

# Tsunami Aftermath: Development of an indigenous homegarden in Banda Aceh

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**On 26 December 2004, a major underwater earthquake to the west of the island of Sumatra, Indonesia, triggered an extensive and devastating tsunami that impacted the entire South East Asia region and reached as far as the East African coastline. The Banda Aceh region located in the north of Sumatra bore the brunt of the tsunami, which resulted in catastrophic damage along the coastline, killing thousands of people and leaving an estimated 400,000 people homeless.**

## Latifa

Latifa and her family survived the disaster. With the help of her five children and husband, Latifa planted and created what was to become a highly productive thriving homegarden on barren soil outside their government-built emergency shelter. Latifa's plot resembles a traditional Indonesian homegarden characterised by spatial plant stacking, water conservation and nutrient recycling, and has become an inspiring example of post-disaster self-help, all the more so as the homegarden was created with no external assistance. In fact her efforts have gone largely unnoticed by the relief NGOs and government agencies working in the emergency settlement, who were preoccupied with delivering basic services and distributing food aid.

The tsunami was not the first crisis Latifa and her family endured. In 2000, they were forced to move from their home village Paluh in the interior, to the coastal village Kajhu, as a result of the armed conflict in Aceh between government forces and Acehenesian rebels. Many of the interior villages were evacuated during the conflict, which contributed to the high population densities in the coastal towns and villages prior to the disaster. When the tsunami hit the coast, Kajhu was totally destroyed, and Latifa and her family lost their home and possessions and were once more relocated, this time to a government-built emergency shelter block, Neuheun Barrack, which was constructed in May 2005.

In the Neuheun Barrack settlement, 25 wooden shelter blocks were built, each block containing 12 family rooms. In all 323 families were housed in the camp with a population of approximately 1,500 people. Over time, basic infrastructure



Latifa in front of her homegarden  
Photo: A. Adam-Bradford

such as latrines, washing and cooking areas were added although the camp facilities remained quite basic, with food and water being distributed to the residents through relief aid programmes.

Latifa and her family were allocated one such room. But they were not content with living from the food distributions, and soon set to work on transforming the hard stony ground outside the door into a lush tropical homegarden. Within the first six months they were producing vegetables, and the following year the fruit trees were well established with bountiful harvests following thereafter. They used a minimum of inputs, which included collected cow manure (from a kilometre away), recycled junk (wooden stakes, plastic bottles, plastic piping), seeds collected from the wild and some obtained from the local market, a little wire fencing (purchased), and most importantly an inspiring vision to plant and create a thriving homegarden to benefit their family. Latifa's vision and technical ability came from her own passion for gardening, her self-declared hobby, but also from being raised in the interior. This would have ensured that her upbringing and livelihood were intricately linked with traditional natural resource management, hence the creation of an indigenous homegarden as opposed to a simple vegetable patch for surplus foods.

Opportunities were missed by relief agencies to assist the beneficiaries in developing small-scale primary food produc-

tion around the temporary shelter sites. If the Sphere Standards would have been applied, attention would have been given to food production and small kitchen gardens. These interventions improve the nutritional status of participants and contribute to psychological enhancement and (thus) improve the beneficiaries' general wellbeing.

Prior to the visit to Latifa's homegarden by us (as part of a team from Islamic Relief), the only other visitors had been two Japanese relief workers who had been equally impressed with Latifa's small oasis on the emergency settlement. The ingenuity of Latifa went far beyond simply planting local seeds in a freshly composted soil bed that had been made from collected manure, as her homegarden, measuring 3x5 metres, was extremely well designed. The garden incorporates different micro-habitats, including a wetland area for Taro, kept moist with the domestic washing water, a composting area for domestic organic waste, a homemade drip irrigation system, and a plant stacking column. This is made from a plastic pipe inserted into the ground with plastic water bottles fixed up its length. Each protruding bottle contains compost and a plant. Spatial stacking in the homegarden was completed with different fruit trees and sugar cane, while a degree of wind protection was provided from pumpkin leaves that were growing along the surrounding wire fence. During the homegarden survey, 30 crops were identified, which consisted of vegetables, fruits, cooking spices, medicinal plants and ornamentals. Latifa's garden was not just a practical intervention, but also a spiritual one, in the tradition of the indigenous homegarden, which, for the Acehnese, not only provides food, fibres and medicines for the family but also a physical place of beauty for reflection and spiritual thought.

**Table Homegarden survey: plant list grouped by usage**

Vegetables		
Long beans	Water spinach	Multi-sided bean
Pumpkin	Broccoli	Wing beans
Kuchai	Celery	Taro
Cassava		
Fruits		
Papaya	Pineapple	Marquisa
Juice		
Sugar cane		
Cooking spices		
Green chilly pepper	Ginger	Basil
Pandanus	Greater galingale	Tamarind
Tangerine	Red chilly	Citrus fruit
Lemongrass (citronella)		
Medicinals		
Javanese turmeric	Katu	Bunga pekan
Ornamentals		
Shoe flower (hibiscus)	Bougainville	Orchid



*Traditional Indonesian homegarden with spatial plant stacking*  
Photo: A. Adam-Bradford

Although homegardens were observed in other areas in the Neuheun Barrack settlement, among the 300 family rooms, only Latifa's had a garden planted outside it, leaving the remaining camp population still dependent on food aid nearly 24 months after the camp was constructed. Latifa's homegarden provided a wonderful and inspiring example (and demonstration site), achieved with some basic material inputs, motivation and vision. Facilitating the scaling up of such simple but highly effective food security measures should have been part of the relief strategies of aid organisations. Latifa had the ideal skills, experience and knowledge to demonstrate the benefits of homegardening to other camp residents. She was thus an ideal community-level facilitator, who should have been supported by a relief NGO. Combining the expertise and local knowledge of innovative people like Latifa and her family can bring a genuine degree of local participation and community ownership to what are otherwise outside relief interventions. Mobilising local communities in such a way is also likely to accelerate the recovery by bridging the gap between rehabilitation and development and thus building resilient communities.

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#### References

Adam-Bradford, A. (2007) Implementing Sphere Standards: Lessons Learnt from the Tsunami Response, Banda Aceh, Indonesia. Disaster Preparedness and Response Unit (DPRU), Islamic Relief Worldwide, Birmingham, UK.