

# SHELTER PROJECTS

## 2011–2012



## Shelter Projects 2011–2012

Published 2013

Available online from [www.ShelterCaseStudies.org](http://www.ShelterCaseStudies.org)

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Front Cover: A transitional shelter in the Philippines being relocated by 20 people.

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Back cover left to right:

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## Foreword

The fourth edition of 'Shelter Projects', is launched at a time when shelter is more relevant than ever as an instrument of humanitarian response. The case studies in this edition reflect the on-going challenges posed by responses to complex emergencies such as Haiti and Pakistan as well as new challenges derived from unprecedented level of population displacement in Africa, Asia and in the Middle East. While the increase of shelter needs prompt larger mobilisation of resources, shelter programmes need to explore improved models of delivery as well as innovative, cost-effective solutions which incorporate best practice and position the persons of concern at the forefront of our interventions.

Where people live largely determines their ability to meet their basic needs. It is of paramount importance that shelter solutions look beyond the physical structure and consider the environment within which the shelter is placed. Nowadays, large displacement of population due to humanitarian crisis, mostly affects urban areas where people expect to find easier access to opportunities be it of social or economic nature. Nevertheless, this trend further exacerbates the existing urbanisation phenomenon by placing additional strain on already vulnerable areas. It is therefore increasingly evident that new concepts for sheltering people have to incorporate a more holistic approach which includes the shelter and its surrounding context. Shelter is an integral part of settlement planning, which guides spatial allocation of functions maintaining equilibrium between population needs, availability and allocation of resources, economic dynamics, amelioration of living conditions, provision of services, communication transportation networks as well as recreational spaces.

The case studies contained in the fourth edition of Shelter Projects are a reminder once again that every crisis is unique. There is no 'silver bullet' for shelter response. The main objective should be to operate in accordance with recognized shelter best practice while enabling those displaced to return to their homes or equivalent living space in a timely manner encouraging community recovery and building resilience to possible future shocks. Participation and promoting ownership is the key to achieving successful projects.

As well as being an important reference point for shelter facilitators this publication also acts as a learning tool allowing the successes and challenges of completed shelter projects to be replicated and improved on. The case studies address common issues emerging in shelter response, outline different approaches to addressing shelter needs and assist in evaluating the impact on affected communities. The shelter projects case studies provide an excellent resource against which to gauge proposed shelter interventions and assess possible outcomes. Let's collectively try to avoid 're-inventing the wheel'.

This edition also contains a new section comprising relevant thematic topics of interest compiled by technical experts. The issues addressed are: a background to the indicator for covered living space 'the 3.5m<sup>2</sup> principle', cash transfers as a tool in shelter response, sheltering of livestock and the importance of settlements.

In keeping with developments in on-line information and social media, greater emphasis is being placed on electronic dissemination, and in this regard the shelter projects website [www.sheltercasestudies.org](http://www.sheltercasestudies.org) is identified for reference on each page of the document. We welcome your feedback and hope you will utilize the website in this regard.

A special thanks to those who contributed with case studies and the Technical Advisory Committee for the articles of interest, without your support we would have no stories to tell. We trust that the reader will find this edition of 'Shelter projects' relevant and thought provoking leading to improved shelter solutions for affected communities.

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# Acknowledgements

Project coordinated by: Esteban Leon (UN-HABITAT), Miguel Urquia (UNHCR), Sandra D'Urzo (IFRC) and Joseph Ashmore.

The Shelter Projects publication is overseen by a technical advisory group, including those mentioned above and Eddie Argeñal (USAID), Jake Zarins (NRC), Jim Kennedy (Independent), Luca Pupulin (ACTED), Nuno Nunes (IOM), and Seki Hirano (CRS).

Compiled and edited by: Joseph Ashmore, with additional editorial support from Jon Fowler, Jim Kennedy and Wan Sophonpanich.

These 32 case studies have been provided from the programmes of the following 18 organisations:

- ACTED
- British Red Cross Society
- CRAterre
- Colombian Red Cross Society
- CRS - Catholic Relief Services
- Habitat for Humanity
- Heritage Foundation of Pakistan
- IFRC- International Federation of the Red Cross and Red Crescent Societies
- IOM - International Organisation for Migration
- Netherlands Red Cross Society
- NRC- Norwegian Refugee Council
- Oxfam GB
- Première Urgence
- Shelterbox
- Solidarités
- UNHCR - United Nations High Commissioner for Refugees
- UN-Habitat - United Nations Human Settlements Programme
- USAID/OFDA

The editors would like to express their gratitude to the following individuals who wrote and reviewed the case studies in this book:

Alexandre Douline, Alexis Bricogne, Alison Ashlin, Amanda Rashid, Amelia Rule, Andrew Schaefer, Andy Buchanan, Anicet Adjahossou, Anna Pont, Annalisa Caïmi, Antoine Vollet, Arnaldo Arcadio, Arnaud Fratani, Bettina Morgenstern, Brian Kelly, Carlo Gerhardi, Cesar Augusto Uruena Pulido, Charles Campbell, Charles Parrack, Charles Setchell, Christina Belinga, Corinne Treherne, Damien Jusselme, Edwin Pinto Ladino, Eef Marije Krol, Elias Jourdy, Elizabeth Palmer, Elizabeth Troman, Elsa Cauderay, Fernando Murillo, Florence Foster, Garrett Paolo Nolasco, Ghada Ajami, Giovanni Cassani, Habibullah Mujaddidi, Hilary DuBose, Hovig Etyemezian, Jamie Mok, Jeanne Ella Andrianambinina, Jennifer Ankrom, Jeremiah Atho Ougo, Jockny Martinez, Joseph Curry, Julia Macro, Julien Mulliez, Karl Baker, Kifle Tesfa, Ko Takeuchi, Laura Dills, LeGrand Lee Malany, Leonilo Escalada, Manuel Moniz Pereira, Maria Moita, Mario Flores, Mariyam Nizam, Mark Hopley, Martino Costa, Michiko Ito, Neil Brighton, Niek de Goeij, Olivier Moles, Ophélie Goulías, Patrick Mutai, Phil Duloy, Philippe Garnier, Pornphun Sutthiprapha, Rekha Das, Richard Evans, Rick Bauer, Salve Pacatang, Shintaro Yamamoto, Subhash Jadhav, Thanchanitch Suttichote, Timothy Mutunga, Tom Nickalls, William Schmitt, Yasmeen Lari and Zabihullah Afghani.

We would like to thank those who contributed to Shelter Projects 2008, Shelter Projects 2009, and Shelter Projects 2010 whose work is reflected in this document.

We also would like to thank the many hundreds of people who have implemented the projects that are mentioned in this book, but who have not been individually credited.

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## Introduction

This book contains summaries of shelter projects that have been implemented in response to conflicts, complex emergencies, and natural disasters (Section A). It also contains a section entitled *Opinions* (Section B). These are summaries of significant issues in humanitarian shelter provision, written by shelter practitioners with specific interests and experiences.

A full list of case studies contained in all four editions: *Shelter Projects 2008*, *Shelter Projects 2009*, *Shelter Projects 2010* and *Shelter Projects 2011–2012* can be found in Annex 1.

The case studies in this book were implemented by many different organisations, a full list of which can be found in the acknowledgements section (page iv). In order to allow weaknesses as well as strengths of programmes to be openly shared, the case studies are not directly attributed to individual organisations. Host government projects are not included.

**Including a case study in this book does not necessarily mean that it represents best practice...**

As a result of the projects being implemented in diverse and often challenging conditions, they illustrate both good and bad practices. From every case study there are lessons that can be learnt, and aspects that may be repeated or need to be avoided.

### Warning

Each project must take into consideration the local contexts and needs of the affected population, which will differ from case to case. Projects should therefore not be directly copied or there will inevitably be programmatic weaknesses and failures.

### Selection of case studies

The case studies were selected using the following criteria:

- Projects must be wholly or largely complete by the end of 2012. This is to allow solid learnings to be gained.
- Given the scale of emergency shelter need every year, case studies must have had large scale impacts. Discontinued trials or design concepts were not included.
- The majority of the project must be implemented within the first years following a natural disaster. For conflict affected populations, chronic emergencies and return processes, longer time scales can be considered.
- Accurate project information is available from staff involved in the project implementation.
- The case studies should illustrate a diversity of approaches to

meet shelter need, as providing shelter is more than simply designing architecturally impressive structures.

In compiling the case studies for this edition, special efforts were made to include projects which were not restricted to construction of an agreed shelter design. As a result readers will find projects which include issues such as rental support, (e.g. A.10 and A.11 Haiti – 2010), settlement issues (e.g. A.31 – Tunisia – 2011), site planning (e.g. A.15 – Kenya – 2011) and coordination (e.g. A.20 – Pakistan – 2010 and A.28 – Somalia).

In the case studies, we include some findings from a 10 year evaluation of a transitional shelter project (A.7 – Democratic Republic of Congo – 2002). We also include a case study from 1871 that illustrates the long history of shelter projects (A.32 – USA (Chicago) – 1871), and contains an early design for a t-shelter / core house.



This edition of *Shelter Projects* focuses on a broader range of projects than previous editions - such as A.15, Kenya (Dadaab), which includes site planning.  
Photo: Joseph Ashmore

## Global shelter need

The data presented in the table below indicates that over seventy million people were displaced or remained displaced as a result of conflict, natural disasters and economic development in 2011/2012. However, how these people settled and the total number of people who required shelter support is not known.

Although most of these seventy million people were displaced before 2011, all have required new shelter solutions at some stage. Many found their own solutions, whilst many more were provided with external assistance.

### Total number of refugees and IDPs by category (in millions).

	2010	2011
UNHCR refugees	10.55	10.40
Asylum seekers	0.85	0.87
Palestinians (care of UNRWA)	5.00	5.10
<b>REFUGEES TOTAL</b>	<b>16.40</b>	<b>16.37</b>
IDPs (conflict and generalized violence-induced)	27.50	26.40
Natural-hazard disaster-induced	42.30	14.90
<b>IDPs TOTAL</b>	<b>69.80</b>	<b>41.30</b>
Development induced (e.g displaced by dams)	15.00	15.00
<b>TOTAL</b>	<b>101.20</b>	<b>72.67</b>

Source: Table 1.1 *IFRC World Disaster Report* 2012, p. 15

## Natural disasters 2011/2012

In 2011 there were 336 recorded natural disasters affecting approximately 209 million people<sup>1</sup>. Although this gives an idea of the scale of disaster impacts it cannot be directly linked to shelter needs. However, analysis of the data does give an idea of where the greatest needs may lie.

The overwhelming majority of people affected by natural disasters live in Asia and in countries with medium or low Human Development Index scores.

The data available for 2012 reflects the pattern that floods, droughts and storms affect the greatest number of people. Major floods in 2012 in China, Pakistan, the Philippines and India dominate the statistics for numbers of people affected by natural disasters. Droughts in 2012 are estimated to have affected 11 million people in the Horn of Africa and 3 million people in North Korea.

Other disasters also had significant impacts. The 2011 earthquake and tsunami in Japan caused significant loss of life and destroyed 128,000 houses. It was also the most expensive disaster in history.

The limitations of these figures in terms of assessing shelter needs is limited due to the following factors:

- Accurate numbers of people displaced are not always available.

- Countries have differing capacities to cope with the affects of such disasters. For example millions of people in China are displaced every year by natural disasters, but little humanitarian aid is requested.

## Conflicts in 2011/2012

It is estimated that 60 per cent of all forced migrants are displaced by conflict and violence. All of them required new shelter in their displacement locations. There were additional shelter and land needs in locations of eventual return.

Countries with conflicts causing significant displacement in 2011/2012 included:

- Syrian Arab Republic
- Central African Republic
- Democratic Republic of Congo
- Sudan / Republic of South Sudan

As in previous years, the total refugee numbers remain fairly static. More than half of the world's refugees came from three countries in 2011: Iraq, Somalia and Afghanistan.

Around three-quarters of the refugee population remain in a situation of "protracted displacement" with the international community unable to produce durable solutions as a result of ongoing disagreements over land rights and political instability.

It is estimated that half a million refugees voluntarily repatriated in 2011 and nearly 2.5 million internally displaced people returned home. This is an improvement on 2010, which had one of the lowest return rates in 20 years. Projects from *Afghanistan (A.1)*, *Cote d'Ivoire (A.5-A.7)*, and *Sudan (A.29)* in this book relate to return and resettlement programmes.

The deterioration of the security situation in Syria led to over half a million people seeking protection in Turkey, Jordan and Lebanon by the end of 2012. A further two million people were thought to be displaced within Syria, numbers that continued to rise.

### Total number of people reported affected by natural disasters (in thousands.)

	Asia	Africa	Americas	Europe	Oceania
<b>2007</b>	190,885	1,253	9,119	1,651	172
<b>2008</b>	182,754	22,653	20,314	268	105
<b>2009</b>	174,056	42,636	7,046	141	77
<b>2010</b>	292,534	3,724	12,744	834	549
<b>2011</b>	176,453	19,092	13,457	79	484
<b>Total</b>	<b>1,016,682</b>	<b>89,358</b>	<b>62,680</b>	<b>2,973</b>	<b>1,387</b>

Adapted from Annex (Table 3) *IFRC, World Disasters Report* 2012, p. 258

<sup>1</sup> Figures for disaster-affected populations in 2012 are incomplete. The main statistical resource quoted here for disaster information (EM-DAT international disaster database) is under constant revision. Final figures for 2012 are not yet available.

## Where to find different types of response in the case studies

Case study	Settlement option								
	Non-displaced / returns	Dispersed self-settlement	Short-term land, house or apartment tenant	Unplanned camps	Collective centres	Hosting	Planned and managed camps / relocation sites	Resettlement	Urban neighbourhoods
A.1 – Afghanistan – 2012	x								x
A.2 – Burkina Faso – 2012							x		
A.3 – Colombia – 2012	x								
A.5 – Cote d'Ivoire – 2012	x								x
A.6 – Cote d'Ivoire – 2012	x								x
A.7 – DRC – 2002	x								x
A.8 – Ethiopia – 2011							x		
A.9 – Ethiopia – 2012							x		
A.10 – Haiti – 2010	x		x	x					x
A.11 – Haiti – 2010	x		x	x			x		x
A.12 – Haiti – 2010	x			x					x
A.13 – Haiti – 2010		x							
A.14 – Japan – 2011	x				x				x
A.15 – Kenya – 2011							x		
A.16 – Lebanon – 2007				x			x		x
A.17 – Lebanon – 2011			x		x	x			
A.18 – Madagascar – 2012	x								
A.19 – Nicaragua – 2007	x								
A.20 – Pakistan – 2010	x	x		x	x		x		
A.21 – Pakistan – 2010	x								
A.22 – Pakistan – 2011	x								
A.23 – Pakistan – 2011	x								
A.24 – Peru – 2012				x					
A.26 – Philippines – 2012	x							x	x
A.27 – Philippines – 2012								x	
A.28 – Somalia – 2012									x
A.29 – Sudan – 2012	x							x	
A.30 – Thailand – 2011	x				x	x			x
A.31 – Tunisia – 2011							x	x	
A.32 – USA – 1871	x				x	x			

**Table illustrating which forms of support were provided in each case study**

Case study	Household items	Construction materials	Tools	Emergency shelter	Transitional shelter / T-shelter	Support for host families	Rental support	Core housing / progressive shelter	Housing repair and retrofitting	Cash / vouchers	Loans*	Advocacy / legal	Site planning	Infrastructure	Training	Structural assessment	Guidelines / materials / mass communications
A.1 – Afghanistan – 2012		x				x		x		x				x	x		
A.2 – Burkina Faso – 2012		x		x	x					x			x				
A.3 – Colombia – 2012									x			x		x	x		
A.5 – Cote d'Ivoire – 2012		x						x	x	x		x			x		
A.6 – Cote d'Ivoire – 2012		x						x				x			x		
A.7 – DRC – 2002	x	x			x												x
A.8 – Ethiopia – 2011		x	x	x	x								x	x	x		
A.9 – Ethiopia – 2012					x								x				
A.10 – Haiti – 2010														x			
A.11 – Haiti – 2010					x		x		x	x							
A.12 – Haiti – 2010					x		x		x	x					x		
A.13 – Haiti – 2010		x							x						x		x
A.14 – Japan – 2011									x	x						x	
A.15 – Kenya – 2011				x	x			x					x	x			
A.16 – Lebanon – 2007									x	x						x	
A.17 – Lebanon – 2011						x	x		x	x						x	
A.18 – Madagascar – 2012		x						x							x		x
A.19 – Nicaragua – 2007		x						x					x		x		
A.20 – Pakistan – 2010												x			x		x
A.21 – Pakistan – 2010			x					x		x				x	x		
A.22 – Pakistan – 2011								x		x					x		x
A.23 – Pakistan – 2011								x	x			x			x		x
A.24 – Peru – 2012	x		x	x											x		
A.26 – Philippines – 2012					x							x		x			
A.27 – Philippines – 2012	x	x						x	x				x	x	x		
A.28 – Somalia – 2012	x	x			x								x	x			
A.29 – Sudan – 2012		x						x					x	x	x		
A.30 – Thailand – 2011																	x
A.31 – Tunisia – 2011	x			x													
A.32 – USA – 1871	x	x			x		x			x							x

\* Although there are no examples in this edition of Shelter Projects, "Loans" is included as a category of assistance in this table as there were examples in previous editions. (e.g. *A.29 Tajikistan, 2010 Shelter Projects 2010*)

**Explanation of columns:**

- Household items - tents / blankets and other non-food items
- Construction materials - were provided for construction/repair.
- Emergency shelter / transitional shelter, T-shelter, temporary shelter, semi-permanent shelter, core housing / progressive shelter. Terminology is used according to the wording used in the response.

## Recurring themes

### Affected people are the first responders

The first and main response in most of the case studies in this book is by the affected people themselves. Of the case studies in this book, the more effective projects were set up with assessments that led to a clear understanding of the needs, and with two way communication between the implementing organisations and the affected people.

The fact that disaster and conflict affected people are usually highly proactive in finding solutions to their own shelter needs is recognized in many of the case studies in this book. For example in [A.4 – Cote d'Ivoire](#), organisations assessed the “self recovery rate”, and made follow-on planning assumptions for the support that was needed.

Sphere standards<sup>1</sup> and indicators provide common standards on participation, initial assessment, monitoring and evaluation.

### Types of response

The previous two tables highlight some themes that recur between case studies and in which case study they can be found. The first of the two tables identifies the kinds of settlement options supported by the project and the second provides more detail on the type of assistance that was provided.

A quick glance at these tables shows that:

- Camps are not the only settlement option supported.
- There are a diversity of types of shelter that can be built by affected people or by supporting organisations.
- There is a diversity of ways of supporting people to improve shelter. These range from direct support in construction, to offering legal support, to improving communication with disaster affected people so that they can make more informed choices.

## Scale

Disasters and displacements vary massively in scale, and as a result so do responses. Many are also dealt with in country (see [A.30 – Thailand – 2011](#))

In many responses there is simply not sufficient funding or capacity for organisations to provide the support that is required.

In the light of resource constraints, organisations often have to make tough decisions as to whether to provide a high level of longer term support for a limited number of households, or a lower level of support for a larger number of households. In the case of displacements over borders due to conflict, there is often little choice and some kind of support must be provided to all displaced people (see [A.15 – Kenya \(Dadaab\) – 2011](#)).

Many projects are set up to work at a small scale with the hope that the project can allow the organisations to provide a larger scale of support through advocacy and by providing a replicable model (see [A.3 – Colombia – 2012](#)). Often by implementing even small scale projects, organisations engage in the practical realities of shelter and reconstruction and can be in a much stronger position to advocate from.

In some circumstances the scale changes rapidly and the programmes must adapt to the changing scale of needs ([A.17 – Lebanon – 2011](#))

### Selecting an area to intervene in

Selecting the area of intervention (province/district/village) is the first step in selecting who a project will support. It has very far reaching implications as to whether a project will meet the needs of the most vulnerable people. In many projects this decision is taken relatively rapidly and it is made using less detailed criteria than are used for selecting individuals.

### Coordination and clusters

Since 2005, many of the larger responses have been managed

using the cluster approach to coordination. This was proposed as a way of addressing gaps and ensuring responses were more effective (see [humanitarianresponse.info](http://humanitarianresponse.info) and [sheltercluster.org](http://sheltercluster.org) for more background).

In this book, we include two projects as examples of cluster coordination, whilst many others highlight coordination components of the project. In [A.20 – Pakistan – 2010](#), we include a case study of coordination in a very large scale response and the need to ensure that coordination takes place at the village level as well as at the national level. In [A.28 – Somalia – 2011](#), we look at some of the issues in ensuring that multi-sectoral responses are coordinated in the complex urban environment of Mogadishu.

### Disaster Risk Reduction (DRR)

In many responses, particularly to natural disasters, there is a need to support people to “build back safer” and enhance the resilience of people to withstand future disasters. In this edition of *Shelter Projects* we have tried to highlight the DRR components of projects. This ranges from structural and engineering support ([A.1 – Afghanistan – 2012](#)) to projects firmly based in community-based disaster risk reduction principles ([A.21 and A.23 – Pakistan – 2011](#)).

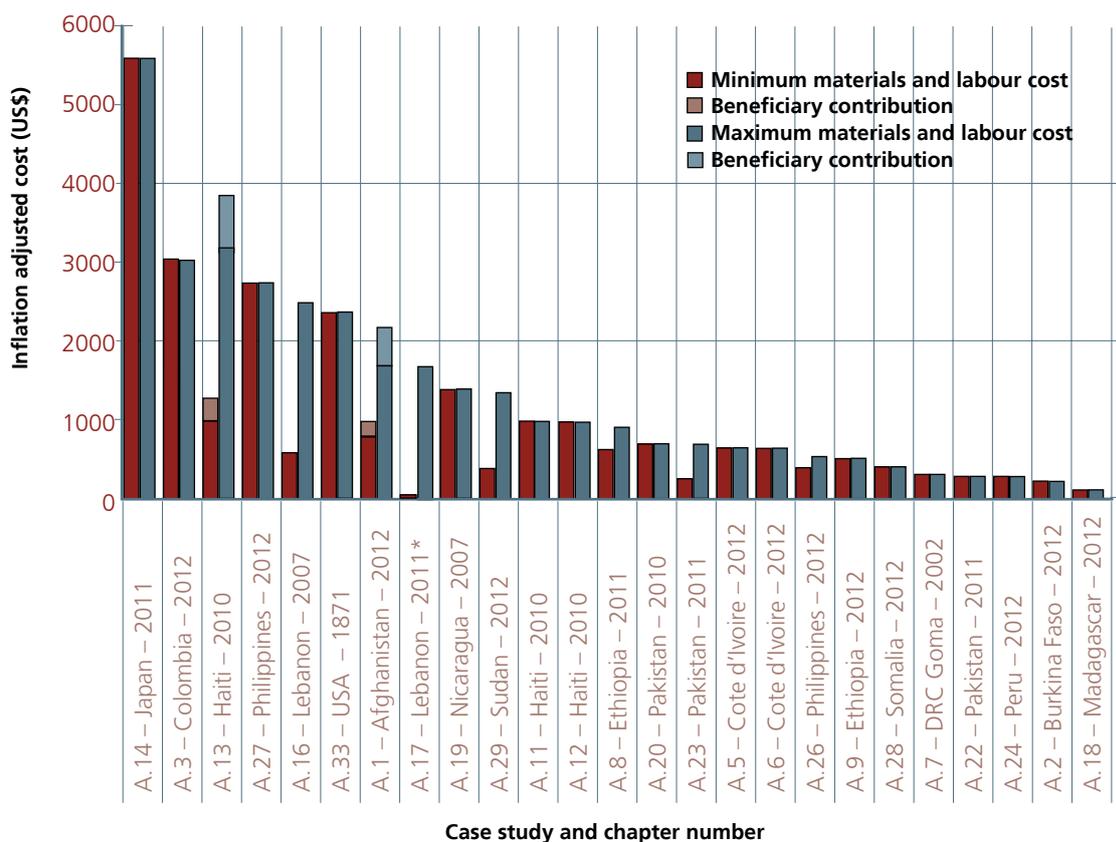
### Settlements, land and planning

In this edition of shelter projects we have tried to look at shelter in the broader sense and to include issues relating to settlements. In the “Opinion pieces” ([Section B](#)), we include a piece on this subject ([B.4 – Reflection on the Importance of Settlements in Humanitarian Shelter Assistance](#)).

Some case studies include a discussion of some of the issues encountered surrounding land in recovery operations ([A.26 – Philippines – 2012](#)) whilst others look at the issues surrounding site planning the context of conflict induced displacement. ([A.15 – Kenya \(Dadaab\) – 2011](#) and [A.31 – Tunisia – 2011](#)).

<sup>1</sup> *Sphere Project, Sphere: Humanitarian charter and minimum standards in humanitarian response, 2011*

Minimum and maximum materials and labour costs per household for each project in this book  
(Note that these figures are not necessarily representative of the entire responses)



### Costing shelter projects

The stated costs of the various projects in this book are shown in the graphic above. However the costs do not all measure the same things and should not be used as indicators of value for money or of project success.

Each project was conducted in very different circumstances with very different markets, local construction methodologies, materials, skills availability and logistics constraints. Projects also varied greatly in the type of assistance provided, from provision of materials, to projects with much higher advocacy, training or mobilisation components.

In reporting the overall project costs different organisations have used different approaches making direct comparison difficult. Some have divided the entire project budget by the number of shelters built, whilst other projects have multiple sources of funding or work in multiple sectors, making overall shelter project costs harder to calculate.

### Terminology

There has been a lot of academic and practical debate surrounding terminology used in shelter. Additional confusions have been added by language translation issues.

Issues of the definition of words have been particularly great surrounding the language used for different phases of assistance. As an example the terms "transitional shelter"<sup>2</sup>, "T-shelter", "temporary shelter", "semi-permanent shelter" and "incremental shelter" have all been used in responses to define both the types of shelters and the processes used.

In this book we use the terminology that was used in country for each response. Although there can be some confusions, practical response specific understandings are usually developed surrounding the use of these terms. In some cases, flexibility in terminology has helped projects to take place sooner.

### Interpret and contribute

In reading this book, or browsing relevant case studies, it is hoped that readers will be able to draw their own lessons and identify useful techniques and approaches.

Readers are encouraged to send in their own projects for future editions. In this way, the humanitarian community can compile good and bad practices and hopefully implement increasingly effective shelter projects in the future.

**Contribute at:**

**[www.ShelterCaseStudies.org](http://www.ShelterCaseStudies.org)**

**“[the sites were] ... filled by little towns of tents and huts; so also the Estrela district in the west and the Campo de Santa Clara on the east side of the town were full of squatters... It was estimated that about nine thousand wooden buildings were put up during the first six months after the quake, a fine achievement, for wood was very scarce indeed in Lisbon and much of it had to be brought to the city for this special purpose.**

**The general desire was to get out of buildings into tents or huts, and to sleep in the garden rather than indoors, even if one's home still stood safe and sound, and for this reason the great camps on the high and open places round the city were for a long time crowded communities, in spite of the initial discomfort and squalor of the miserable bivouacs of matting, planks, and sail-cloth under which many of the squatters spent their first few nights.**

**The most remarkable concourse of these campers was that in and around the quinta of the Oratory in Cotovia... in a little while an ordered settlement of wooden huts was established, and some of these, built for nobles and high officials, began to be quite luxurious bungalows with glass windows and tapestry hangings and good domestic offices. ”**

Shelter in response to the Lisbon earthquake of 1755.  
*Source: T. D. Kendrick the Lisbon Earthquake, 1956*



1755 German copperplate image, The Ruins of Lisbon:  
In the left of illustration is a tented camp in the suburbs of Lisbon following the fire of 1755. On the right damage that is probably related to the 1531 earthquake.

*Source: Wikimedia commons*

