



**Terwilliger Center for
Innovation in Shelter**



| A roof above our heads Pakkiriammal Periasamy's story

Client story compiled by
the Terwilliger Center for Innovation in
Shelter and LaRaksha



A shelter's strong and safe roof go a long way in making communities living in coastal areas – prone to frequent disasters – more resilient. Design, material quality and strength are just some aspects of roofing that can be instrumental towards the health and well-being of individuals and communities. A strong and secure roof makes a mammoth difference in the lives of vulnerable communities, giving them safety, stability and a better hope for the future.

Fostering resilient coastal communities



Roofing loan product validation session

India has been witnessing increasingly intense and frequent climatic events and weather-induced natural disasters in recent times. The country's fragile coastal dwellings are particularly vulnerable. Devastating cyclones such as Fani, Gaja and Hudhud, as well as severe floods have caused massive devastation to the coastal states of Odisha, Andhra Pradesh, Tamil Nadu and Kerala, respectively. These regions are frequently battered by tropical storms and cyclones' high winds and waves, storm surges, heavy rainfall and floods, resulting in damage to coastal ecosystems and infrastructure, with particular damage to buildings, houses (especially roofs), utility transmission lines, and trees. The aftermath of such weather events often sees dozens of thousands of homes destroyed or damaged due to high winds and fallen trees. Moreover, as a result of population growth and urbanisation towards the coast, the vulnerability of such areas has greatly increased. Most low-income houses in coastal hamlets have thatched roofs that get easily destroyed with rains and strong winds and require frequent repairs and replacement.

To address the issue of unsafe and substandard housing, innovative microfinance institutions have an important role to play in an economy like India's, where more than 80 percent of people work in the

Habitat for Humanity

Driven by the vision that everyone needs a decent place to live, Habitat for Humanity began in 1976 as a grassroots effort and has since grown to become a leading global non-profit, working in more than 70 countries. In the Asia-Pacific region since 1983, Habitat for Humanity has supported millions of people to build or improve a place they can call home. Through financial support, volunteering, or adding a voice to support affordable housing, everyone can help families achieve the strength, stability, and self-reliance they need to build better lives for themselves. To learn more, donate or volunteer, visit habitat.org/asiapacific.



Roofing loan product design session

informal sector, and to whom the services of local banks are often not accessible. In most cases, these low-income individuals do not have the documents required to open an account or for availing a loan, such as identification cards, proof of income or land documents for collateral. Sometimes, they simply cannot read and write well enough to fill out the paperwork.

Improving access to financial services, so people can better plan and invest in affordable, climate-resilient roofing solutions can yield multiple benefits to coastal low-income communities. It can help avoid losses during extreme weather events, unlock development potential, and produce economic, social and environmental benefits.



Training for masons

Habitat's Terwilliger Center for Innovation in Shelter, in partnership with LaRaksha identified the need for strong roofing solutions, combined with dedicated roofing loan products, through a study conducted in Cuddalore and Nagapattinam districts of Tamil Nadu, India. Study findings revealed that:

- Roofing is a cause of concern for the entire sample of the population living along the coast. Roofs in the study area seem to be destroyed on an annual basis due to severe rainfall, frequent cyclones and strong winds.
- The range of damage to the roofs can vary from very severe to moderate, ranging from the entire roof being destroyed during cyclones, or parts of it being damaged due to rainfall. Major issues such as leaky, weak and dilapidated roofs are common in the analyzed areas.
- There is a general need for mid-to-long-term roofing solutions in coastal areas, and a great willingness from the community to avail of loan products designed to specifically meet such needs. Presently, no other MFIs are offering roofing-specific loans.

Habitat's Terwilliger Center for Innovation in Shelter

Through the Terwilliger Center for Innovation in Shelter, Habitat for Humanity explores strategies for improving low-income households' access to affordable financing, quality labour and materials – all core elements, and often constraints, in a household's ability to access adequate shelter. To address these market constraints, the Terwilliger Center focuses on making building materials and housing finance solutions accessible, available and affordable, improving construction labour markets and practices, and creating a thriving ecosystem for innovation and affordable housing entrepreneurs. To learn more, visit habitat.org/tcis.

Based on these findings, The Terwilliger Center assisted LaRaksha in designing and pilot testing a unique roofing loan product, able to cater to both mid-and-long-term roofing requirements of the community. LaRaksha also offered training to local masons and builders to improve their skillset to ensure proper application of different type of roofs, in collaboration with roofing manufacturers and suppliers in the area.

Salt pan community in Vedaranyam

Salt extraction is one of the primary economic activities in the Vedaranyam region of Nagapattinam district in Tamil Nadu, where salt is produced across 10,400 acres, in addition to activities such as fishing, saltwater prawn culture, and agriculture. In the region, salt manufacturing remains as a manual, physically draining and labour-intensive activity, in comparison to agriculture, where the use of machines like tractors, harvesting and threshing machines are widespread. Adverse working conditions, low wages and financial insecurity are some of the main challenges in the lives of the salt pan workers.



Pakkiriyammal in front of her thatched roof house

Pakkiriyammal Periasamy hails from Vedaranyam, where she and her family have been working in the salt pan industry for decades. Pakkiriyammal and her family live in a small house with thatched roof and mud walls. With their informal daily wage income, the family could not save money to repair their house for the past 10 years. Moreover, they spent INR 25,000 (approximately US\$ 334) annually to replace the straw on the roof. Thus, the need for safe and durable

LaRaksha

LaRaksha was conceptualised by A Ramesh Kumar and Usha Ramesh Kumar as an organization dedicated to the empowerment of rural and semi-urban low-income families through financial assistance for education, vocational training, micro-enterprise, household infrastructure, purified water and health care. Ramesh Kumar is a pioneer in rural microfinance in India. He has worked for over three decades in the banking industry and has a decade of experience in working with organizations that focus on rural development and housing microfinance. He finds himself drawn to the cause of financing the rural semi-urban communities, that are otherwise often ignored by the financial policies of banks and larger financial institutions. LaRaksha is currently operational in Tamil Nadu, West Bengal and Manipur, and is looking at expanding to Karnataka, Odisha, Telangana, Maharashtra, Tripura, Assam and Mizoram in the coming financial year.

LaRaksha's vision and mission is to provide opportunities to rural households that lack the access to financial support, to become self-

house with a strong roof became a significant necessity for Pakkiriammal and her family.

For over five years, they went from pillar to post trying to secure funds for building a permanent house but were not able to get a loan due to their informal income sources and documentation requirements. However, in December 2019, Pakkiriammal and her family were visited by LaRaksha during their village campaign to introduce their new roofing loan product. The team distributed flyers and pamphlets in the community, in addition to hosting sessions to educate the community on roofing solutions and their dedicated roofing loan product.

sufficient and sustainable enough to lift themselves out of poverty. They work to design and deliver innovative financial solutions to address the unmet needs of families, particularly for weaker sections of the society in rural and semi-urban areas.



Engineers doing a technical assessment of Pakkiriammal's house


Pakkiriammal quickly expressed her interest in taking a loan to change their thatched roof into a more durable one. In return, LaRaksha assisted her in the application and documentation process. As a first step, an assessment of the family home and roofing was done by LaRaksha's in-house engineer. The team at LaRaksha worked closely with Pakkiriammal's

family to get their full involvement in the application process: from sharing the findings of the house assessment, to ensuring that all documentation for the loan was properly submitted. After the loan appraisal, LaRaksha approved an INR 85,500 (US\$ 1,140) loan for a period of 36 months. The entire loan processing and sanction was completed in four weeks' time by LaRaksha.

Following the loan's approval, the team also worked in tandem to ensure the best roofing solutions would be used for the house. Options were given to the family to understand the various roofing products available in the market, and what would work best for their existing house structure and load bearing capacity. A comprehensive, safe, and economical design concept was developed so that the family could build a strong roof to resist storms, heat, noise, and rain, and local masons were also trained to ensure quality materials and techniques were used for the roof replacement. In this process, Pakkiriammal's family was empowered to select the best solutions for their needs: they opted for mud tiles for the roof and also took the lead in hiring a local mason for the job. With the first instalment of the loan, Pakkiriammal and her husband were able to purchase the tiles and accessories from the local market



Pakkiriammal and her husband in front of their newly built roof house



with the help of the mason. Once the roof was installed, in seven days' time, Laraksha released the second instalment of the loan for final payments.

An affordable roofing loan, combined with strong, durable, and disaster-resilient materials have brought peace of mind to Pakkiriamma, ensured her family's safety from the region's frequent cyclones, and also helped them to avoid recurring expenses on roof replacements.

"We feel proud to live in a tiled house now," says Pakkiriamma. The family feels happy and secure living in a pucca tiled roof house. A permanent tiled roof over their heads has had a big impact on their lives, as they achieved their dream of a safe and secure home. Following Pakkiriamma's steps, others in the neighbourhood also want to replace their thatched roofs with tiles to strengthen their homes. The partnership between the Terwilliger Center and LaRaksha is going a long way in building not only roofs, but also safer, resilient and more integrated communities.

Way forward

A safe environment with dignity, physical and mental health, and overall quality of life, begins with a house. For thousands of families living in coastal areas, the knowledge that they have a home to go back to, that will safeguard them from the weather, boosts their confidence and makes them content. For people like Pakkiriamma, a small push in the form of a dedicated roofing loan had a long-lasting impact creating a stronger home for her family and protecting them from climatic adversity. They are happier and look forward, at the end of a long and tiring day, to go home and rest in a safer place they can call home. Notwithstanding, there are still many families like Pakkiriamma's in India, who struggle to access financing to build or increment their homes.

LaRaksha has already assisted 50 households in Tamil Nadu's disaster-prone coastal districts of Nagapattinam and Cuddalore in building new roofs on a pilot basis. The MFI is also gearing up to expand their outreach to more low-income households in other coastal districts in Tamil Nadu and neighbouring States. Habitat's Terwilliger Center is playing a central role in forging partnerships between innovative roofing solution providers and LaRaksha, so that their clients will have stronger, cost-effective and disaster resilient roofs. As demonstrated in this case study, partnerships between roofing manufacturers and MFIs will continue to be a mutually beneficial and sustainable business model.

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