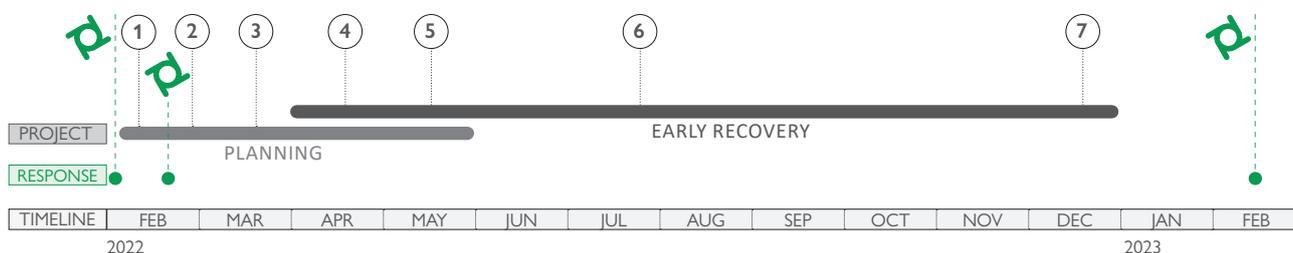


## OVERVIEW

## MADAGASCAR 2022 / TROPICAL CYCLONES

<b>CRISIS</b>	<b>Madagascar Tropical Storm and cyclone 2022 Batsirai (Feb 15) and Emnati (Feb 22) cyclones</b>	
<b>PEOPLE AFFECTED AND DISPLACED</b>	<b>423,800 individuals</b> affected* <b>61,489 individuals</b> displaced*	
<b>HOMES DAMAGED/ DESTROYED</b>	<b>11,163 homes</b> destroyed** <b>33,226 homes</b> damaged**	
<b>PEOPLE WITH SHELTER NEEDS</b>	<b>35,000 HHs</b> (210,000 individuals)	
<b>PROJECT LOCATION</b>	Atsimo Atsinanana, Vatoavy and Fitovinany regions	
<b>PEOPLE SUPPORTED BY THE RESPONSE</b>	<b>18,356 HHs</b> (82,606 individuals)	
<b>RESPONSE OUTPUTS</b>	<b>9,786 HHs</b> supported with <b>emergency shelter materials and essential household items</b> <b>17,564 HHs</b> supported with <b>Cash-for-Shelter assistance</b> to repair, retrofit or rebuild <b>14,736 HHs</b> supported with <b>technical support</b> , safe shelter and building back safer awareness <b>1,693 HHs</b> supported with <b>in-kind house reconstruction</b> <b>71 HHs</b> supported with Cash for Rent Shelter assistance**** <b>3,333 HHs</b> supported with emergency assistance in evacuation centre	
<p>*BNGRC – National Office for Risk and Disaster Management, Madagascar</p> <p>**Multisectoral Rapid Assessment February 2022</p> <p>***Flash Appeal 2021-2022, revised version June 2022, p.14</p> <p>****Dashboard, <a href="#">Madagascar Tropical Storm and Cyclone 2022</a>, Global Shelter Cluster</p>		<p><b>SUMMARY OF THE RESPONSE</b></p> <p>Madagascar has been hit by six tropical weather systems from January to April 2022. Two category 4 Tropical Cyclones Batsirai and Emnati in February impacted three regions on the east coast. This overview refers to the response implemented at sectoral level, especially around the conditional Cash-for-Shelter, that was implemented at scale in peri-urban and rural areas. The coordinated inter-agency response supported shelter self-recovery through owner-driven repair and reconstruction, while disseminating safe shelter awareness and building back safer principles at community level. Moreover, the tools developed, and the experience gained on Cash-for-Shelter programming aimed to allow faster and more effective assistance to the communities affected by Tropical Cyclone Freddy that landed in the same regions one year after Cyclones Batsirai and Emnati.</p>



**05 Feb 2022:** Tropical cyclone Batsirai; landfall on East Coast.

**1 Feb 2022:** National Shelter Cluster meeting; Decision to host discussions around CCCM and NFIs within Shelter Cluster coordination structure.

**22 Feb 2022:** Tropical cyclone Emnati, landfall on East Coast.

**2 Feb 2022:** First reported distribution on NFIs.

**3 Mar 2022:** Presentation of the National Shelter Response Strategy.

**4 Apr 2022:** Validation of the Cash for Shelter Strategy by BNGRC and Shelter Cluster Lead and co-Lead.

**5 May 2022:** Validation of the Cash for Shelter implementation modalities by BNGRC and Shelter Cluster Lead and co-Lead.

**6 Jul 2022:** First reported cash for shelter and in kind reconstruction.

**7 Dec 2022:** Last reported Cash for shelter distribution.

**21 Feb 2023:** Tropical cyclone Freddy, Landfall on same area than Batsirai.

## CONTEXT

Madagascar is the world's fifth largest island, situated in the Indian Ocean off the coast of southern Africa and prone to various shocks such as earthquakes, cyclones, floods, droughts, epidemics, fire, malnutrition, and locust infestation. The country boasts a unique ecosystem, with many species of plants and animals found nowhere else. Tropical cyclones are common in the southwest Indian Ocean region, and Madagascar often experiences multiple landfalls each year with up to Category 4 events like Tropical Cyclone Enawo in 2017 – when the National Shelter Cluster was activated for the first time.

The country has faced challenges to its socioeconomic development, and in recent decades, it has experienced stagnation in per capita income and a rise in absolute poverty. The country has the fourth-highest rate of chronic malnutrition, and its nascent social protection system covers only six percent of the extremely poor. Safety net spending is extremely low – only 0.3 percent of Madagascar's GDP – compared to the average 1.2 percent across sub-Saharan Africa.

### SITUATION BEFORE THE CYCLONES

Coupled with the socio-economic impacts generated by the COVID-19 pandemic, the fragility of households was exacerbated. By December 2021, more than 1.6 million people in southern Madagascar were estimated to have been suffering from high levels of food insecurity, with hundreds pushed to leave their homes and migrate in search of more secure livelihoods. Environmental degradation and climate change have aggravated prolonged drought consequences, which in combination with other complex social drivers, pushed the region into a humanitarian crisis.

In Madagascar, the government leads response operations through its national disaster risk management agency (BNGRC) in close collaboration with humanitarian partners. The Shelter Cluster is led by the Ministry of Population, Social Protection and Women (MPPSPF) and co-led by one national humanitarian agency with the support of one of the two Global Shelter Cluster Leads.

### SITUATION AFTER THE CYCLONES

Six tropical weather systems hit Madagascar from January to April 2022. In January, Tropical Storm Ana brought heavy rainfall and flooding that affected approximately 131,500 people and killed 55 – primarily in the central and northern parts of the country. Subsequently, Tropical Cyclone Batsirai made landfall near Mananjary city on 5 February – affecting the regions of Atsimo Atsinanana, Vatovavy, and Fitovinany. These were the same areas that were later impacted by tropical Cyclone Emnati, which made landfall in Manakara town on 23 February. According to Meteo-France, the cyclonic impact in this area of the island had not reached this level for over 25 years.



Shelter assessments were carried out for the houses damaged by the impact of the cyclones, March and August 2022.

The two Category 4 cyclones (Batsirai and Emnati) affected 423,800 individuals, including 136 people killed. It is estimated that 11,163 homes were destroyed and 33,226 were damaged. Assessments conducted at the regional and national levels identified enormous damage to basic infrastructure, especially within rural and peri-urban communities. This led the Malagasy government to declare a “state of national disaster” already on January 28, 2022, when the two cyclones were yet to arrive.

### NATIONAL SHELTER STRATEGY

The collective impact of the 2022 storms left 21,922 people displaced across 68 emergency relocation sites. While Camp Coordination and Camp Management (CCCM) was not formally included within the national cluster's mechanisms, it was decided to host collective center management issues and discussions within Shelter Cluster coordination, as there were high-level needs for both displaced and non-displaced populations.

The Shelter Cluster strategy was adapted from the one implemented for the response to Tropical Cyclone Enawo (2004), with three key objectives:

1. To ensure the health, safety, privacy, and dignity of women and men, girls and boys affected by the Cyclone by providing emergency shelter and NFI assistance.
2. To support sustainable solutions for protracted displacement (while avoiding the creation of camps and facilitating the exit of families in collective centers).

- To promote rapid self-recovery through a community participation approach integrating WASH, health, livelihoods, and protection, with support for owner-driven recovery processes and standardization of partner approaches.

Key response activities were defined, with targeting criteria:

- **For emergency:** Standardized NFIS kits for people displaced in relocation sites and not displaced people with houses damaged or flooded, with two installment of 100,000 AR (23 USD) unconditional cash, to be coordinated through the Cash Working Group according to the Minimum Expenditures Basket.
- **For recovery for the most vulnerable non displaced people living on site of their damaged or destroyed house:** Assisted reconstruction in line with guidance from the Secretary of State in charge of New Cities and Housing (SEVNH), and support to self-reconstruction including training, distribution of difficult material to find on market and distribution of cash grant with light conditionality for products easily available.
- **To assist recovery of most vulnerable tenants:** Cash for rent support for 3 to 6 months and for an amount not exceeding the cash for shelter one, linking with other sectors to identify complementary assistance as for income generating activities.
- **For all affected communities:** Appropriation and awareness raising of construction techniques at the local level (community and authorities), and training for masons, carpenters, authorities and community members involved in support to self-reconstruction programs.

Response options were established with an agreed vulnerability and selection criteria scorecard for households targeted by NFI distribution, with a minimum score to be included. This approach aimed to address transparency in accountability to the affected population and equity in an under-resourced response.

## NATIONAL SHELTER/NFI RESPONSE

The first phase of the response focused on providing emergency shelter and household items to displaced people in emergency relocation sites and for non-displaced communities that started to recover. A total of 8,901 households received shelter assistance in July 2022. The Conditional Cash for Shelter (CCFS) response option was the most suitable to meet the affected shelter recovery needs at scale for the second phase of the response – to support communities that have started to repair or rebuild. A “Cash Strategy for the partial reconstruction of homes following the cyclones Batsirai and Emnati” was finalized and validated by the BNGRC. Implementation modalities were developed through the dedicated shelter Cluster technical working group and were validated by BNGRC and all partners involved.

To help ensure that recipients used cash for agreed-upon purposes, payments were made in several installments and monitoring activities occurred between each. As traditional homes can be built in five to seven days, a distribution in two installments supported this rapid approach. The first condition for support was the attendance of an awareness session on Building Back Safer (BBS) principles and a cash book training on registering and monitoring expenditures. The second condition was the verification of the use of the first installment to purchase materials, tools, and/or labor commitments in addition to the application of housing improvements presented during the BBS training.

The maximum amount of AR 350,000 (USD 80) for the partial reconstruction per household was decided in agreement with the BNGRC, the MPPSPF, and the shelter sector partners. This amount was calculated as approximately 25 percent of the materials needed to build a house of 3x4m plus labor. The improved dwelling hut proposed would resist cyclones according to the SEVNH guide. The amount corresponds to the minimum amount necessary to start essential elements of the house and has been calculated on the assumption that the households that will benefit from this amount, following the BBS sensitization given, will be able to support part of their reconstruction.



Shelter partners' training on Build Back Safer, March 2022.



Safer building awareness, Cash for Shelter program, August 2022.

A complete set of programming, management, and monitoring tools were developed and circulated to support partners and participants in their programming. Tools were made available in both French and Malagasy languages so that each document could allow for a common understanding between all interlocutors.

The seven BBS principles were identified through the capitalization of past projects in Madagascar, with graphic support to ensure equal awareness through all self-reconstruction (through CCFS) projects implemented for this response.

### Key messages included in the improved construction awareness session:

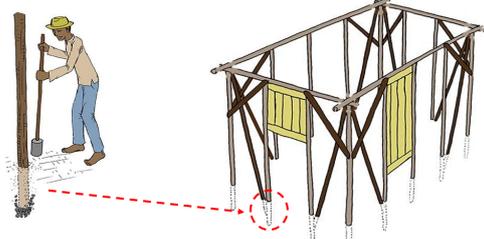
*Introduction to improvements to traditional houses in south-east Madagascar*

#	Build Back Safer Messages
1	Install the posts at a minimum depth of 75 cm and fill the hole with small gravel to a height of 10 cm
2	Fix diagonal bracing at all corners
3	Fix horizontal bracing between the bottom and top rails at the 4 corners
4	Install trusses on each side of the house
5	Attach diagonal braces between the truss spike and the ridge purlin
6	Nail purlin supports to the rafters
7	Tie a 12mm wire or rope or vines around all connections to resist the wind

#### Message clé #1

**Mandavaka 75 cm farafahakeliny fenoana vato kely hatramin'ny 10 cm eo ary toina mba ho mafy**

Installer les poteaux à une profondeur minimum de 75 cm et remplir le trou de petit gravier sur une hauteur de 10 cm

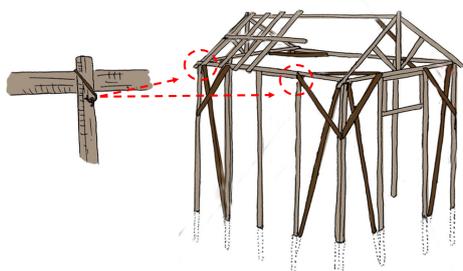


1. Installer les poteaux à une profondeur minimum de 75 cm  
2. Remplir le trou de petit gravier sur une hauteur de 10 cm sous la base du poteau  
3. Remplissez de terre et dammez la terre fortement

#### Message clé #7

**Hamafisina amin'ny tariby ny fifampitohizana mba hampihena ny fiantraikan'ny rivotra amin'ny tafo**

Attacher un fil métallique ou corde 12mm ou lianes, autour de toutes les connexions pour résister contre les vents



IEC materials for building back safer awareness used for Cash for Shelter programme.

The initial vulnerability and selection criteria scorecard for households was adapted to CCFS, understanding that it could be adapted in consultation with communities where the approach would be implemented. For community mobilization and participation, a targeting and reconstruction committee was developed with appropriate complaint mechanisms through various channels. To support BBS principle dissemination for the entire community, at least one model house was built for each project, and community carpenters were trained for households involved in CCFS projects.

It was recommended to create groups of ten to fifteen eligible households based on their location to support each other by electing a skilled treasurer and a chairperson to mitigate high levels of illiteracy within targeted communities. Through this methodology, households would supervise each other and would be more likely to support each other to ensure collective progress during reconstruction and repair works. The grouping also allowed participants to jointly track expenditures against funds received or jointly order and purchase the necessary materials to reduce transportation costs. It also aimed to encourage and nurture community solidarity mechanisms, and to ensure that the most vulnerable were helped by others.

CCFS projects were implemented by most partners, with some to repair or rent through CERF funding. Ten months after the cyclone impact, approximately 17,564 households received Cash for Shelter assistance to repair, retrofit or rebuild their homes, 1,693 households were supported through in-kind house reconstruction, and 71 households were provided with Cash-for-Rent shelter assistance.

## MAIN CHALLENGES

Access to affected communities was often difficult due to logistic constraints, as some villages were only accessible by sea or river with no road to reach the most dispersed and remote settlements. This also caused delays in delivery and implementation. The response was also under-resourced, with only 26 percent of the required funding received and only seven active humanitarian partners. Initial assessments and monitoring of needs were challenging due to resources and access issues.

The first phase of the response was delayed due to the succession of cyclones. The CCFS approach's implementation also suffered from delays in decision-making from authorities regarding an agreement to raise the initial amount from AR 100,000 to 350,000 (USD 23 to 80) and the validation of strategy and implementation modalities, which put partners funded through the CERF allocation, particularly under pressure. While this approach supported households in repairing damaged or flooded homes, the amount was not sufficient to enable total support for those who lost their homes entirely.

It was also challenging to define fair targeting criteria and scoring benchmarks, due to the high level of extreme poverty of affected communities, exacerbated by the low level of resources available to respond to their shelter needs.

## WIDER IMPACTS

The CCFS approach used to rebuild or repair traditional housing considering BBS principles improved the knowledge of the community and local workers on safer construction techniques. Participants sensitized could cascade knowledge within the community. Because some households started to repair homes before CCFS activities started, the new inputs assisted them in retrofitting efforts.

knowledge, but instead were aimed to reactivate, replicate and improve local construction practices and indigenous knowledge. The CCFS approach was also used for rental assistance in some urban settlements. Tools, experience, and learning from this part of the response should be helpful to meet urban shelter needs for other parts of the country.

The CCFS approach was culturally adapted to affected communities, as most settlements were homogenic in the typologies of homes built. These structures followed a mortise and tenon joint type of structure. None of the BBS disseminated messages contradicted local traditional knowledge, but instead were aimed to reactivate, replicate and improve local construction practices and indigenous knowledge. The CCFS approach was also used for rental assistance in some urban settlements. Tools, experience, and learning from this part of the response should be helpful to meet urban shelter needs for other parts of the country.

*"We learned many things, including how to choose wisely in terms of where to rebuild our houses and how to make them resistant to strong winds, while also using local materials. The shelter we built together confidently withstood the strong winds we heard last night!" said Tsoto. "Now, the community can see that our techniques are working. I am willing to encourage and support them with the actual rebuilding of their homes."*  
- Tsotso, a carpenter involved in a 'build back safer' shelter programme in Madagascar interviewed after the impact of TC Freddy in February 2023.



Shelter kit received by household, repacked to allow transportation for long distance walk.



The community is trained on the use of tarpaulin for the shelters.



House repairing process with Conditional Cash for Shelter approach.



Training of the community carpenters.



Building of a model house with trained carpenters, Conditional Cash for Shelter program.

## STRENGTHS, WEAKNESSES AND LESSONS LEARNED

### LESSONS LEARNED

- **Conditional Cash for Shelter programming, on top of emergency shelter assistance, was an appropriate approach to support the self-recovery of affected populations** while enhancing Building Back Safer message dissemination. The amount of cash distributed should be re-assessed each time to reflect the actual budget needed to repair or rebuild homes without hampering the implementation of BBS measures. Further advocacy to authorities would be necessary to increase the amount, with an additional 25 percent as the baseline for future responses to allow reconstruction at scale.
- **Cash for shelter programming might have an adverse impact on the environment**, as the timber used to repair or rebuild homes was often purchased in areas close to the project's locations from landowners who were not registered as official suppliers. This was notably due to transportation costs that were unbearable for targeted communities too distanced from markets. Additional supply chain support for timber should be explored for the next response.
- **Literacy levels and the absence of participant documentation** such as identity cards, birth certificates, or land certificates in rural areas created challenges in participant capacity to receive cash installments. An analysis of alternative means of identification should be explored, if possible, to fast-track access to this type of cash assistance.

### RECOMMENDATIONS MOVING FORWARD

- **The coordination of the response benefited from enhanced participation of authorities** at the national and regional level, with strong engagement of humanitarian partners for standardization of response modalities. The capitalization of the CCFS experience, tools and methodology during this response would allow for a faster response in future post-cyclone and other relevant contexts.



Model house built at the centre of main settlement to enhance safe shelter awareness at community level. It was used for training of volunteers before assisting eligible households.



### FURTHER READING ON SHELTER PROJECTS

**On Madagascar:** [A.18 / MADAGASCAR 2012 TROPICAL STORM](#);

**On tropical cyclones/hurricanes:** [A.8 / BAHAMAS 2019–2020](#); [A.21 / PHILIPPINES 2016–2018](#); [A.5 / DOMINICAN REP. 2012](#)

**On capacity building:** [A.19 / NEPAL 2017–2018](#); [A.11 / DOMINICA 2017–2018](#); [A.21 / MALAWI 2015–2016](#)