GUIDE FOR VILLAGE SHELTER COMMITTEES ON HOW TO PROMOTE TO BUILD BACK SAFER
VILLAGE SHELTER COMMITTEE GUIDE

A Guide for Village Shelter Committees on how to promote and organize the implementation of safer shelters that will provide greater protection from future severe weather conditions.

INTRODUCTION

The people in Ayeyarwaddy and Yangon Districts are beginning to recover from the devastation caused by last year’s cyclone Nargis. Now, many shelters are being repaired, upgraded and reconstructed. How should these shelters be built to better protect the families against the strong winds, heavy rains and high floods? UN-HABITAT, in collaboration with other agencies in the shelter Cluster, have identified the following ten main points to incorporate and ensure that every new shelter will better resist severe weather conditions and provide higher levels of protection.

- Build your house on stilts on the highest spot or your plot.
- Face the shorter side of a ‘rectangular type’ shelter towards where the strong winds normally blow from.
- Construct a roof with a steep slope (minimum 30 degrees), to reduce risk of being blown off.
- Limit the projection of the roof on all sides to maximum 18 inches.
- Fix the cover of the roof firmly to the frame of the roof.
- Fix rafters, purlins, tie beams and post plates firmly to the posts.
- Anchor the strong posts with solid footings to the ground.
- Strengthen your shelters against the winds with braces on each side.
- Maintain the important parts of your shelter regularly.
- Re-tighten and repair your shelter before the monsoon starts.

In order to improve the situation of the shelters in the villages, the families have to be sensitized to build safer shelters and to follow the rules mentioned above. To promote this, the communities can appoint facilitators – the Village Shelter Committee.

This Guide explains the specific features, methods and recommendations and shows how they can easily be applied in any community. Read this guide, discuss with your community, seek advice from village leaders and promote and organize the construction of safer shelters.

A shelter that is built using the methods described in this booklet will provide increased protection from wind and rain and flood, and will enable the families in your community to sleep at night in the knowledge that they are in a strong and safer shelter.

UN-HABITAT, MYANMAR
## CONTENT OF THE VILLAGE SHELTER COMMITTEE GUIDE

### Contents

<table>
<thead>
<tr>
<th>Contents</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INTRODUCTION</strong></td>
<td></td>
</tr>
<tr>
<td>Why to Build Back Safer?</td>
<td>4</td>
</tr>
<tr>
<td>For whom is this Guide?</td>
<td>5</td>
</tr>
<tr>
<td>What is this Guide about?</td>
<td>6</td>
</tr>
<tr>
<td><strong>1. SENSITIZE THE COMMUNITY TO BUILDING BACK SAFER</strong></td>
<td>7</td>
</tr>
<tr>
<td>1.1 Community Meeting</td>
<td>7</td>
</tr>
<tr>
<td>1.2 Recall the experience of cyclone Nargis</td>
<td>8</td>
</tr>
<tr>
<td>1.3 Discuss what can be done</td>
<td>9</td>
</tr>
<tr>
<td><strong>2. TASKS OF THE VILLAGE SHELTER COMMITTEE</strong></td>
<td>11</td>
</tr>
<tr>
<td>2.1 Structures and range of tasks of the Village Shelter Commitee</td>
<td>11</td>
</tr>
<tr>
<td>2.2 Maintenance of the existing shelters</td>
<td>12</td>
</tr>
<tr>
<td>2.3 Sensitize the entire community to Build Back Safer</td>
<td>13</td>
</tr>
<tr>
<td>2.4 How to Build Back Safer</td>
<td>13</td>
</tr>
<tr>
<td>2.6 Assessment of the shelter situation in the village</td>
<td>15</td>
</tr>
<tr>
<td>2.7 Checklist for the Stability of a Shelter</td>
<td>16</td>
</tr>
<tr>
<td>2.8 Identification of shelters prioritised for community support</td>
<td>17</td>
</tr>
<tr>
<td>2.9 Upgrade / Reconstruct safer shelters</td>
<td>18</td>
</tr>
<tr>
<td><strong>3. AN ACTION PLAN TO BUILD BACK SAFER</strong></td>
<td>20</td>
</tr>
<tr>
<td>3.1 The Action Plan</td>
<td>20</td>
</tr>
<tr>
<td>3.2 Technical Proposal</td>
<td>21</td>
</tr>
<tr>
<td>3.3 Material and Labor Procurement</td>
<td>23</td>
</tr>
<tr>
<td>3.4 Implementation Plan</td>
<td>24</td>
</tr>
<tr>
<td>3.5 Monitoring Plan</td>
<td>24</td>
</tr>
<tr>
<td><strong>4. BOOKKEEPING TOOLS</strong></td>
<td>26</td>
</tr>
<tr>
<td>4.1 Cash Book</td>
<td>27</td>
</tr>
<tr>
<td>4.2 Material Book</td>
<td>28</td>
</tr>
<tr>
<td>4.3 Labour Book</td>
<td>29</td>
</tr>
<tr>
<td><strong>5. COMPLETION, HANDOVER, MAINTENANCE AND CONTINUITY</strong></td>
<td>30</td>
</tr>
<tr>
<td>5.1 Completion reports</td>
<td>30</td>
</tr>
<tr>
<td>5.2 Handover</td>
<td>30</td>
</tr>
<tr>
<td>5.3 Maintenance</td>
<td>30</td>
</tr>
<tr>
<td>5.4 Report of the Village Shelter Committee</td>
<td>31</td>
</tr>
<tr>
<td>5.5 Completion of the first round – launching the next round of action</td>
<td>31</td>
</tr>
</tbody>
</table>
Introduction

Why to build back safer?

Cyclone Nargis hit Ayeyarwaddy Delta with wind speeds of more than 100 km/hr and an up to five meter high tidal surge. The cyclone caused an estimated loss of 140,000 lives. About 450,000 houses, almost all in timber or bamboo, were destroyed and 350,000 were damaged.¹

But the field stories also tell that many people were saved from the cyclone because their shelters resisted against the strong winds, more were rescued from the tidal surge as they climbed to an attic or escaped to a higher or safer place like a monastery or a safer building nearby.

What do these stories tell us?: If you are better prepared for a disaster and e.g. improve the resistance of your shelters against the natural forces, you can protect the lives of your family and of the others in your community against rains, winds and surges that hit the delta region every rainy season in a lesser degree and sometimes by a cyclone.

And what are the Lessons Learned: You and your community protects itself better by upgrading or replacing instable shelters by houses that are safer against the natural forces. Such shelters shall be well planned, located at the highest spot of the lot, elevated on stilts to avoid to be flooded, built with well selected materials, constructed with a strong tight frame on deep, solid footings, and with a steep, but strong roof. Such shelters reduce the risk of serious damage in the next disaster.

To “Build Back Safer Shelters” is an important taks for every community in the delta. It shall be started now and be continued in the next years. This Guide will explain how to organize this action for your village.
For whom is this Guide?

How can you and your community upgrade its shelters in a safer way? How can your community prepare its shelters for the upcoming rainy season? How can families extend the stability of their shelters for more years?:

- The stability of shelters is extended when every family assumes proper, regular, repeated maintenance as indicated in the Maintenance Poster.
- The risk of the effects of natural forces can be mitigated by upgrading or re-constructing shelters following 10 main rules (Table on back cover). The Household-Guide “How to Build Back Safer” explains these rules.
- “Building Back Safer” is visualized on two UN-HABITAT posters.
- The technical principles to construct such strong shelters is explained in a Guide for the Village Carpenters, who will construct the houses.

For a community such an activity, to be followed up over a long time period by all families, who have their own problems and priorities, is not an easy task. The process might not start well or be abandoned soon, and will have to concurre with other needs for the limited financial resources.

Such an important activity in which all families of the community participate requires a good sensitization, a proper planning and a good organisation. This does not come by itself. It requires capable and committed persons to take a special role and lead and support their community. Thus the villages need a committee for Building Back Safer: the Village Shelter Committee.

This Committee can be established as part of an existing structure (e.g. Village Peace and Development Committee) or as a new body/entity.

This Guide explains duties and process of the Village Shelter Committee. It is addressed to the members of this committee. It is also interesting for others involved in the process, like the carpenters, the village leaders and for all participants in this community process to “Build Back Safer Shelters”.
What is this Guide about?

Any important community activity requires sound planning of each step. For the activity to “Build Back Safer Shelters” these steps are necessary:

- The community needs to be sensitized (recall the cyclone Nargis),
- The objectives have to be made clear and the message to be well spread;
- The principal points how to “Build Back Safer” have to be explained;
- The stability of the existing shelters has to be checked;
- The shelters which need urgently community support have to be identified;
- Technical proposals for shelters to be upgraded have to be written;
- The upgrading has to be prepared and to be monitored;
- Funds have to be requested; expenditures have to be documented;
- Materials have to be procured; carpenters / assistants have to be hired;
- The quality has to be ensured and good completion has to be certified;
- Further maintenance of the old and new shelters has to be ensured.

This Guide explains how the Village Shelter Committee shall prepare and organize these activities: What’s to be done? How it’s best done by whom?
1. SENSITIZE THE COMMUNITY TO BUILD BACK SAFER SHELTERS

1.1 Community Meeting

A good step to start the process of Building Back Safer Shelters is to organize a community meeting. The Village Shelter Committee can initiate, in collaborating with the village authorities/leaders, such a meeting.

All parts of the community should be represented at this meeting: the several locations of the village, and the different social components of the community. Attention should be given to representation of women and, especially, of vulnerable, as their shelters often can not resist against natural forces. Established social structures, such as groups of ten-houses or hundred-houses, can be used to represent the community.

The objective is to sensitize the community for the need to Build Back Safer Shelters and to explain the steps to be taken. The Shelter Committee should explain the objectives and the structure of the meeting, so every participant is well prepared, understands what he/she will do and get, so that he/she can well participate in this meeting.

The community will better follow the objectives of the meeting once it has understood the problem and how it is embedded in a larger frame. What is the problem, how it happened and what can be done to reduce the risks when this would happen again. Identify the root of the problem.

“A tree can only grow and produce many fruits as long as it has good roots.”

What priority has this problem? An urgent and important problem has first priority: If the shelters have to be made safer before the upcoming rainy season, then it’s urgent! If the problem affects many families and many shelters have to be improved to protect the families, then it’s important!

To sensitize for Building Back Safer, the Shelter Committee can encourage the community to remember how it was during Cyclone Nargis.
1.2 Recall the experience of cyclone Nargis

Stories and discussions about the individual and collective experience of cyclone Nargis will sensitize the community on the threat of natural forces, such as rains, surge and strong winds. Let the participants tell their story how they and their shelter were attacked by these natural forces, how they struggled to survive and what they did to reduce the loss of lives, of livelihood and of assets. Participants shall share their stories. So they inspire the others to learn valuable lessons from their experiences.

1.1 Preparedness
Was the community prepared for such a cyclone? Have they been warned? Did they know what to do? Where to go? Do they know now what to do?

1.2 Evacuation
When the floods rose and the surge swept through your village: Who in the community did not leave his house? Why not? Who did? Why? Along which path? Where did they go to save their lives: to a strong house nearby?, to a private structure (warehouse)?, a school?, a public building?, a monastery?

1.3 Mapping the places and paths to escape
The stories on evacuation can be better visualized if they are marked on a sketched map that represents the village, the river, the fields etc. Mark where people telling their stories were when the cyclone started and where they escaped to. Was the path they took free, or was it difficult to pass, as it was blocked by branches or other items? Where are the shelters resisting the storm? Which were damaged? Which destroyed? – With this map participants can identify which shelters are stronger, which places are safer – and what they shall do to make their shelters more safer and to ensure that they can escape, if necessary, to a safe place.

1.4 Preparing safer shelters
Recall the threat and damage of natural forces (e.g. cyclone Nargis). How and why did some shelters resist against the natural forces of the cyclone?

Let every participant share their experience during the cyclone. How did they feel? What happened to their shelter and to the shelters nearby? Which parts resisted? Which were damaged, which moved, which collapsed?

Let the participants conclude on what can be learned Why were some shelters strong enough to resist to the cyclone? What made them more stronger? Why did they resist? Which houses were where not affected by the surge?
1.3 Discuss what can be done

To find out how the community can be better prepared against repeated threats of natural forces like storms and floods that endanger lives and livelihoods, let the community discuss the different options to react:

- **Be warned in time**
  Warning whistles on the roof indicate, by singing loud, that there are strong winds. Information on radio can be heard and shared. The village leaders can organize the youth to warn the community.

- **Monitor the natural forces**
  Does the speed of the wind rise? Does the rain continue? For several hours? Does the water rise to a flood? Is a surge coming?

- **When and where to escape**
  When water rises, can you escape up to an attic in your house? Or is there a safer place close to your shelter? How do you get there? Is the path free of obstacles, so elderly get there even at night?

- **Check the stability of your shelter**
  Has the structure been damaged? Do the posts bend to a side? Did you checked the foundations? Are fixings still tight? Is the roof not leaking?

- **Is your shelter well prepared against the natural forces**
  How strong are the storms, how heavy are the rains, how high are the floods that you have experienced in your village? Can this happen every year?
  How did your father protect his family? How do you now want to protect your family?

- **What are the major obstacles to Build Back Safer Shelters?**
  Is material available? Are there skilled carpenters? Financial resources?
To ensure that the solutions are well identified and can be implemented, the Committee must ensure that the community considers the following:

- Actions will be better implemented if they are well organized. Identify in detail the required steps, works, skills and equipment. Indicate who shall do what when where and how (4W+1H method).
- Include all available knowledge and experience. Record on flipchart (poster) all suggestions, comments and responses of participants.
- Let the community discuss and select the most capable persons who shall be responsible to follow up each of the identified actions;
- Let the selected persons explain their readiness; applause each speech.

Indicatively, possible actions to be better prepared can range wide:

- Establish a clear, well organized warning system;
- Identify the locations that are safer against winds and floods;
- Explain to every family when to escape to which safe place;
- Ensure good maintenance to enlarge the lifespan of shelters stability;
- Check the stability of each shelter;
- Take appropriate measures to improve in short term shelter stability;
- Identify the shelters that most urgently need to be improved;
- Select and procure appropriate materials;
- Upgrade / re-construct safer shelters that comply with the DRR rules;
- Ensure good quality and completion in time, handover, maintenance.

These steps sum up to the overall Action Plan to “Build Back Safer” that can start immediately and followed-up before every rainy season starts again. At the end of the meeting, the Village Shelter Committee will have to sum up the discussion and nail down the actions the community has agreed on. Let the community approve this summary – it’s the base for its Action Plan.
2. TASKS OF THE VILLAGE SHELTER COMMITTEE

Now the Village Shelter Committee has a mandate from the community. The objectives are now clear, but what’s to be done in detail, what priorities to set? To draw a concise, realistic Action Plan that can be well implemented, a number of preparatory steps have to be taken by the community. The Village Shelter Committee will have to lead and organize these steps.

1. Structure of the Village Shelter Committee
2. Sensitize the entire community:
   - Maintenance of shelters
   - Principals for Upgrading and Re-building Back Safer
3. Assess the situation: check the stability of the shelters
4. Support the Self Recovery Process
5. Identify shelters/beneficiaries which most needed community support.

2.1 Structures of the Village Shelter Committee

The Village Shelter Committee shall be a long standing organization. The improvement of the safety of shelters is a major task for the village. This can be initiated when support comes from outside – but it should be a task that continues and becomes an integrated part of the village life – like the natural forces that attack your shelters are part of every year circle. To Build Back Safer is a continuous, mid to long term activity! Only so the situation in the villages in the delta region will sustainably improve.

The community will have to decide if the Shelter Committee can be a group within an already existing organization or be a new established committee. To be well embeded in the community and profit from existing knowledge, the Village Shelter Committee should represent all parts of the community:
- Social and cultural structure of the community;
- Location of the households / different parts of the village;
- Include the knowledge/experience of skilled persons (carpenters etc.);
- Interact with the leaders of the village;
- Become sensitized or even trained in regard of how to Build Back Safer.

Its members should be sporadically re-trained. Or the members should re-practice and include new members that might replace elderly members. The Village Shelter Committee will have to find out how much effort shall and can be put into each step. This depends on the size of the village, how much it has been affected by the disaster - and on the ability and willingness of the community to cope with the task to Build Back Safer.
Remember: this is an important community activity – it should be launched by every village, not regarding if there is – or is not – an organization supporting this process. The process is also not limited to a certain time: it can be started best now, but also later, and it shall last for several years. The Village Shelter Committee has to define its pace and range of the activities.

2.2 Ensure proper MAINTENANCE of the existing shelters

Each household can extend the lifespan of stability of its shelter through regular and proper maintenance, as indicated in the poster. As such maintenance consists of small works that do not require to high resources, it can and shall be assumed by every household, in particular before the start of the rainy season. As these works are not spectacular, some families might forget them and others might be reluctant to take them. The Village Shelter Committee shall promote regular maintenance. First step is to display, read and discuss the Maintenance Poster.
2.3 Sensitize the *entire* community to build back safer shelters

With the initial meeting the process of sensitization has well started – but the sensitization needs to be more profound and more repeated. The following points have to be taken into consideration:

- To Build and Maintain a Safer Shelter lies in the responsibility of each household – so every household needs to be sensitized.
- As many think they can not improve their shelters because they lack the financial resources, it is important to explain to these families, that with only little funds a proper maintenance can be done which prolongs the lifespan of the shelter – and so save money.
- To maintain and to improve the safety of the shelter requires an active attitude – which makes this more difficult for vulnerables. These persons, already suffering, are more prone to be hit harder by the natural forces, so that the circle of vulnerability increases. It is worthwhile to repeat the sensitization at least every year.

2.4 Main Points for Upgrading/ Reconstructing safer shelters

The effects of natural forces (storms, rains, floods) can be quiet well mitigated when some main points regarding location, design and construction are well followed. Thus the upgraded or reconstructed shelters will be strong – and will better protect the lives and livelihoods of the communities. Thus the risk that the common natural forces (storms, rains, floods) turn into a disaster is very much reduced: this is Disaster Risk Reduction (DRR). When 10 main points are well considered when upgrading or reconstructing shelters, the house will be in DRR compliance. The community will be better prepared to the attack of natural forces.

These points are listed in the table on the next page. They are explained in the “Guide to Households on How to Build Back Safer Shelters” and summarized in 2 posters that have been distributed in the Delta region.

The Village Shelter Committee shall distribute these materials and discuss them with the community, in particular with households before they upgrade or reconstruct the shelters, so the location is well selected. This sensitization shall be repeated, best after the rainy season, before families rehabilitate / upgrade or replace their shelters.
# 2.5 Main points to consider to build a safer shelter

<table>
<thead>
<tr>
<th>Points to observe</th>
<th>Disaster Risk Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build on higher/safer ground</td>
<td>More safety from floods</td>
</tr>
<tr>
<td>Short face of the house to windward direction</td>
<td>More stability against winds</td>
</tr>
<tr>
<td>Roof pitch – minimum 30 degree</td>
<td>Proper roof drainage</td>
</tr>
<tr>
<td>Roof pitch – minimum 30 degree</td>
<td>Prevents roof blowing away</td>
</tr>
<tr>
<td>Roof projection – not more than 18” from all sides</td>
<td>Prevents roof blowing away</td>
</tr>
<tr>
<td>Roof cover firmly fixed to rafter and purlin</td>
<td>Keeps roof cover intact against wind forces</td>
</tr>
<tr>
<td>Rafters, purlins, tie beams and post plates have to be securely fixed to posts</td>
<td>Prevents structural failure</td>
</tr>
<tr>
<td>Provide bracings</td>
<td>Makes structure wind resistant</td>
</tr>
<tr>
<td>Posts firmly anchored to ground</td>
<td>Prevents the posts (and even the entire shelter) to tilt, sway or be blown away</td>
</tr>
<tr>
<td>Maintain/repair regularly</td>
<td>Extends the durability of shelter</td>
</tr>
<tr>
<td>Repair/upgrade before monsoon</td>
<td>Ensures that shelter remains resistant and safe</td>
</tr>
</tbody>
</table>
2.6 Assessment of the shelter situation in your village

Obviously many existing shelters do not comply with these DRR-points: some are located in shallow spots prone to floods, some have decayed footings, some lack braces and the roof of some is saged and might blow off. Which shelters are most instable, which are most insecured? Can something be done immediately to improve the protection of these families? Or is it necessary to rebuild these shelters? What has to be prioritized?

All this needs to be known to set up a concise, prioritized Action Plan. It is necessary to assess the particular situation of each shelters in the village. This is only achieved when the Village Shelter Committee initiates and leads this process. The Committee will have to define the scope and the degree of this process. It might start with a quick overview and can be improved in-depth in the course of the coming months and years.

The objective is to set the priorities right. This can best be achieved on a survey of the existing shelters. The Village Shelter Committee will have to initiate and lead this process. The more households participate, the better is the base to set the priorities, define the action and identify the priorities.

The priority to upgrade/rebuilt shelters results out of a combination of factors that define the degree of vulnerability of shelters to the forces:

- **Location** (Village Maps showing bad locations, safe places, emergency paths)
  - In shallow areas prone to floods?
  - Far away from a secure place to escape to in case of a disaster?
- **Stability** (refer: Checklist of Shelter Stability; indicates technical points)
  - Structural damages (posts twisted, roof saged etc)
  - Materials: Footings decayed? Thatch, mats blown off? Braces?

The stability of each shelter can be checked on base of a clear checklist. This can be done by each household alone, but better when assisted by a person who is trained regarding the points to follow to comply with DRR: A carpenter or a trained member of Village Shelter Committee shall assist. The check is also the base to identify the construction action to be taken to upgrade the shelters. It should be repeated after each rainy season.
2.7 Checklist of the Stability of a Shelter

The shelter is considered safe when all points are answered with “Yes”

<table>
<thead>
<tr>
<th>No</th>
<th>Checklist Items</th>
<th>Yes</th>
<th>No</th>
<th>How to improve</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Is the base of all posts not decayed?</td>
<td></td>
<td></td>
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<tr>
<td>2</td>
<td>Can water flow off around column posts?</td>
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<tr>
<td>3</td>
<td>Are posts straight (not leaning to one side)?</td>
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<tr>
<td>4</td>
<td>Are bracings provided on shorter side?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Are bracings provided on longer side?</td>
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<td>6</td>
<td>Are all the joints well tightened?</td>
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<tr>
<td>7</td>
<td>Are the ropes provided in knots still strong?</td>
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<tr>
<td>8</td>
<td>Are no heavy loads imposed on roof timbers?</td>
<td></td>
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<tr>
<td>9</td>
<td>Have the roof timbers not decayed yet?</td>
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<td>10</td>
<td>Are the roof joints in strengthen well?</td>
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<td>11</td>
<td>Is the roof tight against rain (no leaking)</td>
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<td>12</td>
<td>Is the canopy well fixed to the roof?</td>
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<td>13</td>
<td>Are means for fire protection in place?</td>
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<td>14</td>
<td>Are the trees around the shelter stable?</td>
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<td>15</td>
<td>Are their no branches leaning over the roof?</td>
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<td>16</td>
<td>Is a safe building located in the vicinity?</td>
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<tr>
<td>17</td>
<td>Is the path to safe place clear for evacuation?</td>
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The Shelter Stability Test should be:

● easy to understand and easy to be conducted;
● focus on what the households can do and check now;
● action oriented: indicate what needs to be done to improve;
● be positive: a yes all over means: it’s all OK.
2.8 Identification of shelters prioritised for community support

The assessment of the situation of (all) shelters in your village will indicate to the Shelter Committee the houses that first need to be improved. This point of view focuses on technical aspects (**DRR compliance**). The upgrading should be carried out as much as possible by each household. While some households are in a better position to cope, at least over a span of time, with this task, other families and persons are less able to do so:

- Household lacks potential for self-recovery (e.g. handicapped persons)
- Family lacks (financial) resources: low income, no supporting relatives

This point of view focuses on the **vulnerability** of the population of concern.

To identify the priority of the shelters to be rebuilt safer, one has to ask:

- **How urgent is this – or: how high is the threat by natural forces**
  - Is the shelter prone to collapse already at medium strong winds?
  - Is the shelter located in a shallow spot that is likely to get flooded?
  - This question is focused on the **physical stability** of the shelter.

- **How important is this – or: how many persons are threatened?**
  - Is it a large family that is prone to be without a shelter soon?
  - Is it a family that is not in the situation to improve its situation itself?
  - This question focuses on **social vulnerability** of the involved persons.

The community has to identify the priorities by its own measures. This depends on village size, quantity of instable shelters and number of persons that can not react to this issue by there own means alone.

On base of the assessment Village Shelter Committee sets the priorities:
1. Support of the upgrading of shelters by the households themselves
2. Upgrading / reconstruction of shelters through the community

Actions for the first option can be: distribution of thatch/dani, small grants

Actions for the second option can be the upgrading/reconstruction of a limited number of shelters through carpenters and community assistants. The following chapters focus on this second option.
2.9 Upgrading / reconstruction of shelters by the community

It is often the case that shelters that are the least stable or are located on a site that is especially prone to disasters (shallow spots, near river), are inhabited by the most vulnerable households of the village. It should be the task of the community, eventually with financial or technical support from an international or national agency or donor, to support that these specially endangered shelters are upgraded to protect the vulnerbales.

The range and the number of vulnerbales that receive support depends on the community, on the assessment (see 2.8) and the amount of support received from an agency or from the Government. The support can focus on a single item (e.g. to supply dani for protecting against roof lekage) up to...
the reconstruction of the entire shelters. The way of organization and the manner of implementation will vary according to the size and type of support. The Village Shelter Committee will have to liaise with the agency to know the frame, the core objectives of the support and also the requirements (responsibilities, forms etc). Here some points to consider:

- **Type of improvement:**
  - (partial or total) upgrading / reconstruction / re-location

- **Quantity of upgraded shelters / beneficiaries:** Responsibility lies
  - in case of small numbers: within the Village Shelter Committee itself
  - in case of large number: the VSC will have to identify and train Primary Groups (beneficiaries, carpenters etc) that will be responsible for the implementation including documentation (see chapter 4) of a small number of shelters within the overall frame. They shall be supervised by the Village Shelter Committee who assumes overall responsibility.

- **Type of support**
  - Support focused on cash grants; implementation by beneficiaries
  - Material support, e.g. making materials available etc.
    - Technical support: agency trains carpenters/Village Shelter Committee
  - Construction support: agency provides (part or full) packages of shelters

The Following chapters show the implementation a small village where the Committee receives a financial support from an (international) agency.
3. AN ACTION PLAN TO BUILD BACK SAFER

3.1 An Action Plan

Village Shelter Committee will have to set up a plan what it wants to do. This Action Plans has to be approved by the community and its leader(s) as well as by the organization that supports the community (= the agency). The Action Plan has a clear structure that allows a good follow-up and ensures the accountability that resources are well used and actions are taken in time.

Any action, also this one, is better implemented when the objectives, the time frame and the responsibilities are made clear from the beginning. A systematic Plan indicates 4W + 1H: Who does What When Where and How.

As the Shelter Improvement focuses on technical constructions, qualified carpenters should not only be involved in the construction itself, but also, before, in its planning: identify the required works for the improvement / upgrading / re-construction of dangered shelters; identify the required materials and their cost, and estimate the labour and needed time.

The Action Plan also has to indicate which person or group is responsible for the different tasks. Who is managing cash, material and labour. Who ensures the required technical quality? Who oversees and reports on this? Proposed persons should ensure, in face of the community, their capacity and willingness to take over such a responsibility.

The Action Plan consists (but is not limited to) the following points:
- Technical Proposals: which shelters shall be upgraded in which way?
- Procurement: How shall the required materials be bought: in bulk?
- Implementation Plan: Who is responsible for which actions for whom?
- Monitoring Plan: When shall what be completed? What measures to take?

The Action Plan can differ in form and details – according to volume of actions, requirements of the agency and individual factors. This Guide presents the templates used by UN-HABITAT for its shelter activities.

The Village Shelter Committee needs to liaise with the agency to fix the form – and to clarify the frame (budget, number of shelters, time frame etc.).
3.2 Technical Proposal for Upgrading towards a Safer Shelter

Technical Proposal indicates the construction measures for each shelter. On base of a sound assessment, a skilled person identifies the steps to be taken. Appropriate materials have to be choosen, the quantities have to be measured and the costs have to be estimated. It is recommended that experienced construction persons (e.g. carpenters) and eventually others trained in DRR (members of the Village Shelter Committee) shall be involved in the preparation of the Technical Proposal, where the following has to be considered:

- **Technical requirements for building back safer:** refer to
  - Overview of DRR-requirements (refer to table in chapter 2.4).

- **Status of the existing shelter**
  Where is the shelter located? Is the use of land ensured? Stability Check. Can it be upgraded? How could it be reconstructed?

- Suitability and availability of local **materials** (see Carpenter Guide). What material of the former /existing shelter can be re-used,

- Availabilty of qualified labour (trained carpenters) and assistants.

The more concise the Technical Proposal is, the more accurate the cost estimate will be and the more quality is ensured. Points to consider are:

- Technical details of the materials: quality, size, length, quantities.

- Have the prices by checked by a survey at different local suppliers?

- Costs for transportation, loading and unloading etc.

- Payment conditions.

The persons involved in the preparation confirm with their signature that they agreed and are responsible for this Technical Proposal:

- The Household/family beneficiariing from the proposal

- The carpenter and a member of supervising Shelter Committee.
# PROPOSAL FOR PLANNED SHELTER UPGRADING

**Name of Beneficiary** ..............................................

**Name of Primary Group** .............................................

**Village of** .................................................., **Village Tract of** ...............................................**Township** ..............................

<table>
<thead>
<tr>
<th>No</th>
<th>Items to be Upgraded</th>
<th>Materials/ Labours Needed</th>
<th>Unit</th>
<th>Volume</th>
<th>Unit Cost</th>
<th>Estimate Cost</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

**Total Estimated Cost for Shelter Upgrading**

*Note: If necessary, technical detail drawings must be attached*

**Prepared by Trained Carpenters**

<table>
<thead>
<tr>
<th>Name of Carpenter</th>
<th>Position</th>
<th>Date</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Carpenter</td>
<td>2.</td>
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</tbody>
</table>

**Agreed by Beneficiary or Primary Group representative,**

| 1. | |
| 2. | |

**Supervised by Shelter Committee representative**

| 1. | |
| 2. | |

**Supervised by a representative of UN-HABITAT**

| 1. | |
| 2. | |
3.3 Material and Labor Procurement

Procurement of materials and labours can be carried out
- individually by each family;
- in bulk, organized by the Village Shelter Committee.

Procurement in bulk can have advantages like: lower (bulk) price, open competition, ensuring quality and availability for all constructions. The Shelter Committee can support the families in this process by:
- Survey on availability, quality of required construction materials
- Control of quality (thorough a qualified carpenter)
- Conditions for payment
- Reduction of costs through bulk transportation
- Maximize competition
- Maxime the responsibility (realism of in time availability etc.)
- Maxime Transparency
- Minimize the complexity of solicitation, evaluation, selection

The Village Shelter Committee shall pay special attention to the objectives:
- Ensure of good quality of technical adequate materials
- Getting best value for money
  Supplier selection should consider which offer presents the optimum combination of life-cycle costs and benefits, which meet the shelter committee’s needs. Best value for money should not be equated with the lowest initial price option rather requiring an integrated assessment of technical, organizational and pricing factors in light of their relative importance (i.e. reliability, quality, experience).
  - **Fairness, Integrity, and Transparency**
    Impartial and transparent procurement on base of open concurrence within established and maintained, attainable and unambiguous rules which ensure integrity of the procurement process and fairness of all offerors, openness of the process, probity, complete and accurate records, accountability and confidentiality.
  - **Effective Competition**
    Eligible prospective offerors shall receive timely and adequate notification of material requirements and an equal opportunity to tender for the required materials.

In regard to the materials, the following points have to be kept in mind:
- Appropriate quality over a sometimes long time period
- Local availability including aspects of generating local income
- Environmental aspects
3.4 Implementation Plan

On base of the Technical Proposals and the procurement of materials, the implementation of the proposed activities can be defined. While quite simple in some villages, where only a few shelters can be upgraded or be replaced in a given time, the implementation can become more complex in other villages because either they are larger and more shelters are upgraded, or because the single steps can be more complex with a larger number of subactivities or persons.

Besides of giving an overview of the activities of the Action Plan, the Implementation Plan indicates the responsibilities, thus allowing accountability. It should be presented and approved by leaders and the community.

3.5 Monitoring Plan

The Implementation Plan also indicates the targeted time frame for the action. This is the base for the Monitoring Plan which focuses on the activity step by step on a regular base. This helps to identify if activities are advanc-
ing as planned – or if there are barriers or obstacles which delay the process, so that solutions have to be suggested, discussed and be implemented to ensure the time frame. A proper monitoring of the implementation does not only focus on completion in time, also according to the required quality.

Both tools are helpful to properly manage the process in a transparent way. Attached: a template for Implementation Plan as well as Monitoring Plan.

Once approved, Village Shelter Committee can start the implementation:

- Organize the works
- Request the financial support (e.g. cash) from the agency.
- Procure the required materials
- Engage the needed labour forces
4. BOOK KEEPING TOOLS FOR A CORRECT IMPLEMENTATION

To ensure a qualified, cost-efficient and transparent implementation, also a major requirement for all supporting agencies, the correct and transparent administration in managing and recording the transactions of cash, materials and labours has to be documented in specified books:

1. Cash Book
2. Material Book
3. Labour Book

One of the main objectives of the management of these books is to allow a transparent and controllable insight at any time of the process.

Thus the books should be disclosed to all households concerned and should be made available in community meetings.

The management of cash, materials and labour can be managed either by:

- The Village Shelter Committee directly when the number of activities is not too large and the Committee is in the position to follow up all very closely;

- By “Primary Groups” that have been set in place to manage a smaller, clearly defined number of shelters within the frame of a larger number of activities of the entire community. The Village Shelter Committee will have to ensure a proper organization and responsibilities of these Primary Groups and will have to train and supervise them in the management.

Possible templates for these books are indicated in this Guide.

In particular the following should be observed:
4.1 Cash Book

A proper managed cash book allows accountability and planning. Thus:
- Receipt for every expenditure transaction (goods, value, date, place)
- Daily updated, chronological record of cash-in and cash-out
- Daily closure of cash book to get the current cash balance so that the group can anticipate and plan the actions that will be taken.

The monitoring of the cash book allows to control:
- When and how has the cash been spent?
- How many materials for which unit price have been bought?
- Is the balance (incl. material on site) sufficient to complete construction?
- Is the process transparent as the cash book is disclosed to public?
- Does the Committee have proper techniques to manage well the cash?

![Cash Book](image)

**Cash Book**

Name of Village/Tract/Township

<table>
<thead>
<tr>
<th>Date</th>
<th>Transaction</th>
<th>No.</th>
<th>Cash-in (Ks)</th>
<th>Cash-out (Ks)</th>
<th>Material</th>
<th>Labor</th>
<th>Transport</th>
</tr>
</thead>
<tbody>
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</table>

Total Cash-in/out

Balance

Prepared by Shelter Committee,

<table>
<thead>
<tr>
<th>Name of members of Primary Group</th>
<th>Date</th>
<th>Signature</th>
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<tbody>
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<td>1.</td>
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</table>
### 4.2 Material Book

All materials bought will be recorded in this book to get an updated position on what materials had been bought, how many and where it’s to be distributed. The specifications, quantities and value of the materials should be recorded.

The Materials Book shall indicate in a clear way at any time:
- How many materials have been used for upgrading activities
- To which beneficiary (Qty and value recorded under materials-out)
- Material received by families should be confirmed by signature
- Balance of material is indicated when closing the materials book.

The materials book can be used to monitor the following:
- How many materials have been used where for which construction?
- Have the household confirmed that the received the materials?
- What is the balance of the materials?
- Is it and the cash sufficient to complete the construction activities?
- Material shortage will cause uncompleted shelter or deviated quality.
- Does the group discloses the materials book? If not, why?

<table>
<thead>
<tr>
<th>Date</th>
<th>Name of Material</th>
<th>Material In</th>
<th>Material Out</th>
<th>Destination</th>
<th>Family Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>Q</td>
<td>Ks</td>
<td>Q</td>
<td>Ks</td>
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<table>
<thead>
<tr>
<th>Total Ks In/Out</th>
</tr>
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<table>
<thead>
<tr>
<th>Materials Balance</th>
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</thead>
</table>

Prepared by Shelter Committee,

**Name of Village/Tract/Township**

<table>
<thead>
<tr>
<th>Name of SC members</th>
<th>Date</th>
<th>Signature</th>
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</table>
4.3 Labour Payment Book

The type and quantity of labour worked for upgrading a shelter should be described under the name-column in the labour payment book. For each person involved (names) the days of attended works are noted and summarized weekly to indicate the owed salaries. The labourer signs for and thus confirms every payment. The date of payment in the labour book must match the date of the labour payment in the cash book. The Labour Book indicates at any time:

- Who worked how long for each shelter upgrading / reconstruction?
- Has the cash been used for labour payment?
- Who received what payments for how many days working where?
- Does the progress of the construction support the payment?
- Is the cash balance sufficient for labour payment to complete the rest?
- How does the Committee manage the labour and its payment?
- Does the Committee work well with the labour payment book?
- Does the Committee disclose the labour payment book? If not, why?

The Labour Book, together with the Monitoring Plan, can also show if
- the construction complies with the requirements regarding DRR?
- the trained artisans understand DRR compliances in practice?

<table>
<thead>
<tr>
<th>No</th>
<th>Name of Labour</th>
<th>Name of Village/Tract/Township</th>
<th>Week- …</th>
<th>Work Days</th>
<th>Cost per Day</th>
<th>Total Payment</th>
<th>Labour Signature</th>
</tr>
</thead>
<tbody>
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</table>

Total Working Day and Payment

Prepared by Shelter Committee,

<table>
<thead>
<tr>
<th>Name of SC members</th>
<th>Date</th>
<th>Signature</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
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<td>1.</td>
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5. COMPLETION, HANDOVER AND MAINTENANCE

The proper implementation process is finalized by a proper completion and handover process, that should also lead to further maintenance. The entire process is completed by a report of Village Shelter Committee.

5.1 Completion Reports

a) Preliminary Completion Report
Once the construction has been completed, the stakeholders (at least the three persons that signed the Technical Proposal) shall check the completion and quality of the work, part by part, and note, eventually, any objections, indicating what has to be improved by whom until when.

In this case the preliminary completion report becomes the base for monitoring the correct completion.

b) Final Completion Report
Once a correct completion in all points has been achieved, the final completion report is signed by the persons who signed the Technical Proposal.

5.2 Handover

By signing this report, the beneficiary(ies) agrees with the completion and assumes the handover of the works. By introducing a line on proper maintenance, the beneficiary should be reminded to fulfill the duties for proper maintenance to extend the lifespan of the resistance of the construction.

5.3 Maintenance

The duties for proper maintenance are indicated in the Poster on Shelter Maintenance. In further meetings organized by the Committee, the Village Shelter Committee shall remind not only the beneficiaries, but all in the community, on the importance of a regular or seasonal maintenance of each shelter to ensure these shelters can resist to most of the natural forces during the next rainy season – and so prolonge the lifespan of safer shelters.
5.4 Reporting

After completion of the planned upgradings / reconstructions, the Village Shelter Committee has to report in a concise manner to and on:

- The community
- The Supporting agency
- Achievements regarding the Action Plan (e.g. shelters upgraded)
- Technical Report: achieved quality; indications on technical obstacles etc.

The Village Shelter Committee shall report to the community in public, giving the community the possibility to ask questions about the process. The Committee will also have to propose what to do with a balance cash.

5.5 Completion of the first round – launching the next round

But the tasks of the Village Shelter Committee is not completed once the upgradings have been completed. Only one round has then been completed, a second one is to follow in view of the next rainy season(s): resensitize the community in further meetings for Building Back Safer and re-launch another round of maintenance and upgrading / reconstruction for next rainy season.

A convincing and open report to the community on a well achieved action plan is the best way to motivate the rest of the community to take its own duties and start or continue to do maintenance and upgrade their shelters in regard to “Building Back Safer”. **Good success motivates to continue!**
## Compliance with Disaster Risk Reduction (DRR)

<table>
<thead>
<tr>
<th>Points to observe</th>
<th>Disaster Risk Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build on higher/safer ground</td>
<td>More safety from floods</td>
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<tr>
<td>Short face of the house to windward direction</td>
<td>More stability against winds</td>
</tr>
<tr>
<td>Roof pitch – minimum 30 degree</td>
<td>Proper roof drainage</td>
</tr>
<tr>
<td></td>
<td>Prevents roof blowing away</td>
</tr>
<tr>
<td>Roof projection – not more than 18&quot; from all sides</td>
<td>Prevents roof blowing away</td>
</tr>
<tr>
<td>Roof cover firmly fixed to rafter and purlin</td>
<td>Keeps roof cover intact against wind forces</td>
</tr>
<tr>
<td>Rafters, purlins, tie beams and post plates have to be securely fixed to posts</td>
<td>Prevents structural failure</td>
</tr>
<tr>
<td>Provide bracings</td>
<td>Makes structure wind resistant</td>
</tr>
<tr>
<td>Posts firmly anchored to ground</td>
<td>Prevents the posts (and even the entire shelter) to tilt, sway or be blown away</td>
</tr>
<tr>
<td>Maintain/repair regularly</td>
<td>Extends the durability of shelter</td>
</tr>
<tr>
<td>Repair/upgrade before monsoon</td>
<td>Ensures that shelter remains resistant and safe</td>
</tr>
</tbody>
</table>