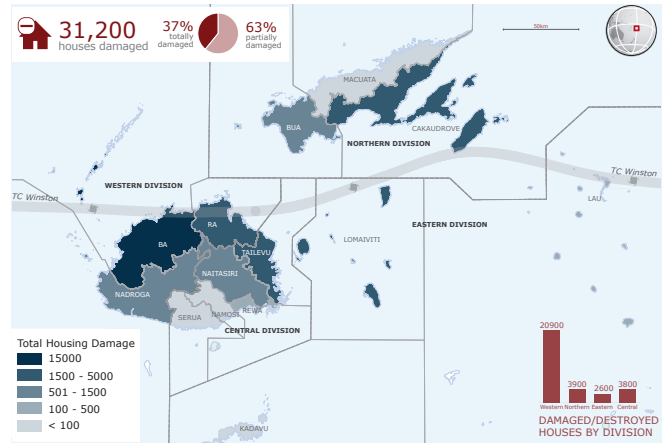


OVERVIEW

FIJI 2016 / TROPICAL CYCLONE WINSTON

CRISIS	Tropical Cyclone Winston, Fiji, 20 February 2016.
TOTAL HOUSES DAMAGED	31,200. 19,700 (63%) damaged, 11,500 (37%) destroyed.
TOTAL PEOPLE AFFECTED	350,000 people (Source: Government of Fiji).
PEOPLE SUPPORTED	36,609 households.
RESPONSE OUTPUTS (households)	<p>36,609 emergency shelter items</p> <p>24,505 vouchers for construction materials</p> <p>1,671 safe fixing kits, construction material or repair assistance</p> <p>110 core or transitional shelters</p> <p>19,765 emergency safe shelter awareness</p> <p>450 semi-skilled builders and carpenters trained on Build Back Safer</p>



Storm Track and Housing Damage after Cyclone Winston (© Shelter Cluster Fiji).

SUMMARY OF THE RESPONSE

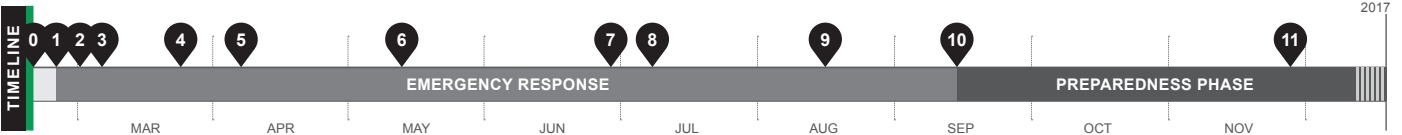
Tropical Cyclone Winston hit Fiji on 20 February 2016. The emergency shelter response started with the distribution of shelter items by the government and various national and international organizations. The government response then moved to the dispersal of vouchers to access selected construction materials through hardware shops. Humanitarian agencies focused on training carpenters and homebuilders. The Shelter Cluster was re-activated, to help the coordination of the 30 organizations that contributed to the shelter response and the development of the Build Back Safer framework. Following the response, the government institutionalized the cluster system as a permanent mechanism for disaster management.

IMPROVING RESILIENCE

- STEEPLY PITCHED, FOUR SIDED -HIP- ROOFS
- NARROW EAVES TO AVOID ROOF TEARING
- BUILT ON A MOUND OR ON STILTS TO HELP DRAINAGE AND PREVENT FLOODING
- HOUSES SURROUNDED BY VEGETATION TO REDUCE WIND IMPACTS
- ROUNDED CORNERS FOR IMPROVED AERODYNAMICS
- LARGE HARDWOOD POSTS BURIED DEEPLY IN THE GROUND

Traditional housing construction was studied and included in posters and materials that informed the response and the subsequent preparedness phase (From Country Profiles/Fiji, produced by CRAterre for the Global Shelter Cluster).

20-21 FEB 2016



- 0** 20-21 Feb 2016: Tropical Cyclone Winston impact on Fiji and declaration of State of Natural Disaster.
- 1** 27 Feb 2016: The Government of Fiji activates the Shelter Cluster.
- 2** 28 Feb 2016: Deployment of Shelter Cluster Coordinator.
- 3** 3 Mar 2016: Flash Appeal released requesting USD 5.3 million for the Shelter Cluster for a target of 112,800 people.
- 4** 21 Mar 2016: Release of the Shelter Cluster Humanitarian Action Plan.
- 5** 9 Apr 2016: Launch of the government "Help for Homes" initiative.
- 6** 10-12 May 2016: Shelter Cluster "Training of Trainers" pilot on Build Back Safer.
- 7** 30 Jun 2016: 24,000 households received e-cards and ordered construction materials.
- 8** 8 Jul 2016: Shelter Cluster lessons learned workshop.
- 9** 14 Aug 2016: Release of the Build Back Safer framework including the 7 key messages.
- 10** 14 Sep: Release of the Build Back Safer tips booklet, deactivation of the Shelter Cluster and handover to new co-leads with preparedness focus.
- 11** 30 Nov 2016: Build Back Safer training for 450 carpenters and homebuilders completed, through construction of more than 110 core and transitional shelters in 77 of the most affected communities.



Build Back Safer trainings were the key component of the Shelter Cluster strategy.

CONTEXT

Fiji is an archipelago of 332 largely mountainous islands of volcanic origin, of which 110 are inhabited low-lying atolls. Spread over 18,300km², its population resides primarily on the two largest islands, Viti Levu and Vanua Levu. Fiji is often in the path of tropical depressions and cyclones. While it is seen as a refuge from rising seas for the populations of low-lying neighbours, Fiji itself is not immune to the impact of climate change. Much of its population live on the coastal fringe, and all major cities and towns are either ports or seaside locations. Thirty-one per cent of the population lives below the national poverty line and around 140,000 people live in informal settlements – often in poor quality housing, with inadequate service provision, in environmentally marginal areas and with no legal security of tenure.

SITUATION AFTER THE DISASTER

The cyclone swept through the Fiji Islands as a Category 5 Storm, with wind gusts up to 325 km/hr. The government reported the cyclone had affected more than 350,000 people (40% of the population) across all four administrative divisions, damaging or destroying more than 31,200 houses. Shelter was identified as an immediate priority during the relief phase, when extremely strong cyclonic winds and multiple tsunami-like storm surges caused widespread damage and destruction. The government led the response and called for international assistance. A Flash Appeal was launched, but remained poorly resourced, with only two agencies funded for the shelter response, through the UN Central Emergency Response Fund, supporting only the delivery of emergency shelter items.

NATIONAL SHELTER STRATEGY AND RESPONSE

To coordinate the shelter response, the Shelter Cluster Fiji was activated, after having first been activated for Cyclone Evan in 2012¹. The Ministry of Local Government, Housing and Environment led the Cluster, with the support of an international agency as co-lead. A coordination team was deployed to support the

¹ See A.07 in *Shelter Projects 2013-2014*, for an example of a project in response to Tropical Cyclone Evan.

Ministry and the coordination of the 30 organizations that were contributing to the shelter response. **The goal of the Shelter Cluster was to support owner-driven recovery by investing in disaster preparedness and risk reduction**, while prioritizing the most vulnerable communities, families and individuals, with three objectives: 1) Provision of emergency shelter and Non-Food Items; 2) Support of self-recovery to repair and rebuild damaged houses with hardware or cash/voucher equivalent, and 3) Provision of technical Build Back Safer training, along with information, education and communication materials for skilled/semi-skilled carpenters and homebuilders².

By mid-September 2016, cluster partners, including the government, reached over 36,600 households with emergency shelter materials, including tents, tarpaulins, shelter kits and shelter tool kits; 19,765 households with emergency shelter awareness; and 24,505 with cash grants under the “Help for Homes” initiative. Due to the impact of the initiative and the lack of funding, **cluster partners shifted their priority and activities from objective (2) to objective (3) of the initial strategy**, which drove the response to technical assistance complementing the government’s programme. Nine months after the cyclone, 450 carpenters and homebuilders were trained on Build Back Safer, through the construction of more than 110 core and transitional shelters in 77 of the most affected communities.

THE “HELP FOR HOMES” INITIATIVE

Two months after the cyclone, the Prime Minister launched the “Help for Homes” initiative, a USD 34 million voucher programme for affected households to access free shelter and construction materials. This programme provided financial assistance to more than 24,500 homeowners to help rebuild their homes themselves, including informal settlers. While this initiative was in line with objective (2) of the Cluster’s strategy, it did not include any technical assistance component, and was only a push towards recovery.

The selection of eligible households was based on the damaged houses master list provided by the National Disaster

² See the cluster factsheet at <http://bit.ly/2hrHFIS>.



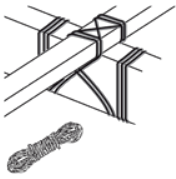
Strapping should be long enough to hold four (4) nails on each side. Note that the diagonal bracing is stretched tight and is wrapped around the frame at the ends. Note also the double top-plate to support the roof frame.

3. Tie down from bottom up & use strong joints - Nails are not enough

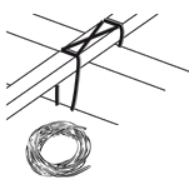
- ✓ Ensure that you have strong connections at all joints - the roof material to the roof timbers, the roof to the walls and the walls to the foundations.
- ✓ Each joints of your house must be reinforced with more than nails.
- ✓ Build every joint so it can't be pushed or pulled apart. Nails alone are not sufficient to hold joints together when subject to cyclonic forces. Strong connections can be made with cyclone straps, rope and wire.

WHAT CAN I USE TO TIE DOWN MY HOUSE?

Rope or nylon fishing wire

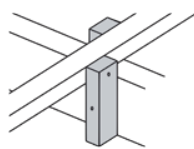


Thick galvanised wire (multiple layers)

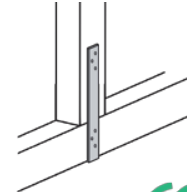


Strong ✓

Timber Cleats



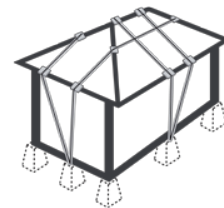
Galvanised metal strap



Strongest ✓✓

STRONG WINDS COMING?

Tie down when strong winds come



© Shelter Cluster Fiji

A booklet was produced by the Shelter Cluster, including tips to Build Back Safer after natural disasters, presented through posters of key messages.



The Shelter Cluster Fiji conducted Build Back Safer training of trainers.

Management Office; targeting the affected Fijians households earning less than USD 24,000 a year. The Ministry of Women, Children and Poverty Alleviation took the lead role in the distribution of the pre-paid electronic cards across the affected areas, with the support of the Ministry of Finance and the Planning Office. The Shelter Cluster provided awareness on Build Back Safer through banners at distribution points and posters included in the information booklet that all households received.

The pre-paid electronic cards were provided with a set amount and a pin number to purchase building materials from hardware stores selected by the government. The following four grants categories were defined:

- 1) USD 720 for partial roofing damage;
- 2) USD 1,440 for serious roofing damage;
- 3) USD 2,880 for almost and completely destroyed houses;
- 4) USD 720 for families living in informal settlements in the affected areas, who had their homes totally or partially destroyed.

This assistance was only providing some construction materials, therefore labour and other additional costs had to be

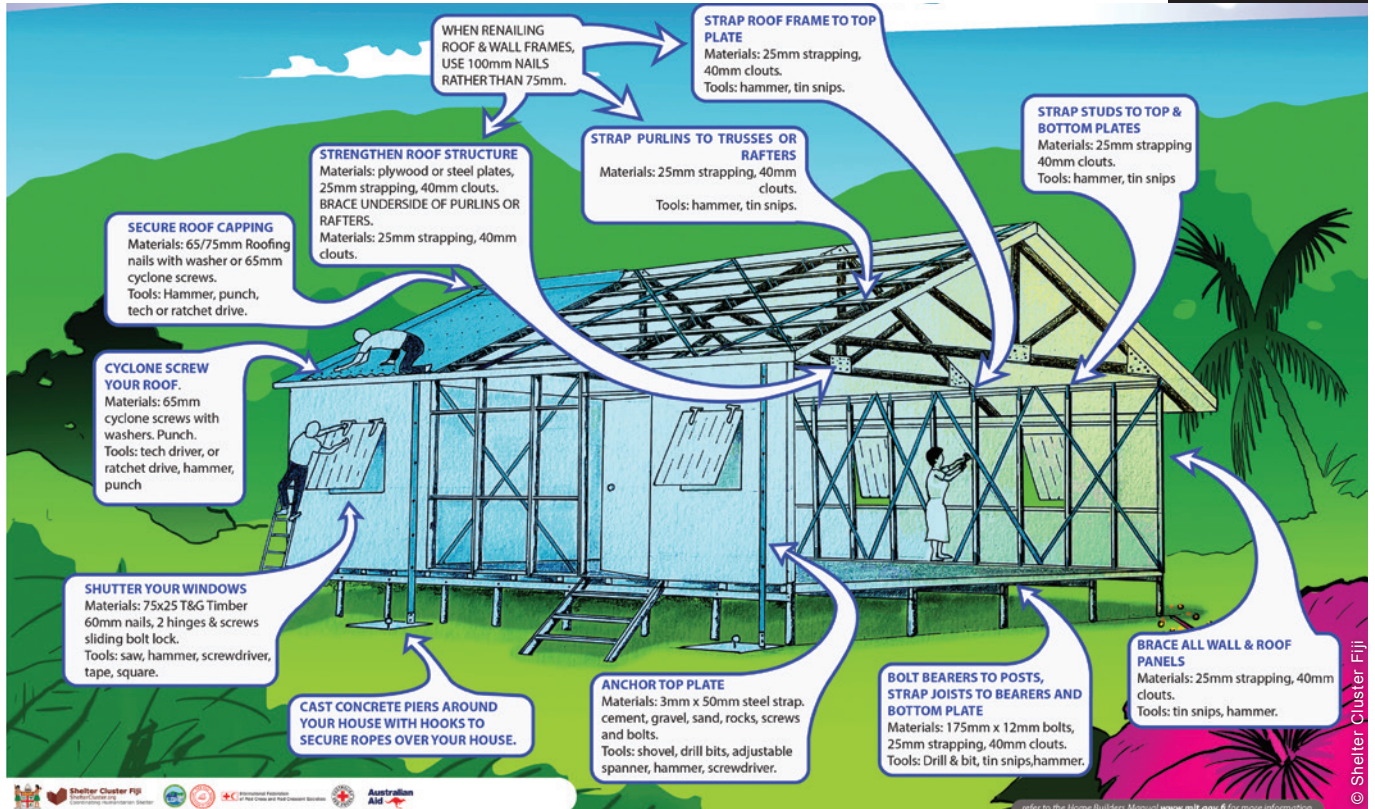
borne by the family. This programme allowed the selected households to order their construction material before the end of June 2016, but the hardware shops were facing understandable challenges to timely supply and deliver at community level such massive amounts of materials.

BUILD BACK SAFER APPROACH AND TRAININGS

Two months and a half after the cyclone, the main Fijian humanitarian shelter agency and the Shelter Cluster ran a three-day pilot **Build Back Safer "Training of Trainers"**. This event allowed 20 staff and volunteers from humanitarian organizations and NGOs, church groups and vocational education institutions, to improve their skills on safer building techniques, as a preparedness effort for future disasters. This event also helped partners to discuss and understand what trainings at community level should encompass and what information and communication material to develop.

Carpenters' and homebuilders' understanding of safer construction methods was enhanced through "learning by doing", around the construction of a transitional or core shelter for one household in the village. **The trained community members would then be better able to support other households in the reconstruction of resilient shelters**, when they received their construction material from the "Help for Homes" initiative. While some households might have wrongly interpreted that the grant was sufficient to support the total cost to repair or rebuild their house, the trainings also aimed to highlight how not to sacrifice safety by stretching out partial assistance. Reinforced connections, bracing and protection of openings were the minimum essential components covered by the training.

During the three-day training, trainees (20% were women) completed the construction of a cyclone-rated core house. One vulnerable beneficiary was selected by the community to receive the house, on the understanding that the structure was to remain as a practical example for all community members to continue learning from. These trainings were



In this response, there was also a focus on how to retrofit existing structures to better withstand future hazards.

accompanied by educational material that portrayed in a graphic and clear fashion how to construct a stronger house, and remained in the community after the end of the training. The “hands-on training” was targeted at local carpenters and builders, many of whom had no formal qualifications, but nevertheless may have wide experience and work to a professional level. Within the framework of communal building, which is widespread in Fiji, these local builders have significant influence. Workshops conducted in one village can thus reach builders from all the surrounding villages.

KEY MESSAGES AND BOOKLET

Based on the pilot training and the outcomes of the Technical Working Group, the Shelter Cluster agreed on a Build Back Safer framework around training principles and seven key messages: 1) Site your house safely; 2) Build on strong foundations; 3) Tie-down from the bottom up and use strong joints – nails are not enough; 4) Brace against the storm; 5) A good house needs a good roof; 6) Leave nobody behind, and 7) Be prepared. While most of these messages were similar to other disaster responses³, the sixth was specifically addressing accessibility for people with physical impairments.

Using existing and new posters, these messages were included in a new “Tips to Build Back Safer” booklet⁴. The first edition of the booklet (in English) was printed in more than 9,000 copies and disseminated to households and communities through trainings and other activities, such as distribution of construction materials. By the end of 2016, the booklet was also translated in Taukei and Fijian Hindi/Hindustani languages, to inform the ongoing response, as well as for countrywide preparedness.

³ See A.3, A.8 and A.39 for other responses that adopted the same approach.
⁴ The booklet was developed with the contribution of the Ministry of Housing, Fiji Institute of Engineers, main humanitarian shelter agencies, key donors, and representatives of the Fiji Business Disaster Resilience Council (including some of the hardware stores involved in the “Help for Homes” initiative). It is available at <http://bit.ly/2igK37y>.

LESSONS AND WAY FORWARD

It is recognized that, in the Pacific context, shelter responses to natural disaster should focus on promoting **Disaster Risk Reduction in support of affected populations’ self-recovery efforts**. For Cyclone Winston, the Government of Fiji demonstrated its capacity to implement a large, shelter-focused, voucher programme at scale, supporting more than 75% of the households with a damaged or destroyed house, allowing them to access construction materials provided by the private sector. It is noteworthy that **this programme included support to informal settlers**.

Although it was swiftly implemented, this programme would have benefited from more investment and support in market analysis, at country and regional level, to support the timely delivery of materials, as well as for post-distribution, impact monitoring and learning for future disaster responses in Fiji and in the Pacific.

This type of approach requires **complementary investment in technical assistance**, in partnership with Shelter Cluster partners through Build Back Safer trainings and safe-shelter awareness. It should also include **support from other sectors**, such as WASH and livelihoods, along with considerations on accessibility, protection, logistics and other cross-cuttings factors.

Learning from the response to Cyclone Winston, the **shelter sector in Fiji is now better prepared** to respond to future natural disasters, with new technical guidelines and an agreed framework, including key messages, trainings and the booklet (available in the three main local languages). Based on the lessons learned from this and other recent natural disasters, **the government took the decision to make the Fiji clusters system permanent** in the disaster management cycle, as part of its new humanitarian policy, building on the successful Shelter Cluster transition from this response towards preparedness.