Empowering Communities Through Resilient Housing

Submitted By: TECHO



Organization Profile

Organization Name: TECHO

Organization Type: Civil society

Website: https://techo.org/

Practice Details

Country(ies): Mexico, Guatemala, Honduras, El Salvador, Costa Rica, Panama, Venezuela, Colombia, Ecuador, Peru, Bolivia, Chile, Brazil, Paraguay, Argentina, Uruguay, Dominican Republic, Haiti

City(ies): 62 cities, including all the capital cities of the countries mentioned above, except for Port-au-Prince

Start Year: 1997 **Ongoing:** Yes **End Year:** N/A

Main Adequate Housing Components:



Housing Thematic Areas:

- Housing & Informality
- Housing Rights & Social Inclusion
- Housing & Climate Mitigation
- Housing & Climate Adaptation

Relevant SDGs:



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Problem & Context

In Latin America and the Caribbean, over 100 million people live in informal settlements, often in precarious, overcrowded, and climate-vulnerable housing. TECHO's "Resilient Housing" project emerged to address the chronic lack of access to safe, adequate, and affordable housing for families in poverty, particularly in high-risk zones like hillsides or wetlands. Existing housing policies often overlook informal settlements, limiting access to public programs, financing, or technical assistance. The absence of inclusive, incremental, and climate-adaptive housing policies further exacerbates the cycle of vulnerability and exclusion. TECHO's initiative responds to this gap by co-developing low-carbon, participatory, and scalable housing solutions that strengthen community resilience.

Solution Developed

TECHO's Resilient Housing project addresses the urgent need for safe, affordable, and climate-adaptive housing in informal settlements across Latin America and the Caribbean. Targeting low-income families living in high-risk areas—such as hillsides, wetlands, or flood-prone zones—the project delivers housing solutions co-designed and co-built with residents and volunteers. The main objectives are: (1) to improve housing quality and safety in vulnerable territories, (2) to foster climate resilience through low-carbon, locally sourced materials, (3) to enable progressive improvements aligned with families' capacities, and (4) to strengthen community leadership through participatory processes. The project's innovation lies in its modular, adaptable design that allows for rapid construction and future expansion; its use of certified wood to reduce environmental impact; and its institutional model that integrates grassroots knowledge with technical expertise. This approach not only delivers physical housing, but builds long-term social resilience and inclusion where public housing policies often fail to reach.

Implementation

Since 1997, TECHO has built over 150,000 emergency, progressive and permanent houses. While not originally designed for climate resilience, many of these homes unintentionally helped families withstand extreme weather—particularly flooding. Recognizing this potential, TECHO began integrating climate-adaptive improvements in the early 2000s. By 2023, through our involvement in the Roof Over Our Heads (ROOH) campaign, we committed to making all new housing solutions resilient to climate change.

The Resilient Housing project follows a participatory implementation model. First, community members engage in risk mapping and co-design processes to adapt the housing model to their local conditions. TECHO technical teams lead construction planning and training. Prefabricated modular homes—built with certified wood and elevated foundations—are assembled in just 2–3 days by volunteers and families.

Key actors include local communities, TECHO staff and volunteers, local governments (land access, logistics), private companies (funding and materials), and international donors. Partnerships with academia and climate experts guide technical improvements.

Implementation takes 2–4 months: diagnostics and design (4–6 weeks), prefabrication (1–2 weeks), and rapid on-site construction (2–3 days). Funding comes from CSR programs, international cooperation, and in-kind contributions. The model enhances climate resilience while empowering communities excluded from formal housing systems.

Enablers & Obstacles

Key enablers included strong community engagement, TECHO's 25+ years of experience in informal settlements, and the active participation of youth volunteers. Political will at the local level and flexible funding from private and international partners also supported implementation. Access to technical expertise and data from risk mapping allowed housing models to be adapted to diverse environmental conditions.

Obstacles included limited land tenure, regulatory barriers, and logistical challenges in remote or hazard-prone areas. In response, TECHO worked with local governments to secure permits and with communities to identify viable plots. Supply chain delays were mitigated by sourcing materials locally where possible. Resistance to change was addressed through trust-building, participatory design, and demonstrating the effectiveness of resilient solutions through pilot projects.

Results & Impact

TECHO's housing program has provided over 150,000 low-cost, rapidly deployable homes since 1997, directly benefiting low-income families in informal settlements. Research by Ann Mitchell and the Universidad Católica (2015) found that TECHO homes reduced illness, increased children's study time, and improved families' perceived well-being and dignity. In Paraguay, a 2024 evaluation showed that TECHO's housing significantly increased household resilience to flooding, reduced overcrowding, and enhanced mental health.

With the Resilient Housing Project, a pilot of 6 houses was made during 2024, and in 2025 we aim to build more than 60 fully resilient emergency houses. These homes feature elevated structures, improved isolation, and modular systems, improving protection against climate risks. Families report increased safety, ability to stay during storms, and confidence to invest in their surroundings. For 2027 we intend to build only resilient models.

Broader impacts include strengthened community networks through participatory construction, local job generation via material sourcing and logistics, and environmental gains through low-carbon materials and reduced exposure to hazards. Over time, this approach supports

community stabilization, reduces displacement after disasters, and lays a foundation for incremental upgrading and long-term development.

Replication & Scale Up

TECHO started its housing program in Chile in 1997, creating a simple, rapid-deployment model to address urgent shelter needs. This design was replicated across 19 Latin American countries. Key enablers of replication were a scalable, adaptable modular design; a strong youth volunteer network; deep community participation; and flexible partnerships with local governments and private sectors. These factors ensured the model fit diverse contexts and fostered ownership and sustainability.

Scaling up TECHO's housing practice relies on strengthening partnerships with governments, private sector, and donors to increase funding and policy support. Expanding the volunteer base and community training enhances local capacity for construction and maintenance. Adapting the modular design to diverse contexts allows replication in new regions. Incorporating digital tools for risk mapping and monitoring improves efficiency. Lastly, advocating for inclusive housing policies ensures long-term sustainability and broader access for vulnerable populations.

Policy Uptake

This housing practice has informed or been partially integrated into policy discussions, strategies, or pilot-level policy instruments.

TECHO's resilient housing practice has influenced policy debates by demonstrating community-led, climate-adaptive housing for informal settlements. Its models have been presented in forums and workshops, shaping pilot programs for affordable, resilient homes. In Argentina, TECHO's approach contributed to elements of Law 27.453 on housing and urban tenure, promoting inclusive and risk-informed solutions. Collaborations with governments in Chile, Mexico, Argentina and others also helped integrate TECHO's housing solutions to their action after disasters or to vulnerable families.

Replicated across 19 Latin American countries since 1997; contributed to Argentina's Law 27.453 on housing and urban tenure.

Collaborations with governments in Chile, Mexico, and Argentina integrated resilient housing into disaster response programs.

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Lessons & Takeaways

In hindsight, TECHO recognizes the need to continuously improve housing solutions to enhance climate resilience, incorporating new materials and design adaptations. We also aim to strengthen post-construction support to help families transition from emergency shelters to permanent homes. Greater emphasis on long-term community engagement and tailored technical assistance will ensure sustainable improvements and resilience beyond initial housing delivery.