

A.1

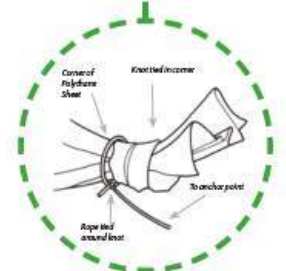
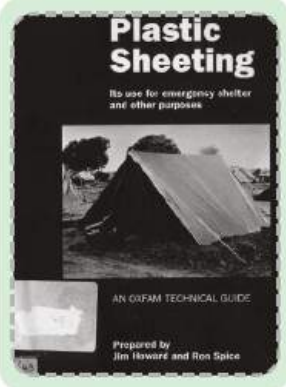
Plastic Sheeting IEC Material Overtime

Messaging on plastic sheeting is one of the most used in the shelter sector. The illustrations are recurrently being used to create different material and can be traced back to "Plastic sheeting: A guide to the use of plastic sheeting in humanitarian relief: Oxfam, IFRC 2007". This inter-agency booklet itself was an update and drew heavily on the content and illustrations of Jim Howard and Ron Spice's original book on plastic sheeting in 1973.

This tree chart demonstrates the development and use of one of the illustrations depicted in the booklet, and its uses over time for different shelter and settlements responses. The timeline shows how various guidance material adapted this illustration in different ways, which allowed it to be adapted in other contexts as well as in other IEC material. The graphic also captures the various contexts, illustration styles and IEC materials that include this message.

Plastic Sheeting ITS USE FOR EMERGENCY SHELTER AND OTHER PURPOSES

(Howard, J., Spice, R., Oxfam, 1973)



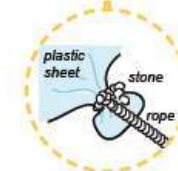
A Guide to the Use of Logistics of Family Tents in Humanitarian Relief

(OCHA, 2004)



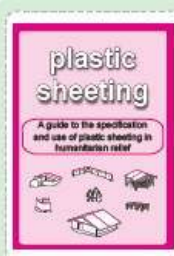
Technical Guidelines for Winterization Strategy

(Shelter Cluster Pakistan, 2005)



Plastic Sheeting

(IFRC, Oxfam, 2007)

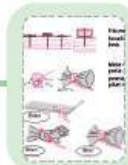


Fixing Plastic Sheeting, Myanmar

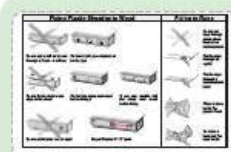
(Ashmore, J., 2008)



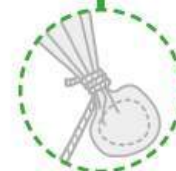
Tarp Installation, Haiti (CARE, 2010)



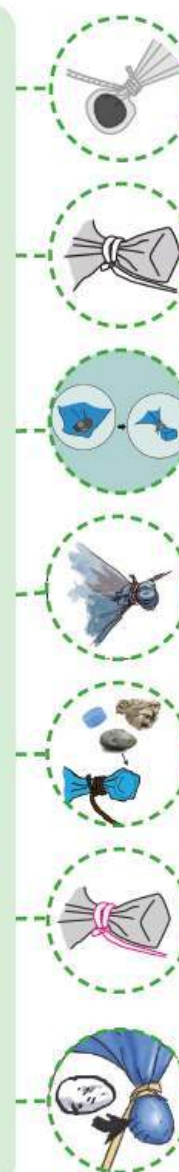
Fixing Plastic Sheeting, Pakistan (Shelter Cluster Pakistan, 2010)



IFRC Shelter Kit and Manual (IFRC, 2010)

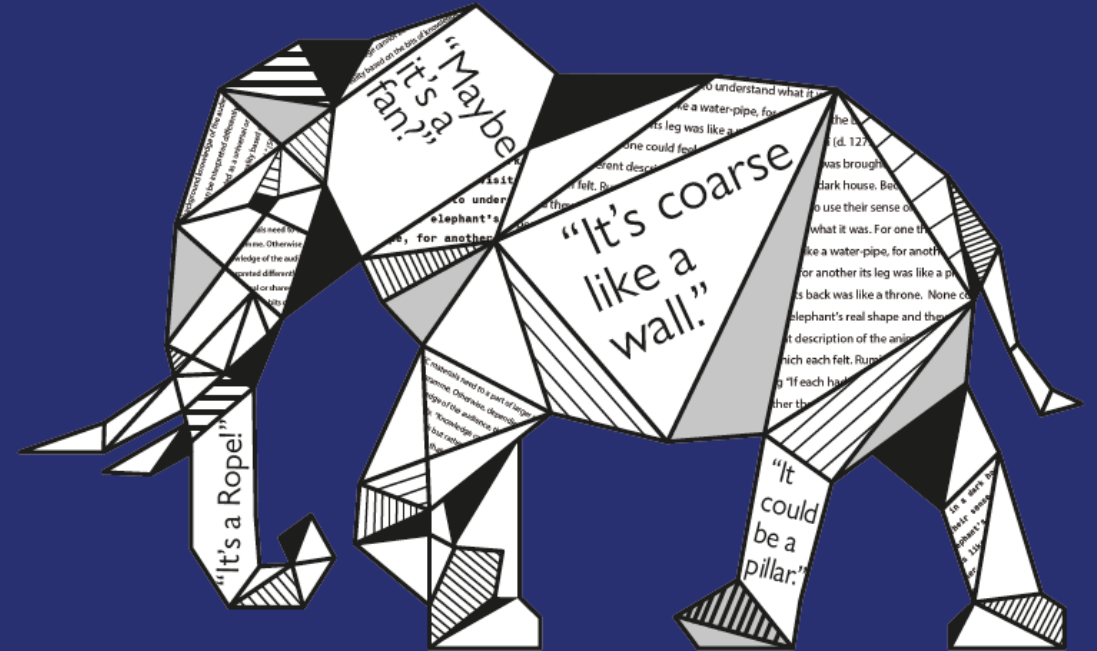


Different iterations



1973 2005 2007 2010 2020

- B.1 IFRC Shelter Kit
- B.2 Fire Safety
- B.3 Fire Prevention
- B.4 Prepare Your Shelter for Bad Weather
- B.5 Preparedness Messages
- B.6 Right to Shelter Radio Messages
- B.7 Safe Demolition
- B.8 Material Reuse
- B.9 Temporary Shelter
- B.10 How to Build
- B.11 8 Building Back Safer Messages
- B.12 Self-Construction Key Messages
- B.13 Tips to Build Back Safer
- B.14 4 Key Messages for Construction
- B.15 Concrete Mix
- B.16 Emergency Sandbag Instructions
- B.17 Winterizing Tents
- B.18 How to Keep Warm in Winter
- B.19 Advice and Guidance for Tenants
- B.20 Complaints and Feedback Mechanisms
- B.21 NFI Care and Maintenance
- B.22 Emergency Cash Transfer
- B.23 Winterization Support



Section B

REVIEWS

“The Elephant in the Dark Room” is a well-known story from Rûmî (d. 1273). The story tells of an elephant that was brought to be exhibited and was kept in a dark house. Because of the darkness, visitors had to use their sense of touch to understand what it was. For one, the elephant’s trunk was like a rope, for another its ear was like a fan, for another its leg was like a pillar, for another its back was like a wall. None could feel the elephant’s real shape and they gave a different description of the animal based on the part which each felt. Rumi ends his poem by stating “If each had a candle and they went in together the differences would disappear.”

IEC materials need to a part of larger social engagement programme. Otherwise, depending on the background knowledge of the audience, the message can be interpreted differently; “Knowledge cannot be regarded as a universal or shared truth but rather as a model for reality based on the bits of knowledge that are revealed.” (Stehr, N. (2009) *What is socially relevant science?*, *Social Science and Public Policy*)

[illegible]

B.4 Prepare Your Shelter for Bad Weather - Cox's Bazar, 2020



Type of Response



Construction



Settlement



Assistance

Type of Hazard/Risk



Rain / Wind



Monsoon



Flooding

Building Material:

Bamboo; Rope; Sandbags; Pegs

Building Component:

Roof; Joints; Shelter Drainage

This IEC material was shared with the distributed kits along with conducting hands-on training for the affected populations. Additionally, posters were placed around the community and a radio message was broadcasted. Read more about this at Section A - Case Studies and Opinion Pieces.



Technical Accuracy

"Messages are technically accurate."

"All the techniques were tested and assessed."

"Messages are accurate, however some parts are a bit generic. The message on drainage could be developed; it is vague to just suggest digging drainage. There are additional ways to reinforce this aspect such as larger roof overhang or temporary sandbags at the base, depending on the context. However, it is a large topic for limited space, and though generic, it can be well-received by its audience."

"More information should be provided on the materials used to hold the tie-down to the ground (brick, sandbag, etc.)"

"The message on PSEA is ok; however, it is unclear how beneficiaries can complain to said 'complaint desk'."



Technical Complexity

"It mixes a lot of details which makes it a bit complex."

"Some of the details related to tying down are complex and very context specific."

"It is simple and a bit generic."



Graphically Clarity

"The graphics are fine; however, it could be better organized to be clearer, and some details could be marked better to make it easier to understand."

"Imagery on tying down can be difficult to interpret. Needs an image on why tie-down is needed. Other imagery clear connections and drainage."

"Imagery for the second and third message is simple and intuitive, but the first message is confusing: it is not clear that the arrows will show the zoomed detail and the details themselves are also very hard to understand. It takes some time to catch the differences between the second and third way of fixing the ropes to the ground."

"The sandbag detail is small and needs a closer zoom. It is hard to determine where the sandbag/stick, and other methods of fixing the rope that are pictured in the left corner, are related to."

"The fourth image that shows the foundation is complex and very small to see."



Text clarity

"Text is not needed to understand the imagery. It is mostly used to link the images to the messages that were distributed over radio."



Contextual appropriateness

"This material is based on assessment of weaknesses observed in construction in Cox's Bazar and the identified gaps."



Adaptability to other contexts

"The first and the third part could be adapted to many places. The second part about the connections could be adapted to contexts that use bamboo, and probably mostly rural / peri-urban areas."

"Tie down using metal pegs or sandbags as well as strengthening connections and drainage can be easily reused in another context. Tying down to the footing is very specific to the context."



Potential to cause unintended harm

"No risk of being misunderstood. However, you can misunderstand the right and wrong if you look quickly at the two middle drawings in the 'strengthen your shelter' section."

"One of the difficulties when developing this IEC was how to clearly present in 3D a tie down of a shelter, as there are several important structural elements that needed to be omitted from the image (bracing, wall dadding, wall structure)."

"It can include a picture of a shelter that was not properly prepared and got damaged."

Communication Tips

Explaining consequences

The perceived risk is a significant determinant of affected households' adoption of the recommended hazard-resistant construction practices. If these materials are used along with supporting evidence of the consequences of poor building it would add to the impact on the viewer.

Read more about factors influencing households to adopt hazard-resistant Construction practices in post-disaster settings in this report: 'Extending Impact', CRS, 2015 <https://crs.org/our-work-overseas/research-publications/extending-impact>

The overall grade is calculated as the average of the overall evaluation of the IEC by different reviewers (and not accounting for individual review criteria).

★★★ Good
(0.7-1)

★★☆ Needs adjustment
(0.4-0.6)

★☆☆ Not recommended
(0-0.3)

Each IEC material has been reviewed by different experts and their individual feedbacks under each criteria have been compiled. The green, yellow and red marks show the average score under each criteria.

✓ Good
(0.7-1)

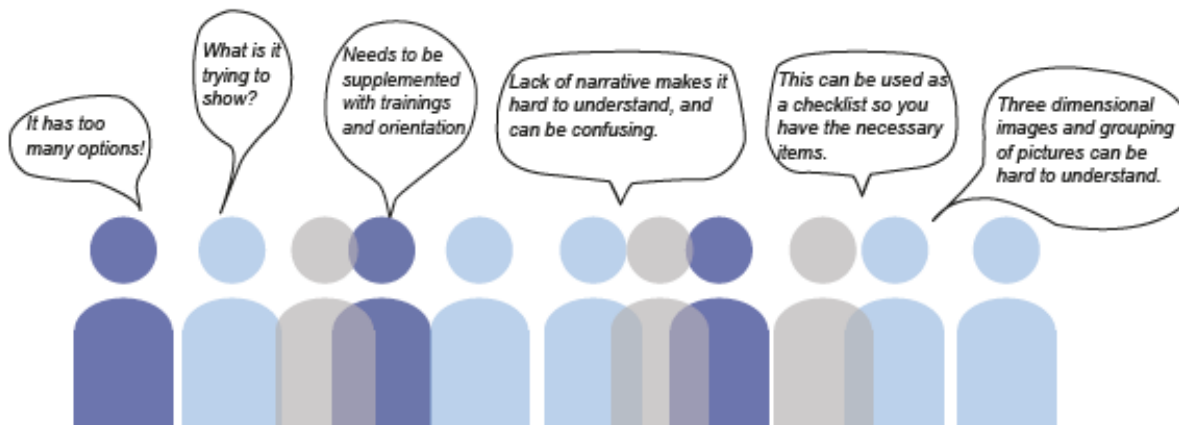
? Needs adjustment
(0.4-0.6)

✗ Not recommended
(0-0.3)



Feedback against the reviewing criteria

This graph shows the feedback received from *thirty experts* reviewing the IFRC Shelter Kit IEC material on different criteria.



Previous

B.4

Prepare Your Shelter for Bad Weather - Cox's Bazar, 2020



Type of Response	Type of Hazard/Risk	Building Material:
Construction	Rain & Wind	Bamboo, Rope, Sandbags, Pegs
Settlement	Flooding	Building Component:
Assistance		Roof, joints, Shelter Drainage
Crosscutting (PSEA)		

This IEC material was shared with the distributed kits along with conducting hands-on training for the affected populations. Additionally, posters were placed around the community and a radio message was broadcasted. Read more about this at Section A - Case Studies and Opinion Pieces.

Technical Accuracy

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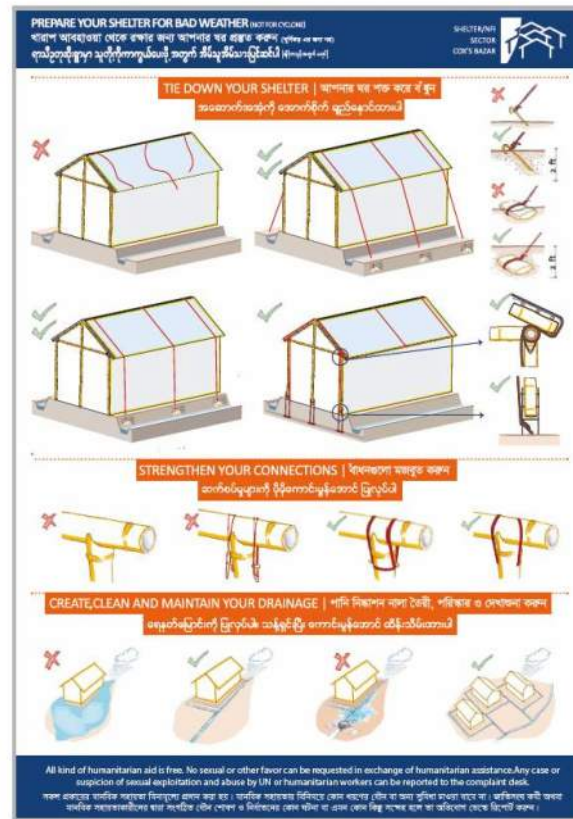
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"It can include a picture of a shelter that was not properly prepared and got damaged."

Explaining Consequences

The perceived risk is a significant determinant of affected households' adoption of the recommended hazard-resistant construction practices. If these materials are used along with supporting evidence of the consequences of poor building it would add to the impact on the viewer.

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Communication Tips

Explaining consequences

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"It can include a picture of a shelter that was not properly prepared and got damaged."

B.11 8 Build Back Safer Key Messages - Philippines, 2013

Type of Response



Type of Hazard/Risk



Building Material:
Timber; Concrete; Reinforced Concrete;
Fwings; CGI

Building Component:
Foundations; Walls/Frame; Openings;
Joins/Bracing; Roof

This IEC material was developed in response to Typhoon Haiyan as a comprehensive set of shelter technical guidelines. Messages were coordinated with the government both at local and at national level and ultimately became a part of governmental recovery policy and thinking. It was used extensively throughout the recovery phase and has so far been reused in several other responses in the Philippines and the broader Asia-Pacific regions. Read more about this in Section A - Case Studies and Opinion Pieces.

The outcomes of the shelter response to Typhoon Haiyan were later assessed by the Global Shelter Cluster and partners. The research addresses a series of questions including the use of the 8 key messages. Some key findings are summarized over the next pages.

Technical Accuracy

"IEC material is technically accurate with some smaller discrepancies. Examples show possible incremental steps; really good to see that several different options of foundations were suggested, the same for tie down methods."

"Messages need some technical adjustments."

Sheet 1, Foundations: "The foundation drawings show two concrete block shapes. The cut off pyramid is more simple to construct and position. It also has more volume weight ratio to its shape. The drawings show inconsistent ground level for the foundation block. Picture A shows that the concrete column has 1/4 height below the ground and 3/4 above (drawing actually shows 1/2 and 1/2), details B to F show the ground level at top of the foundation block."

"Timber posts positioned into the ground are misleading on their strength grading."

"In no cases should a softwood timber be placed in the ground for transitional or permanent shelter. Softwood can rot within years, so the third option doesn't work. Placing hardwood into concrete is a bad idea. It is a modern invention—traditional houses do not do this, because they know it doesn't work."

"It should mention Properly treated softwood or a naturally durable hardwood—which there are not many of, and many hardwoods are not durable. Therefore, this should still not ideally be placed in the ground."

Sheet 2, Tie down: "The detail showing cord and rope connections is misleading in its effectiveness and strength grading."

"I question the validity of the drawing showing additional tying down of the roof in anticipation of strong winds."

Sheet 3, Bracing: "Additional detailed images may be needed (similar to those in joint section) as it was observed that in several occasions bracing was installed in a wrong way and not secured properly - braces under the flooring or in the ceiling fell off."

"None of the drawings show physical construction details or give technical specifications for materials proposed."

"There is no horizontal diagonal bracing shown to resist building twist at eaves level"

"Wire and used re-bar bracing needs to show connections to frame otherwise it will not work."

"Nail timber and galvanized steel straps' is misleading."

Sheet 4, Strong joints: "Nails only work in shear, not pull out (as far as I am aware there is no benefit of putting nails at an angle, it just adds to the possibility of splitting the timber)."

"Cut timber joints are shown in simple details, these joints require a more advanced degree of carpentry skill to avoid weakening the cross section of the timber frame. There is a minimum timber size for using cut joints in structural timber components."

Sheet 5, A good roof: "Simple to follow details."

"No details on purlin to rafter connection."

"Nails shows regular wire nails as a too weak option, this is incorrect."

"It may be good to include note on CGI thickness as using very thin CGI was a problem."

Sheet 6, siting: "Image D resulted in some families cutting down remaining trees close to their new/old shelters to avoid trees collapsing. If trees did not already collapse in the typhoon, would they really present immediate danger?"

Sheet 8, Be prepared: "Needs to be part of a community approach. Good to indicate what should be known."

Suggested details to be added:

"Floor construction details: it suggests that the floor is raised above ground necessitating a suspended timber floor construction with boarded floor."

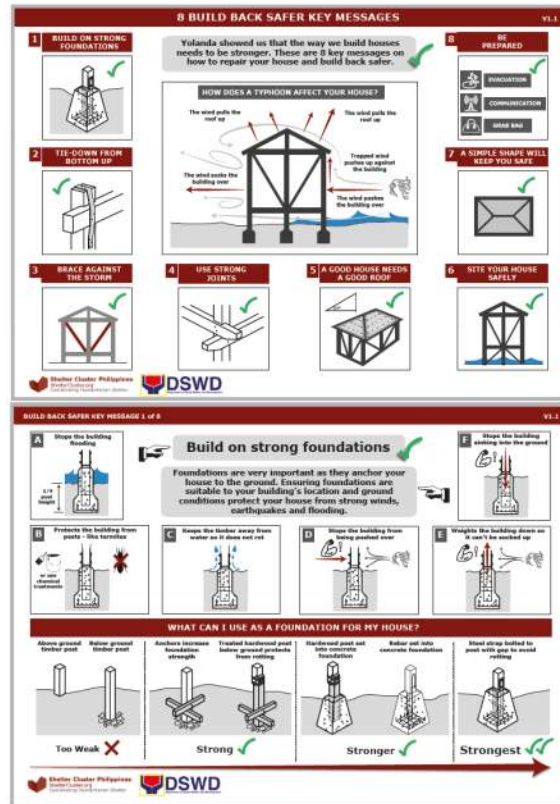
"There are no wall construction details, it suggests a sheet construction is necessary for walls. Many of the bracing details will not be compatible with a sheet wall construction."

"It should include a note that all superstructure timber should be properly treated softwood or a naturally durable hardwood"

Read more about impacts of the key messages in this report: TYPHOON HAIYAN (YOLANDA) SHELTER RESPONSE OUTCOME ASSESSMENT; Shelter Cluster Philippines, 2016. https://www.sheltercluster.org/sites/default/files/shelter_recovery_outcome_assessment_may_2016.pdf

Shelter Compendium

iec.sheltercluster.org



Impact assessment

The impact study after Typhon Haiyan showed that all of the advised methods were generally used to a greater extent, reportedly due to increased awareness following message dissemination and due to people simply observing what structures better withstood the typhoons.

Strong foundations: Foundations were challenging for beneficiaries to implement correctly. It was also felt to be time-consuming considering that owners want to complete the house quickly after the disaster. Wooden posts were often seen to have been embedded directly into the ground.

Tie-down: Some communities awaiting relocation reported stopping the use of tie-down techniques as they wanted the shelters to be easy to dismantle when they moved. Metal straps and plates were often felt to be out of reach for many due to cost.

Bracing: Guidelines on bracing were felt to be insufficient in areas where destroyed structures had mostly been made of concrete masonry, as the guidelines focused on wooden structures. Bracing between roof trusses were almost twice as likely to be seen compared to bracing in walls.





Strong joints: Lack of capacity amongst carpenters to construct strong joints was raised by both communities and shelter agencies.

Good roof: People reported using wide spacing between nails despite knowing that this made the roof weaker, partly because nails were felt to be expensive but also due to plans to transfer the roof to another location in the future.

Safe site: Lack of access to safe sites often meant that households were not permitted to build strong structures on the current site; and that they had little incentive to build back safer in any case due to the tenuous land tenure status at sites considered as no build zones.

Simple shape: Households that had been sensitized about the key messages and had fully followed the advice in all other aspects were seen to specifically ignore advice on simple shape related to separation between extensions and main roofs, frequently attaching the roof on their subsequent extension with the roof of their main structure.

Preparedness: Preparedness was consistently said to have improved since Haiyan, with many communities feeling that preparedness had not been practiced as it should before the typhoon. Many had not understood the meaning of 'storm surge' and did not, therefore, act on warnings ahead of Yolanda making landfall. The typhoon was said to have fundamentally altered communities' attitude towards the importance of preparedness.

B.8 Material Reuse - Nepal, 2015		
Type of Response	Type of Hazard/Risk	Building Material:
 Material Production and use  Debris	 Earthquake  Collapse	Timber; Bricks; Stone

Technical Accuracy

"Not sure why it lists stones, rubble, longstones and bricks with pictures and what the message is."

"The last line of the second message refers to a 'tie stone'. It might not be clear what it is unless the use of it is explained."

"The 1m standing test seems specific for a certain section size of timber and could be misleading. The idea is to recommend checking that the timber is fit for purpose, and this message does not convey this."

"The standing test may break timber that does not need to be broken."

fall). On the image showing timber storage, the elements such as spacing, elevation and cover may be highlighted."

"More attention may be given to safety when illustrating the messages."

Text Clarity

"Text is clear but there is a lot of it, and it could easily be replaced with images that would make the IEC material clearer and easier to understand."

Contextual Appropriateness

Messages are not referenced from a drawing from NBC/



Potential to Cause Unintended Harm

"The unclear illustration of the first message can cause harm. Proper considerations should be taken so that the message conveyed would not be misunderstood for suggested practice."

Technical Complexity

"Salvaging materials has many facets and so can be complex. This IEC material goes into detail in some areas and is thin in others."

"Messages are not complex but may be difficult to understand."

Graphical Clarity

"It is not clear why there are images of stones/bricks etc. The standing test is clear but not sure how people would do this and seems obvious you would not use a broken piece."

"Most of the images are unclear without the text. There could be more images with cross and tick rather than incorporating text."

"Message 1, the illustration is unclear and could cause harm if people only refer to the graphical information without reading the text."

"Message 2, the illustration could be changed to show a person dropping at arm's length (to avoid hitting one's feet). It is important to add that the bricks are tested on a hard surface."

"Message 3, the graphic could have a recommended height measurement (so if the timber breaks, the person is not far to

Adaptability to Other Contexts

"I think it should be rethought entirely, and would need to be specific to the country/area based on materials, etc."

"Messages and ideas conveyed are good, but they may need to be revised to make it easier to understand prior to using elsewhere."

Potential to Cause Unintended Harm

"The unclear illustration of the first message can cause harm. Proper considerations should be taken so that the message conveyed would not be misunderstood for suggested practice."

Overall Comments

"Not particularly helpful. This could be easily expanded upon while maintaining the simplicity, making it much more useful."

"The message that the IEC material tries to convey is good but the presentation is unclear."


"This poster is very useful for material reuse after disaster, but it might need some additional information for clarity."

Do not attempt to salvage materials until your building is fully demolished. Here are a few tips on:

MATERIAL REUSE




1 BE CAREFUL

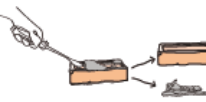


DONT REMOVE DOORS AND WINDOWS UNTIL CLEAR ABOVE.

2 STONE AND BRICK



CONFIRM STRENGTH WITH DROP TEST (DROP BRICK FROM SHOULDER HEIGHT)



CLEAN ALL MORTAR OFF BRICKS AND STONES. DO NOT REUSE CEMENT MORTAR.

STONES

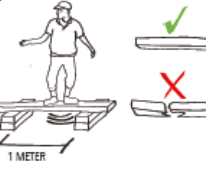
RUBBLE

LONGSTONES

BRICKS

SEPARATE STONES THAT ARE LONG AND FLAT FOR USE AS CORNER STONES AND TIE STONES.

3 SELF TESTING TIMBER FOR BUILDING



1 METER

PLACE TIMBER SUPPORTS WITH A 1 METER SPACING AND STAND AT MIDPOINT. IDEAL TIMBER SECTIONS DO NOT SHOW CRACKING AND HAVE MINIMAL KNOTS.



PROTECT TIMBER FROM RAIN AND DO NOT STORE TIMBER ON THE GROUND.



Shelter Cluster Nepal
Coordinating Humanitarian Shelter

Government of Nepal
Ministry of Urban Development and Construction

VERSION 2: 09/OCT/2015

Communicating with Different Groups

Communication Tips

Affected communities in Nepal were consulted about their information needs immediately after the earthquakes and seven months later (in November/ December 2015). The research underlined the difficulties when people are sending messages, or hearing information from new sources, and also misconceptions about access to media.

- Most information came from family members and friends using mobiles.
- Generally communities looked to the government and local officials for information, particularly when it came to issues around shelter and finding long-term solutions.
- There was a preference in most contexts for face-to-face information exchanges and discussion.
- Information about distributions for particular communities usually reached people through their community leaders and local government officials. Only rarely had people heard about relief distributions on the radio, although agencies used this medium for this purpose.
- Information channels reaching men and women varied considerably. Men usually had better access to information from local government representatives and from discussions in teashops, while women relied more on personal contacts for information – their relatives and friends as well as social workers and health workers active in their communities.
- Marginalized groups were generally less well-served with information, as were more remote communities.¹

¹ "Are You Listening Now?", CDAC, 2016 <http://www.cdacnetwork.org/j/201605061055003cmu2>