

Ganjam Aashray Yojana

Post Cyclone Shelter Restoration Programme



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Humanitarian and early recovery support to vulnerable populations affected by Cyclone Phailin and subsequent floods

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In the eye of the storm

On 12th October, 2013, cyclonic gusts at 210 km an hour made landfall near Gopalpur in Ganjam district of Odisha. The category 5 cyclone ripped everything into pieces. Seawater pushed in with 12 meter high waves and heavy rain followed. Phailin was mammoth on every single scale. Its terrifying size, rapid development and violent wind speeds made it one of the largest cyclones to ever make landfall in India. The widespread evacuation drive and emergency preparedness saved human lives, but could not save their houses from collapsing.

Mud houses with thatched roofs suffered the worst brunt; rendering thousands of people homeless overnight. Subsequent flooding played havoc on crops and livestock too. These losses unnerved the normalcy of local life; leaving a deep scar on affected communities in coastal districts, especially in Ganjam.



The scale of impact:

8,000,000 people affected

8,117 villages in 176 blocks

49 Urban Local Bodies of 18 districts

419,000 houses destroyed

668,000 hectares of crops destroyed

The consortium approach

Learning from past interventions, the consortium approach works through a larger group of organisations to ensure that all basic needs are fulfilled. Rather than working in isolation in different areas, the consortium approach ensures that the communities in one region get access to many different kinds of basic services.

The Ganjam intervention worked on the same model. The broader intervention addressed not just shelters, but water, sanitation and hygiene (WASH) and livelihood aspects as well. Organisations worked through two consortiums; one headed by ActionAid and the other by Save the Children. The Christian Aid-SEEDS partnership fell under the ActionAid consortium; with SEEDS handling shelter through an owner-driven approach and mason training.



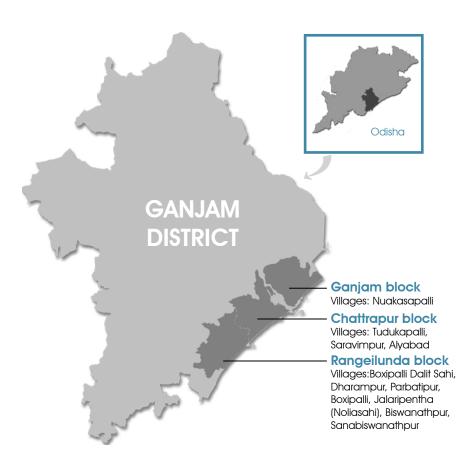
Ganjam Aashray Yojana

Being in the eye of the cyclone, Ganjam was a district that needed massive reconstruction assistance. Since the affected communities here were also highly marginalised; resilience capacities were limited and greater support was required to re-establish a sense of normalcy.

The other Christian Aid partner - VICALP - has been working in this area for over a decade. The sense of accountability and responsibility to this community was another driving factor in identifying the area.

SEEDS' Ganjam Aashray Yojana facilitated the reconstruction of disaster resilient shelters in 11 villages across 4 blocks of Ganjam district. It focussed on fully supported reconstruction of 50 houses and partially supported reconstruction of 250 houses.

The approach was one of incorporating resilience into early recovery. In essence, it addressed the question of how you look at intermediate shelter not just as a temporary solution; but as the foundation towards permanent housing.



A community-led process: Village Development Committees

Community-led reconstruction processes are at the heart of the initiative. A bottom-up approach is adopted at every level, starting from beneficiary selection to project implementation and monitoring processes. It is the community as a whole that takes the onus to guide the project and resolve every single hitch constructively.

Thus, Village Development Committees (VDCs) were set up in each of the eleven project villages. On an average, each committee has ten members. These include women, elected representatives and other community members. These committees bridge the gap between the working team, larger community and other actors and policies/schemes of development.

Each VDC consists of two teams - Store Committee and Monitoring Committee. The Store Committee is responsible for unloading and storing shelter materials. They then distribute those materials as per the SMART Card tracking system that shows key steps and milestones. The Monitoring Committee oversees project implementation, keeps a tab on the activities of the Store Committee and also supervises people working under the cash-for-work scheme.

This community-led project implementation and monitoring system has achieved a sense of ownership and has also brought out the traditional knowledge residing within the community.





"We feel proud that we have been entrusted with the huge responsibility of safeguarding and using the shelter materials. Through doing this work, the VDCs have strengthened the bond of unity, cooperation and brotherhood."

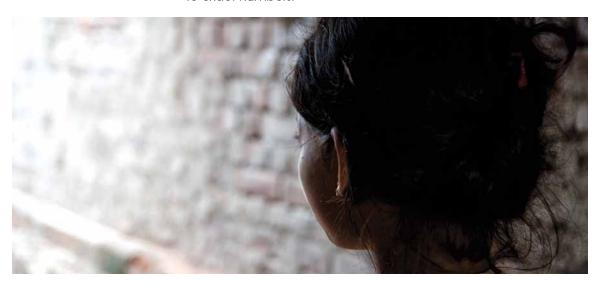
VDC members in Alyabad and Saravimpur



Reaching the most vulnerable

The most vulnerable families within the most affected villages were identified through a participatory approach. Final decisions were made with support from the community.

Once the families were selected, technical surveys and assessments were carried out by the technical team to zero down to exact numbers.



"This new house will mean that me and my sisters will no longer be at the mercy of others for shelter."

Alka Tripathy*, Ganjam

Circumstances have forced 13-year old Alka Tripathy to take on responsibilities way beyond her age. "How can I go to school?" she asks. "I need to look after my sisters as they are soo small." Faced first with her mother's death and then abandoned by her father, Alka now looks after her three younger sisters aged four to eleven.

Though the land on which the house is being constructed shares common walls with her maternal uncles; her family is explicit about their reluctance to take on the responsibility of the children. In fact, they did all they could to disturb the construction. It is the VDC who fought on behalf of Alka and her sisters.

Due to her age, Alka cannot avail the cash-for-work component. So, the team is trying to support this family through available alternatives. A fully-supported shelter is just one of them.

*Names changed



"We are very happy that we are going to get our own house. It is difficult to live in others' places."

Sudarshan and Narsu Nayak, Saravimpur, Ganjam

Sudarshan and Narsu Nayak have five daughters. All of them are married, but no one takes care of the parents at present. After losing their hut in the cyclone, the old couple took shelter inside a neighbouring incomplete pucca construction with a thatched roof. They lived among the dumped bricks, wasted mortar and concrete. In place of a door there is only one opening, covered temporarily with some coconut leaves. The loosely thatched roof somewhat substitutes the lack of windows as it allowed air circulation; but unfortunately made living impossible when it rains or at midday. Neither Sudarshan with his frail physique nor his wife, Narsu, is capable of hard labour. So the village authority has handed them the responsibility of looking after the land that is endowed to the God of the village. Considering the size of the land, this is no simple job. However, in exchange, this couple receives their daily meals and regular support of fellow villagers.

Selected for fully supported shelter, the old couple are excited about their new house; one which will afford them the dignity they deserve.

"I can't sit on the floor... so if possible please prepare a small brick stack inside the house on which I can rest."

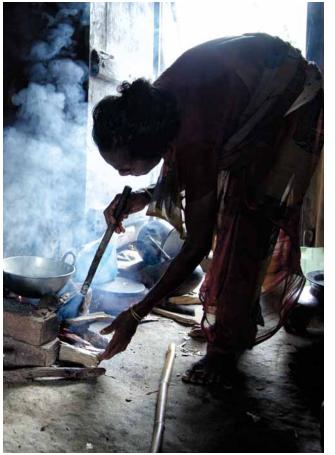
Ji Enkatamma, Jalamipentha, Ganjam

A widow for the last 25 years, Enkatamma's hardship journey didn't end there. Years ago, she suffered an injury to her left leg. The lack of resources for treatment led to permanent disability. Today, she needs to trudge her body around with the support a long bamboo stick as she cannot bend or move her left leg.

Like many others, she also lost her thatched hut in the cyclone in 2013 and due to lack of money could not rebuild it. Assisted by fellow villagers, she spent her days in the village community hall. Unable to work, her survival is dependant upon her fellow villagers; who are explicitly sympathetic to her cause.

Though Enkatamma's plot was smaller than the minimum requirement, the VDC gave their consent and support to complete her shelter as quickly as possible. It incorporates all the DRR features excepting the 4-way slope due to lack of space. As additional features, a shaded area outside the core shelter was built; extra steps from the plinth level have been added for easy movement considering her disability; and a brick stack inside the house has been provided. All of this has been accommodated within the allocated budget. This shaded area will allow cooking on her wood-burning stove outside the core shelter. This will make ventilation of smoke easier and the shelter more habitable.





Embedding technical knowledge within the community: Mason training

"I would suggest these techniques to everybody and help them to construct such houses in future."

Rambabu, Mason-in-training

The technical knowledge of disaster-resilient construction techniques plays a key role in resilience. Hands-on masonry and carpentry training workshops were conducted with a hundred villagers. Masonry tool boxes were distributed to participants. The skill development will also help boost employability as the major livelihoods here are seasonal.







"I am very happy for this training opportunity. It will surely be helpful in the future."

K. Parameswar Rao, Mason-in-training

Before this carpentry training, K. Parameswar Rao earned a living from basic carpentry work. From the hands-on training, he extensively learned about layout preparation, usage of Plain Cement Cement (PCC) and the structural construction of 4-way slope. He has already completed several shelters and now supervises a team of apprentices who are undergoing the training. It is a motivating experience to watch him work; as despite complete disability in one of his leas, he clambers onto the roof to fix CGI sheets.



"These houses are just fantastic and the SEEDS training was also excellent. I am confident that it will offer more work opportunities."

Babula Nayak, Mason-in-training

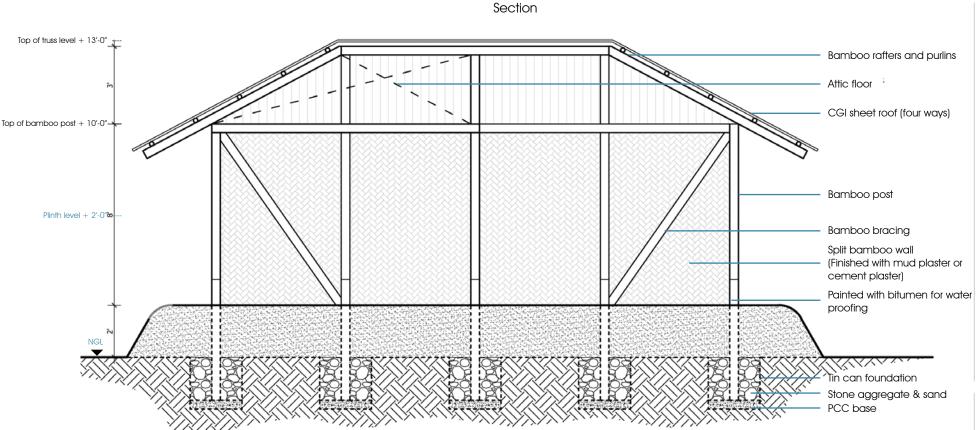
Babula Nayak was a small-time bicycle mechanic and when he heard about the masonry training, he gladly joined the workshop. Today he can single-handedly build shelters with complete DRR features. His bicycle repairing skill was not generating sufficient income for his family's livelihood. Masonry training offered him another earning opportunity. He is confident that this training will foster more work even after the end of the project.

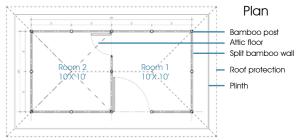
Integrating local design, material and technologies

When people returned to their houses after the storm, they found that their roofs had flown off, their walls had fallen and what remained of their house was waterlogged. Diagnosing a problem of poor construction techniques, the team conducted a workshop with the villages where disaster risk reduction techniques were discussed. As a showcase, an aspirational prototype was constructed to demonstrate these new techniques. These techniques can also be applied to existing houses and material.

However, keeping in mind the financial burden of reconstruction for these families, the design worked with locally available resources such as bamboo, mud, cow dung, stones and red soil.





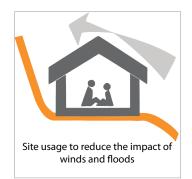


Keeping room for flexibility

In order to promote the best possible use of locally available and salvaged materials, certain material choices were left flexible. Timber posts were sometimes used. In the same way, wattle and daub techniques (split bamboo mat for walling and mud plastering) took on local varients according to the area.

Reducing disaster risks

Ten steps for α cyclone resistant house





Simple building shape as this reduces wind pressure



Raised plinth to keep structure stable and protect against flood





Roof angle of 30° to 45° to prevent covering being lifted off by wind suction



Diagonal bracing in the roof and walls to stop the structure from losing its shape and breaking



Four-way slope which works aerodynamically for rain or wind



Secure joining of roof using J-hooks

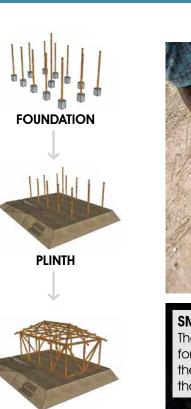


Window and door leaves that can shut properly

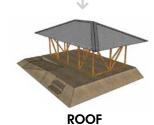


Trees and bushes planted as wind breaks and to reduce water flow of floods

Construction process













SMART card

The SMART card process makes it simple and convenient for families to track the progress of their houses. It shows the key steps, milestones and non-negotiable DRR features that have to be integrated.



Partial reconstruction and repairs

Nature of damages

Partial reconstruction was extended to 250 families where the roof was damaged on either a single or both sides; or where walls were damaged.

The process adopted for renovation included:

- Clearing of salvage materials from the damaged houses
- Excavation for fixing of pillars
- Requisition of required number of materials by the concerned families for house renovation
- Erection of the frame
- Tying of wooden/ bamboo frames with GI wire/iron nails
- Fixing of CGI sheet with J Hooks and bitumen washers
- Fixing of ridge sheet with nuts and bolts
- Raising of walls with wooden salvage materials/branches etc.
- Mud plastering

"I don't like asking for favours, but whatever you have done for us is really good. It's better to live inside a room than living under a tree."

K. Devaki. Dharam Pur, Ganjam

K. Devaki can be mistaken with any other middle aged women we often come across in our everyday lives; but her strong determination differentiates her from the rest. When her husband left her alone with two toddlers, she nourished only one dream inside her heart: properly raising both the kids, educating them and affording them a life which she has never enjoyed. She toiled with rigorous daily labour; saved whatever she could out of her meagre wages and financed the education of both her son and daughter who are now in college.

Devaki and her kids lived in a simple bamboo-walled and thatched hut, erected over a brick and mortar plinth. This plinth was built a long time ago with the money she received under a Govt. of India sponsored rural housing scheme. The cyclonic storm left Devaki and her family homeless, like many others.

Devaki was selcted for partial support as per the criteria. However, her house today shows the neatness and strength of any fully supported shelter. This caused SEEDS no extra expenditure or cost overrun and was made possible solely by the dedication and hard work of Devaki and her kids!



Cash-for-work

Cash-for-work approaches have increased community participation and put the responsibility for reconstruction on the families themselves. It is part of the ownerdriven approach. Cash-for work schemes have helped project benefits extend beyond just the families whose houses are being reconstructed. Instead, others in the village have gotten involved; earning by becoming part of the reconstruction process. Cash-for-work has been used for actual construction, for painting, for planting around the house and for levelling of floors.





Adaptations

Aside from the flexibility afforded to local and salvaged materials, adaptations occured on two fronts. The first was the tweaking of the design to suit plot size requirements. The other was the conversion of the four-way slope into a two-way slope in plots with shared walls or extremely small spaces.

Shared walls

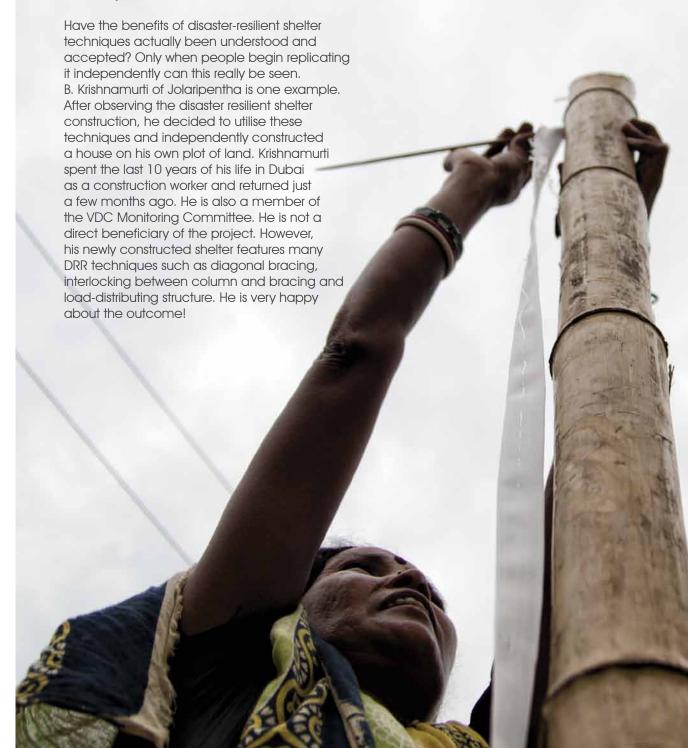
Sharing a wall between two neighboring huts is a common practice in villages in this area. It reduces the cost of constructing one wall, as it's shared by both the neighbours. It also saves space; a key factor considering the tiny plots of land to which these marginalised families have access.

During the project implementation, the team faced two such instances; one in Noliasahi and the other in Jalaripentha. Huts were connected through shared walls and construction work in any one hut would have affected the other two. So, it decided to construct the connected huts too as no other option was available to support the most needy family. While the most affected families, like J. Enkatamma, received full-support for their hut; the next door neighbour was extended partial support.



Making a mark

Indirect impacts: Influencing one family and beyond...









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