



SHELTER HUMANITARIAN ACTION PLAN

Shelter Cluster Strategy for Fiji – TC Winston

Strategy Status	Version	Status	Effective date	Next revision
	1	Draft – to be endorsed by cluster members	21 March 2016	May 2016

Shelter Cluster Structure

Response name	TC Winston
Cluster Lead Agency	Fiji Ministry of Local Government, Urban Development, Housing & Environment (MoLGUDH&E)
Government counterpart agency and contact	<p>Name: Kolinio Bola, Director Email: kolinio.bola@govnet.gov.fj</p> <p>Name: Vula Shaw, Principal Administrative Officer Email: vula.shaw@gmail.com</p>
Co-leads	International Federation of Red Cross and Red Crescent Societies (IFRC)
Cluster Coordinator Contact	<p>Name: Tom Bamforth/Caroline Dewast Email: coord1.fiji@sheltercluster.org Mobile: +679 929 1920</p>
Strategic Advisory Group (SAG) - Agencies	MoLGUDH&E , CARE, Live & Learn, Caritas, IFRC, Habitat for Humanity Fiji, ShelterBox, Disaster Aid International, IOM, ADRA, NDMO, FCOSS, PCN, Pacific Regional GenCap.
Relevant Technical Working Groups (TWiGs)	<p>Responsibilities</p> <p>The TWiG is the main reference group for the wider cluster and is comprised of many of the same agencies as the SAG. The group meeting weekly and provides advice on all technical aspects of the response, including IEC guidelines, technical specifications, cash/voucher options, scope of assistance kits, and guidelines relating to beneficiary targeting and vulnerability.</p>

Shelter Cluster Strategy

Situation	<p>Category 5 Severe Tropical Cyclone Winston, the most severe ever recorded in the South Pacific, hit Fiji on 20 and 21 February. 44 people have been confirmed dead as a result of the cyclone and over 62,000 people were evacuated in close to 900 evacuation centres. The government declared a State of Natural Disaster for 30 days and officially requested international assistance. Nearly 350,000 people are living in the cyclone’s path were affected.</p> <p>The Government of Fiji has identified shelter as an immediate priority during the relief phase with extremely strong cyclonic winds and multiple tsunami-like storm surges causing widespread damage and destruction. Currently available assessments indicate varying levels of destruction (up to 100 per</p>
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cent of houses in some smaller islands). Based on evacuation centre figures and currently available damage data, approximately 28,000 houses have been damaged or destroyed across the 12 priority areas.

The cluster system has been adopted by the Government of Fiji (GoF) as their way of coordinating the response and the humanitarian community works through the Fiji National Cluster system. All clusters are led by a government office and co-led by a humanitarian agency. The government is leading the Shelter Cluster through the Ministry of Local Government, Urban Development, Housing & Environment (MOLGUDH&E). The GoF has accepted IFRC support in leading the Shelter Cluster by providing additional capacity to coordinate the humanitarian shelter response.

The passage of TC Winston through the Fiji group of islands has resulted in significant damage to the shelter sector, both legal occupants and informal settlers. Most damage to dwellings resulted from the high winds, however storm surge affected smaller islands and low lying coastal areas and flooding occurred along some rivers. In the affected areas many families are currently living in very temporary structures, which are inadequate for long-term occupation. All affected persons need to be returned to safe durable shelters as soon as possible.

Most people who have had to move as a result of a natural disaster require assistance immediately afterwards, usually in the form of tarpaulins or tents. Assistance thereafter will depend on the affected population's capacity to self-help. While some are capable of self recovery, there is a large portion of the population that will require further assistance from the emergency phase to transitional assistance and onwards, such as people without legal occupancy, the elderly, disabled, single- and female- headed households, and other groups. A comprehensive shelter response needs to address all the affected population needs with a focus on the most vulnerable.

The affected population can be categorised as follows:

- a. Legal Owner Occupiers, Urban & Rural– families who own and occupy their own house
- b. Legal Tenants, Urban & Rural – families who are renting legal dwellings
- c. Settlers, Urban & Rural – families living in settlements that are recognised by the GoF as being legal (this includes Vacavanua settlers)
- d. Living with legal tenure – they are renting land from the owner but



	<p>have no government approval to dwell there</p> <p>e. Living with illegal tenure – occupying land they have no right to do so, whether private or public land</p>
<p>Cluster Strategic Goal</p>	<p>The goal of the Shelter Cluster is to support owner-driven recovery by investing in disaster preparedness and risk reduction while prioritising the most vulnerable people, families and communities.</p>
<p>Cluster Objectives</p>	<p>Objective 1: Emergency Shelter</p> <ul style="list-style-type: none"> i. Provision of emergency shelter items and NFIs such tents, tarpaulins, shelter kits, kitchen sets and solar lights, supported by appropriate IEC material. <p>Objective 2: Support to self-recovery</p> <ul style="list-style-type: none"> ii. Support the most vulnerable households through the early stage of owner-driven recovery with items such as CGI, fixing kits, toolkits, core shelter or their cash/voucher equivalent, along with appropriate training and IEC material. <p>Objective 3: Technical support</p> <ul style="list-style-type: none"> iii. Provide education information and communication on safer construction principles, and community-based hazard awareness, preparedness and DRR, during all phases of the response. iv. Provide technical training on building back safer houses for skilled/semi-skilled carpenters during all phases of the response.
<p>Key Messages</p>	<ol style="list-style-type: none"> 1. Support for owner-driven recovery, 2. Prioritisation of the most vulnerable people, families and communities, 3. Coordination and consultation Government (at national and divisional level), NGOs, INGOs, UN Agencies, and donor partners.
<p>Assessments</p>	<ul style="list-style-type: none"> • Government of Fiji damage multi-sector damage assessment • Fiji Red Cross damage assessment • Agency Assessments • Harvard Humanitarian Initiative indicative GIS mapping
<p>Monitoring and Evaluation</p>	<ul style="list-style-type: none"> • Agency monitoring • 3W reporting • Cluster monitoring

Shelter Guidelines and Standards



Inter-Cluster Issues

Cluster	Lead-Agency	Comments
Coordination	OCHA	Siterps, shelter advocacy, FA, SRP, intercluster coordination, advocacy with Government
Evacuees	NDMO/IOM	NFI's and shelter needs in Collective centres, relocations from and to collective centres, Evacuee Tracking Matrix, beneficiary lists and data on vulnerable groups
Early Recovery	UNDP	Housing, building codes, rubble removal, hazardous and non-build zones
Education	UNICEF/StC	Use of schools as collective centers, relocations from schools
Food security	WFP/FAO	Information on beneficiary groups and vulnerabilities, cash & voucher coordination
Health	WHO	Incidence of disease that can be avoided by provision of appropriate shelter and NFI, HIV/AIDs and shelter guidance
Logistics	WFP	Transportation, storage, supply chain, customs clearance, security of movement and humanitarian access
Nutrition	UNICEF	Information on vulnerable groups through therapeutic feeding data
Protection	UNHCR	Loss of documentation, HLP, GBV, Landmines, female and child headed households, elderly and disabled, vulnerability data, relocations and evictions, security
WASH	UNICEF	Ensure shelter sites have WASH facilities





TC Winston 2016 SHELTER CLUSTER TECHNICAL ADVICE

Emergency Shelter

Damage Category 1 - 4

-  **0** No Damage
-  **1** Minor damage requires little or no assistance
-  **2** Up to 30% damaged, can be repaired
-  **3** Greater than 30% damaged, can be repaired
-  **4** Destroyed or damaged beyond repair

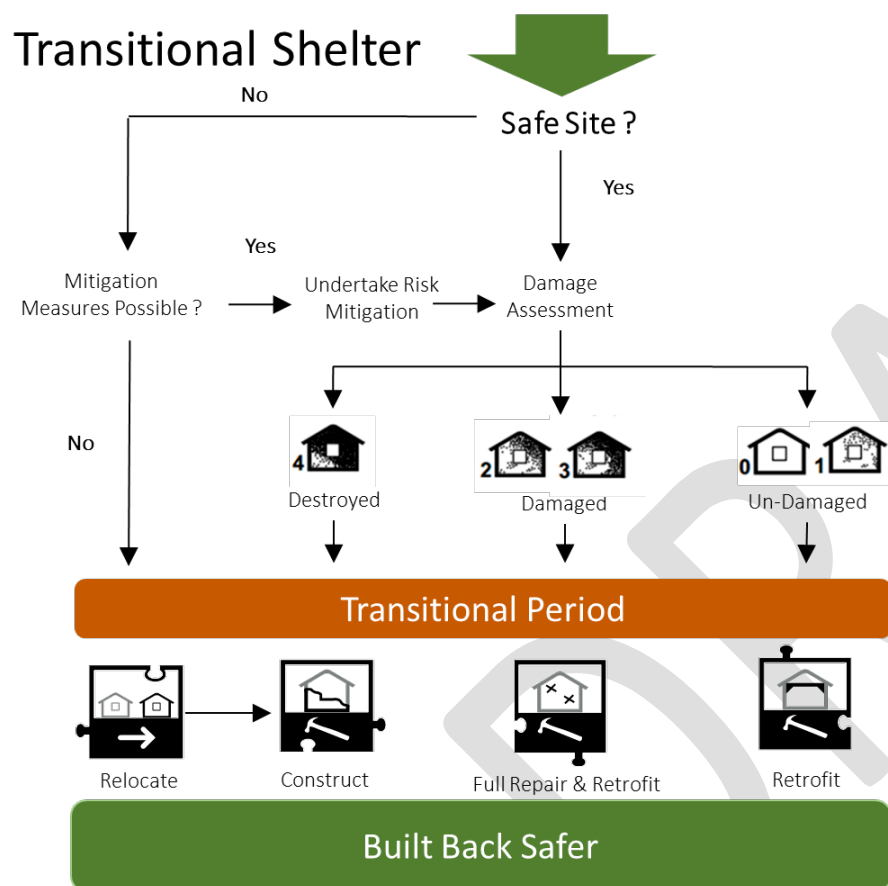
Impact

-  **Displaced**
Host Family / Rental
-  **Non-Displaced**
Urban / Peri-urban
Temporary Shelter
-  **Non-Displaced**
Rural and Remote
Temporary Shelter
-  **Displaced**
Collective Centres

Emergency shelter support options

Protection Support	Tents	Tarpaulins	Tool Kits	NFI	Technical support	Financial
X				X		X
X	X	X	X	X	X	X
X	X	X	X	X	X	X
X				X		X

Shelter Guidelines and Standards



Transitional shelter options are required for households that do not have the resources, or where there are other constraints, that delay recovery. Ideally investment in transitional solutions should promote and contribute toward recovery, such as materials, tools, and technical training and information.

Transitional shelter options

	Protection Support	Materials (In-kind / Cash / Voucher)	Technical Support	Financial
Temp Repairs	X	X	X	
Temp Shelter	X	X	X	
Host Family	X			X
Rent	X			X

To provide SPHERE minimum shelter and protection standards

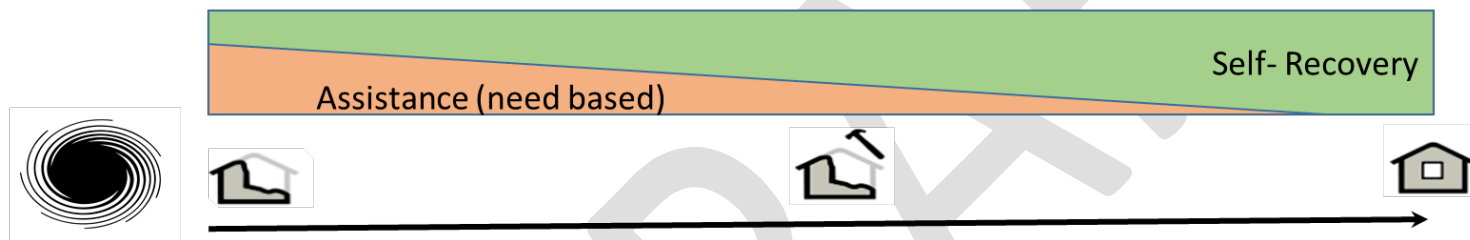
- Access and Protection
- Safe
- Space – Min 3.5m² / person
- Durable – Sufficient for the period until full recovery is achieved
- Dignified
- Sufficient to meet social / cultural / and livelihood needs



Shelter Recovery

Considerations for shelter recovery

- To encourage shelter recovery at the earliest, and where possible provide assistance that contributes to this process
- Context and capacity will determine the process of self-recovery
- Assistance is only required up to the point that self-recovery has gained momentum and is sustainable.
- Assistance for recovery should be differentiated based on need and be equitable
- Disaster Risk Reduction should be integral to any programs





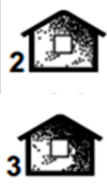
Differentiated Recovery Options

Un-Damaged



Capacity	Safer Building Information	Technical Advice	Support for materials	Support for labour
Low	X	X	X	X
Medium	X	X		
High	X	X		

Damaged



Capacity	Safer Building Information	Technical Advice	Support for materials	Support for labour
Low	X	X	X	X
Medium	X	X	X	
High	X	X		

Destroyed / New Build







Capacity	Safer Building Information	Technical Advice	Support for materials	Support for labour	Advice on Site Selection	House Design	Supervision of work
Low	X	X	X	X	X	X	X
Medium	X	X	X		X	X	X
High	X	X			X		

Note: Regardless of damage category or capacity, the whole community should be provided Safer Building Information and Technical Advice.

Shelter Guidelines and Standards



Assistance Modalities	Materials (In Kind) 	Cash 	Voucher 	Catalogue 
Advantage	<ul style="list-style-type: none"> • Control of quality • Control of price • Ensures that funds are only used for materials • Assists where people have limited access to markets or where there are logistics issues (islands) 	<ul style="list-style-type: none"> • Provides choice • Open access to the market • Supports local economies • Fast to implement 	<ul style="list-style-type: none"> • Provides choice • Control of quality • Control of cost • Targets support for shelter • Can have agreements with several suppliers 	<ul style="list-style-type: none"> • Provides a degree of choice especially in remote areas • Control of quality • Control of cost • Targets support for shelter • Provides logistics efficiency for remote locations • Orders can be on-line
Disadvantage	<ul style="list-style-type: none"> • Agency is responsible for logistics • Difficult to provide choice • Can be a long lead time in tendering and arranging logistics • May not support the local markets if materials are directly imported 	<ul style="list-style-type: none"> • No control on the quality of materials • Requires access to markets, which can be difficult for remote communities and vulnerable families • Beneficiary responsible for organising logistics • Can be pressures and temptation for the cash to be used for other purposes (debt, social obligations, etc) • Issues of protection for vulnerable households and groups 	<ul style="list-style-type: none"> • Limited to selected vendors • Is open to abuse where vendors exchange vouchers for cash and take commission • Requires access to markets, which can be difficult for remote communities and vulnerable families • Beneficiary responsible for organising logistics 	<ul style="list-style-type: none"> • Limited suppliers • Requires a tender process to select supplier • Requires assessment to select materials to put in the catalogue • Time and cost of producing the catalogue • Requires administration to process orders and monitor deliveries



ANNEX 1. Policy and Guiding Principles

The cluster has agreed to consider the following policy and guiding principles when designing relief and recovery shelter programmes

The provision of temporary housing is to be guided by relevant international standards particularly the UN Guiding Principles on Internal Displacement. These principles are integrated into these suggestions and are summarised below. It is the responsibility of the aid community to support Government in meeting its obligations to the affected population.

Policy and guiding principles	
Guiding Principles	Apply relevant international standards particularly the UN Guiding Principles on Internal Displacement.
	The cluster defined emergency shelter response as tents, tarps, shelter repair kits and tool kits. Transitional shelters will be used where appropriate.
	Use locally available human and material resources in order to achieve maximum participation and empowerment of the local economy without compromising the principles of environmental sustainability.
	Shelter programmes seek to ensure equity across all vulnerable groups. Such assistance should be based on an independent assessment of the level of damage, vulnerability, community resilience, hazard risk, and number of households affected.
	Standardize the relief items. Avoid situation where different agencies provide different packages.
	Disaster risk reduction and mitigation measures are to be integrated into emergency response and recovery
	Support community and owner driven reconstruction to build back safer.
	The emergency shelter response should move quickly into longer-term DURABLE solutions.
	Ensure distributions are well coordinated and dignified to ensure equal access of men and women to shelter materials and NFIs.
	Prioritise good coordination of Cluster members with Cluster Lead MoLGUDH&E. Engage with, and build capacities of local authorities and Government coordination bodies.
	Ensure proper linkages with relevant Clusters as appropriate, especially Health, Water-Sanitation, Protection.
	Ensure mainstreaming of cross-cutting issues.



	<p>Explore and encourage the use of alternative technology for providing construction materials. Such alternative technology should be environmentally friendly and easy to use.</p> <p>Encourage and enable the participation of affected communities in assessments, planning, implementation, monitoring and evaluation of shelter programmes.</p> <p>Ensure that site planning reduces the risk of exploitation and abuse of women, girls, boys and men through choice of location, lighting and provision of public spaces for the social, cultural and informational needs of women, girls, boys and men.</p> <p>Consider the different design needs of women and men, and persons with specific needs as well as ensure that shelter design is appropriate for the climate, social and cultural context.</p>
Policy	<p>Ensure relocations due to hazard mapping are fair and equitable. The community to be relocated and the planned host community should be consulted and fully involved in the decision-making process.</p> <p>In the first phase there is an emphasis on tarpaulins for roofing, but it's also recognized that quick support is needed to assist those trying to build makeshift emergency shelter or repair damaged houses – shelter materials, repair kits, tool kits, etc..</p> <p>When markets allow vouchers are considered an acceptable methodology. But they must be supported with appropriate levels of training, technical support/guidance and monitoring.</p> <p>Maximise use of salvaged building materials.</p> <p>On-site / owner-driven construction is the preferred methodology. This methodology should be supported by the appropriate level of technical training, guidance / supervision and monitoring – including the distribution and explanation of 'build back safer' educational materials and transitional shelter design information.</p> <p>Opportunities should be sought to encourage integration with livelihoods, e.g. building material markets, skilled artisans and unskilled labour, transportation of materials, etc.</p> <p>Tents are the least appropriate form of emergency shelter, the sheltering option of last resort. The use of tents has been seen to delay recovery.</p> <p>Cash-for-Work or Food-for-Work are acceptable methodologies; these should be used in combination of a wider package of support. Use common standards as advised by the Government, men and women should receive equal pay.</p> <p>Prioritize allocation of resources according to agreed vulnerability criteria, and according to capacities and presence of Cluster members.</p> <p>Prepare timely transfer of responsibilities to local institutions, including Information</p>



	<p>Management unit if applicable.</p> <p>Emergency responses focus on the effective and timely provision of emergency <i>and</i> transitional Shelter. The shelter response reflects the linkages between shelter risk reduction, preparedness, relief, recovery, and development, resulting in a seamless transition from emergency to recovery and reconstruction.</p> <p>Where income-earning shelter programming is either not possible, shelter programmes could identify alternate means of participation, such as skills-training in basic construction, for groups in the community that have not traditionally been in charge of building. Participation in shelter construction can offer women and girls greater financial independence.</p>
Strategy	<p>Support market-led/owner-driven recovery initiatives through self-help support at community level</p>
	<p>Work with Gov't and local authorities to inform households consistently and coherently through mass media on policy directives as they emerge, including, for example:</p> <ul style="list-style-type: none"> – New policies – Technical advice (e.g. practical and affordable storm resistant construction techniques) – Mechanisms for (land tenure) dispute arbitration
	<p>Advocacy for relocations to be community driven and supported by appropriate level of development</p>
	<p>Establish need for emergency and temporary shelter solutions based on level of damage, vulnerability, community resilience, hazard risk, and number of households affected</p>
	<p>Assistance should be prioritized equitably according to vulnerability (e.g. child and female-headed households, the elderly, and physically disadvantaged)</p>
	<p>Support those living with host families, self-settling in urban and rural areas, and, should it prove necessary, developing appropriate infrastructure for unplanned or planned camps.</p>
Aim	<p>To complement Government and civil society efforts in providing all disaster-affected persons with safe, appropriate, and habitable shelter – at least one safe room per household – in dignity, to defined international standards.</p>



Objective	<p>The overall objective of the shelter cluster is to work in partnership with local government and communities to provide shelter support to the affected population through the following actions:</p> <ul style="list-style-type: none"> • Provision of emergency shelter kits • Provision of partial shelter repair kits • Provision of full shelter repair kits • Provision of and/or advocacy for temporary shelter solutions • Provision of and/or advocacy for permanent shelter solutions • Disaster Risk Reduction education and construction training initiatives • Facilitate the coordination of prepositioned shelter-related non-food items • Promote durable solutions • Encourage preparedness • Assist in the development of evacuation centre assessment and management guides <p>In case where permanent solutions cannot immediately begin, adequate interim recovery shelter solutions should be provided. All interventions aim to prioritize the most vulnerable while at the same time providing disaster risk reduction education and training to the wider community.</p> <p>Time-bound and prioritised indicators of success will be pre-agreed within and between Clusters against which progress will be measured.</p>
Standards	<p>Provision of emergency and transitional shelter assistance will strive to comply with minimum standards as outlined in the following documents:</p> <p>Technical Guidelines and Standards established by the shelter cluster in Fiji: (http://www.sheltertcluster.org/Fiji)</p> <p>The Sphere Project; Humanitarian Charter and Minimum Standards in Disaster Response, 2011; Chapter 4 (www.sphereproject.org)</p> <p>Transitional Settlement of Displaced Populations; Chapter 7 (www.shelterproject.org)</p> <p>Guide to the use and logistics of family tents in humanitarian relief: (http://www.plastic-sheeting.org/ref/tents.pdf)</p>
IM	<p>Maintain an integrated monitoring capacity using common methodologies, definitions, and indicators</p>



	<p>Carry out trend analysis of planned vs. actual and report/inform where targets are not achieved</p> <p>Geo-statistical mapping of variables as available</p> <p>Reporting within the Cluster - all members must report information to the cluster lead</p>
Phasing	<p>Work with the Government on hand-over planning for reconstruction from the outset using early recovery frameworks as appropriate</p> <p>A standing preparedness capacity for renewed responses and the coordination thereof should be maintained as long as funds and capacities allow</p>
Comms	<p>Ensure timely public information to beneficiaries on policies and shelter assistance including build-back safer information</p> <p>Beneficiary communications and accountability: ensure that feedback and complaint mechanisms are established for beneficiary communities</p>

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ANNEX 2: Design Principles

Climate Suitability	<ul style="list-style-type: none"> - Ventilation 	<p>Design of the shelter to allow adequate ventilation to reduce internal temperatures.</p> <p>The design should allow for climate suitability improvement (e.g. option to include further openings, to add further partitions).</p>
Social/ economical Suitability	<ul style="list-style-type: none"> - Locally available material, utilising familiar techniques - Options for further improvement - Accessibility 	<p>Local procurement, where availability and available quality permits, should be prioritised; this stimulates local economy and reduces unnecessary transportation costs.</p> <p>Use of well-known materials and techniques will promote the participation of the beneficiaries in construction process and its maintenance.</p> <p>Use of familiar construction techniques will allow families to make improvements as money becomes available.</p> <p>Shelters should provide options for access of disabled people.</p>
Cultural suitability	<ul style="list-style-type: none"> - Typology according to household activities, privacy and gender as well as options/capacities of reconstruction. 	<p>Design shelters to meet local household activities, as well as local cultural requirements.</p> <p>The design of the shelter should enable flexible use of both available interior and exterior space.</p> <p>Respect design and techniques adopted by beneficiaries when building their own shelter.</p>
Resource effectiveness	<ul style="list-style-type: none"> - Use salvaged materials. - Allow future reuse of materials. - Minimize impact on natural resources 	<p>The use of salvaged materials is encouraged when in good condition (bricks, door/window-frames, roof beams etc.).</p> <p>Provide best practice guidance on material selection and re-use to prevent detrimental construction methods.</p> <p>Select quality construction materials for transitional shelters that can further permanent solutions.</p> <p>Consider construction techniques that enable dismantling and reuse of materials.</p> <p>The choice of materials should avoid increased pressure on limited locally available natural resources.</p>
Appropriate	<ul style="list-style-type: none"> - Location 	<p>Shelter should be constructed at or near the existing homestead,</p>



Location	- Land tenure	without inhibiting permanent housing process. Minimise exposure to hazards: avoid hazardous locations and apply DDR recommendations. Take account of access to livelihoods- the ability for small business and trade in or near the location. Ensure proper land rights for minimum 10-years tenure for permanent sites.
Site Risk Mitigation	- Cyclone - Hurricane - Earthquake - Rains and Floods	Shelter design must include earthquake and cyclone, hurricane resistant techniques (Build Back Safer). Shelters to be built on safe portions of land. Drainage of the area around the shelter to be examined. When necessary, construct water diverting features or rainwater containment.

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ANNEX 3: Technical Standards

1. Tarpaulins

A guide to the specification and use of plastic sheeting in humanitarian relief can be downloaded from:

[Using Plastic Sheetting Shelter Kit Guidelines](#)

Item	Recommended Minimum Standards	Notes
Recommended size of individual tarpaulin or sheet	6m by 4m.	For rolls or large area sheets it's important that they are cut to ensure they are usable, but also maximise their number.
Number of tarpaulins or sheets distributed per family	Family size less than 6 members two tarpaulin or equivalent sheets per family	2 tarpaulins are the accepted minimum international standard.
	Family size greater than 6 members a minimum of two tarpaulins or equivalent sheets per family	Additional tarpaulins should be allocated if supply permits.
	For damaged houses with family size less than 6 members to have one tarpaulin	This to allow roof protection

Some reference for good practice details for fixing tarpaulins and materials can be found on:

- Temporary structures in hot climates- <https://www.sheltercluster.org/sites/default/files/docs/Temporary%20structures%20in%20hot%20climate.pdf>
- IFRC shelter kit instructions – <https://www.sheltercluster.org/sites/default/files/docs/IFRC%20shelter%20kit%20flyer%20instruction%201.pdf>
- IFRC shelter kit specification - <https://www.sheltercluster.org/sites/default/files/docs/IFRC%20Shelter%20Kit.pdf>



2. Tents

A guide to the use and logistics of family tents in humanitarian relief, published by UNOCHA can be downloaded from <http://www.josephashmore.org/publications/tents.pdf>.

Item	Recommended Minimum Standards	Notes
Tent materials	Equivalent to IFRC or UNHCR standard material specifications http://procurement.ifrc.org/catalogue https://www.sheltercluster.org/sites/default/files/docs/IFRC%20Family%20Tents.pdf	The family tent and the frame tent
Life span	Maximum recommended time for tents as a place of main habitation is 3 months.	
Tent planning	Tent site planning and layout can be found on: https://www.sheltercluster.org/sites/default/files/docs/Guide%20to%20the%20Use%20and%20Logistics%20of%20Family%20Tents.pdf	
Fire safety	Tent 'Fire Safety and Winterisation Leaflet' can be found on: http://www.ifrc.org/PageFiles/95528/IFRC%20TENT%20INSTRUCTION%20SHEETS-modified%20by%20%20alpinter.pdf	



3. Shelter Tools and Materials

Contain construction material and tools, and target those at or returning to damaged or destroyed houses in place of origin. The kit should provide necessary support to ensure that minimum sphere standards can be reached. See also: IFRC [Shelter Kit Guidelines](#)

Items and Purpose	Details	Value
Tools		
To assist the emergency and recovery construction. Kits to be shared no more than 1 kit per family. The equivalent in cash / voucher may be provided.	<ul style="list-style-type: none"> • Kits to contain (minimum): • Hammer • Saw • 75mm Nails – 0.5kg • 40mm Nails – 0.5kg • Roof Nails – 0.5kg • Rope (6mm) – 30m • Shovel 	
Fixings construction kit		
Materials, cash/vouchers (if markets are functioning or alternatives like fairs can be arranged)	<ul style="list-style-type: none"> • Galvanised Metal Strap – 25mm x 1mm with punched holes – 54m (2 x 27m rolls) • 100mm Galvanised Nails – 2kg • 40mm Galvanised Nails – 1kg • Roof (Umbrella) Nails – 3kg 	
Timber for repair		
To supplement salvaged timber for construction	<ul style="list-style-type: none"> • 60 meters of 4 x 2 inch treated softwood timber 	
Roof sheets		
Iron roof sheets that are sufficient to cover an area to meet SPHERE standards for transitional and permanent house construction	<ul style="list-style-type: none"> • 10' x 2'6", 26 SWG – 10 sheets • 10' Verge flashing – 4 lengths 	
Materials for reconstruction		



<p>A range of materials that would be needed to construct a 6x4m timber shelter. Other options may be considered</p>	<ul style="list-style-type: none"> • Timber for studs, roof, and floor (4x2) – 270m • 2 ½ Galvanised Nails (for cladding and flooring) – 2.5kg • Timber cladding (6”) – 360m Or CGI (9’x2’6”) – 27 sheets • Floor Boarding (6”) – 160m Or 18mm exterior plywood (8’ x 4’) – 9 sheets • Doors - 1 • Window – 2 • Finishes – Paints and Preservatives 	
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For information on selecting NFIs see:

http://www.ifrc.org/PageFiles/95759/D.03.a.04.%20NFIs%20for%20Shelter_IASC.pdf

4. Temporary/Transitional Shelters

Transitional shelters are shelter provided during the period between a disaster and the achievement of a long-term shelter solution. It provides a habitable covered living space, a secure, healthy living environment with privacy and dignity for those living within it.

The shelters are designed so that material are re-useable for when families can move onto a more permanent site, contributing towards construction of semi-permanent and permanent houses.

All Temporary/Transitional Shelters should have appropriate WASH facilities, particularly in relocation situations.

Indicators	Standards	Foreseen Challenges
Size	Minimum of 18m ² covered living space for a family of 5	
Timeframe	Structure needs to able to last a minimum of 12-18 months	Ability to move onto permanent site
Location	<ul style="list-style-type: none"> - Location on plot shall allow further incremental development of shelter - Allow space for DRR measures - 100 families per hectare maximum 	<ul style="list-style-type: none"> Lack of space to add to shelter Lack of access to funds or skill to build
Use of salvaged material	<ul style="list-style-type: none"> - Only qualified salvaged materials (e.g. avoid burnt, decayed, swollen material) - Check amount of salvaged material available to beneficiaries - Design of shelters not fully to rely on availability of this type of material. 	Ensure quality of salvaged materials
Plot preparation	- Properly clear site from physical hazards (e.g. flood and other debris, trees likely to fall, salvaged material, also from neighbouring plots)	



	<ul style="list-style-type: none"> - Properly prepare site following DRR principles (good compaction of construction site) - Be aware of river silt deposit, not a quality base soil 	
Construction process	<ul style="list-style-type: none"> - If possible apply traditional, well-know construction methods based on existing skills of available labor <p>Construction process to be speedy (pre-fabrication of components reduces on site cutting or drilling) and simplified to enable the participation of semi or un skilled labour.</p>	
Foundation	<ul style="list-style-type: none"> - Excavation should be deep enough to reach stable or hard soil type. - Ensure good compaction of earth - When possible ensure PCC layer beneath foundation – Raise plinth 6-9” above flood water level. See Flood risk map (attached) 	
Floor level	<ul style="list-style-type: none"> - Raise floor level to prevent ingress of low surface water - height according to location, min. 10cm 	
Structure	<ul style="list-style-type: none"> - Inform on simple solutions to improve the shelters resistance: e.g. braces, improved joists, ratio length: width, slope and overhang of roof etc.) - Ensure that frame material (eg. Wood or metal) bear the load rather than fasteners/fixings. - Current local practice to treat bamboo and wood members uses burnt engine oil or paint. - Ensure water drainage from the roofs. - <i>Transitional shelter</i>: Lightweight frame anchored to ground temporarily - The structures of transitional shelter should be demountable to allow the reinstallation of the shelter in a new (or original) location or the reuse of the materials. 	
Structure (cont.)		
Head height	<ul style="list-style-type: none"> - Flat roofs height should be 9ft (2.75m) - Double pitch roofs: -60% of shelter should have min. height of 7ft (2.1m) 	
Hazard	Standards	Foreseen Challenges



Heavy Rains and Floods	<ul style="list-style-type: none"> - Pitch Roofs: slope min 0,5% gradient. - Recommended extension of eaves: min. 6". - Raise plinth level high enough to protect the base of the wall. - For block construction use plaster on external walls to increase life span of wall. 	
Earthquake	<ul style="list-style-type: none"> - Match design of shelter to local seismic risk. - Seismic resistance techniques to be incorporated into site selection, shelter form, the location of openings, foundations, bracing and ring beam connections - Openings weaken the structural integrity of walls – ensure load above the openings is transferred to other structural components. - Roof beam to overhang min. 6" on each side - Walls to integrate braced structure 	
Fire Hazards	<ul style="list-style-type: none"> - Perform site planning and disseminate information on appropriate safe use of fire near the shelter. 	
Cyclone, Typhoon, Hurricane/ Strong Winds	<ul style="list-style-type: none"> - Form of shelter: rectangular or square type (ratio length to width approx. 1:1 or 1:1.5) - Secure shelter to the ground (strong foundations, lightweight frame anchored to ground) - Roof structure with adequate strength for proposed roofing material - Apply metal strapping to reinforce roof structure to withstand hurricanes, earthquakes - Sufficient pitch to withstand winds: 2-pitched roof: min. 30°- 45°, 1-pitched roof: 12°-14° 	

5. Support to Host Families

Guidance on Host Family support:

<http://www.ifrc.org/PageFiles/95186/ASSISTING%20HOST%20FAMILIES%20AND%20COMMUNITIES%20-%20IFRC%202012%20.pdf>



6. CROSS CUTTING CONSIDERATIONS

5.1 Environment

<https://envirodmtdotorg.files.wordpress.com/2015/11/cyclone-winston-env-issues.pdf>

5.2 Gender

https://www.sheltercluster.org/sites/default/files/docs/gender_in_shelter_activities_in_tc_winston_-_quick_tips_v2.pdf

5.3 Age

<https://www.sheltercluster.org/sites/default/files/docs/Guidance%20on%20including%20older%20people%20in%20emergency%20shelter%20programmes.pdf>

5.4 HIV/AIDS

https://www.sheltercluster.org/sites/default/files/docs/protection_mainstreaming_checklist_esnfi_cluster_by_all_protection_cluster_stuart_brooks.pdf

5.5 Disabilities

https://www.sheltercluster.org/sites/default/files/docs/all_under_one_roof_-_disability-inclusive_shelter_and_settlements_in_emergencies.pdf

5.6 Human Rights

5.7 Housing Land and Property Rights

<https://www.sheltercluster.org/sites/default/files/docs/Due%20diligence%20in%20shelter-A5.pdf>

<https://www.sheltercluster.org/sites/default/files/docs/Pinheiro%20Principles%202005.pdf>

6. INTER CLUSTER CONSIDERATIONS

Inter cluster guidance can be found on the www.sheltercluster.org website:

6.1 Protection

https://www.sheltercluster.org/sites/default/files/docs/2015-iasc-gender-based-violence-guidelines_lo-res.pdf

https://www.sheltercluster.org/sites/default/files/docs/brief_on_protection_mainstreaming.pdf



6.2 WASH

https://www.sheltercluster.org/sites/default/files/docs/building_code_latrines.pdf

https://www.sheltercluster.org/sites/default/files/docs/rain_water_harvesting_building_code.pdf

7. IMPLEMENTATION METHODOLOGIES

7.1 Cash Grants & Voucher

<https://www.sheltercluster.org/sites/default/files/docs/Cash%20and%20Vouchers%20Manual.pdf>

7.2 Cash for Work

<http://www.cashlearning.org/resources/tools>

http://reliefweb.int/sites/reliefweb.int/files/resources/mercy_corps_cash_transfer_programming_toolkit_part_1.pdf

7.3 Participation

<http://www.ifrc.org/PageFiles/95526/publications/305400-PASSA%20manual-EN-LR.pdf>

7.4 Owner Driven Approach

<http://www.ifrc.org/PageFiles/95526/publications/E.02.06.%20ODHR%20Guidelines.pdf>