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Rebuilding Low-Heritage Villages After Disasters

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- **Reconstruction and rehabilitation of homes damaged by the 2004 and 2005 earthquakes was a prominent feature of the Earthquake and Tsunami Emergency Sector Project in Indonesia.**
- **A different approach was adopted on Nias Island for villages having high- and low-heritage values.**
- **In low-heritage villages, residents were offered the option of building conventional or low-cost "Malay" housing units.**

Background

The earthquakes of 26 December 2004 and 28 March 2005 demolished entire villages on Nias Island, Indonesia. Because the villages had different heritage values, the Earthquake and Tsunami Emergency Sector Project employed distinct approaches to reconstruction. In villages with low-heritage values, it sponsored cost-efficient, conventional low-cost "Malay" housing units. In villages with high-heritage values, the project adopted the relatively expensive reconstruction of traditional style housing units.

Challenges

The rehabilitation of remote villages suffered from fluctuating supplies and costs of building materials. The standard grant amount (equivalent to $5,000) provided under the project was insufficient to cover the cost of materials because prices rose considerably during construction. Fearing lack of funds, some beneficiaries hesitated to purchase higher priced materials. Thus, a cheaper construction modality was required than conventional contractor-built housing. The progress of reconstruction in villages of low-heritage value was therefore slow and modest at best.

Land ownership was another obstacle. The preparation of agreements took longer than expected, due to tensions between traditional *adat* leaders and modern village heads (*kepala desa*). Disagreements centered on the right-of-way for water supply, and repair work on village squares. Conflicts were eventually resolved by adopting indigenous skills and mechanisms.

Community Contracting

Instead of using the conventional contractor-built modality, community contracting was adopted to:

- enhance ownership,

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- simplify the sourcing of construction materials,
- keep costs low by hiring local craftsmen, and
- provide much desired employment opportunities to project beneficiaries.

Low-Cost Earthquake-Resistant Construction

Cultural purists might criticize the use of modern, low-cost technologies in the context of traditional villages. But the project took the view that low-cost housing with built-in safety features was an appropriate response within budgetary and other resource constraints.

Conclusion

The reconstruction of houses in low-heritage value villages in South Nias has produced affordable, earthquake-resistant structures. It has since been well accepted and replicated by other organizations supporting the rehabilitation and reconstruction of housing stock in South Nias. In the near future, villagers may choose to re-develop their homes or rebuild traditional-style units as soon as they have enough resources.

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Photographs by Esa Paaso and Florian Steinberg.

Examples of non-traditional housing.