

CASE STUDY

VIETNAM 2020-2021 / TROPICAL STORMS

CONTEXT / SETTLEMENT

SHELTER TYPE

SUPPORT METHODS

CRISIS

Four tropical storms
(Linfa, Nangka, Saudel and Molave)

PEOPLE AFFECTED

1.5 Million people affected*

PEOPLE
DISPLACED

392,000 people displaced*

PEOPLE WITH
SHELTER NEEDS

154,000 individuals*

PROJECT
LOCATION

Trieu Phong and Cam Lo District, (Quang Tri Province)
Nghia Hanh District (Quang Ngai Province)**

PEOPLE
SUPPORTED BY
THE PROJECT

1,787 individuals / 561 HHs with Shelter support
9,122 individuals / 2,465 HHs with NFI support

PROJECT
OUTPUTS

2,465 unconditional cash grants for essential household items.
561 cash for shelter conditional grants
1,864 individuals supported with technical assistance, safe shelter and building-back-safer awareness.
In addition: Community-led Guidelines developed and National Review Workshop conducted.

SHELTER
SIZE

48 m² / household

SHELTER
DENSITY

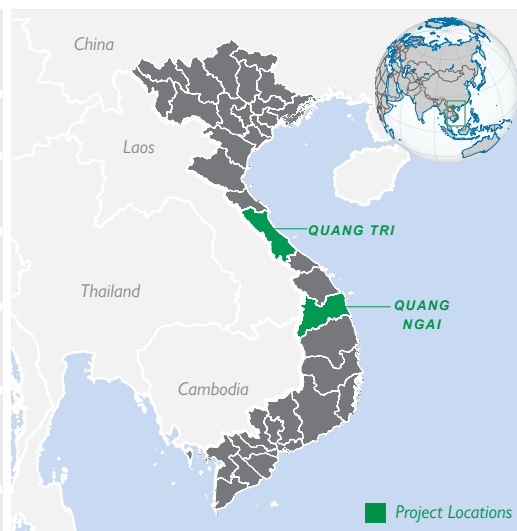
12 m² / person

DIRECT COST

USD 433 for houses damaged less than 30%
USD 865 for houses damaged 30% - 50%
USD 1,300 for houses damaged 50% - 70%

PROJECT COST

USD 1,357 per household on average
(USD 652 for less than 30% damage; USD 1,304 for 30-50% damage; USD 1,957 for 50-70% damage)

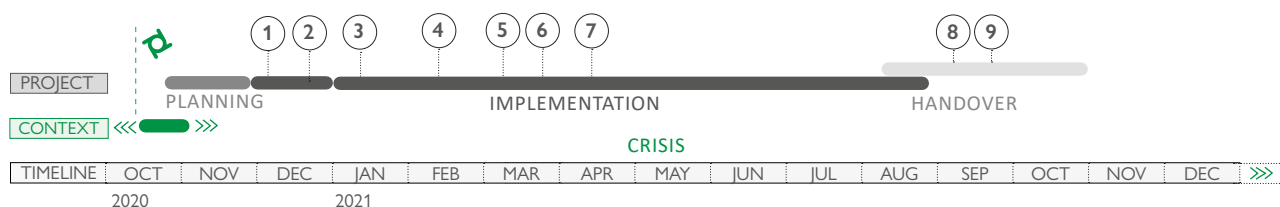


PROJECT SUMMARY

A two-phased, cash-based response supported storm-affected households in Quang Tri and Quang Ngai to address immediate priorities and carry out safe, resilient home repairs. Multipurpose cash covered urgent needs, while conditional cash for shelter, released in two tranches against Bills of Quantities, enabled quality-assured repairs supervised by engineers and technicians trained in Build Back Safer practices. The project was adapted to the COVID-19 context and coupled assistance with guidelines development and capacity-strengthening, and helped formalize national modalities for humanitarian cash through engagement with government and financial service providers.

* Vietnam Floods Response plan

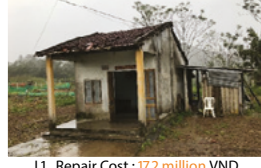
** Due to the administrative reform in Quang Ngai Province in July 2025, many districts and communes were merged into different administrative units and therefore some names are no longer applicable.



Oct 2020: Tropical Storms

- Dec 2020:** Rapid market assessment & protection risk analysis.
- Dec 2020:** Beneficiary Targeting and Selection for MPCA and shelter support.
- Jan 2021:** MPCA cash distribution via FSP & on-site monitoring.
- Feb 2021:** Post distribution monitoring.

- Mar 2021:** Training and mobilization of local technicians and communities.
- Mar - Aug 2021:** Household inspection, Implementation of Repairs, Monitoring and Verification.
- Apr - Aug 2021:** Conditional cash distribution via FSP, On-site monitoring and Post Distribution monitoring.
- Sep - Oct 2021:** Development of technical materials.
- Sep 2021:** Learning and sharing workshop.

	Partial (< 30%) - 1	Heavy(30-50%) - 2	Severe(50-70%) - 3	Destroyed (> 70%) - 4
 Permanent	 P1 Repair Cost : N/A	 P2 Repair Cost : N/A	 P3 Repair Cost : N/A	 Not yet recorded P4 Estimated Reconstruction Cost : N/A
 Semi Permanent	 S1 Repair Cost : 15.4 million VND	 S2 Repair Cost : 19.7 million VND	 S3 Repair Cost : 27.5 million VND	 Not yet recorded S4 Estimated Reconstruction Cost : N/A
 Less Permanent	 L1 Repair Cost : 17.2 million VND	 L2 Repair Cost : 28.8 million VND	 L3 Repair Cost : 33.2 million VND	 L4 Estimated Reconstruction Cost : N/A
 Temporary	 T1 Repair Cost : 15.2 million VND	 T2 Repair Cost : 19.3 million VND	 T3 Estimated Reconstruction Cost : N/A	 T4 Estimated Reconstruction Cost : N/A

Overview of housing categories, damage levels and cost estimates. The project supported three categories of damage using conditional cash grants.

BACKGROUND

Vietnam's geography exposes its population to frequent hydro-meteorological hazards and climate extremes. The country ranks among the world's most recurrently disaster-affected, with substantial storms, floods and landslides causing often loss of life and sustained economic impacts. In 2020 alone, disasters left 357 people dead or missing and led to economic losses of nearly VND 40,000 billion (about USD 2 billion). Over the past three decades, annual disaster-related losses have averaged 1-1.5% of GDP and approximately 300 fatalities or missing persons per year. Central provinces face seasonal storms and floods with growing intensity and unpredictability.

SITUATION BEFORE THE STORMS

Before the 2020 storms, the target provinces were already contending with high poverty rates and significant exposure to hydro-meteorological hazards, especially during the monsoon season. The provinces were heavily reliant on agriculture, and access to clean water was limited for large portions of the population. Local vulnerabilities were compounded by issues such as deforestation and weakened dyke systems, while limited community preparedness further reduced coping capacity. Households often lacked the resources to strengthen their homes against repeated seasonal shocks.

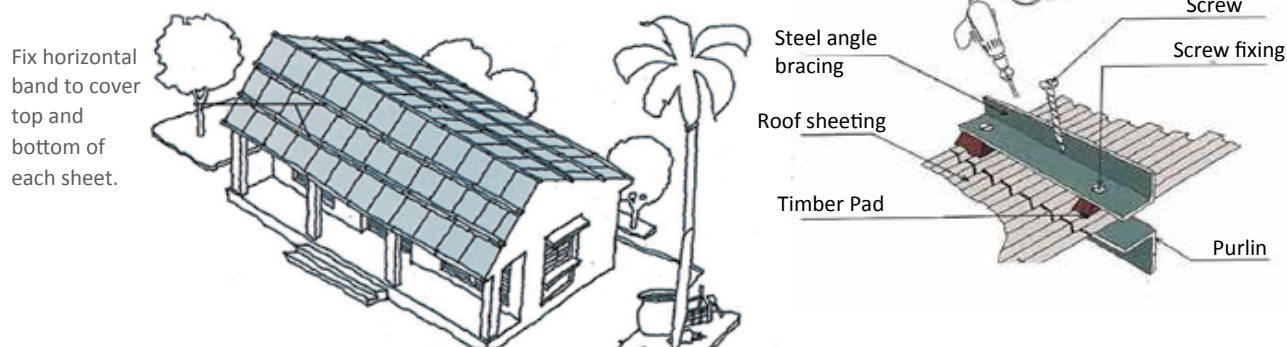
SITUATION AFTER THE STORMS

In October 2020, four tropical systems brought widespread flooding, landslides, storm surges and strong winds to central Vietnam. Authorities reported 214 people dead or missing. An estimated 7.7 million people were affected by flooding from multiple storms; around 1.5 million were directly impacted by the storms across nine provinces, and roughly 380,000 houses were completely flooded, damaged or destroyed. The severity and scale of the impacts, combined with the cumulative effect of back-to-back events, underscored the need for rapid, flexible assistance that could bridge immediate needs and early recovery for households returning to damaged dwellings.

NATIONAL SHELTER RESPONSE

The national response emphasized meeting acute needs among the most vulnerable (including women and girls, older persons, people with disabilities and children), while sustaining safe housing and preparedness for future hazards. The approach unfolded in two phases: first, emergency measures (evacuations, in-kind support and priority shelter repairs); second, early recovery interventions (facilities, services, trainings, cash assistance, and further repairs). These efforts were implemented under COVID-19 constraints, which required adherence to public health measures and adaptive modalities for fieldwork and coordination.

L1. Tie down roof cover (sheet roofing)



Labour in days

1

2

3

4

5+

Skill level

Low

High

Materials needed

Low

High



Typical house of 5.5 m x 7.5 m requires

Approx. 36 m length of steel angles

Costs (VND)

0-1m

1m – 3m

3m –15m

15m – 30m

>30m

Build Back Safer messaging was created to support technical assistance efforts and included detailed sketches of practical solutions with different cost and complexity.

PROJECT STRATEGY

The project's strategy emerged from a joint rapid assessment that fed into the national Flood Response Plan. Consultations with households, assessments of evacuation centers and focus groups highlighted immediate needs for food, safe water and sanitation, dignity kits, housing repairs, and restored household assets. The project proposed a nine-month program supporting 2,465 households in Quang Tri and Quang Ngai, designed around two separate cash modalities: One-off, multipurpose cash addressed urgent priorities; and a separate conditional cash-for-shelter component, released in two tranches and targeting a smaller caseload, enabled the most affected households to undertake safe, quality repairs. The cash-based model aligned assistance with local markets availability, while the conditional structure safeguarded construction quality.

The project also embedded capacity building and quality assurance along the cash-for-shelter component. Partners were trained in emergency preparedness, safeguarding and program quality standards, and the project reinforced these competencies around financial management, procurement and technical supervision.

By coupling household-led repairs with technical oversight and Build Back Safer (BBS) messaging, the approach balanced flexibility and technical guidance, giving families ownership and choice while targeting safer outcomes.

Establishing cash partnerships and SOPs with the financial service provider required intensive coordination; preparedness for such arrangements would have reduced lead times.

PROJECT IMPLEMENTATION

The project drew on local expertise, including a team of more than 20 staff and a network of partner organizations. Due to travel restrictions during the pandemic, most of the implementation was conducted by local implementing partners.

For the cash-for-shelter component, two full-time engineers developed the BoQs for each household before any disbursement. A financial service provider released the first tranche against the agreed scope; the second tranche followed only after on-site verification confirmed completion to standard. While field technicians documented results with photographs and geo-tagged locations, the project engineers conducted regular inspections and reviewed information sent from the field before authorizing second-tranche payments. In parallel, additional project staff used quality-control checklists to conduct spot checks.

During cash distributions, the target population was informed of COVID-19 precautionary methods recommended by the Ministry of Health. Additionally, information was disseminated through posters, leaflets, radio systems, and community public information boards.

The Monitoring, Evaluation, Accountability and Learning (MEAL) team surveyed households before, during and after repairs to assess satisfaction with both process and outcomes. The feedback and response mechanism remained open for communities to raise concerns, including fraud-related issues.

This layered supervision (including field engineering, documentation protocols, MEAL surveys and community feedback), helped sustain construction quality and supported equitable and transparent use of resources.

TARGETING

The selection of the two provinces reflected the scale of damage and disruption to livelihoods and water and sanitation infrastructure. Within project areas, the targeting process prioritized households facing the most acute shelter needs and constrained coping capacity. The national social protection database was used as a starting point to select project participants. Based on this, the implementing partner, local government authorities and target communities agreed to consider “pregnant women, children under 5 years-old within the household, and low-income female-headed households” as additional prioritization criteria.

COMMUNITY ENGAGEMENT

To embed participation and skills transfer, the project repaired five houses with varying damage levels in strategic locations and used them as live training hubs. These structures became focal points for community-level learning: local construction workers and community leaders trained together on storm-resilient techniques, reinforcing practical understanding of BBS and ensuring that decision-making centered on households preferences and cultural norms. The approach promoted local ownership and strengthened bonds within and between communities as they advanced towards safer rebuilding.

COORDINATION

The project team worked alongside provincial and district institutions, sharing program scope and results, and highlighting ongoing shelter and basic needs to inform follow-up support. The Project Manager liaised directly with government counterparts to advocate adoption of BBS techniques. At inter-agency level, the organization engaged through the Disaster Management Working Group, the national clusters task force and an NGO network, maintaining communications with UN entities via the disaster response cluster system. Regular information-sharing on plans, progress and gaps helped avoid duplication, and enabled peer learning on good practices.



Roof escapes were created to allow quick exit during heavy floods.

DISASTER RISK REDUCTION

The project supported government-led efforts through the national Community-Based Disaster Risk Management Program 553, with a vision to 2030. The DRR strand focused on building the capacity of local authorities and communities to identify and prioritize both short- and long-term risk reduction measures, and to integrate DRR into socio-economic development planning. By linking resilient construction messaging to formal DRR planning, the project reinforced the adoption of practical solutions, such as mezzanines, roof escapes, and raised floor levels, which aimed to reduce harm in future floods and storms.

MAIN CHALLENGES

COVID-19 restrictions impeded travel and routine field monitoring, shifting much of the day-to-day implementation to local partners under remote supervision. Partners had to adapt to online coordination platforms and virtual trainings, a transition that required time and support but later became a useful complement to in-person engagement.

In parallel, harmonizing cash distribution with a national financial service provider presented a learning curve, as it was the first time the implementing partner used such a modality at that scale. Building agreements and standard operating procedures with financial service providers was therefore a programmatic priority to facilitate future cash responses.



Specific safety measures, such as mezzanines, were incorporated in the project.

CROSSCUTTING ISSUES

The crisis heightened protection risks for women and men in different ways. Rapid assessments were conducted using a gender lens at the outset to identify intra-household dynamics, GBV risks and barriers to participation specific to each gender. The Women's Union – which represents and defends the rights and interests of women in targeted areas – played a key role in targeting and oversight, by participating in project boards and monitoring shelter repairs, thereby providing a trusted channel for women to share feedback and influence decisions. All data collection was disaggregated by sex. This combination of representation, safe feedback channels and gender-sensitive criteria helped tailor assistance to households experiencing intersecting vulnerabilities.

EXIT/HANDOVER

The project oriented beneficiaries and community leaders to resilient shelter guidelines and trained local workers in resilient construction techniques, to sustain BBS practices beyond the programs life. A national learning workshop, co-hosted with the Disaster and Dike Management Authority (VDDMA) and partners, convened approximately 125 representatives from 48 organizations

to review effectiveness, relevance and lessons from the 2020 response, and to agree practical recommendations for national, sub-national and humanitarian actors over the following 12 months. This process also helped consolidate partnerships among DRR platforms, government counterparts and humanitarian agencies.

OUTCOMES AND WIDER IMPACTS

Firstly, the project contributed to standardizing safer house repair and preparedness through the creation of Community-led Housing Preparedness, Recovery and Reconstruction guidelines. These materials, embedded in Program 553's national training, provided clear procedures for pre- and post-disaster phases, a framework for damage assessment, and guidance on integrating resilient construction features into DRR plans. Secondly, the project engaged government and financial service providers in formalizing humanitarian cash delivery. A multi-party memorandum of understanding was signed to create favorable conditions for cash transfers, including preferential service fees and an SOP for humanitarian cash. Together, these outcomes strengthened the enabling environment for rapid, scalable cash and safer shelter repair in future emergencies.

STRENGTHS, WEAKNESSES AND LESSONS LEARNED

STRENGTHS

- ✓ **Effective cash distribution via a national financial service provider.** The cash delivery process was adapted to the context, using community facilities as secure, convenient distribution points and providing clear communication throughout. Beneficiary feedback indicated full satisfaction with the transparency and suitability of the transfer process.
- ✓ **Gender-sensitive beneficiary identification and registration.** Beyond use of the social protection database, the process explicitly considered specific vulnerabilities in targeting, which had not been systematically prioritized in the database before.
- ✓ **Multi-stakeholder engagement and transparent selection.** Collaboration among local authorities, community representatives and implementing partners yielded a credible beneficiary list, minimized overlaps and ensured timely support to those most in need.
- ✓ **Standardization and capacity building.** The development of Community-led guidelines, coupled with training for local masons and technicians, strengthened the consistency of safer repair practice at community level and supported replication.

WEAKNESSES

- ✗ **Limited pre-crisis market and risk data.** The absence of pre-existing market and risk assessments constrained early program design and required additional resources during start-up to fill information gaps and validate assumptions.
- ✗ **Limited in-house experience producing BoQs at scale.** Regional technical support had to be mobilized to develop and adapt Bills of Quantities to the variety of local house types and repair scopes, adding steps to the set-up process.
- ✗ **First-time adoption of the cash modality took long,** as the organization had to establish partnerships and SOPs with the financial service provider.



The project was primarily cash-based, which allowed contextual adaptation.

LESSONS LEARNED

- **Use and complement national systems.** Leveraging the governments social protection database as a starting point for targeting, and deliberately adjusting it to include specific vulnerabilities, improved fairness and relevance of beneficiary selection.
- **Build skills before repairs.** Early training for local partners, masons, contractors, suppliers and beneficiaries in resilient repair and construction techniques enhanced construction quality and embedded BBS practices in communities.
- **Standardize guidance for replication.** Clear procedures and practical guidance, such as damage assessment frameworks, data collection steps, and resilient features, supported integration of safer construction into community DRR plans and national training curricula.
- **Formalize cash pathways.** Pre-agreed SOPs and MoUs with government and financial service providers enabled faster and more efficient cash delivery, reducing transaction delays and facilitating large-scale transfers during the response.
- **Maintain flexible coordination modalities.** The accelerated shift to virtual coordination during COVID-19 ultimately complemented field engagement and can remain a useful tool for rapid information-sharing and partner support.



FURTHER READING ON SHELTER PROJECTS

On Vietnam: [SP 2010](#) / [A.31 2009](#) / [Typhoons Ketsana and Mirinae](#)

On diverse response approaches following typhoons: [SP 15-16](#) / [A.8-A.13 PHILIPPINES 2013-2017](#) / [Typhoon Haiyan](#)



The project was implemented during the COVID-19 pandemic, which shifted more responsibility towards local partners who were managed remotely.



Raised foundations were built to reduce future flooding risks.

RECOMMENDATIONS MOVING FORWARD

- **Plan pre-crisis market and risk assessments with coordination platforms.** Working with Disaster Management Working Group members to complete market analyses, risk assessments and price monitoring in advance would optimize preparedness and enable faster, better-calibrated support when disasters strike.
- **Further integrate gender considerations throughout the project cycle.** Encourage both women and men to participate in household expenditure decisions for shelter repairs, and invite both to meetings where design, implementation and documentation are discussed and signed, to strengthen inclusivity and shared accountability.
- **Institutionalize and expand pre-arranged cash delivery frameworks,** by maintaining standing agreements with financial service providers at both national and sub-national levels, ensuring readiness for rapid scale-up in future emergencies.
- **Continue strengthening local technical networks.** Broaden the pool of trained local technicians and masons familiar with the BBS checklist and documentation protocols so that quality assurance remains robust even when access is limited.
- **Institutionalize learning events.** Periodically convene multi-stakeholder workshops to review outcomes and refine guidance, reinforcing national ownership of resilient shelter practices and cash response modalities.