

CASE STUDY

TIMOR LESTE 2021 / THE DILI FLOODS

KEYWORDS: Community engagement, Coordination and partnerships, Infrastructure, Preparedness

CRISIS	The Dili Floods
PEOPLE AFFECTED	25,709 HHs affected*
HOMES DAMAGED/ DESTROYED	4,546 homes**
PROJECT LOCATION	Dili, Timor-Leste
PEOPLE SUPPORTED BY THE PROJECT	7,154 individuals supported through community infrastructure projects
	1,826 individuals supported with emergency items (Food and Non-Food items)
	103,000 HHs reached through the safer shelter awareness campaign
PROJECT OUTPUTS	10 communities were facilitated to develop and manage 16 unique settlement/ infrastructure projects based on a participatory budgeting process
	103,000 HHs were reached with locally designed, locally illustrated safer home construction IEC messages
	National Shelter manual developed and locally illustrated in coordination with an expert consortium of shelter INGOs, NGOs, and Government
PROJECT COST	USD 113,070 for the overall project

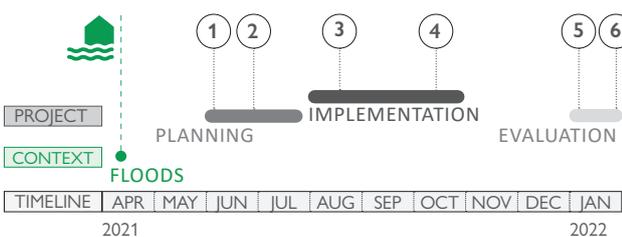


PROJECT SUMMARY

Responding to the Dili floods of 2021, this project worked to localize the humanitarian response by empowering communities to enact their own shelter and settlements plans and paired this with an innovative collaboration between global, national and local levels to develop truly localized shelter IEC materials. The community developed community-enacted projects through participatory budgeting which led to a set of unique settlement projects, bespoke to each participating village which focused around the repair and construction of various DRR related infrastructure works. Local engineers and illustrators developed culturally appropriate IEC materials, and through collaboration with a long-standing community magazine publisher distributed those materials and messaging through its extensive network to reach over 100,000 households including messaging for children.

*UN Resident Coordinator's Office Situation Report No. 7, April 2021

**Timor-Leste Civil Protection



- Apr 2021:** Flash floods and landslides affected 13 municipalities in Timor-Leste, especially the capital Dili, and surrounding low-lying areas.
- 1 Jun 2021:** Gender and Shelter assessments to capture the community's perspective related to their homes and their community development.
- 2 Jun-Jul 2021:** Community consultations and meetings conducted at 10 sub-villages (aldeias) to identify shelter priorities.
- 3 Aug-Oct 2021:** Community shelter activities which included cleaning and repairs of drainage and culverts, installation of water disposable units, repair of water canals.
- 4 Oct 2021:** Distribution of emergency items to more than 283 HHs.
- 5 Jan 2022:** A community-led evaluation process based on the aspects that best suited the project context, timeframe, feasibility and budget.
- 6 Jan 2022:** Post Distribution monitoring conducted which focused on the emergency items distributions and safer shelter awareness campaign.



Women groups of Persons with Disabilities attended FGDs as part of the project evaluation process, January 2022.

CONTEXT

Timor-Leste is a small country with a population of approximately 1.3 million (as of 2020). It is particularly mountainous, with central mountains rising to 3,000m and many rural communities located in hard to reach places. Local people in these communities most commonly reside in self-constructed single story timber frame houses, sometimes on stilts, with other materials such as bamboo, thatch, and mud used for the secondary structure based on what is locally available. The country is particularly exposed to natural hazards such as cyclones, earthquakes, tsunamis, and heavy rainfall, which – in combination with the substandard local vernacular construction practices, limited and inadequate infrastructure, and social welfare – enhances vulnerability.

SITUATION BEFORE THE CRISIS

Prior to this crisis in March/April 2021, Dili (the capital city) had not fully recovered from flooding in 2020, the impact of which took lives, damaged homes, and paralyzed infrastructure.

In general, much of the informal housing in Timor-Leste exhibits inherent structural vulnerabilities, such as weak connections between framing elements, poorly arranged structural frames lacking cross-bracing elements, and low-lying buildings lacking a raised plinth to enhance resilience to flood waters. Additionally, informal construction is usually located on sites exposed to risks such as flooding, high winds, and heavy rainfall-induced soil erosion – a recurring hazard and common cause of emergency shelter needs. This meant that many of the poorest households in the country who faced the impacts of this crisis were pre exposed and vulnerable to multiple significant risks with little knowledge of safe and/or sustainable building techniques to mitigate the impact.

SITUATION AFTER THE CRISIS

From 29 March to 4 April 2021, heavy rains across Timor-Leste caused flash floods and landslides – the worst flooding in 50 years. A total of eight municipalities were affected, the capital Dili and its surrounding low lying areas being the worst affected. While most of those displaced by floods were able to return to the site of their homes within weeks, many others had to settle in partially damaged structures or with neighbors where individuals' homes had been fully destroyed. On 8 April 2021, the Government of Timor-Leste declared a state of calamity in Dili for 30 days and requested international assistance for the flood response. In this context, a large population of affected households were repairing or reconstructing their homes on their own (referred to as self-recovery) at a scale beyond the scope of humanitarian actors to fully reach traditional material shelter support.

NATIONAL RESPONSE

The Government of Timor-Leste requested urgent support after the floods, which was answered in part by donors, national and international humanitarian actors, and civil society organizations. Specifically, the government asked for support in the dissemination of health messages and the distribution of emergency and shelter non-food items. Strict COVID-19 lockdowns in the Dili municipality were temporarily suspended because of the ongoing flood response.

Later in the crisis, the government issued a decree declaring its intent to coordinate a national cash program with UN agencies, requesting NGO support in complementing the program with government prescribed material distributions. This created constraints to INGO shelter programming that sought to address needs beyond emergency distributions.



Torrential rains caused the worst flooding in recent years in Timor-Leste, April 2021.

PROJECT DESIGN/STRATEGY

Based on rapid needs assessments conducted in June 2021, initial emergency distributions of shelter non-food items (kitchen supplies and hygiene kits) and food items were carried out by the organization to respond to acute household shelter needs of the most vulnerable.

The shelter strategy was developed alongside emergency assistance with a focus on supporting the longer term efforts of communities toward shelter self-recovery. Following this approach, the program sought to better understand households' efforts to self-recovery before designing shelter inputs to best complement these recovery pathways. Initially, the project strategy aimed to support households in self recovery through a mix of cash and in-kind material support for reconstruction, to maximize beneficiary choice and agency in the application of humanitarian resources. However, the government decree and changing context prompted the organization to evolve this strategy.

Additionally, it was identified that commonly utilized practices in vernacular construction were not addressing vulnerabilities during reconstruction and repair, which could have led to exposure and risk in future hazard events. Examples included the poor positioning of new constructions near riverbanks and the lack of internally reinforcing cross-bracing elements in the timber frames. For these reasons, the program retained its emphasis on shelter self-recovery support but pivoted its implementation strategy away from household-level shelter provision to addressing settlement-level infrastructure needs and the broader knowledge management needs of shelter reconstruction.

By adapting project programming to the country's rapidly changing context and the results of a consultative gendered shelter assessment (detailed in the next section), the implementing organization developed innovative and community-led recovery projects and played a key role in the development of a national Information, Education and Communication (IEC) campaign around safer home construction.

ASSESSMENT

GENDERED SHELTER ASSESSMENT

From the early phases of the project, the implementing organization wanted to capture nuanced community data related to homes and communities by developing a qualitative assessment tool that included gendered and disaggregated reflection, focus group discussions, and key informant interviews.

The organization was committed to the idea that gendered perspectives like those of women and girls can often be lost in more generalized assessment processes. Because of this, special efforts were made to engage different groups separately on their terms (as opposed to engagement through mixed community forums).

This engaged groups such as women, men, girls, boys, the elderly, and Persons with Disabilities. The gendered forums aimed to amplify varying community voices and shaped the project through ongoing consultation and engagement once activities commenced.

Through the inclusion of gendered perspectives, women, girls, and other marginalized groups were given a platform for participation from the start of the project. For example, this catalyzed a conversation between the men and women in each community around role assignments for community projects. As a result, women in the community deliberately assigned themselves key roles in many of the community projects – including some of the more traditionally male roles such as drainage clearance and construction.

Many of the discussions that began in the gendered shelter assessment went on to inform project selection and development. For example, discussions on ongoing recovery challenges around drainage canals and flooding debris directly resulted in several communities electing to develop drainage clearance projects. Projects like these were not pre-designed by the organization, but rather emerged out of discussions with the communities themselves.

One of the key learnings from the gendered shelter assessment was that, for participatory assessments to be meaningful, they must tie into and directly influence activity planning. The themes and ideas brought up during the participatory assessment remained strong influences for the programs that followed them.



Assessments of the damaged households was a qualitative approach through KIIs and FGDs by engaging groups of women, men, girls, boys, elderly and Persons with Disabilities., June 2021.



Women from the community engaged in debris cleaning process.

IMPLEMENTATION

COMMUNITY-LED RECOVERY PROJECTS

To address settlement-level needs and empower community-led self-recovery efforts, the organization assisted each affected community through a participatory process including risk assessment and project identification. This led each aldea (village) in the development of its own set of INGO-funded settlement level activities, resulting in a diverse set of community-managed projects such as drainage canal repair and/or reconstruction, refuse management, water system repair, retaining wall construction and community building construction.

Communities started this process by reflecting on the impacts of the crisis and how settlement and household-level exposure to risk had exacerbated the crisis. The communities were then supported in the brainstorming and formulation of community-level project ideas to address flood risks with the support of engineers to cost the proposals. Through participatory budgeting, communities worked within allocated funding constraints to short-list the projects they felt were most relevant to them. The organization then supported implementation by managing the procurement of in-kind construction materials and some small cash transfers to communities to support the local procurement of food and locally available items where possible. The original intent was to fund these projects through community-managed cash tranches. However, the short time frame over the COVID-19 period and limited experience at the country office in conditional cash

transfer mechanisms led to a compromise with in-kind material procurement.

This approach empowered each community to develop their program based on the needs they perceived them. The process was received positively by participants in the community-led evaluation. While this process did not result in traditional household-level shelter construction, the interventions determined by each community were seen as more relevant, impactful, and complementing existing government programs at the household-level to support self-recovery.

SAFER SHELTER AWARENESS CAMPAIGN

The implementing organization also took on a key role at the national level to promote safer shelter awareness messaging using IEC materials including a magazine campaign, a manual, and poster signage. Technical messages were developed by global shelter advisors, in coordination with local engineers, the national government, and the Technical Working Group of INGOs, addressing vernacular construction practices designed to provide accessible and affordable guidance on rural home construction. To prioritize the localization of shelter messages, the implementing organization utilized a 20-year relationship built with the publisher of a community magazine to illustrate and publish shelter IEC material in a culturally appropriate and accessible style.

Once key messages were tested and agreed upon, the organization worked with experienced illustrators from the community magazine to translate technical content into accessible and culturally appropriate visual guidance materials. These included materials bespoke to the magazine and its audiences, including specific messaging for children. The magazine itself was used as a platform to distribute these materials and reached a wide audience of more than 100,000 households.

Additionally, the organization worked with other Shelter NGOs and INGOs, the National Government, and the IEC Technical Working Group to develop a national shelter manual, “Hari’l Uma ne’be Ho Seguru husi Disastre no Asesivel”. Following the IEC Compendium and protocol, the agencies worked together assigning and conducting responsibilities between themselves for different steps of the process. The implementing organization of this case study developed detailed IEC for audiences/stakeholders, while a peer organization worked on developing the roll out strategy, confirming the IEC objective and the monitoring, revision, and evaluation framework.

COMMUNITY ENGAGEMENT

Efforts were made at every stage of program development and implementation to maximize community participation and engagement – especially regarding women and girls – with the goal of fostering community ownership of the project. This approach supported shelter self-recovery by recognizing, enhancing, and complementing the agency of affected people in their recovery efforts.

STRENGTHS, WEAKNESSES AND LESSONS LEARNED

STRENGTHS

- ✓ **The project's donor allowed the project to pivot towards community-identified gaps** in settlement-level recovery activities and construction knowledge for more resilient rural reconstruction.
- ✓ **The gendered shelter assessment** was consciously designed to give women and girls a voice and role in recovery and reconstruction.
- ✓ **Participatory budgeting and project development exercises** worked well, allowing communities to take meaningful decisions and lead in programming.
- ✓ **A collaboration with local engineers and illustrators** enabled the development of localized and culturally appropriate IEC materials.
- ✓ The project's partnership with a local magazine allowed the organization to tap into a wide distribution network and augment the reach of technical messaging.

WEAKNESSES

- × **Due to contextual constraints**, community-led projects relied on the provision of in-kind materials rather than cash transfers which would have given the community groups more agency.
- × **Larger budget allocations for community-led recovery projects** could have led to more sustainable DRR interventions, such as more significant flood protections for housing, river diversions, and forest planting.
- × **Additional post-distribution monitoring and in-depth evaluations of the safer shelter awareness campaign** could have contributed to lessons learned by measuring its impact on behavioral change in building practices, thus informing future iterations of this approach.
- × While the community-led recovery projects were successful in attesting that communities can responsibly develop, plan and manage their projects – the approach could benefit from **additional funding to increase project scale**.
- × **Additional efforts to document and capture the project's impact on rural housing construction** and/or reconstruction against the baseline could have strengthened outcome evidence.

RECOMMENDATIONS MOVING FORWARD

- While the safer shelter awareness campaign focused on IEC and technical knowledge management products, more could have been done to connect this activity to community and household-level reconstruction efforts. For example, the inclusion of technical support through a mobile community shelter team, tasked to support participants in the reconstruction of their homes, may have helped amplify and better apply messages at the household level.
- Additional field visits from technical staff and community-level training events during reconstruction could have also enhanced understanding of IEC material and improved the final construction of homes. The COVID-19 pandemic largely prohibited the implementation of more ambitious field-level activities. In response, more resilient implementation strategies should be developed to achieve outcomes in the face of unforeseen constraints like those experienced during this project.

LESSONS LEARNED

- Shelter program design should not forget settlement needs when identifying household needs.
- Communities are capable of developing and managing funds and activities if the project is structured toward this approach.
- Highly participatory approaches can be deployed during short time frames. Emergency timeframes should not limit humanitarian actors to only utilizing activities with a short-term impact.
- The creation of child-friendly messaging by local editors and illustrators shows that new pathways can be found for technical knowledge disbursement.
- Meaningful participation with communities – especially women and girls – can alter the course of a program toward more appropriate and impactful humanitarian outcomes.



FURTHER READING ON SHELTER PROJECTS

- On community engagement:** [A.14 / PHILIPPINES 2016–2020](#); [A.27 / TURKEY 2017–2020](#); [A.10 / UGANDA 2017–2018 / CONFLICT](#)
- On infrastructure:** [A.23 / SYRIAN ARAB REPUBLIC 2019–2020](#); [A.16 / MYANMAR 2012](#); [A.3 / COLOMBIA 2010–2011](#)