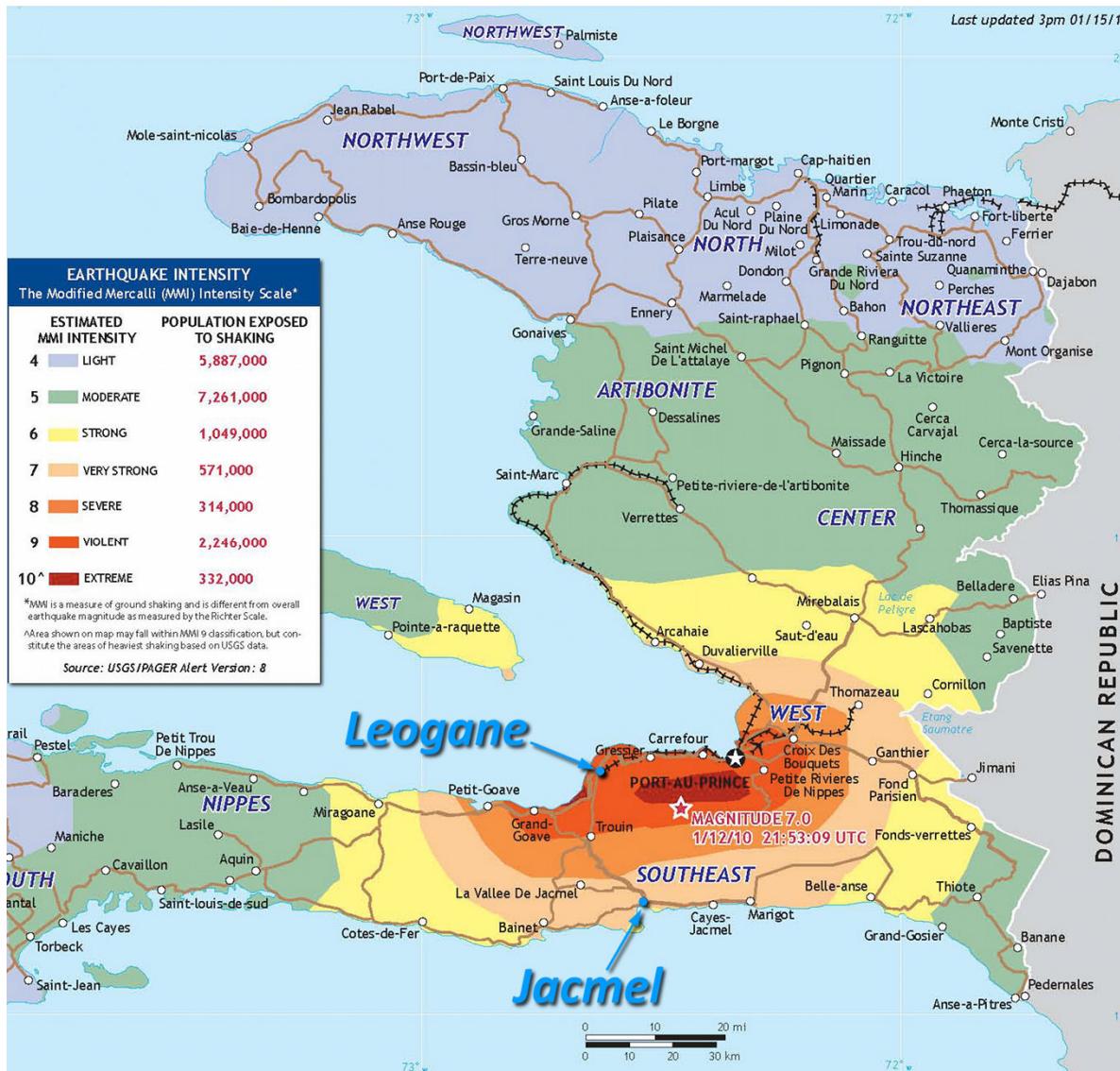
1. The CRC responds to needs as the construction of the shelters has helped significantly reduce the number of people living in the camps.
2. The methodology used has also helped secure the land tenure of beneficiaries:
  - **Land tenure is permanent for landowners:** they need to have title deeds or testimonies proving that they have been occupying the land for many years.
  - **Land tenure is assured in the medium-term for tenants:** the family signed a renewable 3 to 5 year agreement with the landowner guaranteeing him access to the land and shelters.

### **The shelter design meets the population's post-disaster needs.**

#### **b) Relevance of site selection**

There was no area selection process based on criteria, but the locations were selected on subjective considerations. For example, the CRC did not wish to work within Port-au-Prince, as a large number of other organizations were already working in this area; secondly, for many years now, Canada has been working mainly in the South-East region of the country. Nevertheless, CRC site selection appears relevant in that it was coordinated with that of other organizations (see D.1.1.a).

Figure 2: Map of the epicenter of the earthquake of 10 January 2010 and its major aftershocks (source: USAID)



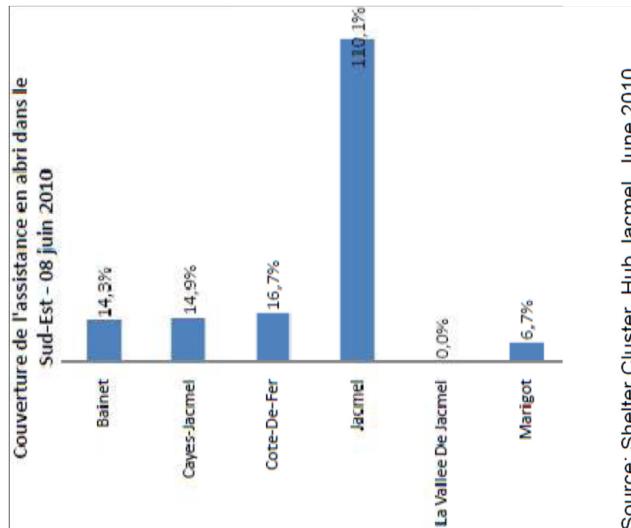
Even within the two towns of Jacmel and Leogane, the CRC areas of intervention cover interventions within both rural communities and displaced persons camps. The range of situations observed within these two environments (rural/urban) appears both relevant and beneficial:

- Relevant:** rural populations are often overlooked by emergency response as they are fewer in number and widely dispersed, and thus more difficult to reach. However, just like those living in urban areas, these people have suffered losses and need help to recover. The economy within rural areas is highly dependent upon the financial health of urban zones; thus, following a disaster the rural population needs support. Urban areas are most affected by disaster due to the density of the buildings and number of families impacted. Moreover, immediately following a disaster, these areas receive an influx of people from rural or peri-urban zones, thus leading to the creation of IDP camps. Not only is management of these IDP camps difficult during the emergency phase, but the decongestion of these camps (which take up valuable building space) becomes a priority once the emergency phase has passed.
- Beneficial:** there are often sizeable challenges to be addressed (but sometimes under-estimated by international institutions) when working in rural areas, although identifying beneficiaries and obtaining proof of land tenure is 'easy' in these zones. Working in urban areas is logically more straightforward;

however, NGOs need to take both the demands of the population and a range of potential issues (land tenure, aid fraud, etc.) into account when developing their intervention methodologies.

More specifically, for Jacmel, it is clear that the choice of the Cayes Jacmel, Marigot and La Vallée sites was highly relevant given that very few other NGOs were interested in working in these areas.

**Figure 3 : Identification of NGO areas of intervention in Jacmel - June 2010**



Source: Shelter Cluster, Hub Jacmel, June 2010

Lastly, and as mentioned in chapter D.1.1.a), there is virtually no overlap in the areas of intervention covered by the different organizations working in Jacmel and Leogane. This is mainly due to:

- effective cluster coordination;
- effective sharing of the database to identify beneficiaries listed in several different locations.

### c) *Consistency of the beneficiary selection process*

#### • Selection process

From the interviews conducted with CRC staff, it would appear that, between March 2010 and autumn 2010, the beneficiary selection process was rudimentary and equity could not be guaranteed. Specifically, the CRC worked from the lists of houses destroyed by the earthquake provided by the “central committees”, which did not always have information on all the families within their extensive perimeter; the CRC then conducted its own assessment of the families’ needs to finalize selection. In any case, the selection criteria had not been clearly established at this stage, even though priority was accorded both to the poorest families and to those families without shelter.

Indeed, not only was the CRC analysis not exhaustive (only the list provided by the central committee was included), but the reliability of the selection survey undertaken by the Community Mobilization Officers (CMO) was also overly dependent on the sincerity of those surveyed.

Only around a hundred shelters were constructed using this approach.

Fortunately, delays in the delivery of materials provided the team in Leogane with time to improve the selection process, notably by:

- **carrying out a comprehensive survey of the houses** within the areas of intervention, which included a technical assessment of the condition of each house (destroyed, irreparable, reparable, intact) undertaken by an engineer and which was used to obtain an objective list of potential beneficiaries;

- **introducing neighborhood validation committees**, composed of community representatives (who knew all the families within the neighborhood and so were in a better position to assess their vulnerability) who validated the vulnerability of each family on the list of potential beneficiaries on a case-by-case basis;
- **simultaneously carrying out a socio-economic survey for each potential beneficiary family** through which the CMO notably assessed each family's shelter needs using 11 vulnerability criteria<sup>11</sup>;
- This methodology was subsequently extended to Jacmel.

Other organizations, such as the Swiss Red Cross, preferred to delegate the selection of beneficiaries to local NGOs, thus leaving the Haitian people to deal with any equity issues that arose.

There were a number of areas for improvement in the initial methodology included in the project design:

- The risk of inequity (due to families providing false statements), subsequently addressed by the creation of validation committees;
- It measured "immediate" vulnerability, rather than the capacity of families to recover from the disaster: a family may have been vulnerable even before the earthquake, whereas others who became vulnerable as a result of the disaster (death, house destroyed, etc.) may be able to recover more easily than those who are structurally vulnerable as they have a job and/or financial resources;
- The way in which the family census was conducted (which involved giving families a proof of registration) led some families to believe they were beneficiaries, whereas the selection process had not yet begun;
- The validation committees were not informed of the final decision and only found out which families had been selected once the beneficiary families' shelters had been constructed (leading to frustration and dissatisfaction).

Conversely, using this methodology, land tenure and family relocation issues were well-managed and priority was properly accorded to rehousing those families in greatest need<sup>12</sup>.

The methodology used to select the beneficiaries involved three phases. The 3 stages are detailed below:

1. **Comprehensive census of the locations selected:** all houses in each area of intervention were visited to identify the head of the family, obtain other factual information and allocate a census number and give each family a proof of registration. All information was then integrated in a database. Then the lists of all registered households were posted on the kiosks in each neighborhood so that those families not registered could make themselves known to CRC.
2. **Technical assessment of the condition of the original dwelling:** at the same time as surveying the heads of the families, engineers recruited by the CRC but trained by the MTPTC (Ministry of Public Works, Transport and Communications) conducted a rapid damage assessment: identifying those houses that had been destroyed and those it was possible to repair. Retrospectively, the CRC staff questioned wanted to change this scoring system to include 4 categories:
  - **A** = Completely destroyed;
  - **B** = Damaged beyond repair;
  - **C** = Damaged, but reparable;
  - **D** = Intact.

Only those houses listed as destroyed (A) or damaged beyond repair (B) were subsequently targeted.

<sup>11</sup> 1) Number of children (<18 years old); 2) Family Status (Orphan – Single-Parent); 3) Number of people in employment; 4) Pregnant Woman; 5) Number of disabled persons or amputees; 6) Number of infirm persons; 7) Number of elderly people; 8) Family sleeping in the open air / in a tent; 9) Dangerous housing; 10) Poverty; 11) Illnesses: malaria, HIV

<sup>12</sup> Analysis of the effectiveness of the selection criteria is provided in Chapter D.2.1.b) of this report.

**3. Assessment of families' vulnerability:** this assessment culminated in a final list of 3 categories, defined in accordance with the priority/urgency of the intervention. The process involved a combination of two analyses in parallel. The validation committees, from the list of potential beneficiary families (houses in category A or B) and their knowledge of the families within their neighborhood, validated – or not – the vulnerability of each household. While CRC staff (CMO) carried out their vulnerability survey using the 11 criteria listed above. Where differences were found between the two analyses, the findings were cross-checked, with the final decision being made by the CRC team.

➔ **The methodology used to identify and select the sites has been based on a geographical distribution of affected areas between the various post-disaster organizations involved and the sites selected (Jacmel and Leogane) are relevant and effectively address an intervention need. The initial beneficiary selection methodology was incomplete; however, the CRC was able to improve this early in the implementation phase.**

- **Shelter Distribution**

A single shelter was provided per family, regardless of the family's size. Type A & B shelters were 18 m<sup>2</sup>, Diakonie shelters were 24 m<sup>2</sup>.

**Table 8 : Shelter beneficiary family composition - Leogane & Jacmel**

Number of people per household	Leogane		Jacmel		Total	
1-5	3,658	84%	1,236	69.8%	4,890	79.9%
6-10	683	15.7%	511	28.8%	1,194	19.5%
>10	13	0.3%	25	1.4%	38	0.6%
Mean	3.90 (SD = 1.74)		4.46 (SD = 2.36)		4.0 (SD = 1.89)	
# respondents	N* = 4,354		N* = 1,772		N* = 5,846	

\*note 1 that N does not equal total number of respondents as some surveys indicated no one living in the shelter (Jacmel = 145, Leogane = 645).

Source : Report on the Findings of the Household Monitoring Data of the CRCS Shelter Program in Haiti

According to the table below, it appears that a significant part of beneficiary families in Jacmel (30.2%) and, to a less extent, in Leogane (16%) are larger than 5 persons, meaning that the CRC shelter does not comply with the Shelter Cluster standards (18 m<sup>2</sup> for 5 persons maximum, cf. G.4)

The order in which shelters were distributed depended on the urgency of each beneficiary's situation (ranked in 3 categories). This thus required several trips back and forth to the same neighborhoods: first for the most vulnerable families; then in successive waves, which rendered the logistics both cumbersome and costly.

However, none of the beneficiaries interviewed complained about time they had to wait to obtain their shelter, which suggests that this approach (deployment based on degree of urgency) was effective for achieving beneficiary satisfaction (despite the overall length of implementation).

➔ **The distribution methodology was not cost-efficient; nevertheless, it was well adapted to the beneficiaries' needs.**

**d) Continuous review of the approach and ongoing improvements**

Two different analyses were undertaken to assess this parameter:

- identification of mechanisms used to improve the program (internal, external evaluation, etc.);
- analysis of changes in the project approach during implementation.

In June 2011, the CRC asked the Global Emergency Group to carry out a mid-term evaluation of the T-shelter program. Upon completion of this evaluation, GEG drew up a list of 10 recommendations to enable the CRC to improve their shelter programs, both immediately and over the longer term. Thus, as part of the mechanisms for on-going improvement, the mid-term evaluation was analyzed to determine the extent to which project managers had taken on board the recommendations made. This analysis is summarized in the table below.

**Table 9: Overview of the mid-term project evaluation recommendations to the CRC shelter project**

#	Mid-Term Recommendations	Status at the end of the project
<b>Immediate recommendations</b>		
1	Need to reinforce realistic planning for the remainder of the program along with a program exit strategy.	Partially achieved
2	Seize the opportunity to improve key aspects of HR management for additional staff development and an even stronger conclusion to the program.	Partially achieved
3	Need solution(s) to address logistics and foundation (for shelter) issues in Jacmel.	Partially achieved
4	Strengthen the existing logistics and supply chain processes.	no documentation provided
5	Formalize Haiti lessons learned and good practices.	Partially achieved
<b>Future Program Recommendations</b>		
6	Launch and integrate a strategic planning unit during the inception of a major shelter operation.	There is no subsequent program to evaluate the set-up of these recommendations
7	Ensure community input into implementation phases throughout the design.	
8	Incorporate a complementary livelihoods component via Movement partnerships.	
9	Rapidly inject complementary logistics, administrative, finance and HR functions to support major shelter programs.	
10	Ensure a strong logistics strategy and supply chain management from the start.	

The table above shows that none of the 5 immediate recommendations were fully taken up by the CRC.

A “Transitional Strategy developed for the Haiti Operation programs (2011-2012)” has been produced by CRC a few months after the Mid-Term Evaluation, introducing some strategic changes in the human resource management and the logistics. It enabled CRC to carefully plan the close-out of the shelter program, successfully demobilizing staff (many training activities, especially for Haitian employees) and handing over assets (warehouses, offices, etc.) with minimal issues. This partially addresses the recommendation #1 of the Mid-Term Evaluation, but it does not consist of an exit strategy on the beneficiary side.

Human resource management have already been extensively reviewed in the Mid-Term Evaluation, and were marginal aspects of the terms of reference of this final evaluation.

At the same time as the mid-term evaluation was being undertaken (also in June 2011), the CRC carried out their own satisfaction survey. The questionnaires, issued to a total of 294 beneficiaries<sup>13</sup>, included 25 questions were a good opportunity to review the final impact and make possible on-going improvement on the methodology or shelter model. However, CRC's analysis of the survey (*Findings of the Beneficiary Survey in Leogane and Jacmel - June 2011*) did not produce any recommendation or conclusion in this view. In addition, the survey was undertaken after the signatures of the agreement with Diakonie and the contracts for the supply of the final consignment of shelters, which means that there were no longer flexibility for shelter model adjustment.

The results of this survey are provided in Annex G.7, page 98.

The main ongoing changes identified during program implementation are improvements to the methodology.

- **Modification of the selection protocol** at the start of the program with validation committees being introduced into the beneficiary selection process;
- **The creation of a formal complaints register** (in addition to the more informal mechanism where complaints from households would trigger a visit by the CMO for explanations) and the decision to only deal with one type of complaint, namely those pertaining to shelter construction (decision taken in November 2011 as a result of the large number of complaints received).

 **CRC self-questioning and quest for on-going improvements led to a mid-term review and satisfaction survey being conducted, the recommendations and results of which, however, were only partially followed.**

## D.2. Effectiveness: Achievement of the Results Targeted by the Project

### D.2.1. Achievement of the Main Outputs of the Project (as from CIDA/CRC Agreement)

#### a) Were 7,500 T-shelters built in Jacmel and Leogane?

The Project Proposal submitted by CRC to CIDA on February 16, 2010 states the objectives of the project (Component 1, subject of the present evaluation) as follows:

“Component 1 – CRC Coordination of 7,500 Transitional Shelter Units: Canadian Red Cross will manage the procurement and implementation of 7,500 transitional shelter units, to be constructed based on technical assessments and community integration activities performed in both Jacmel and Leogane. [...]

- Component 1A – CRC Transitional Shelter Program in Jacmel: It is anticipated that in Jacmel and surrounding areas CRC will provide assistance to up to 3,000 families in rural and peri-urban communities (subject to ongoing assessments).
- Component 1B – CRC Transitional Shelter Program in Leogane: Phase one of the Leogane program will be to support one transitional housing resettlement site consisting of approximately 3,000 families (around 17,000 beneficiaries), by providing safe shelter solutions built with appropriate materials and technologies.

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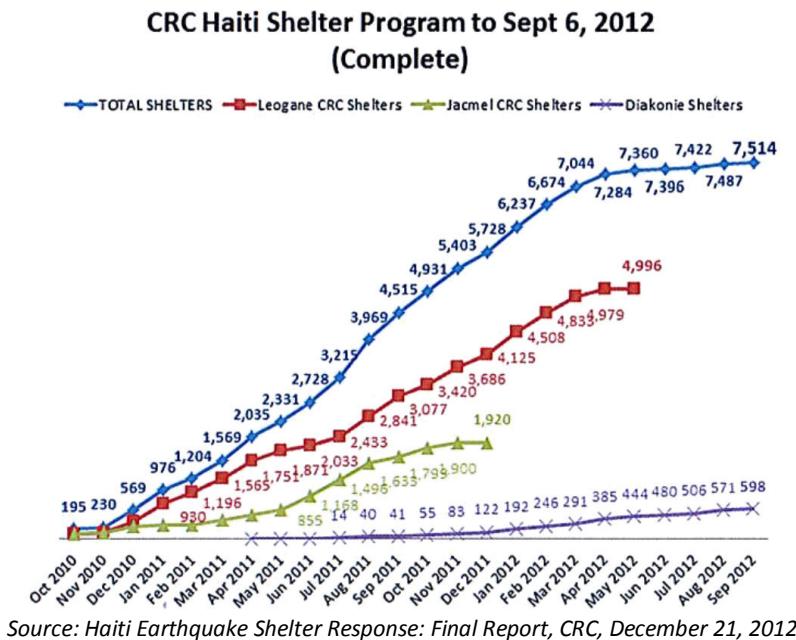
<sup>13</sup> Leogane (159 households) and Jacmel (135 households)

CRC will also provide both technical and social assistance to beneficiaries (figures in Leogane in particular are subject to ongoing assessments)."

Therefore, the target is a total of 7,500 shelters, with an anticipated equal share between Jacmel and Leogane.

This target has been achieved by the project:

**Figure 4: Shelter construction throughout the whole CRC project**



► The main output sought by the project, namely the construction of more than 7,500 Shelter Units<sup>14</sup> in Jacmel and Leogane, has been achieved.

**b) Were these shelters allocated to vulnerable families?**

The Project Document (CRC/CIDA) states that "It should be noted that the strategy is not only targeted at the individuals who have lost their homes but at the targeted community as a whole. For the households that were affected, the strategy has to be adaptable to meet the different needs of the population and recognize the different situations that the people the earthquake affected find themselves in. Namely:

- households who lost everything,
- households whose house was damaged but that can still be repaired,
- households who migrated as a result of the earthquake,
- households who are now living in temporary shelters/camps and who will be in the same location for an indeterminate amount of time,
- households in rural areas,
- households in urban areas, etc."

<sup>14</sup> Within these 7,514 shelters, 6,913 are T-shelter types and 601 are permanent types from Diakonie.

As seen above (cf. D.1.2.c), the targeting of beneficiaries subsequently evolved over the following months to finally constitute a consistent methodological approach with specific data collection and verification steps to be followed

- **Implementation**

Unlike most of other agencies, CRC implemented a selection process based on validation made by a local committee in each location (validation committee). However, there were some shortcomings in the process due to a weakness of the process itself or simply due to a lack of transparency from the beneficiaries, as illustrated by the example below:

In Baussan 2, beneficiary BA-11 - 007 stated during the 1<sup>st</sup> evaluation that: "He lives in a damaged house but his wives, Rosiclaire Rosiane and Lacroix Elmie, will soon receive a shelter. He has 8 children". In the 2<sup>nd</sup> survey, he stated that: his wife is deceased; he is an elderly person living alone, an amputee and poor. **Thus, between the time of the 1<sup>st</sup> and 2<sup>nd</sup> surveys, this beneficiary's category has changed from "non-vulnerable" to "urgent" and the information collected is highly contradictory.**

There were also complaints made with regard to the system used to correct any errors made. From interviews with the validation committees (1 committee in Jacmel Ville and 4 in Leogane), the CRC failed to make full use of the knowledge of these committees. The four committees interviewed were unable to add poorly evaluated beneficiaries until the very end of the project and they were not informed of the final allocation decision. However, committee members participated in walks in their localities where they pointed out vulnerable households who had not yet been targeted by the CRC shelter program (but should have been included). This activity started before the end of the construction and it sometimes meant that there would be at least two to five visits per locality.

- **Results**

Through the Occupancy Survey, the vulnerability of the final occupants was assessed against the same criteria used during the selection process in order to verify the targeting effectiveness<sup>15</sup>. The results (provided in the table below) show that in Jacmel, only 7.6 % of occupants met none of the vulnerability criteria, suggesting that the targeting was effective (even though targeting efficiency is rather measured by the rate of remaining vulnerable families among the non-beneficiaries).

**Table 10: Rate of vulnerable beneficiaries**

Criteria	Jacmel	Leogane	Total*
At least one child <5 years old	678 (35.4%)	1,851 (37.0%)	2,529 (36.6%)
At least one adult >50 years old	966 (50.4%)	930 (18.6%)	1,896 (27.4%)
>5 people in household	536 (30.2%)	696 (16.0%)	1,232 (20.1%)
Single parent household	1,543 (85.8%)	840 (19.3%)	2,383 (38.8%)
At least one person handicapped or gravely ill	76 (04.0%)	42 (0.8%)	118 (01.7%)
No vulnerability criteria noted	7.6 %	52.6 %.	?

\*note: totals do not sum to 100 as missing/skipped data was excluded from the calculation if >5%

<sup>15</sup> Unfortunately, this indicator is incomplete and should be evaluated against the same indicator in the total population of Jacmel and Leogane. For example, if 47.4% of the total population of Leogane met at least one of the vulnerability criteria, then a random selection of beneficiaries would have yielded the same rate within the beneficiary population.

Source: Occupancy Survey, CRC, November 2011

In contrast, in Leogane, this figure stands at 52.6%: CRC provided shelters to as many families considered as non-vulnerable against CRC's own criteria, than to vulnerable families.

However, it must be noted that the selection of beneficiaries followed two steps:

- a. Shelters were allocated to families in need of a housing (former house destroyed or damaged beyond repairs)
- b. Within this list, priority was given to families that were assessed as vulnerable.

The vulnerability criteria were only used to rank beneficiaries in the priority list. The lower score of Leogane can also be explained by the fact that families are generally more vulnerable in Jacmel and more houses were destroyed in Leogane, independently from the socio-economic status of the family.

 **Shelters were allocated to a large majority of vulnerable families in Jacmel, while half of the shelters distributed in Leogane were distributed to families in need for a roof over their heads but not socially vulnerable. The vulnerability assessment was only used for priority ranking, and the capacity to recover of each family was not evaluated.**

#### c) Were issues related to the shelter environment addressed?

The project document presented to CIDA by the CRC indicates that: "Key consideration will be given to complementary shelter related sectors such as water and sanitation, public health/solid waste management and home-based income generating activities".

- **Sanitary Issues**

Shortly after implementation of the shelter project, the CRC and NLRC signed a partnership agreement on 11 May 2010 stipulating that NLRC would be directly responsible for implementing Water and Sanitation components within the CRC shelter program areas of intervention in Leogane and Jacmel.

The MoU signed by the CRC and NLRC contained a total of 3 components: water, sanitation and hygiene promotion. Work undertaken as part of the NLRC water and sanitation program was not evaluated by the consultant as NLRC has arranged its own evaluation study. Nevertheless, from our discussions with NLRC staff, coupled with our observations from on-site visits, it would appear that NLRC has been heavily concentrating on the "Sanitation: latrine construction" component. The water component has only consisted of reparation on 2 water points to improve access to water for 850 beneficiaries' families.

7,189 latrines have been constructed by NLRC. It would appear that most of these latrines are being utilized and are appreciated. The evaluation study undertaken by NLRC (Evaluation study Haiti, Leogane and Jacmel, The Netherlands Red Cross, 15Nov. 2012, Irene Boertien, *NLRC latrine with shelter evaluation report 27-11-2012.pdf*) indicates a high level of satisfaction. During our visits, we observed no modifications to any of the latrines and only three cases of non-utilization (two latrines had experienced hurricane damage and the slab of the third had been broken in order to rescue a young goat that had fallen into the pit!).

- **Income Generation<sup>16</sup>**

As part of the implementation of the program, CRC recruited more than 3,500 local staff in Jacmel and Leogane, whether community mobilization officers, skilled workers (carpenters, masons, etc.) or unskilled manpower. The daily labour rate is high for Jacmel as there was a monthly rotation of labourers during the project period to allow as many local unskilled persons<sup>17</sup> as possible living in the region to benefit from being hired. This ensured that the program assisted not only the direct beneficiaries of the shelter but also the larger community as well.

 **Issues related to the shelter environment where partially addressed: sanitation was provided through latrine construction for nearly all shelters, water and hygiene issues were treated more lightly, and solid waste management was not dealt with. Income generating activities were not home-based (we do not know the reason of this initial expectation) but were fully developed through the hiring of construction officers.**

#### D.2.2. Achievement of the 4 Results Targeted by the Project (as from Evaluation TORs)

a) ***Was community and local authority participation encouraged during the planning and implementation of projects?***

Local authorities and the community were involved mainly during selection of the beneficiaries, explaining the program as well as the taking down of the tents (for those who had been in camp sites). From the interviews conducted with CRC staff, it is clear that there was a real willingness to work in a participatory manner with the communities and local authorities (the validation committees, in particular). However, interviews with the committees reveal that committee members consider their range of responsibilities to have been too narrow. Notably, a family deemed vulnerable by the validation committee may later have been rejected after CMO analysis without the validation committee being informed (and vice versa).

The communities participated during the implementation phase: families had to carry materials from a drop-off point (near a practicable route) to their plot, help dig the shelter foundations and paint the shelter allocated to them.

Discussions between the consultant and the validation committees/CMO confirmed that the beneficiaries were not actively involved in shelter construction, which was undertaken by labourers recruited by the CRC. There were two main reasons for this:

1. **The shelter is not particularly modifiable:** with the exception of determining the position of openings (doors and windows), it was difficult to involve the beneficiaries in planning the layout of their shelter.
2. **The lack of training on construction techniques:** developing the beneficiaries' shelter construction skills was not an intrinsic aim of the project.

Consequently, the beneficiaries did not participate in the construction phase. However, we do not consider this to have had a negative impact on the project as it helped ensure shelter construction was of a high standard and completed quickly (it takes less time to train a small number of carpenters than to train an entire community).

<sup>16</sup> As it was not possible to meet former workers involved on the program, it is quite difficult to determine the real impact of the shelter program on their livelihood.

<sup>17</sup> For skilled workers, there were some complaints during our field visits, that CRC recruited foremen from only one area in Jacmel, instead of employing available foremen from the targeted locality.

As far as the local authorities were concerned, they did receive regular activity reports and participated in all regular monthly meetings, notably relating to the decongestion of the camps in urban areas (including the list of beneficiaries and confirmation of the complete destruction of tents).

► The aim to involve both local authorities and the communities was effectively achieved during the beneficiary selection phase; however, validation committees interviewed were frustrated by the fact that they consider their involvement to have been too limited<sup>18</sup>. During the implementation phase, the beneficiaries participated in site preparation and local authorities were kept regularly informed.

**b) Shelter occupancy rate: are the original occupants of the shelters still living in the shelters?**

An occupancy survey<sup>19</sup> commissioned by the CRC a few months after the construction of the shelters indicates that 84% of current occupiers are the original beneficiaries and only 2.3% of the shelters are actually unoccupied. This means that there is no market for reselling the shelters that are filling one of the essential needs of the population, unlikely to sell them.

**Table 11 : Results from the occupancy survey (Nov. 2011)**

Description	Jacmel	Leogane	Total
<b>The shelter is occupied...</b>			
... seven days a week	84.2%	98.6%	94.6%
The person who received the shelter or whose name is on the papers is living in the shelter	1,704 (88.9%)	4,114 (82.3%)	5,818 (84.1%)
The person living in the shelter is not the person who received the shelter or whose name appears on the papers	56 (2.9%)	227 (4.5%)	283 (4.1%)
<b>The shelter is found unoccupied...</b>			
... because the floor is not finished	2.9%	3.5%	3.4%
... because no one was at home at the time of the visit	2.9%	0.9%	1.3%
... because the shelter is used for other purposes	0.96%	0.59%	0.7%
... for other reasons	0%	2%	1.6%
The shelter is no longer standing (it was demolished or transferred)	4 (0.2%)	95 (1.9%)	99 (1.4%)
Skipped/Missing	22 (1.1%)	2 (0.0%)	(0.3%)

*Obs.: There was no Occupancy Survey undertaken for La Vallée in Jacmel (Diakonie area).*

► Very few shelters have been sold on or transferred; the vast majority (more than 8 out of 10) is still occupied by the original beneficiaries.

**c) Capacity and knowledge building for CRC staff: were activities scheduled to take place before and during the project?**

International CRC staff interviewed received no training before or during the project. However, each CRC national staff members did receive training at the end of the project to help them find another position. The training was structured

<sup>18</sup> This issue is extensively addressed in Chapter D.2.3.c) that deals with "Satisfaction with the relationship with CRC staff and partners".

<sup>19</sup> "Report on the Findings of the Household Monitoring Data of the CRCS Shelter Program in Haiti", Christie Byvelds, January 2013

to allow for increased skills in the area of existing expertise: employees could choose a course in two separate categories as well as receive a one-day job coaching course:

- The first category was a general training, open to all (computer, languages, first aid, etc.).
- The second category was a more specialized training (project management, entrepreneurship, technical drawing, CAD, para-seismic engineering, driving, etc.). An extra option of a Study Grant was offered in the specialized training category to give more flexibility to the needs of the employees.

Employees who wanted to take a course that was not in the list or who would have preferred to pursue other studies (i.e. in University) could apply for a study grant indicating what kind of program and what are the costs. After verification of the course and institute, the CRC gave up to 500 USD/employee for their study project.

By filling a questionnaire, each employee selected three preferences by category (3 general & 3 specialized) with a priority rating (1<sup>st</sup> choice, 2<sup>nd</sup> choice, 3<sup>rd</sup> choice). Wherever possible, CRC gave everyone his/her first choice in both categories, however if this was not possible, they were given their second or third choice. To prevent employees from choosing trainings not adapted to their level, CRC validated their final choices with their line managers and technical supervisors. For the employees that were illiterate and did not fulfill the reading/writing requirements to participate in the trainings offered, an adult Creole reading and writing course was provided to meet their needs.

All employees also received a one-day coaching training on how to improve job search (CV writing, interview skills, searching tools, resources, etc.).

As confirmed in the mid-term evaluation report, the qualifications of international and national staff, generally poor at the start of the program<sup>20</sup> for this type of project, were not developed through specific prior training, but rather through informal on-the-job learning<sup>21</sup>.

In any case, there was no mechanism put in place to monitor and evaluate staff capacities (entrance and exit tests, for instance) and thus precisely document any developments in capacities.



**There were no significant activities to build the capacity of international CRC staff before or during the time of the project. The national staff had access to training sessions especially for M&E and human resource officers. All the national staff was supported by the CRC during the exit strategy to increase their capacity in order to facilitate their post-project reconversion.**

#### **d) Were the types of shelter proposed hurricane and earthquake resistant?**

- **Shelter description**

Three types of shelters were designed:

1. **Panelized shelter type A:** wooden structure, wooden foundations, plywood walls, 2-sloped iron roofing on top of heat insulation sheeting.
2. **Panelized shelter type B:** wooden structure, steel anchors as foundations, plywood walls, two-sloped iron roofing on top of heat insulation sheeting.

<sup>20</sup> Finding M.A.3: Many CRC staff are first time RC (and humanitarian industry) staff, holding key CRC operational positions. This has likely been both a strength and a weakness.

<sup>21</sup> According to the CRC, some training opportunities were provided where available and many of the construction delegates attended IFRC training courses

- 3. Durable houses by Diakonie:** concrete foundations, reinforced concrete framed structure, cement blocks, wooden roof structure, four-sloped iron roof.

The panelised shelters (A and B) were developed from the original IFRC design which was then structurally reviewed by SNC-Lavalin to ensure that they met the wind and earthquake resistance codes for the Caribbean. The timber components were manufactured by a Canadian company, Laprise. Both panelized shelter designs were compliant with the technical standards of American Society of Civil Engineers (ASCE 7-05) and met the following wind resistance code: Type A was able to resist wind strengths of up to 150mph/240kph (primarily for Jacmel); Type B was able to resist wind strengths of up to 110mph/180kph (only for more sheltered Leogane).

Figure 5: Type A shelters



Figure 6: Type B shelters



Both Type A and B shelters were constructed without the porch.

The concrete houses built by Diakonie derive from their own initial model with additions made by the CRC engineers to reach the technical standards of American Society of Civil Engineers (ASCE 7-05).

**Figure 7: Diakonie's shelters**

- **Shelters' resistance**

Significant provisions have been included in the design of the shelters to assure their resistance, particularly to the winds. The use of steel connectors for the timberwork increased the rigidity of the structure, as well as the cost, of course (with CRC's requirements, Diakonie said their shelter cost rose from US\$ 1,100 to US\$ 4,500). In the project documents, the shelters were designed to withstand hurricane-force winds (240 km/h for type A shelters; 180 km/h for type B shelters; 240 km/h for Diakonie houses). The wooden framework construction is meant to be earthquake resistant and the timberwork + corrugated iron roofs minimize the risks for shelter occupants in the event of collapse.

In the field, shelters have proven to be hurricane resistant, having withstood the last two hurricane seasons. All the beneficiaries interviewed signalled no serious damage to the shelters following either Hurricane Isaac (August 2012) or Hurricane Sandy (October 2012). Diakonie mentioned that all of their former shelters (prior to CRC's requirements) withstood the earthquake.

- **Does the shelter reduce the possible consequences of disaster?**

The resistance of the shelters reduce the risk of damages during hurricanes and probably earthquakes as well. The only risk that is added by a 100% wood housing is fire. Even though people have been warned against using flammable materials inside their house, the use of candles or oil lamps as well as cooking next to the shelter still put the shelter at risk with fire.

**Figure 8: Leaflet distributed to the beneficiary families**

► The project provides the beneficiaries with a secure environment against earthquake and hurricanes. However the risk of fire is increased in panelised shelters.

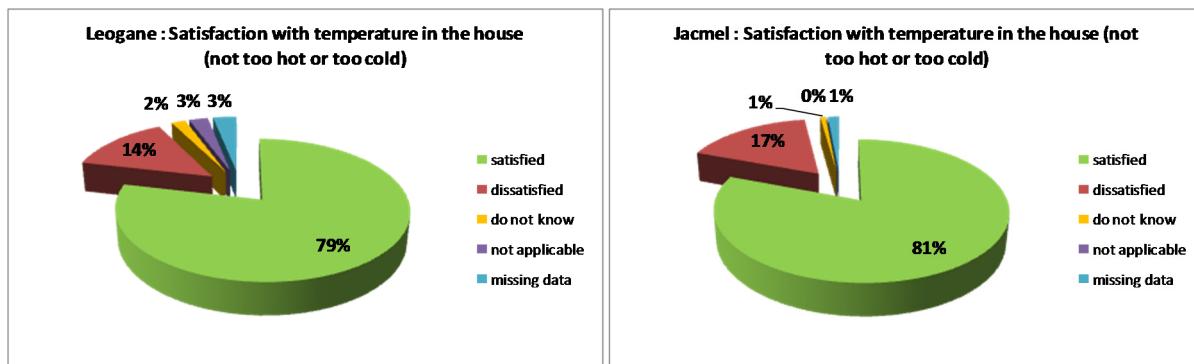
### D.2.3. Beneficiary Satisfaction

#### a) Satisfaction with design and functionality of the shelters and latrines built

Beneficiaries generally express a very good satisfaction with the shelter they received, as demonstrated by the Occupancy Survey, and this is confirmed through our beneficiary interviews as explained below (see also Appendix G.7, page 98).

- **Thermic conditions:** the households interviewed stated that the temperature inside the shelter felt the same as that in their old home. The Occupancy Survey of June 2011 confirms this, the main results of which are given below. The addition of thin-layer insulation underneath the corrugated iron sheets (suggested by the Haitian Red Cross) gave good results and eliminated the risk of condensation drops.

**Figure 9: Beneficiary satisfaction with the temperature in the shelter**



Source: Occupancy Survey, June 2011

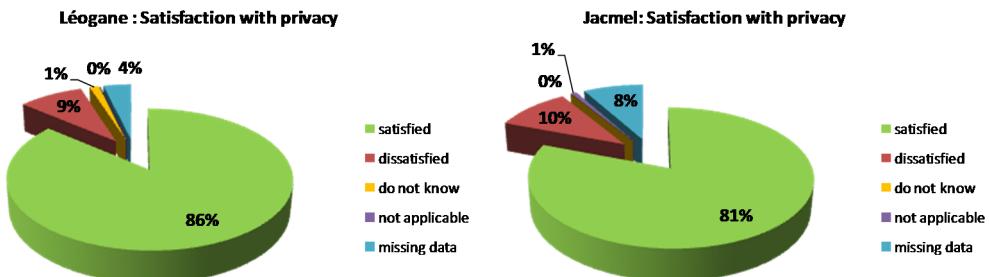
- **Doors and windows' position:** the model allowed beneficiaries to choose the places of openings and this was appreciated. However, as advised by the Haitian Red Cross, a second door is much desired in Haitian culture and this led some beneficiaries to modify one of the windows into a second door.
- **Shelter's position on the plot:** once again, this was a choice of the beneficiary, and was appreciated.
- **Shelter's painting:** beneficiaries were unanimously satisfied to make the choice of the colours and happy to paint their shelters.
- **Pour flush latrines:** most of the beneficiaries met declared they had latrines on their plot before the earthquake (especially in urban areas, mostly in Leogane) but they were no longer usable after. The construction of latrines by NLRC as part of the CRC shelter programme was much appreciated. Most of families welcomed the introduction of a water-seal basin in lieu of the traditional simple defecation hole, although it requires water to flush and keep clean (all the latrines visited were clean). Only in Bwalam (Leogane) we had negative comments on the water seal and the necessity of water. In Leogane also, some users mentioned that the cabin was too narrow for comfort and the pit/tank too small (although they did not have to empty it yet).

The negative points raised by the beneficiaries are as follows:

- **The small size makes it impossible to divide the shelter into two separate rooms** (lack of privacy). In answer to the general question included in the June 2011 satisfaction survey, privacy was deemed

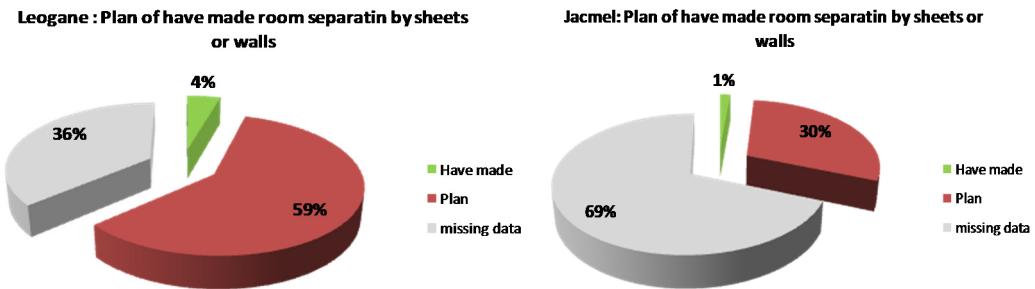
satisfactory by 85% of families<sup>22</sup>. However, when families were asked whether they had carried out work to change the interior of their shelter (construction of a partition to divide the shelter into 2 separate rooms), nearly 2/3 of those interviewed in Leogane and 1/3 of those questioned in Jacmel had installed or were planning to install a partition. This shows, therefore, that privacy (notably children/parents) is an unresolved issue for families. During the FGD carried out during our field mission, the issue of privacy and separation was one of the topics that prompted the most discussion, particularly in Leogane.

**Figure 10: Beneficiary satisfaction with privacy in the shelters**



Source: Occupancy Survey, June 2011

**Figure 11: intentions of partitioning the shelter**



Source: Occupancy Survey, June 2011

- **The shelter flooring is inappropriate** (fragile plastic tarpaulin, insects crawl up through the floor). The rationale for the tarpaulin flooring was that the use of concrete would change the status of the shelter from a temporary structure owned by the beneficiary family to a permanent structure owned by the land owner. For this reason, the CRC decided not to put in a concrete floor, to facilitate the dug up and relocation of the shelter to another land in case of disputes with the landlord.

This aspect was not covered by the Occupancy Survey, but was referred to by a majority of Type A and B shelters. Beneficiaries of Diakonie's shelters were generally satisfied with the concrete floor, except for a minority where erosion was cause by a lower quality of construction (see picture). Some households were able to afford the necessary cement to cover the floor with polished concrete, but they are in the minority.

<sup>22</sup> Average of Jacmel+ Leogane

**Figure 12: most tarpaulins were torn out and removed**



**Figure 13: Diakonie's concrete floor (erosion was not frequent)**

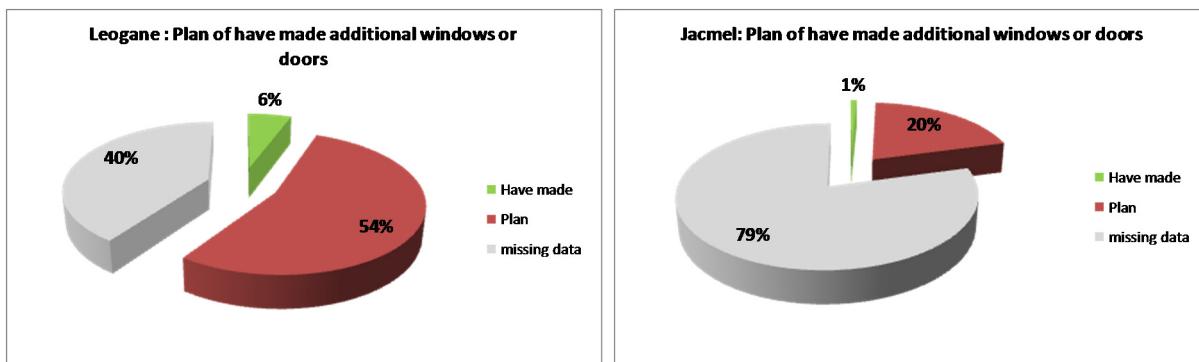


**Figure 14: extreme case in Leogane**



- The shelter model is somewhat different to that of a typical Haitian house (no 2<sup>nd</sup> door, no porch). This aspect was covered in part by the June 2011 satisfaction survey: the figures below show the number of households planning to undertake work, or that have already carried out work, to improve the functionality of their shelter and render them more like a traditional Haitian house. It is to be noted that, whilst over 67% of beneficiaries in Leogane wished to build an extension, only 4% had already done so. The most frequent extension built is a porch. The survey results of June 2011 therefore provided the CRC with a sound overview of the type of improvements sought by beneficiaries; however, this information was not incorporated into the project<sup>23</sup> (provision of support to beneficiaries to help them construct this extension, for instance). These findings were also confirmed during the FGD undertaken in the field.

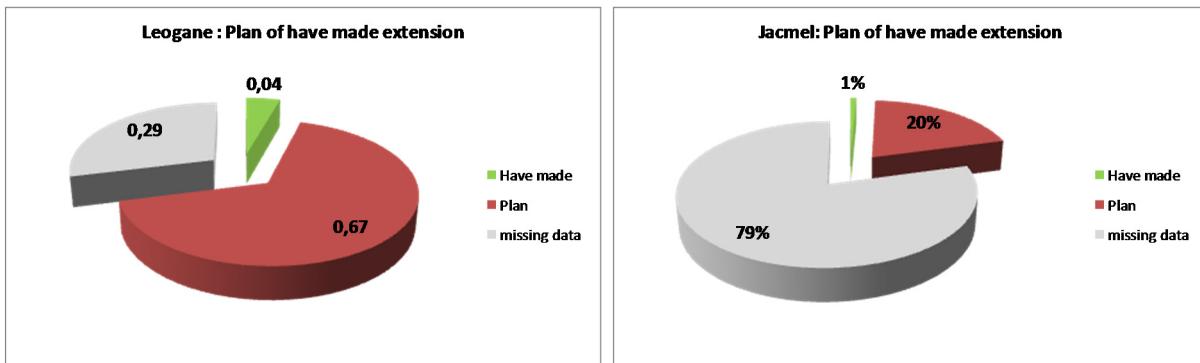
**Figure 15: implemented or planned additional windows or doors**



Source: Occupancy Survey, June 2011

<sup>23</sup> According to the CRC, the point was well-noted, but due to cost restraints and the fact that a porch would decrease the overall wind strength of the shelter, it was decided not to include this component.

Figure 16: implemented or planned extensions to the shelters



Source: Occupancy Survey, June 2011

- In urban areas, beneficiaries are dissatisfied with the **lack of security systems** included in the shelter model. The more resourceful among them have endeavored to resolve this issue themselves: replacing the locks and latches, covering the shutter screws with mastic, etc.)

Figure 17: Example of modifications carried out by beneficiaries to improve security in urban areas



➔ Program beneficiaries are generally very satisfied with the shelters. Their only criticisms relate to the limited surface area, the flooring, the lack of porch and openings (doors & windows), and locking mechanisms. The last three are within affordability for some households.

#### b) Satisfaction with the lead time of the project

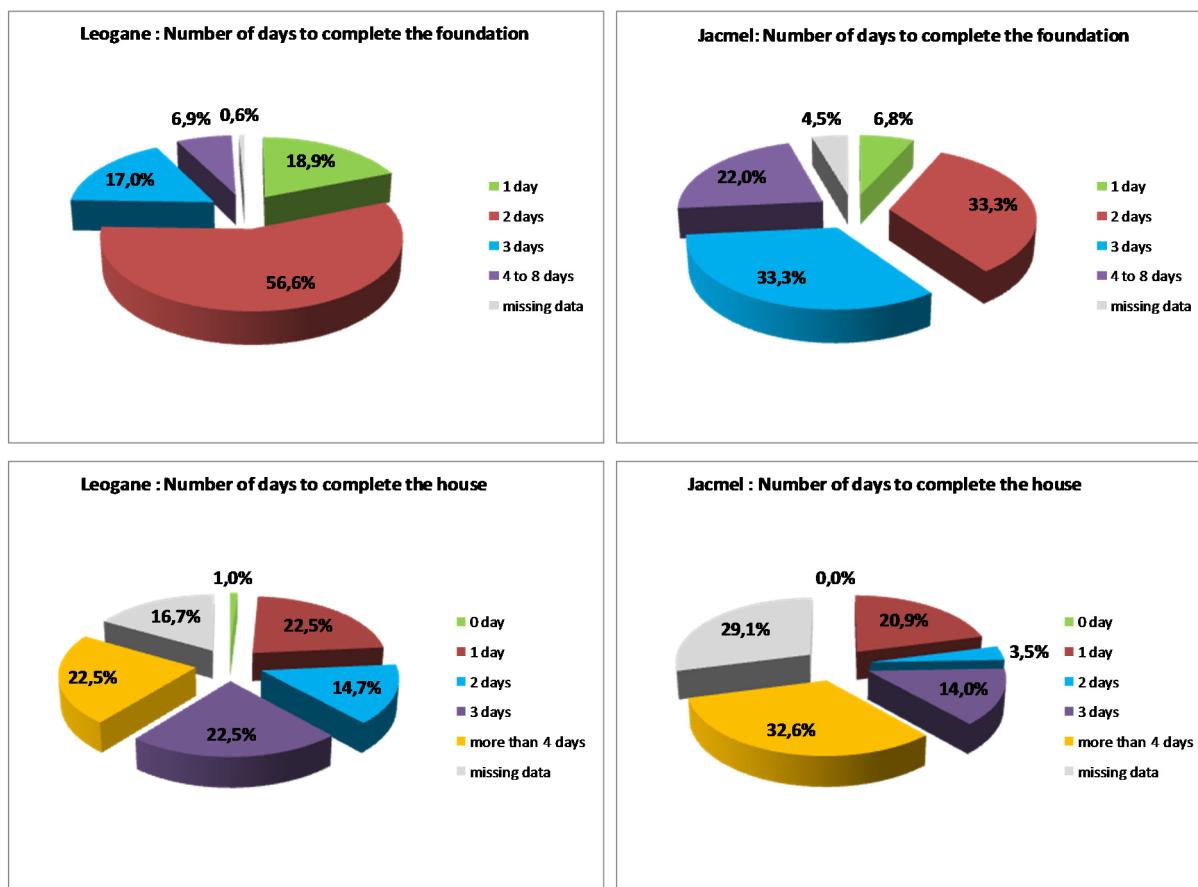
The beneficiaries met during the consultant's field visits stated they were satisfied with the lead time of the project, despite the precarious conditions in which some of them were living in the meantime (makeshift shacks, tents distributed by NGOs, etc.). Through the questions asked during these field visits, the consultant aimed to assess the beneficiaries' perception of the time that elapsed between:

- the earthquake and the start of the project (which actually took several months);

- identification of the families (survey) and the delivery of materials (which in reality took several weeks or months), depending on the family's level of vulnerability and on geographical constraint, especially in Leogane<sup>24</sup>.
- the delivery of materials and shelter construction (very short lead time);
- the beginning and end of the works (2-5 days for panelised shelters and 20 days for Diakonie's concrete shelters).

As a further source of information, the 2 associated questions included in the June 2011 satisfaction survey were also analyzed. These questions differed slightly and related to the number of days required to dig the shelter foundations and build the house.

**Figure 18: Actual time taken for construction, according to the beneficiaries**



*Source: Occupancy Survey, June 2011 (the Diakonie site was not included in the survey)*

The figures above show that the average time taken to dig the foundations was 2 to 3 days (slightly longer in Jacmel due to the type of soil) and that over 2/3 of the shelters were constructed in under 4 days, with the prefabricated components helping to speed up construction.

➔ **The project lead time was deemed satisfactory by the beneficiaries, despite the fact that some of the shelters were not built until April 2012 for the T-shelter, and September 2012 for the permanent Diakonie shelter.**

<sup>24</sup> Shelters were constructed by locality to avoid multiple trips of the teams.

**c) Satisfaction with the relationship with CRC staff and partners (NLRC, Diakonie)**

- **Relationship between the CRC and the validation committees**

The testimonies obtained from the 6 validation committees interviewed (mostly in Leogane) show vast discrepancies in perception between rural and urban communities. From our FGD, most committees (4 out of 5<sup>25</sup>) were dissatisfied with their relationship with the CRC teams (local and/or international staff). The main observations made are listed below:

- The validation committees never knew the outcome of their decision/list/selection - the committee was unable to let families know if they were beneficiaries or not;
- There was no written agreement between the CRC and the committees setting out the roles of each party and explaining what being elected committee member entails;
- The validation committees felt “used on demand”; they felt that activities were not properly planned in advance, posing problems for those committee members who worked;
- There was too little recognition of the work carried out by validation committee members who received only a certificate of honor/merit, but no financial compensation, even those who suspended their own activities to undertake validation work for the CRC;
- The CRC tried as much as possible to recruit local staff for construction; however the community felt that the program could have had a better impact on local economy if skilled workers were recruited in each community rather than in the core town. CRC was aware of that option, but estimated that additional trainings for new teams would have resulted in too much delay.

- **Relationship between the beneficiaries and the CRC**

From the various on-site individual interviews conducted and from the FGD, we can confirm that the beneficiaries are generally very satisfied with the relationship with CRC staff. This finding was corroborated by the Occupancy Survey, which showed highly positive results: 93% overall beneficiary satisfaction with the CRC in Leogane and 96% in Jacmel.

The only negative remarks made (in several communities of Jacmel and in Leogane) related to the labourers recruited by the CRC. The field interviews conducted with the beneficiaries gave rise to around a dozen complaints of dishonest practices carried out by labourers employed by the CRC:

- demanding money for excavation work;
- requiring payment before installing the tarp;
- encouraging beneficiaries to purchase or borrow the construction materials required for the concrete floor, ensuring them they would later receive a refund from the CRC.

Fortunately, there were relatively few examples of such unscrupulous conduct compared to the number of shelters constructed.

 **The Validation Committees were not particularly satisfied with their position. In contrast, however, the beneficiaries were highly satisfied.**

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<sup>25</sup> One of the FDG has been excluded as the validation committee did not attend.

## D.3. Efficiency: Adaptation of the Allocated Resources to the Targeted & Obtained Results

### D.3.1. Financial Efficiency: Adaptation of Financial Resources to the Results

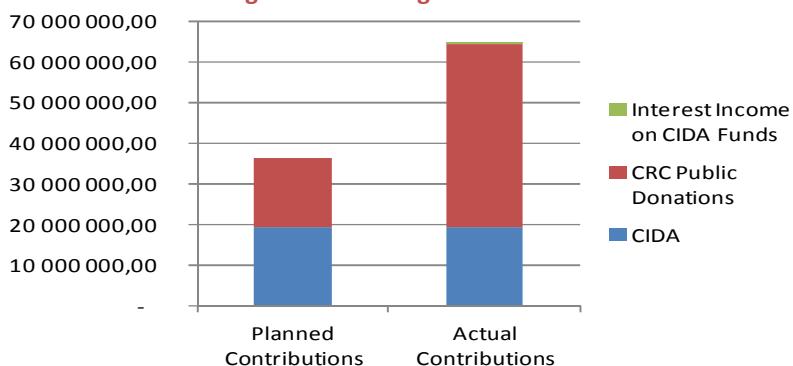
#### a) Budget execution

The planned total project budget, as presented in the Proposal dated 16<sup>th</sup> February 2010, was US\$ 36,133,438. Actual total project expenditure was US\$ 64,461,654, which is **an increase of 78% against the initial budget** (i.e. nearly double). The cost of this increase was entirely borne by CRC as no CIDA cost-extension was requested:

Table 12: Funding sources detail

Funding source	Planned contributions	Actual contributions
CIDA	19,148,438	19,150,000
CRC Public Donations	16,985,000	45,224,096
Interest Income on CIDA Funds	-	87,558
<b>Total</b>	<b>36,133,438</b>	<b>64,461,654</b>

Figure 19: Funding sources detail



A detailed analysis of budget execution cannot be made, as a detailed breakdown of expenditure has only been provided for the actual, not the provisional budget. The planned budget was prepared only 4 weeks after the earthquake. The emergency of the situation and the confusion around Haiti needs might explain why the budget was very rudimentary and based on initial assumptions that finally were not all valid<sup>26</sup>.

However, using the ‘summary level’ data, we can determine where the main differences in planned and actual expenditure are to be found.

<sup>26</sup> Many of the cost factors (including design and implementation mechanisms) were not known at that time.

Table 13: Budget execution detail (US\$)

Budget Category	Planned Expenditure	Actual Expenditure	Execution Rate
Shelter Kits	14 250 000,00	27 228 312,75	191%
Supply Chain	3 562 500,00	11 142 844,63	313%
Shelter Implementation (incl. Diakonie contract)	7 000 000,00	14 393 326,81	206%
Complementary programming –Water and Sanitation	3 000 000,00	-	0%
Complementary programming – Livelihoods	3 000 000,00	-	0%
Project Management - National Office	-	384 219,13	-
Field Management	-	6 815 626,59	-
Contingencies (10%)	2 800 000,00	-	0%
General Overhead Cost	2 520 938,00	4 497 324,74	178%
<b>TOTAL</b>	<b>36 133 438,00</b>	<b>64 461 654,65</b>	<b>178%</b>

As far as decreases in expenditure are concerned, we know that both the ‘Water & Sanitation’ and ‘Livelihood’ components were removed: the first was entirely supported by NLRC and the second was removed from the project.

With regard to increases in expenditure, the highlighted cells of the table show overspend in:

- The supply chain, i.e. supply chain management & freight and transportation.
- Shelter implementation, i.e. beneficiary identification, site clearing and preparation, shelter construction & contracted labor and services.
- The shelter kits, i.e. lumber, roofing, hardware & tool kits.
- Logically, general overhead costs, calculated as a lump sum (7.5% of the total budget).

These categories correspond to the whole operational part of the project, meaning that the entire intervention was under-estimated.

Management costs were also highly underestimated, as US\$ 7 million appeared in the actual expenditure column that had not been forecast in the provisional budget.

The CRC final report justifies this increase as follows:

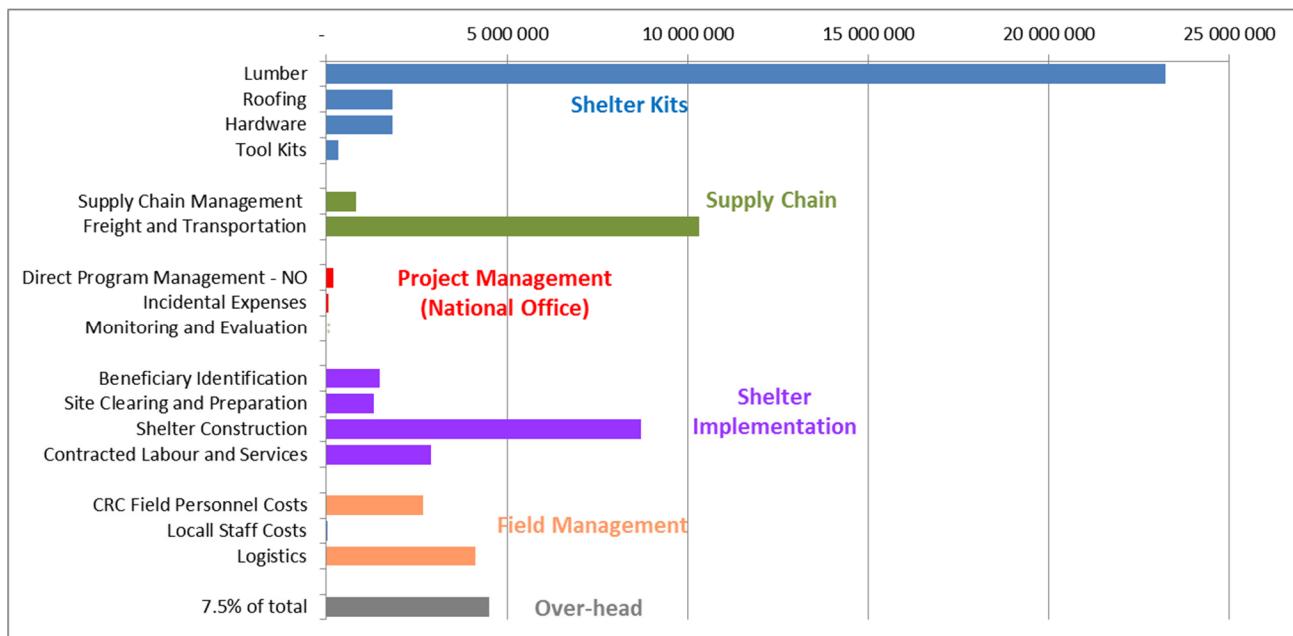
- CIDA funds were fully expended in the first year of operation.
- The provisional budget was developed quickly, prior to completion of the detailed design and costing.
- The concept in the Proposal was based on prototypes that had not yet been fully costed and checked for robustness.
- There was a major change in the expected outputs of the project, when CRC decided to move from the original concept in the proposal (shelters had only a tarpaulin siding and roof) to hurricane-resistant wooden shelters.
- The original proposal did not allow enough funds for transportation, or include the cost of setting up an extensive supply chain.

The original proposal to distribute tarpaulin-sided shelters in the context of Haiti (frequent hurricanes) was a very short-term solution, which can only be justified for a very quick implementation (within the 6 or 9 months following the disaster) and for beneficiaries who have a certain capacity to recover. But the CRC program evolved, under a request from the Haitian Red-Cross, to a different objective with the substitution of the tarpaulin by the plywood (slower response, better quality, security and personal safety).

Weaknesses in the initial budgeting are partially due to the emergency situation in which the proposal was drafted. The CRC had the flexibility at that time to move from the original proposal (tarpaulin shelters) agreed by CIDA to much better quality shelters.

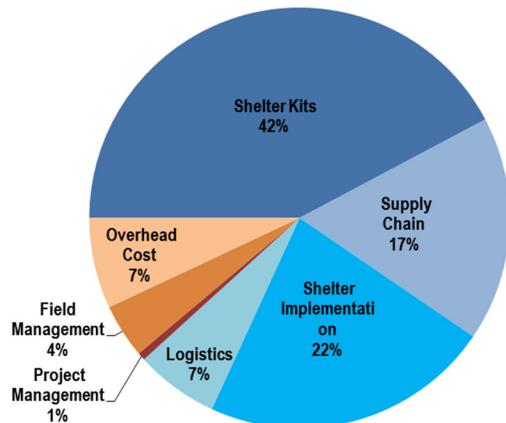
### b) Expenditure Composition

Figure 20: Detailed Budget Breakdown



The budget composition, as shown in Figure 21, reveals a prevalence of hardware costs: investment costs (in blue) account for a total of US\$ 56,893,474 (i.e. 88% of the total budget), while management costs (in orange) come to a total of US\$ 7,568,181 (i.e. 18% of the total budget). The size of this share is a reflection of excellent project governance.

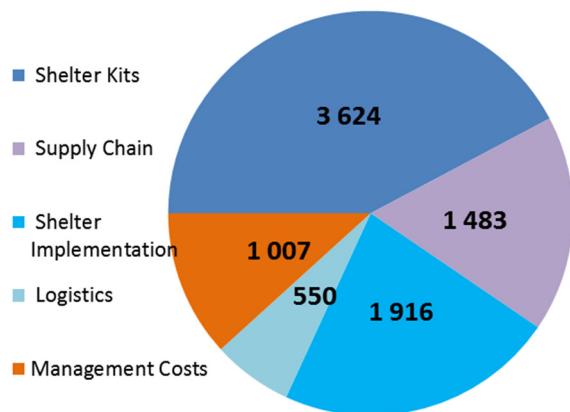
Figure 21: Budget Composition



### c) Unit Costs

As a total, 7,517 Shelters were built (6,916 Type A and B shelters and 601<sup>27</sup> Diakonie shelters). The analysis of the project costs shows, therefore, that each shelter cost a total amount of US\$ 8,579. The cost composition is represented in Figure 22.

Figure 22: Cost Composition of a US\$ 8,579 Shelter



The table below uses the same figures to give a concrete idea of the project costs: if only taking into account the hardware costs, then a shelter cost US\$ 7,376.

Table 14: Unit costs detail (US\$)

Unit costs	
The shelter itself	3,624
The transported shelter	5,107
The transported & installed shelter	7,376
The shelter built & allocated to a family	7,572
The shelter with all management costs	8,579

For a 18 m<sup>2</sup> shelter, this figure corresponds to **US\$ 410 per m<sup>2</sup>** (US\$ 477/m<sup>2</sup> if all costs are included). However, for greater accuracy, separate calculations can be made for the CRC and Diakonie shelters:

- As far as CRC shelters *stricto sensu* are concerned, we can calculate the cost from CRC's own budget, subtracting the US\$ 3,430,903 that corresponds to the CRC contribution to the Diakonie contract (inserted into the 'Shelter Implementation'/'Shelter Construction' budget line). The total unit cost of a shelter increases to US\$ 8,825, US\$ 7,518 of which equates to hardware costs (transported & installed shelter). For 6,916 units of 18 m<sup>2</sup> shelters, this corresponds to a cost of **US\$ 418/m<sup>2</sup>**<sup>28</sup>.
- The Diakonie/CRC Partnership Final Report states that "The total cost by the date of the revision was estimated at US\$ 4,322,693. In the last months of the project it became clear that the program would only be completed successfully if additional funds were invested. DKH did release an additional US\$ 850,000 in order to guarantee the success of the project. The total cost of the interventions therefore is US\$ 5,333,432." A total of 601 shelters were built. Therefore, the total unit cost of a shelter is US\$ 8,874, i.e. **US\$ 370/m<sup>2</sup>** (Diakonie's shelters are 24 m<sup>2</sup>). This considers all costs: the consultant had no access to

<sup>27</sup> 3 of the Diakonie's shelters were not completed (because the materials were stolen by the beneficiaries), reducing the total number of completed shelters to 7,514.

<sup>28</sup> According the CRC, the unit costs would have risen if smaller purchases had been made of the materials because of lack of economies of scale for the manufacturer.

detailed data on executed budgets; therefore, it was not possible to deduct the software aspects from this amount. In any case, we can see that the **Diakonie shelter was a lot cheaper to build than the CRC shelter**.

These figures do not exactly match with the data provided by CRC in its "Shelter Cost-Benefit Analysis". Indeed, the CRC data includes the costs shown below.

**Figure 23: CRC calculation of costs per unit (left hand side: Type A & B Shelters, right-hand side: Diakonie Shelters)**

International Transportation Cost :	1536 USD	International Transportation Cost :	0 USD
Local Transportation Cost :	501 USD	Local Transportation Cost :	235 USD
Land site preparation Cost :	189 USD	Land site preparation Cost :	0 USD
Material Cost * :	4656 USD	Material Cost * :	4204 USD
Tool Kit & Fuel Cost :	44 USD	Tool Kit & Fuel Cost :	0 USD
Labor cost :	957 USD	Labor cost :	2217 USD
Other Cost :	Project support costs (including monitoring), beneficiary identification 230 USD	Other Cost :	Local admin support costs 536 USD
Total Cost :	8113 USD	Total Cost :	7192 USD
Total Cost / m <sup>2</sup> :	451 USD	Total Cost / m <sup>2</sup> :	300 USD

\* including materials for foundation, structure, walls, roofing, flooring, openings, fastenings, water harvesting system, etc.

\* including materials for foundation, structure, walls, roofing, flooring, openings, fastenings, water harvesting system, etc.

However, they still correspond to the same cost range: **between US\$ 300 and 477/m<sup>2</sup>**, including investment and management costs.

Whatever the exact unit cost, these figures can be compared to the unit costs of other housing programs building permanent houses (only hardware costs are indicated here):

- “Morne a Cabrit”, social permanent housing (Government of Haiti funding), US\$ 12,000 per 32 m<sup>2</sup> unit, i.e. **US\$ 375/m<sup>2</sup>**.
- “Zoranje 400 pou 100”, social permanent housing (Inter-American Development Bank funding), US\$ 12,500 per 35 m<sup>2</sup> unit, i.e. **US\$ 357/m<sup>2</sup>**.

Obviously, the CRC shelter project had to take into account other aspects, such as emergency of the construction, working in very remote areas, which obviously increased all costs (both of the above examples are located in the Port-au-Prince Area and therefore involve low transportation costs and easier quality control). However, this range of costs shows that **the CRC shelter project was expensive for a transitional project**, and although, during 2010 and 2011, it logically had to be developed as an emergency project, its 2012 activities could easily have been re-oriented towards permanent housing, given the corresponding costs.

➔ **On the basis of the data provided, analysis of the financial management of the project shows both that the initial cost estimate was poor but was resolved through larger CRC donor contributions, and that the cost share between investment and management costs was extremely efficient. Ultimately, final unit costs are high and a shift to permanent housing could have been justified at a certain point in the project, even if the time span for the delivery may increase, as we have seen with the Diakonie project.**

### D.3.2. Operational efficiency: Time Compliance, Material and Human Resources Adaptation

#### a) Schedule and Delays: Compliance to Targeted Timeframe

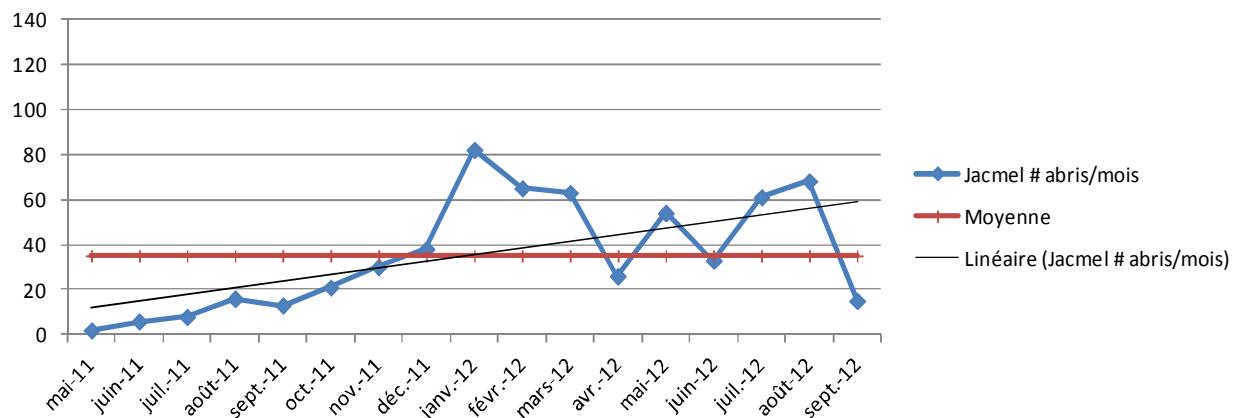
The mid-term evaluation of the project indicated “*inaccurate strategic-planning processes and tools from the outset of the program design phase through to the early-recovery programming phase*”<sup>29</sup>. This observation is mainly based on the fact that, from the outset, the program was unable to define a realistic timetable adapted to the realities in the field: the monthly construction quota was set by Ottawa and Port-au-Prince without prior validation by staff working in the field.

The delays soon accumulated on the project led to the CRC requesting a no-cost extension from CIDA in March 2011. This meant the initial length of the project was extended from 12 to 28 months. At the time the request for a no-cost extension was made, the CRC had constructed only 1,569 shelters, 21% of the initially scheduled constructions.

Other external issues (such as custom clearance delays) also appear to have hampered implementation of the project. This information was provided to us by Isabelle Hachette, former CRC Shelter Delegate who we met in Haiti, was confirmed by CRC managers but has not been documented.

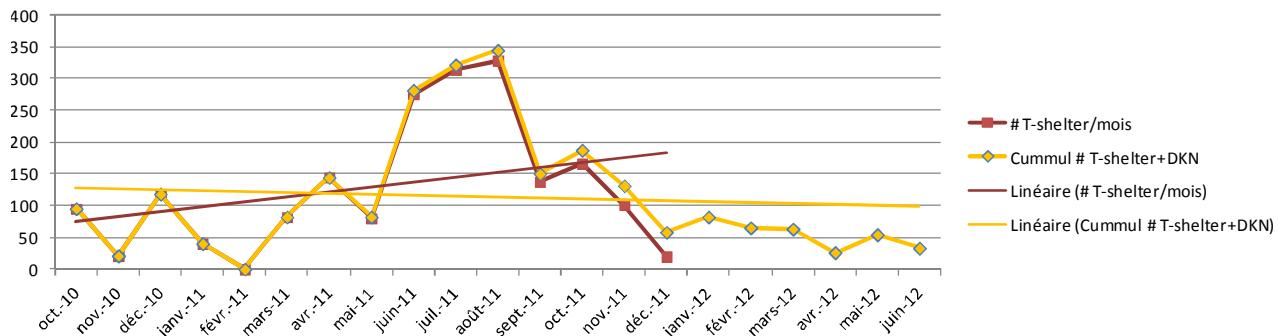
One of the measures taken to catch up on this delay was to employ a partner, the German NGO Diakonie. The partnership between Diakonie and the CRC was considered by these 2 parties as a means of outsourcing a sizeable part of program implementation (600 houses). Thus, the initial objective of this partnership was to rapidly accelerate the production of shelters on a large scale. From the graph below, we can see that it took Diakonie 8 months to attain a sustained pace of construction.

**Figure 24 : Graph of Diakonie shelter construction**



However, the figure below shows that the introduction of Diakonie did not have a notable influence on the pace of construction (+27%).

<sup>29</sup> Review of the CRC Shelter program - Haiti/Final Review Report, 22 June 2011 - Global Emergency Group

**Figure 25: Comparison between the pace of construction of CRC T-shelters and combined T-Shelters/DKN**

Lastly, it is to be noted that the partnership between Diakonie and the CRC experienced schedule delays<sup>30</sup>, which resulted in Diakonie requesting a contract extension from 8 to 21 months, with no official amendments to the contract<sup>31</sup>. At the same time, the CRC and Diakonie both ended up allocating more funds to ensure that the project would be completed, as follow:

**Table 15: Original agreement costing**

Contribution	Amount (USD)
DKH Contribution	348,051
CRC Contribution	3,142,817
ORIGINAL Project Cost (not including CRC overhead):	3,490,868

**Table 16: Revised agreement costing**

Contribution	Amount (USD)
DKH Contribution	1,902,599
CRC Contribution	3,430,903
REVISED Project Cost (not including CRC overhead):	5,333,432

All in all, Diakonie's intervention did not speed up the construction process as expected, but completed the work of CRC's staff, adding 601 shelters and also 6 months to the project.

👉 There were severe delays to the overall activity schedule and the partnering with Diakonie (initially meant to speed-up the construction rate in Jacmel) in fact resulted in more delays. The CRC project would have been completed faster if it had built an additional 600 T-shelters in La Vallee rather than outsourcing to Diakonie. The end result would not have been as good for the beneficiaries but the project would have been completed faster with lower resultant fixed costs.

### b) Appropriate Logistics

The project logistics was mostly driven from Ottawa through contracting SNC Lavalin, in charge of procurement of supply & transportation, as well as of the quality control before shipping. Initially, SNC Lavalin was also in charge of supervising transportation from Port-au-Prince to the project stores in Jacmel and Leogane, but it was subsequently handed over to the the CRC logistics team in Haiti.

During the early phase of the project, the beneficiary selection process was limiting the speed of implementation (CRC asked SNC Lavalin to slow down the shipping). Later on, the project faced some

<sup>30</sup> mainly due to difficulties for Diakonie to meet the quality standards demanded by CRC and to recruit sufficient manpower and establish appropriate number of on-site warehouses.

<sup>31</sup> The terms of the contract between the CRC and Diakonie state: "Unless terminated sooner in accordance with terms of this agreement, this agreement shall remain in full force and effect from the Effective Date until the later of: (a) Eight (8) months from the date of the signing of all parties to the agreement; (b) the completion of the project deliverables as more particularly set forth in the project proposal; or (c) Such other date as may be agreed to in writing by the parties".

temporary difficulties for some supplies (nails in July-August 2010 for example), but generally, the logistics were not the main bottleneck during implementation.

A more detailed analysis of the logistics was carried out during the mid-term evaluation.<sup>32</sup>

 **Outsourcing of logistics was efficiently managed. Shelters were delivered on time in Haiti.**

*c) Appropriate Human Resources: CRC Staff*

There was a high number of staff fielded by CRC as part of the program: more than 3,800 people were employed directly or indirectly for the program. Table 17 below summarises the breakdown between local and international staff across the different project locations, except Ottawa HQ.

**Table 17: Staff employment through the CRC shelter project**

	Staff Direct	Staff Indirect	Volunteers	Contractors	Daily Labourers	Total	# of shelter built	# shelter/staff
Port-au-Prince	5	106	-	-	-	111	0	-
Leogane	285	-	111	306	-	702	4,996	7
Jacmel	132	-	82		2,225	2 439	1,920	1
Diakonie	-	600	-	*	*	600	598	1
<b>Overall</b>	<b>422</b>	<b>706</b>	<b>193</b>	<b>306</b>	<b>2,225</b>	<b>3,852</b>	<b>7,514</b>	<b>2</b>

Source: *Haiti Earthquake Shelter Response, final report - December 2012 - CRC*<sup>33</sup>

The ratio shelter/staff demonstrates a significant difference between Jacmel and Leogane where much less staff was employed for more outputs in the end.

 **The overall ratio of human resources employed in the project is very satisfying (an average 1 person for every 2 shelters), in spite of surprising variations.**

*d) Use of External Resources: Partnerships*

- **Diakonie**

As mentioned above, a partnership agreement was signed between the CRC and the German NGO Diakonie on 3<sup>rd</sup> May 2011, for the construction of 600 shelters. The initial aim of this partnership was to speed up shelter production; however, as a side effect of this, the quality of the product provided to beneficiaries was also increased, as Diakonie introduced a new, more durable version of the shelter.

This partnership was meant to speed up the completion of the project to make up for the insufficient pace of construction in Jacmel. Indeed, it helped to achieve the objectives, but not to accelerate the completion of the project.

<sup>32</sup> For more details, see “review of the Canadian Red Cross Shelter Program – Haiti”; June 2011 ; from page 28 to page 36.

<sup>33</sup> Note: the ‘Direct’ Staff for Leogane & Jacmel includes the support staff as well (finance administration, legal, drivers, logistics, security, etc.). The ‘Indirect’ Staff for Port au Prince is the support staff (including drivers, security, logistics, etc.), as these would not have been hired if there was no shelter program (particularly for 2010-11). The ‘Indirect’ Staff for Diakonie is our estimate of Diakonie’s staff in La Vallee – as it is likely that they were also only employed to support the CRC shelter program.

- **NLRC**

On 11<sup>th</sup> May 2010, the CRC and NLRC signed a partnership agreement stipulating that NLRC would be directly responsible for implementing Water and Sanitation components within the CRC shelter program areas of intervention in Leogane and Jacmel.

This partnership provided good synergies:

- NLRC was benefiting from the beneficiary selection made by CRC to implement its WASH project,
- CRC was benefiting from the NLRC programme to achieve its engagement for the water and sanitation components agreed with CIDA.

However, the agreement itself appears relatively weak. Unless there is documentation missing, we have been unable to find a detailed project document that sets out the framework around which this partnership is based; it is likely that this was the principle cause of the tension seen between the CRC and NLRC. One of the main comments made retrospectively by both the CRC and NLRC related to the lack of human resources allocated to the WASH component but, without a project document, it is difficult develop a joint understanding of the resources required, etc.

In addition, NLRC has criticized the CRC for interfering in its project: the water and sanitation program was financed and implemented solely by NLRC and, according to the MoU, the CRC's only responsibility was to transmit the list of beneficiaries to NLRC.

**Figure 26 : Extract of the MoU between the CRC and NLRC**

<b>Responsibilities:</b>
<ul style="list-style-type: none"> <li>- Beneficiary selection and approval of site selection for transitional shelters is the responsibility of the Canadian Red Cross (CRC). CRC will ensure that its transitional shelter meets Federation's minimum technical standards developed for Haiti, and share its design with the Federation.</li> <li>- For each of the 7,500 transitional shelter beneficiary families the NLRC, supported by the HNRC, will provide Water, Sanitation and Hygiene Promotion services fully financed by the NLRC. Where appropriate, NLRC will also provide these services for neighbours or community members.</li> <li>- Site selection for transitional shelters is the responsibility of the CRC. The NLRC will provide services in all locations where the CRC constructs <i>transitional shelters</i>.</li> <li>- The NLRC will consult the CRC on the location of the Water and Sanitation components in camp situations, especially in cases where there is a high water table. Ultimately, NLRC will be responsible for selecting the locations for water and sanitation services.</li> <li>- The transitional shelter design is the responsibility of the CRC.</li> <li>- The Water, Sanitation and Hygiene design and programming is the responsibility of the NLRC.</li> <li>- The NLRC will maintain in-country a core staff to oversee the implementation of the Watsan/ HP programme until its completion..</li> <li>- The NLRC will be responsible for its own financial management of its part of the programme.</li> </ul>

➔ The partnerships introduced as part of the project were relevant and enabled the CRC to improve the achievement of results. Whilst the partnership between the CRC and Diakonie appears to have been intense but healthy, NLRC considered its partnership with CRC to be highly demanding.

## D.4. Impact: Direct and Indirect Outcomes of the Project

### D.4.1. Impact on Community Capacity

#### a) Provisions to build the capacity of communities to maintain/improve their shelters

All type A and B shelter owners should have received an information leaflet in Creole outlining their ownership rights, fire danger and hurricane resistance features of their shelter. But this does not qualify as provisions to build the capacity of communities to maintain or improve their shelter.

Training has been carried out, but this was only available to carpenters and mainly covered how to assemble the prefabricated shelters, techniques which the communities will not need to use again post-project.

Thus, many of the beneficiaries have interpreted the construction teams' message (advising against modifying the structure of the shelter to ensure it remains hurricane resistant) as meaning that they must not change anything on the shelter at all. In the field, shelter modifications are:

- Very rare in Jacmel (the main reason cited being lack of resources);
- Less rare but still few and far between in Leogane, mainly concentrated in the Belval neighbourhood (it would appear that many of the families rehoused here have a slightly higher standard of living).

**Figure 27: from left to right, shelters modified by the beneficiaries in Macary (Jacmel), Gaillard (Jacmel), Baussan (Leogane)and Belval (Leogane)**



Due to the lack of training and information, beneficiaries are unsure as to the type of modifications they are able to make. Consequently, the result varies: for some, the changes made, such as correctly adding a window, pose no danger; however, for other shelters, the modifications have rendered the structure less hurricane and/or earthquake resistant (see Figure 29 below or Figure 30, page 60).

During our visits, we noted that very few modifications have been made to the permanent housing constructed by Diakonie. The beneficiaries of these houses explained that:

- Either they thought that permanent houses could not be modified;
- Or they were unqualified to undertake the modifications they had planned and thus they had to pay for a mason, which they could not afford.

**b) Follow-up on design consequences for the users (safety, nailing for example)?**

The post-construction visits were mainly technical inspection visits and, whilst they highlighted certain construction faults, the aim was not to follow up on the consequences of the design on the users. Protruding nails were visible on some of the wooden frameworks built by Diakonie (see Figure 28), although this fault had been corrected on most of the other houses visited.

**Figure 28: Fault on a Diakonie timberwork (protruding nails).**



**c) Is there any evidence that the shelter design influenced the construction standards within the communities?"**

During our visits, we looked for, but were unable to find, replicas or imitations of the CRC shelter model and Diakonie constructions: the houses rebuilt by local people are made of concrete and have several rooms or outbuildings (notably a kitchen). At most, some extensions use the same materials and visually appear to be the same overall shape (however, the framework is less complex, for instance, and constructed without the metal connectors, which are not available on the local market).

The program has not put any real skill transfer mechanism in place:

- The carpenters were trained on how to assemble prefabricated components, not on the principles of constructing hurricane resistant structures;
- Shelters are constructed using components (metal connectors) that are unavailable on the local market;

- The technical option (shelter made entirely of treated wood) is not sustainable given the local market, which consists of untreated local wood (mainly plywood);
- The unit cost of a wooden shelter (see Chapter D.3.1.c) does not meet the demand of the Haitian market.

**Figure 29: Shelter elements are re-used, but the design is far from being hurricane-resistant**



Only those labourers with few qualifications at the outset of the project will have gained any construction experience. The experience gained by those who worked with Diakonie is probably most valuable (brick-laying, digging foundations) as it is more useful long-term. However, it is worth noting that virtually all the beneficiaries met were aware that the shelters and houses were hurricane resistant. This means that, even though hurricane-resistant construction principles have not been widely taught, people are aware of the source of inspiration (a proven hurricane-resistant structure). It is, therefore, to be hoped that the more inquiring carpenters, eager to improve on their framework design, will gradually take these principles on board as and when their budget allows.

➔ **The project implemented by the CRC has not had an impact on community construction capacities (knowledge of how to modify the shelters). There is also no evidence that it has influenced construction standards within the beneficiary communities.**

#### D.4.2. Socio-Economic and Environmental Impacts

##### a) *Does the project take gender-related aspects into account?*

- **Shelter ownership**

Shelter donation certificates were primarily granted to the women of the household. This was explicitly stipulated on the document issued to families: "If the beneficiaries are a family, one person is the head of the family. The head of the family listed at the bottom of the document and as signatory is either the wife of the couple or the mother of the family"<sup>34</sup>

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<sup>34</sup> "Si tankou benefisyè yo se yon fanmi, chef fanmi benefisyè yo se youn, chef fanmi benefisyè ki idantifye anba a epi ki siyen anba se ap fanm koup la ou byen manman nan fanmi an"

The Occupation Survey conducted in Jacmel revealed that 59% of responses from the shelter owners were from the women of the household.

- **Proportion of women on the local committees:**

The validation committees questioned had very few or no female member (the participation of women in these committees was not mandatory, but only recommended).

- **Proportion of women involved in the construction process**

The MoU signed between Diakonie and the CRC stipulated that at least 20% of the unskilled workforce recruited to work on the project should be women. From the information contained in Diakonie's final report to the CRC, it can be seen that this figure was exceeded, as 71 of the 250-strong workforce were women. This means that just less than 30% of Diakonie's unskilled workforce was female.

The CRC project also required that at least 30% of those working to prepare the site and construct the shelters were women. *"The workforce is chosen by the community. We request that, of the list of names given to us by the community, at least 30% of the workers are women"*. Unfortunately, due to lack of documentation, the consultant has been unable to determine whether this was indeed the case<sup>35</sup>.

 **The project was designed to take gender-related aspects into account, as girls and women are considered the most vulnerable in a post-emergency situation. Several elements seen in project delivery prove that this issue has been properly addressed.**

**b) Has the project helped develop the local construction market?**

Most projects, even those implemented in emergency situations, endeavor to ensure they have a positive impact on the local economy. Whilst the CRC project undoubtedly supported the local economy through job creation during implementation, the same level of support was not provided for the construction market:

- Virtually all the heavy materials used on the project were imported mainly because there was not a large timber market in Haiti and that controls on sustainable forestry in Haiti remain very poor (97% of Haiti is deforested). The timber used in the project came from sustainable forests in Canada.
- The carpenters and masons were trained to assemble structures specific only to the CRC project;
- Local (or even micro-local) resources were mainly used to help with logistics (trucks or mules) and local construction material (sand, aggregate)
- USD 800,000 of paint was purchased by the CRC from a Haitian manufacturer as well as all the corrugated galvanized iron sheets for Diakonie shelter roofs).

 **Due to the material suppliers and technical options chosen, the main procurements of project were not directed to the local construction market. Fortunately, the use of a local transport company to deliver materials, local construction material and paint purchased from the local market helped offsetting this.**

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<sup>35</sup> According to Isabelle Hachette, one of the former CRC shelter delegate in Leogane a particular attention was paid to the women involvement: "at least 50% of the volunteers recruited by CRC were women. Furthermore, most of them were also from their own localities" for Leogane Program

**c) Has the project helped secure land tenure?**

The project ensured all land tenure issues were properly taken into account prior to shelter construction. Outside the camps, the majority of beneficiaries were rehoused on their own land due as there was a high level of landowners among the beneficiaries in the areas targeted by the CRC.

For tenants or those people with no land (the case for most of those living in the camps), a beneficiary legalization process was put in place following Shelter Cluster guidelines. Thus, by signing the documents, the landowners agreed to allow the tenant to remain on the land for a period of 3 to 5 years.

The shelter design has been thought in order to address land tenure aspects for beneficiaries who did not own the land where the shelter was constructed (30% of beneficiaries, see table below). The shelter could be disassembled and moved more easily than other designs developed by other NGO. So, as the shelter is the property of the beneficiaries, it was possible for them to move from one place to a better one without losing their shelter.

**Table 18: Repartition of the beneficiaries land ownership**

Description	Jacmel		Leogane		Total	
Owner of the land	1,644	91.0%	2,956	62.3%	4,600	70.2%
Rent the land	132	7.3%	1,193	25.2%	1,325	20.2%
"Good Samaritan" land owner	31	1.7%	593	12.5%	624	9.5%
Skipped/Missing	110	5.7%*	257	5.1%*	367	5.3%*

\*percentages of question items recalculated as skipped/missing data >5%

*Source : Report on the Findings of the Household Monitoring Data of the CRCS Shelter Program in Haiti - January 2013*

Lastly, beneficiaries in the camps whose origins were unknown were rehoused using a “sustainable” land tenure solution. As far as possible, the aim of the solution found was to help relocate the family to its place of origin. CRC also worked in close collaboration with the DGI (*Direction Générale des Impôts*) so that the latter could grant National Identification Cards to beneficiaries who had lost them.

➔ **The project has provided stability to victims of the earthquake and this regardless of their beneficiary status (landowner/tenant).**

**d) Does the project take environmental aspects into account?**

Chapter 4.5 of the project document covers the project’s environmental aspects: “*Ongoing assessments will produce recommendations on possible environmental impacts, particularly with regards to the possibility of creating large transitional sites*”.

As the shelters constructed by the CRC were mostly rebuilt on the same sites as the previous houses, it would be fair to assume that no or very little extra land or forest (deforestation) has been used for construction. Exception was found in Binot and especially Belval, both in Leogane, where beneficiaries were relocated on new land, rented to the Government of Haiti. These lands, near the shore were previously unoccupied, and are now urbanised.

Through this approach, the CRC has limited the creation of sites housing temporary shelters (camps) intended for those victims who had lost the land on which they were living prior to the disaster.

Sanitation aspects were addressed through the partnership with NLRC (see D.2.1.c), who worked on the construction of a latrine for each shelter. As far as we are aware, no other environmental aspects were covered by the project (solid waste collection and treatment, stormwater management, etc.).

- ➔ The project design took some environmental aspects into account. However, the program did not have a significant impact on environment, it indirectly minimized deforestation and properly managed excreta.

## D.5. Sustainability: Ownership of the Project by the Beneficiaries, Durability and Replicability

### D.5.1. Ownership by the Beneficiaries

This issue has been addressed in several Chapters above:

- **Ownership of the project:** Chapter D.2.2.a) on Effectiveness (Result #1 targeted by the project: “Was community and local authority participation encouraged during the planning and implementation of projects?”) addresses community and beneficiary involvement in project preparation and implementation, and concludes that this was rather mixed: there were problems of community involvement during the beneficiary selection phase, good community participation during the field preparation phase and no participation during the construction phase.
- **Ownership of the shelter:** Chapter D.2.2.b) on Effectiveness (Result #2 targeted by the project: “Shelter occupancy rate: are the original occupants of the shelters still living in the shelters?”) addresses beneficiary ownership of the shelter and demonstrates that the high quality construction, coupled with good land tenure, means beneficiaries consider the shelter their home and the majority are still occupying them.
- **Ownership of the latrine:** Chapter D.2.1.c) on Effectiveness (Shelter Environment results of the project) addresses NLRC sanitation activities and concludes that beneficiaries do use their latrines and are satisfied with them.

- ➔ Overall ownership by beneficiaries is very satisfying: despite some problems at the community level during the inception phase, beneficiaries have adhered entirely to the project, from the outset up to the present time.

### D.5.2. Development and Implementation of a Project Exit Strategy

This chapter aims to address the following questions: Was the project designed for the long-term use of the shelters? Are CRC shelters able to continuously adapt to possible changes in beneficiary needs/demand?

#### a) Perception of the population: was the project designed for long-term use of the shelters?

The beneficiaries questioned by the consultant were all satisfied with the quality and robustness of the transitory shelters constructed by the CRC and the longevity of these shelters is not in question. These shelters were, however, designed to be temporary and thus cannot be fully utilized / considered as long-term accommodation as they lack certain components. The beneficiaries mainly highlighted the following aspects:

- **The floor:** this is made of compacted earth covered with a tarpaulin (not long-lasting, many are damaged or removed), as the shelter was initially designed to be easily demountable (so the shelter could be moved if necessary).
- **The deterioration of materials:** the materials used for shelter construction will steadily deteriorate over the next few years. Despite having been treated to render them rot resistant, the timber beams between the floor and foundations will rot over the long term (certain areas sooner than others), as will the plywood.
- **The size (18 m<sup>2</sup>) of the shelter** is ill-suited to the average size of the beneficiary families, namely 5.4 people.

- **Little consideration of the local way of living:** there is no kitchen in the shelter (due to size restrictions and the risk of fire). To overcome this, the beneficiaries have often rebuilt a separate kitchen out of relatively precarious and unsustainable materials. Furthermore, people in Haiti tend to spend most of their time outside the house, under the porch. However, this was not taken into account in the shelter model due to costs factors and wind resistance issues.

Despite this, the majority of beneficiaries (and all the beneficiaries in rural areas) stated they considered their shelter to be long-term accommodation as they lack the financial resources to rebuild their own homes. However, in urban areas (mainly in Leogane), the shelters are considered as “temporary” solutions, although most beneficiaries have no plans to move into more permanent housing. At best, those able to afford it will build extensions around their shelter.

 **The shelter constructed by the CRC is of high quality and durable for a shelter, but is not a long-term solution: for most beneficiaries, the shelters will remain as they are.**

**b) Are communities able to construct/modify shelters themselves?**

- **Deterioration of the shelters and the population's capacity to carry out repairs**

In the field, we observed very little deterioration to the shelters 6 to 24 months after construction. The beneficiaries have not yet carried out any repairs (except changing some locks of latches) in spite of the tool kit (hammer, saw, pickaxe, shovel and shears) they received from CRC.

- **Modification of the shelter**

Although timber, as the main component in the T-shelters, was consciously chosen by CRC to allow for changes and additions, it is probable that shelter owners will not be able to afford the high-quality materials (treated plywood and timber) nor the extra-cost of hurricane resistant construction. In some cases, the inexpensive modifications made by local carpenters will also reduce the resistance of the shelter itself. The structural differences between the extension and the shelter are clearly visible in the photos of extensions visited in Leogane, below.

**Figure 30: non-disaster resistant extension**



Figure 31: non-hurricane resistant modifications (missing beams reused for an extension)



- **Possibility of moving the shelters**

The “Report on the Findings of the Household Monitoring Data of the CRCS Shelter Program in Haiti, CRCS” (*Shelter Project Draft Report Jan 12.doc*) indicates that very few families have moved their shelter to another location (1.4% of the shelters was not found, having been either displaced, demolished or sold).

➔ From a short-term perspective, the quality of CRC shelters and Diakonies houses will prevent owners from having to make repairs. But from the perspective of beneficiaries, who consider the shelters as the only definitive housing they can afford, there is little possibility to repair, modify or extend their shelters without losing the hurricane resistance feature. There was no provision in the project to build the capacity of beneficiaries and local carpenters to help more sustainable construction techniques to develop.

#### D.5.3. Development and Implementation of a Conflict and Complaint Mitigation Strategy

##### a) *Have beneficiary complaint handling mechanisms been put in place to improve beneficiary satisfaction?*

As described in D.1.2.c), the initial selection process was considered as not reliable enough to the Community Mobilization Delegate in Leogane, who developed more comprehensive methodology, including validation committees. These committees were able to act as an interface between the project and the beneficiaries and, in some circumstances, relay some complaints from the beneficiaries.

In Jacmel, one woman was confronted to labourers demanding her extra money for digging the foundations of her shelter (trying to convince her that this was not included in CRC contribution). Doubtful, she called a CRC CMO as she happened to know his cell phone number, and was able to enforce her rights.

In our document review, we took note that a complaint feed-back mechanism was planned. Mostly focused on the selection process, it was supposed to allow beneficiaries and potential beneficiaries to add questions on their file or express complaints, in order to have a second assessment of his situation.

A significant number of second assessments of vulnerability were undertaken, but we have no information of the part resulting from this complaint mechanism and the part resulting from the process itself (comparing socio-economic survey to validation committee advice).

In spite of this, a noticeable background of discontent among the communities was felt during our field visits in the locations of Bwalam in Leogane. This tension was apparently already present in this location during the programme implementation and, towards the end of the project, the CRC team made a last round of shelter allocation (waiting list) in this neighbourhood but not to the extent of the validation committee's desires, as they did in other locations of Leogane. This probably compounded the situation with the community.

 **A complaint filing process was provided as part of the programme, and was used by some beneficiaries to advocate for their vulnerability. But the finale decision of allocation was only in the hands of CRC and generated some discontent throughout the project duration, in some specific areas.**

- b) *Have there been any conflicts generated by the program that have jeopardized the sustainability of the results? If yes, to what extent has the program endeavored to mitigate these?*

The following table summarizes the type and number of complaints registered.

Table 19: registered complaints during the project implementation

Type of complaint	Explanation	Number
Beneficiary identification	<p>Includes complaints from families having been censused but having no news from the legal department of CRC for the following steps. This might be because:</p> <ul style="list-style-type: none"> <li>• The person is validated as eligible, but the legal department is still working on the tenure issues</li> <li>• The person is vulnerable as per code AV or PV (eligible but few chances to get a shelter)</li> <li>• The person is not eligible on vulnerability (code N)</li> <li>• The house has been considered as reparable</li> <li>• The person is in a temporary camp but his name is not in one of the list (CRC, IOM, Committee), so he or she is not considered as eligible</li> <li>• The person was included in the census, but was not found for the technical assessment, or the vulnerability assessment</li> <li>• The person has a proof of registration, but is not in the database (forged coupon or data loss during logging)</li> <li>• The person has already received a shelter from another organization</li> </ul>	36%
Legal process	<p>Mostly coming from beneficiaries having completed the legal process (papers signed) but not having received the shelter yet, for the possible reasons:</p> <ul style="list-style-type: none"> <li>• The file was cancelled (for example when another member of the family already received a shelter and the beneficiary was not informed at first)</li> <li>• The construction of the shelter is delayed (standby in some localities, the beneficiary plot cannot be found, the plot does not comply with the technical requirements...)</li> </ul>	24%
Construction	Complaints regarding the construction quality (holes in the roofs, uneven floors, and demand for concrete walls), the building material not being received or the delays in the construction phase.	40%

CRC's staff tentatively addressed all the complaints, but many of them were either:

- Impossible to solve unless creating other inequities
- Impossible to solve given the human resources allocated to the program.

Registering complaints, whether they are justified or not, raises expectations from the complainants and generates more discontent if many of them cannot realistically be solved. Thus, in November 2011, the CRC decided to revise the complaint mechanism to reduce the negative impact on project implementation<sup>36</sup>.

 Available information does not allow measuring any improvement in the beneficiary satisfaction that would result from the complaint-handling mechanism, but this mechanism did exist and was active.

<sup>36</sup> Cf. Appendix G.8: Canadian Red Cross Limits of Coverage after Shelter Completion

## D.5.4. Project Replicability: Has it become a Reference for Further Shelter Projects?

### a) CRC ranking with other shelter programs

Several concepts of shelters were implemented in Haiti after the earthquake, from the “core shelter” with only a wooden or steel structure, corrugated iron roof and tarpaulin walls, to small permanent concrete houses. As a transitional shelter, that of the CRC should be compared within its category (see Appendix 0, page 93 for more details on other comparable shelters).

With treated wood for the structure, treated plywood for walls, insulated iron sheets for the roof and hurricane/earthquake resistant design, the CRC shelter appears to be more than just temporary housing and does not require any “phase 2” evolution. It could qualify as a high-quality transitional shelter, but other organizations operating on the same timeline developed even better models, including appreciated features such as porches, partition, modularity, rainwater collection system, etc.

 Shelters distributed by the CRC are robust and safe, their lifespan is probably the best that can be expected from wood construction, but it misses a proper floor, concrete walls and modularity (partition but also more surface for large families) to rank among the most appreciated.

### b) What has been contribution of the CRC in the shelter cluster in Haiti with regards to advocacy on quality standards and other shelter major issues?

From the interviews conducted, it appears there were two trends within the Shelter Cluster, both of which were developed at the same time. The first fostered the construction of resistant and highly sustainable shelters; whereas the second sought to accelerate the transition towards sustainable reconstruction without reliance on temporary shelters.

Within the cluster, whilst the quality and resistance of the CRC shelters are well-known, the CRC shelter program is not cited as a benchmark, notably because it continued to provide medium-term accommodation solutions long after the disaster without including a component to ensure the transition towards permanent housing.

 Even if the CRC set high standards of quality for temporary shelters (hurricane/earthquake resistant, durable treated wood), the advocacy for this type of shelter might lead to a dead-end as the focus is more on reducing the transitional-shelter phase to accelerate reconstruction mechanisms.

## E. Overview of Evaluation Results

### E.1. Strengths of the program

- The CRC demonstrated, through the implementation of this project, its capacity to deliver housing solutions in the difficult post-disaster context. More than 7,500 shelters were effectively constructed, with robust logistics and appropriate human and financial resources.
- The selection of implementation areas and the coordination with other organization enable a very efficient allocation of available shelters, with no overlapping and a relevant community targeting.
- The CRC was able to improve its beneficiary selection methodology to reduce the risk of inequity and target the most urgent needs.
- The feed-back from beneficiaries is very positive in terms of satisfaction towards the project intervention.
- The model of shelter distributed has inherent qualities (wind and earthquake resistance, better housing quality than many traditional houses in rural Haiti) for a transitional shelter (Type A and B shelters) and for a permanent shelter (Diakonie shelters).
- Cooperation with community members, local authorities, the HRC as well as main stakeholders (such as DPC and IOM) was maintained and proactive.

### E.2. Weaknesses

- The delays in the implementation put the programme in an awkward position, in between post-disaster response and transition towards sustainable reconstruction. With shelter design, procurement and shipping entirely outsourced to a subcontractor, the project had no flexibility (shelters were ordered, initial budget already exceeded) to revise its strategy when the timeframe began to require it.
- The model of shelter distributed favoured inherent robustness over adjustment to the beneficiaries demand. It lacks some assets for being a definitive housing solution (definitive flooring, partitioning, kitchen, porch, concrete walls) while it does not encourage beneficiaries to reconstruct.
- The unit cost of the shelters is among the highest of the category, while other less expensive models offered more features, flexibility and were more demand-responsive. And finally, this level of investment, out of a post-disaster context (i.e. with a slower construction pace), should allow for durable reconstruction.
- The project exit strategy was partial, the capacity of beneficiaries was not improved. Basic information on the possibilities of modifications was not given to the beneficiaries and the fact that the program was completed was not even known in some locations.

### E.3. Issues

- It is surprising that the project was able to make substantial re-orientation during implementation (the move from the initial tarpaulin shelter towards a high-quality wooden shelter, the allocation of 78% of extra funding, the partnerships with NLRC and Diakonie) but had no flexibility to revise the strategy in light of cluster and national recommendations (mainly because the long supply chains imposed on CRC to make bulk orders for shelter materials).
- In the early stage of the project, the beneficiary selection in Jacmel appeared to be very poor, to the extent that the shelter construction was stopped in February 2011 to give sufficient time to implement the revised

process developed in Leogane. Surprisingly, the occupancy survey shows what seems to be a better targeting efficiency in Jacmel (92.4% of beneficiaries met at least one of the vulnerability criteria, against 47.4% in Leogane). This result could indicate that the CRC program was able to assist more earthquake affected families per affected population in Leogane than in Jacmel or alternatively indicate that the needs are still not addressed in Jacmel (too few shelters were distributed) while the lower rate in Leogane could be an indication that the number of distributed shelters “saturated” the needs.

- The partnership with NLRC was an efficient way to address the sanitation issues and share a significant part of the work (beneficiary selection). Eventually, it allowed CRC to achieve its commitment for sanitation (but not quite for water), without allocating budget for this. It raised the question of the initial budget design, which could obviously not bear the WASH component.

## E.4. Evaluation Matrix

						Key: Not satisfactory	Partially satisfactory	Satisfactory
Themes	Indicators		Questions/Observations/Specific designations	Data source and collection method	Result of analysis			
D.1 RELEVANCE AND COHERENCE: APPROPRIATENESS OF THE PROJECT TO THE CONTEXT , NEEDS, DEMAND AND NATIONAL STRATEGIES								
D.1.1	Sector coordination and institutional alignment mechanisms	a)	Is the project aligned to the strategies defined by the Shelter Cluster?	- Level of coordination with other non-governmental actors working in the sector	- Interview with the shelter cluster	The project is aligned to the main guidelines defined by the Shelter Cluster. At the same time, CRC participation in Cluster meetings, coupled with the CRC's proactive approach to meeting other NGOs working in Jacmel and Leogane, ensured the geographic areas of intervention were fully defined and respected.		
		b)	Is the project aligned to the national strategies set out by the Haitian authorities for shelter?	- Level of alignment with national strategies	- Interview with the Cluster-lead during project set-up - Analysis of strategy documents	Due to lack of national leadership on the issue of rehousing the population following the earthquake, there were initially no clear governmental guidelines for the CRC to follow. Once formulated, the CRC project was not totally aligned to the guidelines provided.		
D.1.2	Relevance of the methodological approach	a)	Relevance of the chosen technology	- T-shelter, Core Shelter, Permanent Shelter: between emergency and recovery? - How the design of the shelters should have facilitated the implementation of the project? - How this design addressed the needs of the beneficiaries?	- interviews with CRC staff - beneficiary focus group	The type of shelters put in place provided the beneficiaries with security (the "basic shelters" with tarpaulin walls were severely criticized in this regard); CRC chose to make a trade-off between shelter quality and emergency:		
		b)	Relevance of site selection	- Is there a site selection protocol? - Was a socio-economic study of beneficiaries conducted? - Did the results lead to the beneficiaries in greatest need being selected? - Was the selection process seen as equitable to the selected beneficiaries, and to the unselected ones? Is the perimeter of the target sites appropriate (in particular the selection of Jacmel and Leogane and the sub-sectors)?	- Interviews with CRC teams - Cluster interviews - Analysis of protocols - Interviews with local committee members - Analysis of beneficiary datasheets	The shelter design meets the population's post-disaster needs.		
		c)	Consistency of the beneficiary selection process	- Was the methodology used to select beneficiaries adapted for the 2 different types of shelter? What were the differences? - Was the implementation methodology adapted for the 2 contexts?	- Interviews with CRC teams - Interview with Diakonie - Interview with IFRC - Interview with the shelter Cluster	The methodology used to identify and select the sites has been based on a geographical distribution of affected areas between the various post-disaster organizations involved and the sites selected (Jacmel and Leogane) are relevant and effectively address an intervention need. The distribution methodology was not cost-efficient; nevertheless, it was well adapted to the beneficiaries' needs		
		d)	Continuous review of the approach and ongoing improvements	- Is there an analysis of good and poor practices, an awareness of failures and success, mid-term reviews, sessions to share learning? - Was national benchmarking (through the Cluster?) or international benchmarking (similar projects in other countries) carried out?	- Interviews with CRC teams - Analysis of the mid-term review - Analysis of quarterly reports	CRC self-questioning and quest for on-going improvements led to a mid-term review and satisfaction survey being conducted, the recommendations and results of which, however, seem not to have been followed.		
D.2 EFFECTIVENESS: ACHIEVEMENT OF THE RESULTS TARGETED BY THE PROJECT								
D.2.1	Achievement of the Main Outputs of the Project (as from CIDA/CRC Agreement)	a)	Were 7,500 T-shelters built in Jacmel and Leogane?	- How many shelters have been built ?	- Analysis of program documents - Interviews with CRC teams	The main output sought by the project, namely the construction of 7,500 T-Shelter Units in Jacmel and Leogane, has been achieved.		
		b)	Were these shelters allocated to vulnerable families?	- What are the vulnerable criteria ? - Have they been respected ?	- Interviews with local authorities - Interviews with local committees - Interviews with CRC teams - Beneficiary Focus Group	The vast majority of beneficiaries in Jacmel met at least one of the vulnerability criteria. But in Leogane, only half of them.		
		c)	Were issues related to the shelter environment addressed?	- Sanitary issues - Income Generation	- Interviews with CRC staff - Beneficiary Focus Group	Issues related to the shelter environment where partially addressed: sanitation was provided through latrine construction for nearly all shelters, water and hygiene issues were treated more lightly, and solid waste management was not dealt with. Income generating activities were fully developed through the hiring of construction officers.		
D.2.2	Achievement of the 4 results targeted by the project	a)	Was community and local authority participation encouraged during the planning and implementation of projects?	- How were local authorities involved? - How were local committees set up? - How were beneficiaries involved in selecting reconstruction sites/the types of shelter proposed? - How were beneficiaries involved in constructing their shelter?	- Interviews with local authorities - Interviews with local committees - Interviews with CRC teams - Beneficiary Focus Group	The aim of the methodology developed by the CRC was to involve both local authorities and the communities. This aim was effectively achieved during the beneficiary selection phase; however, local actors were frustrated by the fact that they consider their involvement to have been too limited. During the implementation phase, the beneficiaries participated in site preparation and local authorities were kept regularly informed.		
		b)	Shelter occupancy rate: are the original occupants of the shelters still living in the shelters?	- How many shelters are still occupied by their original occupants? - Do the incentive measures ensure there is a high occupancy rate of the shelters constructed? - Do the incentive measures ensure the stability of the initial occupants? - What are the main reasons given by occupants for leaving their	- Analysis of beneficiary datasheets - Analysis of program documents - Interviews with local authorities (land tenure, etc.)	Very few shelters have been sold on or transferred; the vast majority (more than 8 out of 10) is still occupied by the original beneficiaries.		

			<p>shelters?</p> <ul style="list-style-type: none"> <li>- Identification of the main reason for leaving the shelters?</li> <li>- Are shelters abandoned or reallocated to other families? By whom?</li> </ul>	<ul style="list-style-type: none"> <li>- Beneficiary Focus Group (their view of the situation)</li> </ul>		
	c)	Capacity and knowledge building for CRC staff: were activities scheduled to take place before and during the project?	<ul style="list-style-type: none"> <li>- Were training activities scheduled to take place before project kick-off?</li> <li>- Were refresher training activities organized during the project?</li> </ul>	<ul style="list-style-type: none"> <li>- Analysis of training modules</li> <li>- Interviews with CRC staff</li> </ul>	Training provided as part of the project consisted of activities at the end of the project to help national staff members find employment post-CRC.	
	d)	The types of shelter proposed are hurricane and earthquake resistant?	<ul style="list-style-type: none"> <li>- Were anti-seismic and anti-cyclonic regulations taken into account during the shelter design phase?</li> <li>- Were fire-safety standard taken into account?</li> <li>- Were commonly accepted standards adhered to?</li> <li>- Were these provisions sufficient to withstand subsequent weather events?</li> <li>- What was the main damage caused by the last cyclone season? Could this have been prevented?</li> <li>- Do the shelter reduce the possible consequences of disaster?</li> </ul>	<ul style="list-style-type: none"> <li>- Analysis of reference documents</li> <li>- Analysis of technical specifications for the different types of shelter</li> <li>- Interviews with CRC teams</li> <li>- Observations in situ</li> </ul>	The project provides the beneficiaries with a secure environment. The shelters constructed meet international standards for earthquake and hurricane resistant housing and, as such, are able to withstand natural disasters.	
D.2.3	Beneficiary satisfaction	a)	Satisfaction with design and functionality of the shelters and latrines built	<ul style="list-style-type: none"> <li>- Are the beneficiaries satisfied with the design/functionality of the shelters and latrines built (in terms of warmth, possible extensions, etc.)?</li> <li>- how the shelter were sized in terms of surface per inhabitant?</li> <li>- what is the expected lifespan of main materials?</li> <li>- how the availability of material and skills on the local market was taken into account?</li> </ul>	<ul style="list-style-type: none"> <li>- Analysis of "Findings of the Beneficiary Survey in Leogane and Jacmel"</li> <li>- Beneficiary Focus Group</li> </ul>	Program beneficiaries are generally very satisfied with the shelters. Their only criticisms relate to the limited surface area, lack of openings (doors & windows), the flooring and locking mechanisms.
		b)	Satisfaction with the lead time of the project	<ul style="list-style-type: none"> <li>- Are beneficiaries satisfied with the lead time of the project</li> </ul>	<ul style="list-style-type: none"> <li>- Analysis of "Findings of the Beneficiary Survey in Leogane and Jacmel"</li> <li>- Beneficiary Focus Group</li> </ul>	The project lead time was deemed satisfactory by the beneficiaries, despite the fact that some of the shelters were not built until September 2012.
		c)	Satisfaction with the relationship with CRC staff and partners (NLRC, Diakonie)	<ul style="list-style-type: none"> <li>- Are beneficiaries satisfied with the relationship between the communities and CRC staff and partners (NLRC, Diakonie, etc.)?</li> </ul>	<ul style="list-style-type: none"> <li>- Analysis of "Findings of the Beneficiary Survey in Leogane and Jacmel"</li> <li>- Beneficiary Focus Group</li> </ul>	The communities, institutionalized through the Validation Committees (those that were met), were not particularly satisfied with their position. In contrast, however, the beneficiaries were highly satisfied.
<b>D.3 EFFICIENCY</b>						
D.3.1	Financial efficiency: Adaptation of Financial Resources to the Results	a), b), c)	Are the amounts invested commensurate with the results obtained?	<p>Analysis of the main ratios:</p> <ul style="list-style-type: none"> <li>- Average project cost per family</li> <li>- Comparison of the "overall project cost per shelter" and "direct cost of shelter" ratios</li> <li>- Distribution between operations / investment</li> <li>- Analysis of logistics costs for the sub-contractors</li> <li>- How does the cost of manufacturing the shelters compare to the average cost of Shelter programs in Haiti?</li> </ul>	<ul style="list-style-type: none"> <li>- Analysis of budgets and disbursements</li> <li>- Interviews with CRC</li> <li>- Interview with shelter NGOs/Shelter Cluster</li> </ul>	On the basis of the data provided, analysis of the financial management of the project shows both that the initial cost estimate was poor but was resolved through larger CRC donor contributions, and that the cost share between investment and management costs was extremely efficient. Ultimately, final unit costs are high and a shift to permanent housing would have been justified at a certain point in the project.
D.3.2	Operational efficiency: Time Compliance, Material and Human Resources Adaptation	a)	Schedule and delays : Compliance to Targeted Timeframe	<ul style="list-style-type: none"> <li>- What were the mechanisms implemented to monitor the adherence to the schedule?</li> <li>- What were the main reasons for delays in the schedule (if any) and the lessons learnt from there ?</li> </ul>	<ul style="list-style-type: none"> <li>- Analysis of reporting methods</li> <li>- Analysis of internal project monitoring &amp; evaluation</li> <li>- Interviews with CRC staff</li> </ul>	There were severe delays to the overall activity schedule. Following the signature of a no-cost extension and recruitment of a construction partner, 100% of the shelters were able to be constructed within the revised timescale.
		b)	Appropriate logistics	<p>Were there any bottlenecks in:</p> <ul style="list-style-type: none"> <li>- the supply of local materials?</li> <li>- the supply of imported materials?</li> <li>- the availability of on-site labor?</li> <li>- the availability of other equipment on site?</li> </ul>	<ul style="list-style-type: none"> <li>- Interviews with CRC</li> <li>- Interviews with local committees</li> <li>- Beneficiary Focus Group</li> </ul>	More than 7,500 shelters were effectively constructed, with robust logistics and appropriate human and financial resources. Bottlenecks were not on the side of procurement and delivery, but selection and construction.
		c)	Appropriate Human Resources: CRC Staff	<ul style="list-style-type: none"> <li>- Human resources / deliverables</li> <li>- level of skills and task sharing</li> </ul>	<ul style="list-style-type: none"> <li>- Interviews with CRC staff</li> <li>- project reports</li> </ul>	The global ratio of human resources employed in the project is very satisfying: as an average 1 person for every 2 shelters.
		d)	Use of External Resources: Partnerships	<ul style="list-style-type: none"> <li>- Relevance of the contract agreement with NLRC and Diakonie for achieving the required results in the time allotted to the project</li> <li>- How has the management/coordination structure between CRC and their partners facilitated or hindered achievements of quality, timely and cost efficient implementation of the overall shelter program?</li> <li>- How the differences of partnership arrangements with CRC impacted on implementing coordination for NLRC and Diakonie?</li> </ul>	<ul style="list-style-type: none"> <li>- Interviews with CRC teams</li> <li>- Interview with Diakonie</li> <li>- Interview with NLRC</li> </ul>	The partnerships introduced as part of the project were relevant and enabled the CRC to improve the achievement of results, both by completing the CRC program and allowing to focus more on construction. Whilst the partnership between the CRC and Diakonie appears to have been healthy but intense, NLRC often considered their relationship with the CRC to be "all-consuming".
<b>D.4 IMPACT: DIRECT AND INDIRECT EFFECTS OF THE PROJECT</b>						
D.4.1	Impact on community capacity-	a)	Were there some provisions to build the capacity of communities on maintaining/improving their shelters?	<ul style="list-style-type: none"> <li>- was there any follow-up from Diakonie on modifications made by beneficiaries (safety, relevance)?</li> <li>- was there any follow-up on design consequences for the users (safety,</li> </ul>	<ul style="list-style-type: none"> <li>- Beneficiary Focus Group</li> <li>- Interviews with CRC teams</li> </ul>	The project implemented by the CRC has not had an impact on community construction capacities (knowledge of how to modify the shelters). There is also no evidence that it has influenced construction standards within the beneficiary

	building		nailing for example)? - is there any evidence that the shelter design influenced the construction standards within the communities?		communities.	
D.4.2  Socio-economic and environmental impacts		a)	Does the project take gender-related aspects into account?	- Does the project particularly focused on female heads of the household (selection of the beneficiaries, representativeness of the female head of household during the handover of the shelter kits, etc.)? - Are women widely represented on the Local Committees? - At least 20% of those employed (unskilled workers) on the Diakonie project are women - Was the shelter design influenced by requests received from women?, Does the woman feel a sense of the ownership of the shelter ?	- Analysis of project documents - Analysis of the local committee set-up reports - Analysis of the Diakonie project staff list	The project was designed to take gender-related aspects into account, as girls and women are considered as the most vulnerable in a post-emergency situation. Several elements seen in project delivery prove that this issue has been properly addressed.
		b)	Has the project helped develop the local construction market?	-Where are the site laborers from? - What proportion of the materials used were procured locally?	- Interviews with CRC teams - Interviews with local committees	Due to the material suppliers and technical options chosen, the project has not particularly helped develop the local construction market. The use of a local transport company (truck hire) and/or micro-local transport (use of mules) to deliver materials is the only positive impact observed.
		c)	Has the project helped secure land tenure?	- What is the land tenure situation of the shelters? - What modifications to the land tenure have resulted from the project?	- Beneficiary Focus Group	The project has provided stability to victims of the earthquake and this regardless of their beneficiary status (landowner/tenant).
		d)	Does the project take environmental aspects into account?	- Have environmentally-friendly construction materials been used? - Are the sites used to store additional construction materials environmentally acceptable (sites dismantled and properly cleared at the end of the project, etc.)? - Impact of shelter construction on plant cover, etc.? - Any other unanticipated impact on the environment?	- Interviews with CRC teams - Analysis of project documents - Observations in-situ	The project design did not take the program's environmental aspects into account. However, the program indirectly minimized deforestation and properly managed excreta.
<b>D.5 SUSTAINABILITY: OWNERSHIP OF THE PROJECT BY THE BENEFICIARIES, DURABILITY AND REPLICABILITY</b>						
D.5.1	Ownership by the beneficiaries	-	What was the extent of beneficiary involvement in project implementation?	- Were the beneficiaries involved in constructing their shelters? - Have the beneficiaries subsequently adapted their shelters to meet their own requirements? - Are the latrines built by the project being used as intended or for something else?	- Beneficiary Focus Group - Analysis of monitoring & evaluation documents and schedules - Observations in-situ	Overall ownership by beneficiaries is very satisfying: despite some problems at the community level during the inception phase, beneficiaries have adhered entirely to the project, from the outset up to the present time.
D.5.2  Development and implementation of a project exit strategy		a)	Perception of the population: was the project designed for long-term use of the shelters?	- Have shelters been made less vulnerable to climate risk? - Have the skills, and the supply chain of materials, required for repairing the shelters been identified? - Are the people selected through training (Diakonie, other) hard-working and reliable? - Do they have proven construction knowledge and experience? - Are the communities able to afford the tariffs charged? - Have other practices to ensure the sustainability of the shelters been identified and/or implemented during the project?	- Analysis of training attendance registers? - Analysis of the protocol used to award certificates - Observations in-situ - Analysis of construction plans - Analysis of project documents (proposal & progress report)	The shelter constructed by the CRC is of high quality and durable for a shelter, but is not a long-term solution: for most beneficiaries, the shelters will remain as they are.
		D.5.2 b), c), d)	Are communities able to construct/modify shelters themselves?	- Identification of supply chains - Identification of "subject matter experts" within the community? - Are the communities able to relocate a shelter (dismantling and reconstructing)? - Are the communities able to repair, improve and extend the shelters?	- Beneficiary Focus Group - Interviews with CRC teams	There was no provision in the project to build the capacity of beneficiaries and local carpenters to help more sustainable construction techniques to develop.
D.5.3  Development and implementation of a conflict and complaint mitigation strategy		a)	Have beneficiary complaint handling mechanisms been put in place to improve beneficiary satisfaction?	- What mechanisms are in place to highlight any adverse effects of the program? - Were these identified during the preparatory phase of the program? - What specific measures have been put in place to prevent conflict arising during the program?	- Interviews with CRC teams - Analysis of program documents	A complaint handling mechanism was quickly implemented and used (even the mechanism itself cannot solve all the complaints, at least they were registered and taken into account).
		b)	Have there been any conflicts generated by the program that have jeopardized the sustainability of the results? If yes, to what extent has the program endeavored to mitigate these?	- What type of complaints system is in place? - Data analysis and transfer to managers - Effectiveness of response and complaint response times, complaint resolution rate	- Interviews with CRC - Interviews with local committees - Beneficiary Focus Group	A high number of complaints were registered during the project implementation. Some were addressed, but a certain level of discontent still remains after the project end (validation committees).
D.5.4  Project Replicability: Has it become a Reference for Further Shelter Projects?		a)	CRC ranking with other shelter programs			CRC shelters were appreciated for their robustness and quality, but other organizations were able to provide more comfort and a longer-term housing solution.
		b)	What has been contribution of the CRC in the shelter cluster in Haiti with regards to advocacy on quality standards and other shelter major issues?	- Did the CRC advocacy influence on the national quality standards/shelter design, etc.? - Has action of CRC has been recognized as "good practices" and advertised by the international community?	- Interviews with CRC teams - Cluster interviews - Analysis the press review	

## F. Recommendations for Future CRC Shelter Projects

### F.1. Optimize knowledge and experience

#### F.1.1. Build on past experience

Even if it is difficult to base knowledge accumulation on infrequent experiences such as post-earthquake situations, there are reasons for the CRC to capitalize this experience and build an in-house expertise for such situations.

In the particular case of Haiti, the emergency of the situation and the necessity to mobilize French-speaking staff put the CRC in the position to lower the requirements on shelter experience. In other words, the outset of the program was managed by staff that had either insufficient experience in post-disaster shelter programs, or insufficient experience with the Red Cross.

#### F.1.2. Build a minimum in-house knowledge

The CRC has an emergency health unit program where health professionals are trained and keep in roster to be mobilized whenever needed. The same is not readily available for shelter programs because of the infrequent need of implementation of shelter programs.

In addition, there are some strategic decisions to be taken about the type of shelter programs the CRC wants to be able to implement: emergency response, transitional shelters or permanent rehousing? When such positioning is clearly set, the necessary in-house expertise is easier to identify and build.

Practically, it means that an intervention such as the program in Haiti should be designed and prepared by in-house shelter specialists, with a clear orientation in mind from the beginning (between emergency and reconstruction). The outset of the program should be led in the field by these specialists and once the intervention characteristics (type of shelter, procurement, selection process, etc.) are set, other delegates can take over for the implementation. This would give more time to recruit staff, with less restrictive requirements (they will not have to be experienced in designing shelter programs, for example).

With such a set-up, it would have been possible to limit the responsibilities that had to be outsourced to SNC Lavalin for example, and keep the flexibility of shifting from international procurement to local procurement when deemed possible.

### F.2. Escape from the transitional shelter impasse

#### F.2.1. How can transitional shelters lead to a permanent solution?

The major lesson learnt from the Haiti intervention, is that even if the original intention of the shelters were meant to be temporary, they will be used as definitive housing by most of the beneficiaries (at least in rural locations of Jacmel, and to a less extent in urban areas like Leogane). It means that, as robust as it can be for a shelter, the sole housing solution of these families will deteriorate over time without the possibility of being easily upgraded into a concrete permanent house.

Diakonie's houses will last longer and are easier to maintain (repairs on concrete can be made by local masons while treated plywood will probably be replaced by more precarious materials).

At the end of the day, an entire new transformation program (for an equivalent funding) would be necessary to take the next step towards permanent reconstruction.

### F.2.2. Is the transitional step necessary?

Putting a roof over the head of disaster victims is a first priority that requires addressing most of the needs within a couple of months. This cannot be done through a shelter program.

The transitional phase is meant to allow people to recover more quickly (by providing them with a safe place to stay, enabling them to search for a longer-term solution), but a shelter does not generate the necessary incomes to prepare for reconstruction.

As highlighted by our financial analysis (see D.3.1.c)Unit Costs, page 48), for the same level of investment, permanent houses can be considered. And, as put by a senior shelter specialist in IFRC, if the cost of one shelter was directly entrusted to beneficiaries for construction, no one would have built wooden shelters... even with only US\$ 3,500, they would have built permanent concrete houses. Of course, the quality standards would have been poor, but raising the standards (through training masons for example) would be a more efficient and sustainable added value from a construction program.

More and more specialists come to the conclusion that the transitional step does not help the progress towards reconstruction. Especially if a shelter program has no flexibility and continues to provide wooden T-shelters as late as 24 months after the disaster.

### F.2.3. Simple, upgradable, but permanent house instead?

Other organisations opted for designs that allowed for more flexibility to fit to the beneficiary needs, including in terms of size (attaching two shelters to create a bigger housing) or upgradability (walls could be replaced by concrete).

This concept, which faces the same challenge as any other transitional shelter (how to move from a T-shelter to a permanent solution?) could be pushed forward: a simple concrete house, sizeable for large families (more than 6 people) with possibilities of future extensions. The Diakonie's shelter is not far from achieving this and inspiration can be sought from the reconstruction projects in Port-au-Prince.

Of course, these constructions take much longer time than assembling panelized shelters, making such intervention a reconstruction project rather than an emergency response.

## F.3. Give more focus on local capacity

### F.3.1. Involve communities for real

The beneficiary selection process was a good attempt to give the local communities a role in the program. But the fact that validation committees were not informed of the final decision (based on another assessment made by CRC) destroyed the responsibility transfer.

If some decisions of the validation committee are contradicted by further vulnerability analysis, the CRC staff should inform the validation committee of the factual information collected, to enable them to make a better decision. The CRC provides external assistance, while the final decision remains within the community and will probably be more legitimate.

From this perspective, the validation committee must be informed of the actual number of shelters allocated to the community, in order to manage the priorities.

### F.3.2. Built local capacity, use local market

During the early phase after the earthquake, a local procurement of materials was not possible. But after 3 or 4 months, many suppliers in Port-au-Prince were able to store reconstruction materials to provide a substantial part of the demand.

If the design of shelters required specific parts (such as connectors) in quantity, there is no doubt that Haitian suppliers would have been able to make the necessary importations as long as they had good prospects of selling them.

The program was able to employ local foremen, with a short training, and local skills for community mobilization. This can be pushed forward by building their capacity further and rely on this capacity to prepare a real exit strategy.

### **F.3.3. Adjust the program during implementation**

Each post-disaster situation has its own specificities and even if experienced specialists can improve the design of a shelter program through their expertise, any program that last longer than six or nine months after the disaster has to allow for some adjustments. The option to subcontract the procurement to SNC Lavalin and to order more than a half of expected shelters since the beginning reduced the flexibility of the program to almost zero.

Other organizations (such as the Swiss Red Cross) applied the principle of “think big but start small” by piloting the first shelters, to have a feed-back on the beneficiary acceptance of the shelter model, to test the construction process and to adjust the beneficiary selection methodology.

# G. Appendix

## G.1. Terms of Reference of the Evaluation

### 1. Introduction

#### 1.1. Reasons/Rationale

The shelter program of Canadian Red Cross/CRC in Haiti was implemented from March/April 2010 to September 2012. In line with the CRCS evaluation policy, a final evaluation of the program will be undertaken for accountability and learning purposes.

#### 1.2. Purpose

The purpose of this review is as follows:

- a) To assess achievements of the program, in terms of effectiveness (achievements of the program's outcomes), efficiency (cost effectiveness and timeliness), partnership/coordination with implementing partners, appropriateness/sustainability/impact (including disaster risk reduction and environmental sustainability), and targeting/coverage (geographic targeting versus needs, allocation of budget based on needs).
- b) To assess achievements of the program in integrating cross-cutting issues in the overall program cycle management, namely gender, capacity building of the targeted communities, the role of CRCS in advocacy on shelter related issues in Haiti, as well as protection of vulnerable beneficiaries.
- c) To draw lessons learned for design and implementation of CRC shelter program in the future based on the findings in the points (a) and (b).

#### 1.3. Estimated dates

January 10-21, 2013 for the field visit and the final report by February 15, 2013.

#### 1.4. Location of consultancy

Field visits to Port-au-Prince, Jacmel and Leogane in Haiti and interviews with stakeholders in Montreal and Ottawa, Canada. Telephone calls to Germany regarding the Diakonie Project may also be necessary.

#### 1.5. Users and Intended Use:

Users	Intended Use
Director of Haiti Operations and senior management at CRC National Office, Haiti Program Managers, Haiti Country Representative and senior management team, Construction Management Unit team, IFRC Haiti, Haitian Red Cross	<ul style="list-style-type: none"> <li>• To document good practices for the CRC Haiti team</li> <li>• To share key lessons learned to Movement partners - especially with regards to coordination and communication</li> <li>• To transfer lessons learned to other on-going Haiti construction projects.</li> <li>• To report outcomes/impact and be accountable to senior management, and other stakeholders</li> </ul>
Knowledge Management focal points for Haiti Program and CRC-Ottawa, (i.e. Planning Quality and Learning Team); Senior Shelter Advisor; NAFC and Senior Management of CRC	<ul style="list-style-type: none"> <li>• To document and collect good practices, approaches and tools of the shelter program for internal and external knowledge sharing</li> <li>• To obtain evidence-based information about achievements and gaps in the shelter program and how the program results can improve future CRC shelter and construction programs</li> </ul>

## 2. Background of the programme

### Needs

The earthquake that occurred on 12 January 2010 caused significant damage to housing and public infrastructure, with the resulting need for emergency and transitional shelter and longer-term reconstruction. Provisional estimates of the usability of damaged buildings suggested that 60% of buildings could be repaired, 28% would require retro-fitting and 12% would need to be demolished and reconstructed (shelter/NFI cluster, March 28 2010).

#### *Commitment*

CRC, with CIDA support, committed funds for the fabrication and implementation of up to 15,000 Shelters in Haiti (out of a Movement commitment of 30,000). The CRC agreed to build approximately 7,500 shelters through its own programming and up to 7,500 through IFRC programming. In terms of financing, the CRC construction budget for 7,500 shelters was established at \$63 million out of which \$19.15 million was a CIDA IHA Grant Agreement contribution. It was agreed that the CRC construction should be focused on Leogane and the South East Department (Memel).

The key outcomes of the program were defined as follows:

Ultimate Outcome: Improved housing condition of beneficiaries of CRC shelter in Jacmel and Leogane	
Intermediate/Medium-Term Outcome I  Strengthened relationship and participation of community members in planning and implementation of the shelter project; and sustained involvement of local authorities.	Intermediate/Medium Term Outcome 2  Enhanced occupation of the shelter by CRC beneficiaries
Immediate or Short-term Outcome 2  Improved skills and knowledge of CRCS staff, volunteers, and community members as well as systems to enable active role of community members in decision-making processes and activities that affect them.	Immediate or Short-term Outcome 2  Improved access to safe hurricane and earthquake resistant shelters, as well as secure tenure for at least 3 years for CRC eligible beneficiaries

The following criteria were considered during the design phase:

- a) cost
- b) speed of construction
- c) Maintenance of quality
- d) level of economic impact on the affected community (e.g. sourcing & inflation of materials, construction crews, increased level of skills provided, etc...)
- e) environmental impact (source of materials and construction)
- f) Sustainability (e.g. can it be easily repaired? How long will it last?)
- g) appropriateness to local conditions
- h) equity (should be a Movement-wide design, should not be vastly better than pre-disaster housing stock)
- i) vulnerability to risk (e.g. earthquake, strong winds, flooding, security, land tenure)
- j) flexible to allow for changes according to individual sites and family sizes
- k) Portability (does it need to be moveable to allow for land tenure issues?)

Separately, the Netherlands Red Cross (NLRC) agreed to provide water and sanitation to the 7,500 families receiving shelters directly from Canadian Red Cross (refer MOU signed May 2010).

#### *Beneficiary Selection Process*

Assessments were undertaken by the CRC in the targeted communities to determine whether a house had been either fully destroyed by the earthquake or damaged beyond repair. In addition to the condition of

the dwelling, the particular circumstances of the individual or family was also assessed through a questionnaire with a weighting given based on vulnerability. For example, child headed households, those with disabilities, the old and infirm, female headed households. In order to select beneficiaries for a shelter the CRC worked with validation committees' composed of members of the community. The validation committee reviewed the findings of the CRC survey and questionnaire, confirmed the circumstances of the potential beneficiary and prioritised who would receive a shelter based on vulnerability. After a final confirmation by CRC community mobilization officers, the file was handed over to a legal officer who prepared documentation to ensure that the intended beneficiary was entitled to live in the shelter at the site determined. As Leogane was the most severely affected, most of the beneficiaries (4,996) were identified in this area. A total of 2,520 beneficiary families were identified in the South East Department.

#### *Shelter Response*

The final shelters constructed were comprised of the following types:

- 195 x 18m<sup>2</sup> IFRC-sourced 'stick built' shelters — retroactively clad with CRC exterior treated plywood
- 3,750 x 18m<sup>2</sup> panelized 'Type A' shelters (designed for wind speeds of up to 145mph) primarily for Jacmel and some parts of Leogane.
- 2,955 x 18m<sup>2</sup> panelized 'Type B' shelters (designed for wind speeds of up to 112 mph) only for Leogane area
- 600 x 24m<sup>2</sup> permanent shelters built by our external partner, Diakonie, in La Vallee, Jacmel for CRC beneficiaries.

#### *Diakonie*

As part of the 7,500+ shelters being constructed directly by the CRC, the CRC funded the construction of 600 shelters through a German INGO, Diakonie. These shelters were 24 sq. m. permanent shelters built of concrete block. The shelters were built for beneficiaries identified through the CRC beneficiary assessment process. They also received latrines through the Netherlands RC, as did other CRC beneficiaries. The rationale behind this initiative is to increase the build rate to allow the CRC to have 7,500 shelters complete before the onset of the 2011 hurricane season.

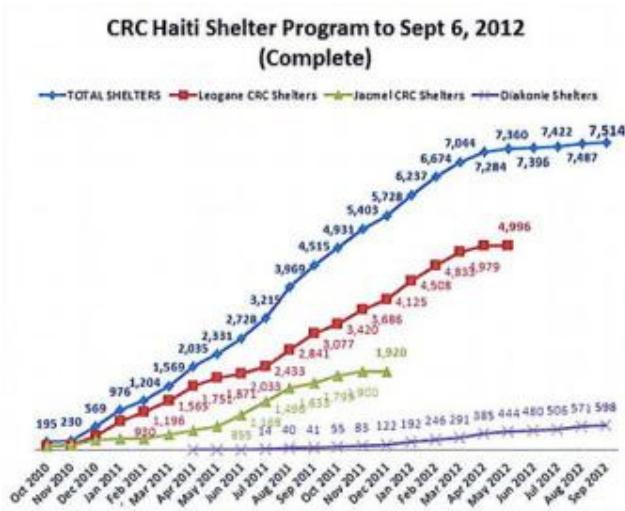
#### Final Statistics (# of shelters built and locations)

A total of 7,520 households were selected according to the above established beneficiary selection criteria.

A total of 7,514 shelters were constructed are as follows:

- Leogane: 4,996 CRC panelized shelters constructed.
- Jacmel: 1,920 CRC panelized shelters constructed.
- Total: 6,916 CRC panelized shelters completed (not including Diakonie)
- Diakonie (La Vallee only) — 598 constructed out of 601 to be built. The final 3 almost completed shelters were not formally completed due to unresolved problems with theft of construction materials.
- Grand Total (including Diakonie): 7,514 completed out of the original 7,500 target.

All shelters were completed by September 6, 2012.



### Water and Sanitation

To September 7, 2012, NLRC had constructed a total of 7,178 latrines and 2 communal water points for 800 families:

#### Leogane:

Number of latrines built: 4,563 (4,538 built and 25 latrines on progress)

The gap between 4,996 shelters and 4,563 latrines is 433 and (according to NLRC) is due to the following reasons:

- Number of beneficiaries who had stolen the construction materials: 87
  - Number of beneficiaries who did not have a space in their compound for latrine: 89
  - Number of beneficiaries who did not want latrine: 90
  - Number of beneficiaries moved or not found in the project area: 133
  - Number of beneficiaries NLRC could not account for (status unknown): 34
- + 1 communal water point for 400 families

#### Jacmel:

Number of latrines built: 2,615 latrines (all completed). Locations:

- Cayes Jacmel: 535
  - Jacmel: 593
  - Marigot: 560
  - La\_Vallee: 917
  - Various: 10 (this includes 65 latrines for 10M and 10 for Oral Rehydration Points (Cholera))
- + 1 communal water point for 400 families

#### Previous Evaluations on this Project

In February 2011, an internal review of the community mobilization process and the approach to beneficiary accountability within the shelter program (e.g., beneficiary communication, participation of community throughout the program cycle management, beneficiary selection process and risk management, complaint and feedback mechanisms), was conducted with recommendations for improvements. The report is available.

Two independent reviews were undertaken as part of a Mid Term Evaluation process for this project: the first was undertaken by the Global Emergency Group, an independent evaluation team over a two-month

period (May to June 2011). The final findings and recommendations below were based on over 57 stakeholder interviews and visits to affected communities in Jacmel and Leogane. The second review was a beneficiary satisfaction survey arranged by CRC. It was conducted in Leogane and Jacmel throughout May and June 2011 in order to gather relevant information to complement and corroborate the Review findings. The sample size and selection of beneficiaries was based on random sampling with 100% of selected beneficiaries (majority are original beneficiaries above 18 years old) in Leogane (159 households) and Jacmel (135 households) responding. The key findings of the survey were also referenced in the main evaluation. Two reports were released: Review of the Canadian Red Cross Shelter Program- Haiti: Final Review Report (GEG, June 2011) ("Review") and Findings of the Beneficiary Survey in Leogane & Jacmel (CRC, June 2011) ("Survey"). It should be noted that, the Diakonie project was not evaluated in this MTE.

According to NLRC, an assessment of the water and sanitation program was undertaken earlier in 2012. We have not yet seen the results.

### **3. Evaluation Scope**

*Scope of this review:*

- a. Scope of evaluation criteria: effectiveness, efficiency, partnership/coordination with implementing partners appropriateness/sustainability/impact (including environmental sustainability and disaster risk reduction), and targeting/coverage. In addition the evaluation will also look at the cross cutting issues, namely gender, capacity building of the targeted communities, the role of CRCS in advocacy on shelter related issues in Haiti, as well as protection of vulnerable beneficiaries.
- b. Scope of the components of the shelter: construction of shelter, community mobilization, implementation strategy (CRCS and other implementing partners), and implementation model of the CRC directly implemented shelter program (e.g., issues of efficiency)
- c. Scope of time-frame of intervention: from the beginning to the time of the evaluation
- d. Scope on stakeholders: relevant former or existing staff and volunteers of the shelter program in Ottawa/Montreal and Haiti; implementing partners (e.g. the Netherlands Red Cross, Diakonie), operating partners (e.g., Shelter Cluster), and other external stakeholders (e.g., local authorities, community committees).
- e. Scope of program sites: Jacmel, Leogane, Port-au-Prince, Ottawa and Montreal

### **4. Evaluation Criteria and Key Evaluation Questions (But not limited to these)**

#### **Effectiveness:**

- To what extent were the program expected outcomes achieved, especially whether or not: Adequate proportion of original beneficiary is still occupying the shelter Satisfaction of beneficiary with the shelter provided to them and the engagement between them and the program personnel and volunteers
- How do the achieved results compare against the specified quality standards? Efficiency Cost Effectiveness and Timeliness
- What was the ratio between the operational cost and the cost of deliverable for the end-beneficiaries? How does this compare with similar shelter programs in Haiti?
- What lessons can be drawn from variance in planned vs. actual timelines?

#### **Partnership and Coordination and Efficiency**

- Has the decision to partner with the Netherlands Red Cross on the water and sanitation and Diakone on permanent shelters led to achievement quality, timely, and more cost efficient delivery of shelter to end-beneficiaries?
- How has the management/coordination structure between CRC and their partners facilitated or hindered achievements of quality, timely and cost efficient implementation of the overall shelter program?

#### **Appropriateness/Sustainability/Impact, including environmental sustainability and disaster risk reduction**

- What are advantages and disadvantages of the design of the shelter that attempted to balance the concept of 'transitional shelter' and 'core shelter', land issue, cost efficiency and timeliness for the CRC's operational capacity and end-beneficiaries in terms of meeting their immediate and long-term shelter needs?
- Has the program adequately adopted environmentally sustainable practices such as in selecting of building materials and disposal of unused building materials?
- Has the program adequately adopted practices that facilitate long-terra use of the shelter provided to the end-beneficiaries through integration of disaster risk reduction, locally available skills and materials for repair, and other practices?
- To what extent the program has implemented mitigation measures to minimize its harmful impact, including conflict between the staff and the community as well as among community members?

**Targeting/Coverage, Gender and Protection of Vulnerable Population:**

- Was the decision to select Jacmel/South East Province and Leogane for the shelter program in line with the unmet needs of shelter in Haiti in general?
- Was the allocation of shelters for Jacmel/South East Province and Leogane in proportion of unmet shelter needs in these two locations?
- To what extent did the program reach the most vulnerable population (e.g., poorest family, family with disabled family members and/or elderly) and ensure equal access of the shelter kits for female and male headed households?

#### **Impact and capacity building of the targeted communities**

- What are positive and negative impact of the shelter program on the targeted communities
- Are there aspects of the shelter program that the communities should have been more involved?

#### **Advocacy:**

- What has been contribution of the CRC in the shelter cluster in Haiti with regards to advocacy on quality standards and other shelter major issues?

#### **Lessons-Learned and Good Practices**

- What are the most and least ineffective practices in designing, implementing and, and monitoring, as well as managing different aspects of the shelter program (e.g., partnership strategy, community mobilization, construction of the shelter, involvement of the host national society, and the operational model) in Haiti for learning and replication? Among the lessons is whether the adopted concept of core shelter appropriate given that decision on the design needs to be made at early stage while operating in very dynamic operational context.

#### **5. Review Methodology and Process**

The review will be managed by a review management team, which will comprise of Senior Program Manager Haiti Operations, a representative of the CRC delegation in Haiti, Senior Shelter Advisor in Ottawa, and Ottawa-based Program Manager. The management team will oversee the review and with the review team to ensure that it upholds the expected quality of the review. It will make a decision on the final TOR, selection of reviewer(s), review matrix, tools and methodologies, and the final report.

The review will be led by an external reviewer(s) He or she will be responsible for the overall review from design, preparation of tools, data collection, coordination with relevant parties, and finalising the report (to be revised accordingly).

The specific review methodology will be detailed in close consultation with the review management team, but will draw upon the following methods (but not limited to):

- General desktop review of operational background documents, relevant organizational background and history and any relevant sources of secondary data, and the existing reviews (e.g., mid- term review, the internal community mobilization review)
- Separately, it is anticipated that analysis will be undertaken on the ongoing occupancy household survey in Jacmel and Leogane. This final evaluation will take into account the results of this analysis. The occupancy household survey data was collected from the shelter beneficiaries over the period from September 2011- August 2012 starting with the oldest shelters first. This data was collected by interview at nearly every shelter site (>7000). Interviews typically took place several months to a year and half after the occupants moved in. The survey covered several a range of issues including number/age/gender/disability status/relationship to beneficiary/shelter condition/latrine.
- Primary data collection: the consultant should propose appropriate methodology based on where there is need for information complementary to the secondary data, in order to respond to the evaluation questions. One consideration should be collecting information from representative sampling of end-beneficiaries who have lived in the CRC provided shelter for more than one year in order to obtain insight into the impact and sustainability of the shelter program. CRC requests this include measures of beneficiary satisfaction as to the relevance and appropriateness of the shelters from the beneficiaries' perspective.
- Briefing at the beginning of the review and debriefing at the end of the data collection with key personnel of CRC Haiti Program in Canada and Haiti.

**Key milestones of the review are:**

Submission of Final Report by the consultants to CRC	February 15, 2013
Submission of comments to the consultants by CRC	February 8, 2013
Submission of the first draft of the Final Report	February 1, 2013
Travel and field mission in Port-au Prince, Leogane and Jacmel - a max of 12 working days of field visit, inclusive of travel time)	10-21 January 2013
Comments from relevant parties on the Inception Report	January 7, 2013
Desk-reviews and submission of the inception report (e.g., methodology and workplan)	December 21, 2012
Selection of consultants, contract signing with consultants	November 22, 2012
Deadline of the submission of the proposal from consultants	October 26, 2012

The evaluation report will be shared and commented by relevant stakeholders while maintaining the integrity and independence of the evaluation report according to the following fines.

- Inaccuracy. Inaccuracies are factual, supported with undisputable evidence, and therefore should be corrected in the evaluation report itself.
- Clarifications. A clarification is additional, explanatory information to what the evaluators provided in the report. It is the evaluators' decision whether to revise their report according to a clarification; if not, the evaluation management response team can decide whether to include the clarification in their management response.
- Difference of opinion. A difference of opinion does not pertain to the findings (which are factual), but to the conclusions and/or recommendations. These may be expressed ta the evaluators during the evaluation process. It is the evaluators' decision whether to revise their report according to a difference of opinion; if not, the evaluation management response team can decide whether to include the clarification in their management response.

## 6. Review Deliverables

Inception Report — The inception report will include the proposed methodologies, data collection and reporting plans with draft data collection tools such as interview guides, a timeframe with firm dates for deliverables, and the travel and logistical arrangements for the team — by December 21, 2012

The First Draft report — A draft report, consolidating findings from the evaluation, identifying key findings, conclusions, recommendations and lessons for the current and future similar program, will be submitted to the Review Management Team on 1st February 2013.

Final report — The final report will contain a short executive summary (no more than 5 pages) and a main body of the report (no more than 60 pages) covering the background of the intervention evaluated, a description of the evaluation methods and limitations, findings (to be presented by evaluation criteria), conclusions, lessons learned, clear recommendations. A section should outline recommendations that the program staff and the reviewer(s) have in common or different views based on the workshop to discuss the findings. The report should also contain appropriate appendices, including a copy of the ToR, an annex with the result of the summary of census database, a cited resources or bibliography, a list of those interviewed and any other relevant materials (e.g., tools). The final report will be submitted one week after receipt of the consolidated feedback from the Review Management Team on 15th February 2013.

## **7. Evaluation Quality & Ethical Standards**

The evaluators should take all reasonable steps to ensure that the review is designed and conducted to respect and protect the rights and welfare of the people and communities involved and to ensure that the review is technically accurate and reliable, is conducted in a transparent and impartial manner, and contributes to organizational learning and accountability. The evaluator(s) will sign and adhere to the Canadian Red Cross Code of Conduct and the Evaluation Standards below.

The evaluation standards are:

1. Utility: Evaluations must be useful and used.
2. Feasibility: Evaluations must be realistic, diplomatic, and managed in a sensible, cost effective manner.
3. Ethics & Legality: Evaluations must be conducted in an ethical and legal manner, with particular regard for the welfare of those involved in and affected by the evaluation.
4. Impartiality & Independence: Evaluations should be impartial, providing a comprehensive and unbiased assessment that takes into account the views of all stakeholders.
5. Transparency: Evaluation activities should reflect an attitude of openness and transparency.
6. Accuracy: Evaluations should be technical accurate, providing sufficient information about the data collection, analysis, and interpretation methods so that its worth or merit can be determined.
7. Participation: Stakeholders should be consulted and meaningfully involved in the evaluation process when feasible and appropriate.
8. Collaboration: Collaboration between key operating partners in the evaluation process improves the legitimacy and utility of the evaluation.

## **G.2. Time Schedule of the Assignment**

Date	Activities
1-Jan	CRC reviewing
2-Jan	CRC reviewing
3-Jan	CRC reviewing
4-Jan	CRC reviewing
5-Jan	
6-Jan	
7-Jan	Reception of the CRC Feed-back

Date	Activities
8-Jan	Integration of CRC comments
9-Jan	Integration of CRC comments
10-Jan	Integration of CRC comments
11-Jan	Departure for Haiti
12-Jan	RDV CRC team in Port-au-Prince - Submission of the Inception report revised
13-Jan	Travel to Jacmel - Meeting with Stephane Vaugon
14-Jan	Meeting with CRC Jacmel team - Field visit in Macary and Gaillard
15-Jan	Field visit to La Vallée and La Montagne
16-Jan	Meeting with Diakonie, Planète Urgence, Medair, FGD in Gaillard; field visit to Jacmel Ville; FGD in Monchill 1&2
17-Jan	Travel to Leogane; Meeting with Isabelle Hachette; Field visit in Baussan, Belval, Binot and Chatuley; Meeting with NLRC
18-Jan	Meeting with the Spanish Red Cross, Field visit (Ca Ira, Butteau, Binot, Butteau), FDG Bwalam
19-Jan	FGD in Brossier, FGD in Butteau, FDG in Bossan, FDG Bwalam (Validation Committee only); meeting with Swiss Red Cross
20-Jan	Travel to PaP
21-Jan	Meeting with IFRC, OIM; first finding restitution
22-Jan	Travel to France
23-Jan	Consolidation of the data: CRC former staff interview, desk study
24-Jan	Consolidation of the data: CRC former staff interview, desk study
25-Jan	Consolidation of the data: CRC former staff interview, desk study
26-Jan	
27-Jan	
28-Jan	Consolidation of the data
29-Jan	Consolidation of the data
30-Jan	Drafting the appraisal report
31-Jan	Drafting the appraisal report
1-Feb	Drafting the appraisal report
2-Feb	
3-Feb	
4-Feb	Drafting the appraisal report
5-Feb	Translation/language check
6-Feb	Translation/language check
7-Feb	Translation/language check
8-Feb	Submission of the Final Draft Evaluation report
9-Feb	CRC reviewing
10-Feb	CRC reviewing
11-Feb	CRC reviewing
12-Feb	CRC reviewing
13-Feb	CRC reviewing
14-Feb	CRC reviewing

Date	Activities
15-Feb	Reception of the CRC Feed-back
16-Feb	
17-Feb	
18-Feb	Integration of CRC comments
19-Feb	Integration of CRC comments
20-Feb	Integration of CRC comments
21-Feb	Integration of CRC comments
22-Feb	Submission of the Final Evaluation report

## G.3. Interview Guides and Observation Checklists

### G.3.1. CRC staff in Ottawa

#### a) *Haiti Senior Program Manager*

##### a. Program Methodology

- Who was involved in designing the program? Only CRC? HRC aslo? Other branches of the Red Cross? Other cluster actors?
- What were the elements of the program methodology that were specific to the Haitian context?
- What were the key adjustments made during the implementation, and why?

##### b. Monitoring and Reporting

- What was your involvement in monitoring the program: administrative, financial or operational?
- What tools were available for you to use?

##### c. Continuation of Activities in Leogane and Jacmel

- What is the CRC strategy for the two shelter program sites? (exit strategy)
- Is there a mechanism in place to monitor occupation of the shelters or to support those wanting to find alternative accommodation?
- Do you think the supporting activities (on top of shelter construction) brought the expected results? Explain why / why not.

#### b) *Planning, Evaluation and Knowledge Management Specialist (Wartini Pramana)*

##### 1. Workload – Shelter Program

- a. How much of your working time do you spend monitoring the Haiti shelter program?
- b. How much of your working time do you spend in the Ottawa office? In the field?
- c. What activities do you carry out when you are in the field? In the office?

##### 2. Monitoring & Evaluation Tools

- a. What M&E tools have been put in place for the project?
  - Draw up a list and explain how they work.
  - How are they used (both internally and externally)? Have you ever used them?
- b. In your opinion, is the M&E system used relevant / sufficient? Are there any indicators missing?
  - If yes, which and why have they not been added?
- c. Are there any alert mechanisms to flag up anomalous data?

- d. How often do you have to produce monitoring reports for this project? What is the format of these reports and what information do they contain (can you provide us with an example?)

### G.3.2. Former CRC Staff in Jacmel & Leogane

Tentatively, according to availability: Janet Porter, Thomas Carnergie, Michael Watson, Fred Elias, Karine Fournier, Rodolfo Maginera, Claude Laurier, Maxime Watkins-Lenis

#### 1. Human Resources

- a. What was your role during project implementation? Were your responsibilities in line with your profile and the volume of your input in the project?
- b. Were there any inconsistencies or interferences in the role sharing during the implementation?
- c. Have you received any training: if yes, from whom and do you think this training was sufficient?

#### 2. Workload

- a. How much of your working time did you spend in the office? In the field?
- b. What activities do you carry out when you are in the field? In the office?

#### 3. Site Selection, Social Engineering

- a. Were you involved in selecting the sites (Leogane/Jacmel; inside these 2 communes)?
- b. Was the site selection method difficult to implement?
- c. Did it provide the expected equity in your opinion?

#### 4. Methodological Approach

- a. Was the implementation methodology easy to implement? Was it supposed to be strictly followed, or was it only simple guidelines?
- b. Was NLRC intervention part of the methodology or just an opportunistic addition?
- c. What was the goal of partnering with Diakonie? How were they selected?
- d. Were these partnerships satisfying? Do you think that CRC would have succeeded in meeting its objectives without these partners?
- e. What do you think of the distinction between temporary shelters and permanent shelters (Diakonie)? Were there equity issues from the communities' point of view?
- f. Do permanent shelters cost more than temporary shelters? If yes, how is it possible to build the same number of shelters with the same initial budget?
- g. What was the role of the local committees during this process? What are the pros and cons of working with these committees?
- h. In the second phase of the project (2011), did you develop a more integrated approach to construction? Are there any plans to integrate this intervention into overall urban development planning?

#### 5. Quality of the Shelters – Ownership by the Beneficiaries

- a. Hurricane and earthquake resistant?
- b. Quality, Availability, environmentally friendly?
  - Origin of construction materials?
  - Storage sites?
- c. In your opinion, are the inhabitants satisfied with the quality of the shelters constructed? Explain why / why not.
  - For what reasons are they dissatisfied?
  - Would the situation have been improved by initiating corrective measures during the program?
  - If yes, were these corrective measures put in place? Explain why / why not.
- d. In your opinion, were the beneficiaries sufficiently involved in all phases of the project?
  - List the stages and activities in which the beneficiaries were involved.
  - Describe the relationship between CRC staff and the beneficiaries.
- e. In your opinion, to what extent do people take ownership of their shelter once delivered?

- Do they consider this shelter to be their home?
- Have any families further developed their shelter (extensions, etc.)?
- Do you know why some families have moved out of their shelter? Explain why.

#### **6. Monitoring & Evaluation Tools**

- a. To what extent have you been involved in setting up the M&E system for the program?
- b. In your opinion, is the M&E system used relevant / sufficient? Are there any indicators missing?
- c. Are there any alert mechanisms to flag up anomalous data: delays in construction, missed deliveries of materials, etc.?

#### **7. Beneficiary – RC Staff Training, Capacity-Building**

- a. Please describe the training provided to beneficiaries.
  - What topics were included in the training? What key messages were covered?
  - How many participated? Proportion of men/women?
  - What mechanisms were put in place to ensure messages were fully understood?
- b. Describe the training provided to CRC field staff.
  - What were the previous professions of the field staff (skilled workers)? Do they have a basic knowledge of construction?
  - Was training scheduled to take place prior to project kick-off, during the project implementation?
  - Were refresher training sessions held during the project?
- c. Did CRC staff assist the communities with identifying supply chains/key resources to repair their shelters?

#### **8. Local Authority Involvement**

- a. Describe how the local authorities were involved.
  - At which stage of the project?
  - Means of involvement?

### **G.3.3. Former CRC Staff, Community Mobilization (PaP/Jacmel & Leogane)**

Addition for Isabelle Hachette and Michael Watson

#### **1. Role and Responsibilities**

- a. What are your responsibilities?
- b. How does community mobilization aid the implementation of 'Shelter' projects?
- c. What community mobilization activities have been developed for this project?
- d. Were they all developed at the start of the program or introduced as a result of certain findings?

#### **2. Who have been your main intermediaries in the field:**

- a. Local authorities: what has been their level of acceptance, level of awareness-raising, willingness to be involved? What was their reaction at the end of the project?
- b. Haitian RC staff: what has been their level of acceptance, level of awareness-raising, willingness to be involved? What was their reaction at the end of the project?
- c. Local committees: what has been their level of acceptance, level of awareness-raising, willingness to be involved? What was their reaction at the end of the project?
- d. Other?

#### **3. Lessons Learned**

- a. In your opinion, what are the main areas of satisfaction/dissatisfaction as regards community mobilization?

### **G.3.4. CRC Staff, Logistics Division (PaP/Jacmel & Leogane)**

- a. What are the responsibilities of your position?
- b. Explain how the department is set up.
- c. Describe your relationship with the Shelter Division. Do you work on more than one program at the same time?

- d. Describe your relationship with your suppliers and transporters?
- e. What are the main difficulties you have encountered in your work (with other CRC departments, with transporters, etc.)?
- b. From a logistics perspective, what are the main areas of satisfaction/dissatisfaction as regards community mobilization?
- f. Has the shift in methodology from wooden to permanent shelters changed the way you operate?

### G.3.5. Diakonie (Sylvie Savard, new country representative)

#### 1. Institutional Set-Up

- a. Can you explain the task-sharing between Diakonie and CRC for the shelter project?
- b. Do you often provide such services to other projects?
- c. Why do you construct durable shelters rather than “core shelters”? What are the costs?
- d. To what extent were you involved in designing the methodology of the intervention? Who was it who proposed durable shelters, you or CRC?
- e. To what extent were you involved in recruiting the staff working on La Vallée site? CRC staff already working on other sites?

#### 2. Monitoring Tools

- a. To what extent were you involved in developing the monitoring & evaluation system?
- b. What is the frequency of reporting between Diakonie and CRC?

#### 3. Relevance of the Sites Selected and the Methodology

- a. Who chose La Vallée site: CRC or Diakonie? Why, out of all the other intervention sites identified by CRC, was this particular site chosen?
- b. What role do your teams play in identifying beneficiaries?
- c. What were the main issues encountered during the project? Could they have been avoided?
- d. What good practices have you identified in the relationship between CRC and Diakonie? Between Diakonie and the beneficiaries? Between Diakonie and the local authorities?

#### 4. Financial Monitoring

- a. Are the costs of permanent shelters higher than those for temporary shelters?
- b. Describe the method of payment used by CRC to remunerate Diakonie. Is payment dependent on results?

### G.3.6. NL Red Cross

#### 1. Institutional Set-Up - Coordination

- a. Can you explain the task-sharing between NLRC and CRC for the shelter project?
- b. Do you often partner with other Red Cross branches for similar collaboration?
- c. To what extent were you involved in designing the methodology of the intervention to construct latrines?
- d. To what extent were you involved in recruiting the staff working on the sites? CRC staff already working on other NLRC intervention sites.

#### 2. Relevance of the Sites Selected and the Methodology

- a. Who chose the latrine construction sites: CRC or NLRC? Were latrines constructed in all sectors covered by CRC? Explain why / why not.
- b. Were there some duplication (beneficiaries already having latrines)?
- c. What were the main issues encountered during the project? Could they have been avoided?
- d. What good practices have you identified in the relationship between CRC and NLRC? Between NLRC staff and the beneficiaries? Between NLRC and the local authorities?
- e. Who determined which type of latrine was to be constructed, CRC or NLRC?
  - Is there a selection matrix of the beneficiaries according to the toilets prototype?
  - Why not install one single type? Pros and cons.

### G.3.7. Interview with Local Authorities

1. Can you describe the situation in your city following the January 12 earthquake?
2. Are you aware of the CRC project? What does it involve?
3. At what stage(s) were you involved in the CRC project?
  - a. Do you think that this level of involvement was sufficient?
  - b. Can you explain the stages and discussions around land tenure security?
4. Occupancy rate of shelters
  - a. What is your position with regards to the methodology used to re-house the population?
  - b. Do you think that occupants of the shelters will continue to live in them? If yes, for how long and why?
5. Satisfaction with the CRC project
  - a. Are you satisfied with the quality of the shelters built? Explain why / why not.
  - b. Are you satisfied with your relationship with CRC and their partners? Explain why / why not.
  - c. In your opinion, could any areas of the CRC intervention have been improved? Explain your answer.
6. Continuing development of the neighborhood/city
  - a. In your opinion, what are the current priorities for the sites targeted by CRC?

### G.3.8. Local Committees' Focus Group

1. How the Committee Operates
  - a. Describe how a committee is created.
  - b. What sector do you work in?
  - c. What are the roles of each member inside the committee?
  - d. What activities have you developed as part of the project?
  - e. Has there been any conflict within the committee? If yes, what was this conflict about?
2. Frequency of Meetings
  - a. How often did you meet during project implementation? Did you produce any meeting minutes?
3. Relationships/Communication

- a. Are you satisfied with the contact you have had with CR staff? Explain why / why not.
- b. Are you satisfied with the relationship with the beneficiaries? Explain why / why not.
- c. Are you satisfied with the relationship with the local authorities? Explain why / why not.

#### **4. Project Close-Out**

- a. Now that the project has been completed, do you still have responsibilities/a role in the community as regards shelter maintenance, the local development of sites, support to beneficiaries, etc.?

### **G.3.9. Beneficiary Focus Group**

#### **1. Satisfaction with the CRC process/relationship**

- a. Describe the selection process.
  - How did you become the beneficiary of a shelter?
  - Were you made aware that such a program exists?
- b. Are you originally from the area?
- c. Describe your involvement in building your shelter.
- d. Did you choose the location of your shelter? Has it been built next to your previous home? Explain.
- e. Describe the process for constructing your shelter.
  - What is your opinion of the time taken to construct the shelter?
  - What is your opinion of the relationship between you and CRC staff during the construction of your shelter? Which aspects of the working relationship could have been improved?

#### **2. Satisfaction with the shelter**

- a. Can you describe the shelter in which you live? Is it a temporary/permanent shelter?
- b. Visual aspects
  - For temporary shelters, are you satisfied with the external visual aspect (color of the paint, shape, etc.)? Explain your answer.
  - For permanent shelters, are you satisfied with the external visual aspect (color of the paint, shape, etc.)? Explain your answer.
  - Were you consulted about where on the plot the shelter was constructed?
- c. Functionality, adaptability
  - Do you consider your shelter to be functional? Explain your answer.
  - What 3 things are you dissatisfied with?
  - What do you think needs to be improved (opening, surface area, separation of rooms, etc.) and how?
  - Do you think these improvements will be difficult? Would you be able to make these improvements yourself?
  - Have you already added any improvements (additional room, electricity, etc.)? What were the main difficulties you encountered? Would you have liked support from CRC? If yes, what type of support?

- Is it easy to find materials for repairing or improving the shelter? Explain your answer.
- d. Security
- Do you feel safe in your shelter?
  - Have you ever been burgled? Explain how it happened.
  - In your opinion, what aspects need to be modified to improve the security of the shelter?
- e. Resistance to strong winds and rain
- During the rainy season, did you experience:
    - Flooding inside the house (via the floor, ceiling, opening)
    - Flooding around the house (access issues)
    - The partial or total destruction of your shelter?
- f. Latrines
- Do you have a latrine? Describe the latrine selection and construction processes.
    - Would you like to have a latrine? Explain why / why not.
    - Were you consulted about the type of latrine installed?
    - Were you involved in the construction of your latrine?
  - Are you satisfied with the latrine built? Explain why / why not.
  - Do you use the latrine? Explain why / why not.
  - Was there any damage caused to your latrine during the last rainy season?

### 3. Willingness to Stay

- a. Do you want to stay in your shelter? Explain why / why not.

#### G.3.10. On-Site Observations

On-site observations can produce a wide range of findings, not all of which can be anticipated at this stage of the study. Therefore, the list provided below is in no way exhaustive, but will be used as a guide for conducting observations in the field. Information will systematically be collected for the most relevant questions only; additional information can then be obtained by introducing other questions as when relevant during the visit.

- c. Origin of the families that have been re-housed.
- d. Position of the shelters on the plot, space available around the building.
- e. Access to basic services and facilities (water, sanitation, electricity, waste collection, school, etc.).
- f. Integration of land use in the neighborhood, impact on plant cover.
- g. Foundations, fixings, horizontality.
- h. Exposure to runoff (erosion, flooding), wind, sun, spray.
- i. General condition of the roof, walls, openings (are they functional, watertight, solid?).
- j. Identification (with the occupant) of damage and what has caused this (wear and tear, cyclone, erosion, improper use, vandalism, etc.).

- k. Assessment of sustainability of materials (temporary or permanent shelter) and their environmental impact (type, origin, life cycle).
- l. Assessment of the overall design.
- m. Assessment of the quality of construction.
- n. Identification of changes or improvements to the initial plan
- o. Assessment of level of ownership by the occupants (personal improvements)
- p. Presence of latrines, general condition, estimation of usage, checking latrine is in working order.
- q. Rapid assessment of user satisfaction (conversation with the occupants).

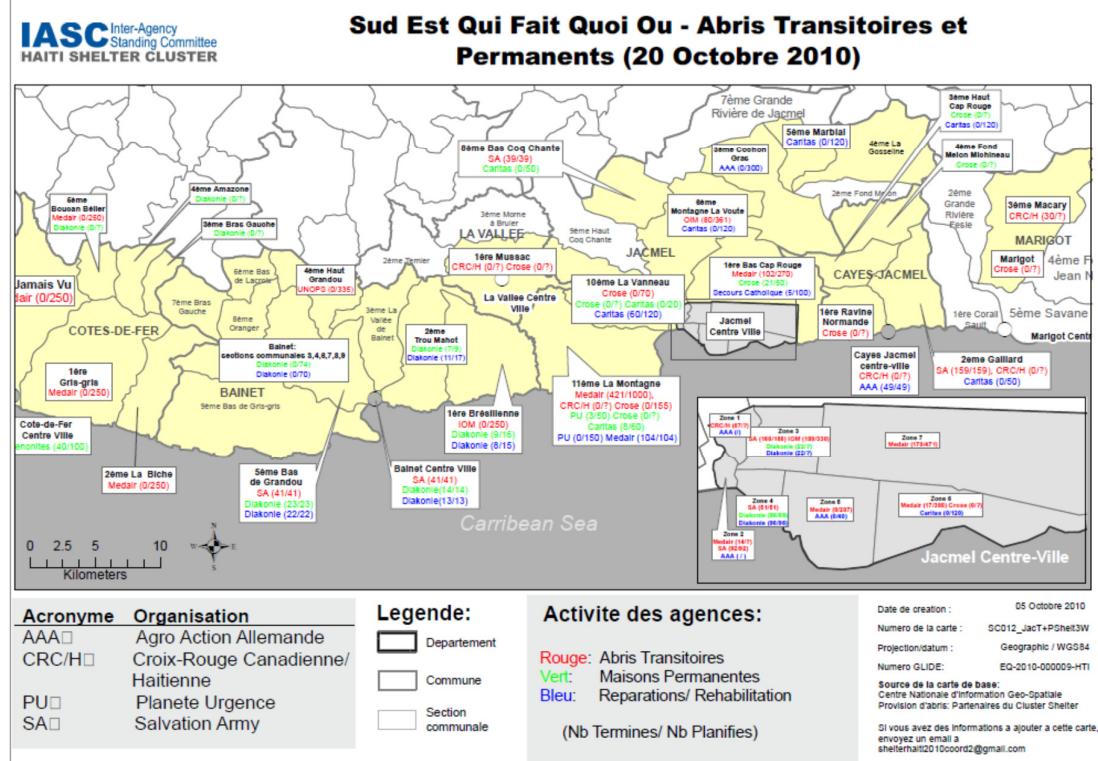
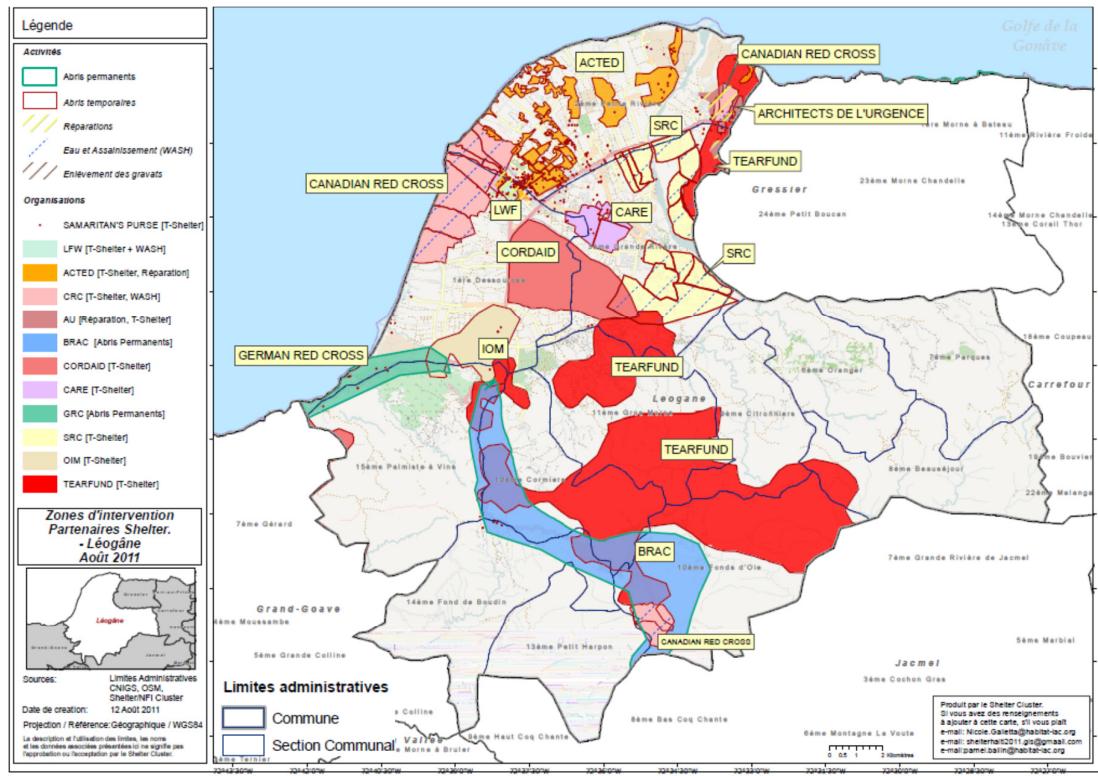
## G.4. Analysis of the Compliance of CRC Shelter Project to the Shelter Cluster Standards

Indicators	Standards	Compliant?
<b>Key Data</b>		
<b>Lifespan</b>	more than 3 years	Green
	easy maintenance and upgrade	Yellow
<b>Cost</b>	USD 1,000 – 1,500, including materials, “transport and labour, excluding taxes. (For basic 1 storey transitional shelter, assuming additional input of material and labour from home owners)”. “price maximum may be adjusted upwards due to any or all of the following conditions or provision of extra features such as: +/- 15% rise due to material, shipping and quantities to allow for market fluctuations; extra shipping costs for importation of goods outside of the USA and Latin America; Use of demountable construction techniques; Use of permanent shelter foundations”.	Red
<b>Covered living space</b>	3,6m <sup>2</sup> to 4,8 m <sup>2</sup> per person*	Yellow
	a minimum of 12 m <sup>2</sup>	Green
<b>Head height</b>	> 1,8m from the ground to the eaves	Green
<b>Site and services</b>		
<b>Tenure</b>	Legal aspects resolved	Green
	18 months < T-agreement < 3 years	Green
<b>Shelter Location</b>	choice of the beneficiaries	Green
	at, or near to the existing homestead, without inhibiting permanent housing reconstruction	Green
	Designed and sited to minimise the exposure of the occupants to hazards and maintain access to livelihoods	Green
	not next to dangerous buildings or structures	Green
	not on land liable to flood	Yellow
	not on land at risk of landslide	Green
<b>Plot preparation</b>	cleared sites of any physical dangers (cf. rubble removal guidelines)	Yellow
<b>Water and Sanitation</b>	WatSan should be provide	Green
	Coordination with the Wash Cluster	Grey
	site drainage or Individual Shelters must be connected to site drainage solution	Red
<b>Design principles</b>		
<b>Access</b>	take into account access by disabled people (Guidelines from HI)	Red

<b>Hazard resistant learning</b>	Design principles should be visible and easily adaptable as a practical learning example of good construction	<span style="background-color: #c2e0c2;"></span>
	Information regarding safe building practices and techniques should be disseminated	<span style="background-color: #ffcc00;"></span>
<b>Ventilation and temperature</b>	Design for an adequate ventilation, and minimise internal temperatures.	<span style="background-color: #c2e0c2;"></span>
	promote openings on 3 sides of the shelter	<span style="background-color: #c2e0c2;"></span>
<b>Privacy</b>	allow at least one internal division for privacy	<span style="background-color: #ffcc00;"></span>
	provide a flexible space.	<span style="background-color: #ffcc00;"></span>
<b>Culturally appropriate</b>	Materials and construction techniques to be used are familiar to the beneficiaries	<span style="background-color: #ff0000;"></span>
<b>Flexibility/Resource efficiency</b>	materials are to be reusable	<span style="background-color: #c2e0c2;"></span>
<b>Design details and hazard resistant construction</b>		
<b>Rains and Floods</b>	The roof should protect the interior and walling materials from rain	<span style="background-color: #ffcc00;"></span>
	Foundations have sufficient strength and height to withstand flooding of site	<span style="background-color: #ffcc00;"></span>
<b>Hurricanes and tropical storms</b>	Foundations must secure the shelter to the ground in strong winds.	<span style="background-color: #c2e0c2;"></span>
	The roof => resistant to storms and designed with adequate strength for proposed roofing material.	<span style="background-color: #c2e0c2;"></span>
	A pitch of 300- 450 for 2-pitched roofs and 120-140 for 1-pitched roofs is optimum for resistance	<span style="background-color: #c2e0c2;"></span>
	Ratio length/width of the shelter near 1.	<span style="background-color: #ffcc00;"></span>
	Metal strapping is strongly advised	<span style="background-color: #c2e0c2;"></span>
	Structures =>timbers and the joints take the loads rather than the fixings	<span style="background-color: #c2e0c2;"></span>
<b>Earthquake</b>	Seismic resistance techniques must be incorporated into site selection, shelter form, the location of openings, foundations, bracing and ring beam connections	<span style="background-color: #c2e0c2;"></span>
<b>Other design details</b>	Concrete foundations will not be a requirement	<span style="background-color: #c2e0c2;"></span>
	Consideration on some sites that multistorey buildings will be built	<span style="background-color: #ff0000;"></span>
<b>Programmes issues</b>		
<b>Technical assistance</b>	Ensure that transitional shelters are well constructed to maximise life span and protection	<span style="background-color: #c2e0c2;"></span>
<b>Diversity of interventions</b>	Organisations must ensure that families have the means and skills to build safe shelters	<span style="background-color: #ffcc00;"></span>
	Other interventions next to shelter construction should be considered in a broad range of interventions	<span style="background-color: #ffcc00;"></span>
<b>Beneficiary selection</b>	the most vulnerable families, including the landless are not excluded from transitional shelter support.	<span style="background-color: #ffcc00;"></span>
	Gender sensitive programming is required	<span style="background-color: #c2e0c2;"></span>

## G.5. "Who does what, where?"

Maps illustrating actors' coordination for Jacmel and Leogane.



## G.6. Overview of Shelter Projects Other than CRC

### G.6.1. MEDAIR

People interviewed : Anne Hageman

Number of shelters completed : around 3,200 core shelter

Module identification:

**Size of the basic module** : 21m<sup>2</sup> + 8m<sup>2</sup> for the porch

**Components:** sandwich roof, steel and wood structure, plywood floor, wall in tarpaulin then concrete (if any transformation), wooden doors and windows.

**Duration:** 2 month for the basic module construction with tarpaulin. The module transformations are still ongoing (2012 - 2013).



Medair operates in Jacmel and Cote de Fer. In this second municipality MEDAIR is mainly involved on a repair of houses process (120) and on the construction of permanent houses: wood and masonry structure (215). In Jacmel, Medair had provided more than 3,000 T-shelters to people in the area of "La Montagne" (different area but close to those where the CRC operate). This was conducted in two phases:

Phase 1: Distribution of tarpaulin shelters and training beneficiary session to explain how to improve the construction (replacement of the tarpaulin by a more sustainable auto-fill materials). Results: 3,000 T-shelters made, but only 1% of the households improved spontaneously their shelter;

Phase 2: Support of the T-shelters transformation in permanent shelters - 20 pilot houses and targeting the vulnerable households.

### G.6.2. Planète Urgence

**People interviewed** : Philippe PETIT, Planète Urgence representative in Haiti

**House identification**

**Size** : 36m<sup>2</sup>

**Components** : gabion base, wooden structure

**Other Components** : latrine + solar lighting



Planète Urgence is not an emergency relief NGOs. Following this principle, it does not have the same objectives as the other structures encountered in this evaluation. So, Planète Urgence have completed the repair of 50 houses, the construction of 50 houses following the common earthquake and cyclone standards and improve 100 MEDAIR T-shelters to help beneficiaries to transform them into permanent houses. They also ensured the strengthening of the local expertise (Approximately 90 local masons and carpenters have received trainings from Planète Urgence).

The house is built on a gabion structure foundation on which a timber filled with stone masonry is fixed. This shelter model requires significant logistics, however apart from gabion wire and bolts, all the materials used are locally purchase. The construction time for one Planète Urgence home is more or less equal to that the one for a house from Diakonie, 25 j.

Regarding the identification of beneficiaries, Planète Urgence has worked closely with the municipality of Jacmel and local authorities (as CASEC). As the CRC did, they also have developed a number of criteria to identify the most vulnerable families, namely: the poor, the single parents households, displaced persons.

### G.6.3. Spanish Red Cross

**People interviewed** : Betisa Egea - former Shelter Delegate  
Jesus Baena - actual Watsan Delegate

**Number of shelter completed** : around 4,500 core shelters (First T-shelter and then upgraded on a second phase)

**Module identification:**

**Size of the basic module** : 18m<sup>2</sup> (simple one), 40 m<sup>2</sup> (double one), 40m<sup>2</sup>+18m<sup>2</sup> (triple one)

**Components**: sandwich roof, wooden and steel structure, plywood floor, tarpaulin wall then masonry structure (is upgraded), wooden doors and windows.



Regarding the selection of the beneficiaries and the assurance of adequate security land-tenure, the methodology of the Spanish Red Cross (CRE) was the same as the one used by the CRC. However, the size of the family was taken into account since the number of the shelter module distributed depends of the size of the family (2 modules when they are >5 and 3 modules for families of more than 10 people).



Contrary to the CRC module, the CRE module is upgradeable. The basic module is composed of tarpaulin then once all beneficiaries have been supplied, the CRE returns in all of their intervention area and support the communities to improve their shelter: they organize training session on the extension or improvement possibilities, they organize the supply of additional materials (as cement) for filling walls and provided trained staff and painting materials in order to upgrade the house.

#### G.6.4. Swiss Red Cross

People interviewed : Olivier Le Gall - Shelter Delegate

Number of shelter completed : 600 permanent shelters

Module identification:

**Size of the basic module** : 21m<sup>2</sup> + 8m<sup>2</sup> for the porch

**Components**: sandwich roof, gutters, wooden structure, plywood floor, plywood wall then double with a siding in fibrocement, aluminum and glass windows.

**M<sup>2</sup> unit of a basic module** : 4,400 USD (200 USD/m<sup>2</sup>);

**Cost of the extension and upgrading**: 2,600 USD/per unit

**Total cost** : 6,800 USD (234 USD/m<sup>2</sup>)

**Duration of the project** : 1 year for the construction of all of the basic module (600 houses) and 9 month for the construction of the gallery and for the siding of the plywood with fibrocement materials on all of the 600 houses.

**Watson Component** : latrine + rain water tank



Croix-Rouge Switzerland intervenes in Leogane. The intervention methodology is based on modules, which are prefabricated in Asia. In a first time, CRS followed 3 components:

1. Choice of the intervention target : very rural
2. Choice of the local partner: the partner is a religious and farmer organization, recognized and respected in the area. Their responsibility in the project is:
  - To identify the beneficiaries and to insure the equity of the program,
  - To identify the workers and to pay them,
  - To mobilize the local populations in the different steps of the building process (transportation of the material, excavation...).
3. Choice of the shelter design: the choice is based on the past experiences. Two kinds of prefabricated shelters, which are resistant to earthquakes and hurricanes have been selected and tested on site (50 Chinese modules and 50 Vietnamese modules).

At the end of this first phase, an evaluation of the module appropriation by the populations has been conducted by the donor. The results of this evaluation show that the shelter is not compatible with the local context. Thus 5 changes have been done by the CRS:

- Diminution of the space under floor, initially of 50 cm,
- Doubling of the floor, initially 1 plywood layer,
- Reinforcement of the walls with layers of fibrocement (waterproof), initially treated plywood, which was subject to a rapid degradation,

- Addition of an external gallery,
- Protection of the windows with metal gates to make them safer, initially only in glass.
- Addition of a second door

The Shelter program has been reinforced later by a Watsan program. No lateness in the deadlines is to be reported. A finale satisfactory survey has just been finalized. Pending results

At the end of the program, the CRS put in place an exit of the original project: The workers have been trained for the building of prefabricated houses. In order to reinforce their building skills, the CRS decided to train them to build permanent houses. Buildings, once realized, are retroceded to the community to develop local shops. 2 units of several buildings have been realized in the area.



## G.7. Results from the CRC satisfaction survey

The data was collected in June 2011 by CRC, and the following table is a new analysis by the evaluation team.

		Leogane		Jacmel		
	<b>Number of respondents</b>	159		135		
		respondents	percentage	respondents	percentage	
9	<b>Age</b>	18	2	1,3%	2	1,5%
		19 to 80	157	98,7%	133	98,5%
				<b>159</b>	<b>135</b>	
10	<b>Gender</b>	Male	63	39,9%	33	24,4%
		Female	95	60,1%	102	75,6%
		<b>total</b>	<b>158</b>		<b>135</b>	
11	<b>Relation of respondents to the family living in the house</b>	head of households	122	76,7%	107	82,9%
		spouses of head of households	18	11,3%	9	7,0%
		child of the family	9	5,7%	9	7,0%
		mother or father of the family	2	1,3%	3	2,3%
		others	6	3,8%	0	0,0%
		missing	2	1,3%	1	0,8%
		<b>total</b>	<b>159</b>		<b>129</b>	
14	<b>Original beneficiaries or not and relation to the original beneficiaries</b>	original beneficiaries	154	98,1%	132	97,8%
		friend of original beneficiaries	1	0,6%	0	0,0%
		renter of the original beneficiary	0	0,0%	1	0,7%
		did not know the beneficiary	1	0,6%	0	0,0%
		relatives	0	0,0%	2	1,5%
		missing data	1	0,6%	0	0,0%
		<b>total</b>	<b>157</b>		<b>135</b>	
15	<b>Use of the house</b>	shelter	154	86,0%	131	97,0%
		do not know	9	5,0%	0	0,0%
		others	0	0,0%	2	1,5%
		missing data	16	8,9%	2	1,5%
		<b>total</b>	<b>179</b>		<b>135</b>	
16	<b>Days per week the house is occupied</b>	0	1	0,6%	0	0,0%
		1	1	0,6%	1	0,8%
		2	2	1,3%	0	0,0%
		3	4	2,5%	1	0,8%
		4	3	1,9%	0	0,0%
		5	3	1,9%	0	0,0%
		6	0	0,0%	0	0,0%
		7	129	81,1%	123	97,6%
		missing data	16	10,1%	1	0,8%

		Leogane	Jacmel			
	Number of respondents	159	135			
		respondents	percentage	respondents	percentage	
	total	159		126		
17_a	Satisfaction with privacy	satisfied dissatisfied do not know not applicable missing data	137 14 2 0 6	86,2% 8,8% 1,3% 0,0% 3,8%	109 14 0 1 11	80,7% 10,4% 0,0% 0,7% 8,1%
		total	159	135		
17_b	Satisfaction with safety for intrusion	satisfied dissatisfied do not know not applicable missing data	127 19 3 0 10	79,9% 11,9% 1,9% 0,0% 6,3%	122 7 2 0 4	90,4% 5,2% 1,5% 0,0% 3,0%
		total	159	135		
17_c	Satisfaction with protection from flood	satisfied dissatisfied do not know not applicable missing data	70 72 7 3 7	44,0% 45,3% 4,4% 1,9% 4,4%	105 12 6 3 9	77,8% 8,9% 4,4% 2,2% 6,7%
		total	159	135		
17_d	Satisfaction with protection from the wind coming into the house	satisfied dissatisfied do not know not applicable missing data	117 22 7 1 12	73,6% 13,8% 4,4% 0,6% 7,5%	113 5 10 0 7	83,7% 3,7% 7,4% 0,0% 5,2%
		total	159	135		
17_e	Satisfaction with protection from the rain coming into the house	satisfied dissatisfied do not know not applicable missing data	103 48 3 0 5	64,8% 30,2% 1,9% 0,0% 3,1%	85 45 1 0 4	63,0% 33,3% 0,7% 0,0% 3,0%
		total	159	135		
17_f	Satisfaction with number and size of windows and doors	satisfied dissatisfied do not know not applicable missing data	125 28 2 0 4	78,6% 17,6% 1,3% 0,0% 2,5%	113 17 0 0 5	83,7% 12,6% 0,0% 0,0% 3,7%
		total	159	135		

		Leogane	Jacmel			
	Number of respondents	159	135	respondents	percentage	
17_g	Satisfaction with temperature in the house (not too hot or too cold)	satisfied dissatisfied do not know not applicable missing data	125 22 3 4 5	78,6% 13,8% 1,9% 2,5% 3,1%	109 23 1 0 2	80,7% 17,0% 0,7% 0,0% 1,5%
		<i>total</i>	<i>159</i>		<i>135</i>	
17_h	Satisfaction with protection from leaking roof	satisfied dissatisfied do not know not applicable missing data	112 34 3 2 8	70,4% 21,4% 1,9% 1,3% 5,0%	87 43 1 0 4	64,4% 31,9% 0,7% 0,0% 3,0%
		<i>total</i>	<i>159</i>		<i>135</i>	
17_i	Satisfaction with quality of the painting	satisfied dissatisfied do not know not applicable missing data	11 25 7 110 6	6,9% 15,7% 4,4% 69,2% 3,8%	106 12 3 2 12	78,5% 8,9% 2,2% 1,5% 8,9%
		<i>total</i>	<i>159</i>		<i>135</i>	
17_j	Satisfaction with the construction of latrine	satisfied dissatisfied do not know not applicable missing data	66 26 3 60 4	41,5% 16,4% 1,9% 37,7% 2,5%	106 13 3 2 11	78,5% 9,6% 2,2% 1,5% 8,1%
		<i>total</i>	<i>159</i>		<i>135</i>	
18_a	Number of days to complete the foundation	1 day 2 days 3 days 4 to 8 days missing data	30 90 27 11 1	18,9% 56,6% 17,0% 6,9% 0,6%	9 44 44 29 6	6,8% 33,3% 33,3% 22,0% 4,5%
		<i>total</i>	<i>159</i>		<i>132</i>	
18_b	Number of days to complete the house	1 day 2 days 3 days 4 to 8 days missing data	71 68 11 8 1	44,7% 42,8% 6,9% 5,0% 0,6%	2 55 28 40 7	1,5% 41,7% 21,2% 30,3% 5,3%
		<i>total</i>	<i>159</i>		<i>132</i>	

		Leogane		Jacmel		
	Number of respondents	respondents	percentage	respondents	percentage	
18_c	Number of days to complete the house	0 day	1	1,0%	0	0,0%
		1 day	23	22,5%	18	20,9%
		2 days	15	14,7%	3	3,5%
		3 days	23	22,5%	12	14,0%
		more than 4 days	23	22,5%	28	32,6%
		missing data	17	16,7%	25	29,1%
		<i>total</i>	<b>102</b>		<b>86</b>	
19	Received information about the shelter program	Yes	132	83,0%	119	88,1%
		No	26	16,4%	13	9,6%
		missing data	1	0,6%	3	2,2%
		<i>total</i>	<b>159</b>		<b>135</b>	
20	Source of information about the shelter program	Kiosk	53	25,4%	3	2,3%
		Staff of CRC	116	55,5%	118	91,5%
		Theatre	31	14,8%	6	4,7%
		others	9	4,3%	2	1,6%
		<i>total</i>	<b>209</b>		<b>129</b>	
21	Plan of have made changes in the house	Have made or plan	117	73,6%	55	40,7%
		no	40	25,2%	79	58,5%
		missing data	2	1,3%	1	0,7%
		<i>total</i>	<b>159</b>		<b>135</b>	
22_a	Plan of have made room separation by sheets or walls	Have made	7	4,4%	2	1,5%
		Plan	94	59,1%	40	29,6%
		missing data	58	36,5%	93	68,9%
		<i>total</i>	<b>159</b>		<b>135</b>	
22_b	Plan of have made additional windows or doors	Have made	9	5,7%	1	0,7%
		Plan	86	54,1%	27	20,0%
		missing data	64	40,3%	107	79,3%
		<i>total</i>	<b>159</b>		<b>135</b>	
22_c	Plan of have made electrical wiring	Have made	13	8,2%	8	5,9%
		Plan	77	48,4%	30	22,2%
		missing data	69	43,4%	97	71,9%
		<i>total</i>	<b>159</b>		<b>135</b>	
22_d	Plan of have made air vents	Have made	11	6,9%	2	1,5%
		Plan	74	46,5%	27	20,0%
		missing data	74	46,5%	106	78,5%
		<i>total</i>	<b>159</b>		<b>135</b>	

		Leogane	Jacmel			
	Number of respondents	159	135	respondents	percentage	
22_e	Plan of have made extension	Have made Plan missing data	7 106 46	4,4% 66,7% 28,9%	2 36 97	1,5% 26,7% 71,9%
		<i>total</i>	<b>159</b>		<b>135</b>	
23_a	Satisfaction with politeness of CRC personnel	satisfied dissatisfied do not know missing data	148 3 1 7	93,1% 1,9% 0,6% 4,4%	129 0 1 5	95,6% 0,0% 0,7% 3,7%
		<i>total</i>	<b>159</b>		<b>135</b>	
23_b	Satisfaction with availability of CRC personnel	satisfied dissatisfied do not know missing data	147 3 2 7	92,5% 1,9% 1,3% 4,4%	132 0 1 2	97,8% 0,0% 0,7% 1,5%
		<i>total</i>	<b>159</b>		<b>135</b>	
24	Contribution to the construction of the house	Purchase of cement for foundation Digging the foundation Painting the house Other	34 43 15 40	25,8% 32,6% 11,4% 30,3%	5 43 95 21	3,0% 26,2% 57,9% 12,8%
		<i>total</i>	<b>132</b>		<b>164</b>	
25	Duration to live in the house	1 year 1 to 3 years 4 to 5 years 10 years to forever missing data	1 2 5 150 1	0,6% 1,3% 3,1% 94,3% 0,6%	0 3 4 125 5	0,0% 2,2% 2,9% 91,2% 3,6%
		<i>total</i>	<b>159</b>		<b>137</b>	

## G.8. Canadian Red Cross Limits of Coverage after Shelter Completion

### Canadian Red Cross Limits of Coverage after Shelter Completion

NOTE: Document is for internal purposes only to provide clarity to staff

September 30, 2011

After completion and handover of the Canadian Red Cross (CRC) shelters, the shelter recipients are responsible for upkeep, maintenance, repairs and safety of their shelters. As necessary, notifications of damage will be taken up to one (1) month and repairs will be completed up to two (2) months after the

**end of the CRC shelter construction in the allocated areas (Jacmel or Leogane).** CRC will only provide limited repairs as indicated below and notifications of damage after the period indicated will not be considered. These repairs will be at CRC's discretion, and after this time, the beneficiary is solely responsible for the shelter.

**Repairs covered by CRC:**

Repairs due to defective material or methods in construction will be considered on a case-by-case basis at the discretion of CRC. An example would be in cases of leaking roofs due to errors of the construction.

**Examples of what is NOT covered:**

CRC will not cover loss, damage or repairs caused directly or indirectly by any of the following:

- Improper treatment of shelter after completion.
- Fraudulent, dishonest or criminal acts including vandalism.
- The enforcement of any ordinance of law: Requiring the tearing down of any property, including the cost of removing its debris.
- Governmental Action: Seizure or destruction of property by order of governmental authority
- War and Military Action: War, including undeclared or civil war;
- Water & Moisture: Flood, surface water, waves, tides, tidal waves, overflow of any body of water, or their spray, all whether driven by wind or not; mould, rot or hidden decay.
- Acts of God including mudslides or mudflows, fire, smoke, lightening, explosion & falling objects
- Hidden insect or vermin damage: Nesting or infestation, or discharge or release of waste products or secretions, by insects, birds, rodents or other animals.
- Wear and tear: Rust corrosion, fungus, decay, deterioration, hidden or latent defect or any quality in property that causes it to damage or destroy itself.
- Settling, cracking, shrinking or expansion