

Kalae Tapae

CASE STUDIES OF COLLECTIVE HOUSING IN ASIAN CITIES SERIES • JULY 2020

In this part of the world, traditional communities along rivers and coastlines are disappearing fast - pushed out by the development and market forces which replace them with tourist resorts, commercial ports or industrial parks. This project, in which a poor riverside fishing village collectively planned and upgraded its walkways, infrastructure and public amenities, was the first of its kind in the region to show another way. The much-visited upgrading project in Kalae Tapae started a movement of fishing communities on Thailand's coastlines who are now managing the redevelopment of their own places.

- Project Kalae Tapae
- Location Narathiwat City, Narathiwat Province, Thailand
- Size 306 households
- Finished 2006
- Type On-site upgrading of a centuries-old riverside fishing community and the small public island across from the community.

CONTEXT, PROCESS AND PARTNERS

The city:

The provincial capital of Narathiwat, on the eastern coast of Thailand, is a centuries-old fishing town of about 40,000 people, with ancient mosques, a fringe of colorful "longtail" fishing boats and a hot equatorial climate. Narathiwat was once part of the Pattani Sultanate, an independent principality which included what are now Thailand's three southernmost provinces: Pattani, Yala and Narathiwat. The area has been under Thai rule since the 18th century, but mistrust between local people (who are mostly Malay-speaking Muslims) and the government (which is mostly Thai-speaking Buddhist) remains high. Efforts to win greater control over their own governance and development direction have been firmly suppressed by the Thai government, and that has fueled a long-standing conflict that erupts in violence frequently - especially in Narathiwat.

The community upgrading project described in this story happened during a particularly uneasy period in Narathiwat, when bomb blasts, sniper fire and army blockades made it necessary to hold a lot of the community meetings in distant cities and work on construction had to take advantage of lulls in the violence and go very fast.

The community:

Kalae Tapae is a large fishing community that is almost as old as the city. In the 19th Century, King Rama V built a port in Narathiwat on land already occupied by the community. The people were obliged to move to the land where they now live, sandwiched between the old town and the Bang Nara River, which winds through the city and into the sea. They were given papers which entitled them to stay on that new land permanently. They named their new settlement after the sea almond trees (*Terminalia catappa*) that grew in the area, which are called in Malay *Kalae Tapae*. Those enormous trees became a landmark for the fishermen when they returned from the sea with their catch.

Over time, new houses were built for the families of married sons and daughters, and the settlement expanded towards the river, taking up space which was then solid land, but was lost later to coastal erosion, so many of the community's tightly-packed 306 wooden houses are now built on stilts over the river. Most of the men in the community still follow their ancestral livelihood as fishermen, and the women work from home tailoring ladies' garments or making *khao krieb* - the crunchy fish crackers for which the community is famous.

There is a small island in the river just a hundred meters away from Kalae Tapae. Because the settlement is so crowded and has no open spaces at all, the people use that island for all sorts of things. The men dry their nets and repair their boats, the women dry fish in the sun, and the children swim over and play there. There was no bridge to the island, but the people sometimes rigged up a make-shift raft, which could be pulled across with a tow-rope. Some years ago, rumors began circulating that the Thai government had plans to build a pavilion on the island, to honor the king, and that the unsightly old fishing community across the water was to be evicted. No official announcements were made, but the people began to fear for their future.

The community process in Narathiwat:

There are 19 poor communities in Narathiwat, and for many years they have linked together in an active network. Many run their own welfare programs and savings and credit groups, in which members take small loans for their livelihood and household needs from funds they build and manage themselves.

In 2005, the local NGO (called *Kampung Tugwa*) that had been working with CODI's Livable Cities Program in the two other southern provinces (Pattani and Yala), expanded the program into Narathiwat, where they worked with the community network to survey poor settlements in the city and discuss issues the people faced. A year later, they were joined by a team of young architects who'd been sent by CODI to help launch the Baan Mankong program in these three troubled southern provinces and to work with communities to plan and implement some pilot housing projects.

After explaining to all the stakeholders in Narathiwat what tools the Baan Mankong program offered, the architects worked with the community network, the NGO, the mayor and local government people to set up a collaborative city-level management committee. The first task was to identify all the poor communities on the city map, and begin discussing what kind of problems the settlements had and how the Baan Mankong program could help fix them. The network identified four poor fishing communities on the river as having the most serious problems of flooding, poverty and insufficient basic services. With help from the architects, the people in those four communities began mapping their settlements and analyzing their problems and needs.

Initiating of Kalae Tapae upgrading project:

Because it was very poor and in need of upgrading, and because a possible eviction loomed, Kalae Tapae was chosen by the network to be the city's first community upgrading project. Aside from the need for some small

roof repairs, which they could handle using their own savings, the people in Kalae Tapae were happy with their wooden houses and saw no reason to build new ones. But what they really wanted was to use the Baan Mankong support to upgrade their community's walkways and infrastructure. They suspected that the rumored pavilion for the king was probably just a government idea, so they decided to proactively include in their upgrading proposal some civic improvements of their own on the little island.

In the process of developing their plans, they invited people from other parts of the old town to join in the discussion and planning, and together they hatched the idea of building a mosque and a religious school for kids on the island. This was important because the old city area was very dense and didn't have enough mosques for everyone to have room to pray. In this way, the upgrading project at Kalae Tapae became an important first demonstration of community-planned and community-built amenities for the whole city. After presenting their upgrading plans to the local government, and to Narathiwat's supportive mayor, the city agreed and the community's project planning and implementation began.

Support groups and partners in the project:

- **Community architects:** A team of three young Thai architects provided technical and design support to this project and several others that happened around the same time, in the three southern provinces. The team was led by Chawanad Luansang, with Wachara Sonjang and Supachai Ngamrojjanaworakul.
- **CODI (Community Organizations Development Institute)** is an independent public organization under the Thai Government's Ministry of Social Development and Human Security. CODI's mission is to support the strengthening of communities and their organizations - in both urban and rural areas - as key agents of change and as central actors in development which affects their lives and communities. Besides budget from the government which supports many of its ongoing programs, CODI's chief financial tool is the CODI revolving fund, which provides soft loans to community cooperatives and community networks to undertake a variety of development initiatives they plan and implement themselves.
- **Baan Mankong Program** is one of CODI's main development programs, and was launched in 2003 to address the housing problems of the country's poorest citizens. The program channels government funds, in the form of infrastructure subsidies and soft housing loans, directly to poor communities, which plan and carry out improvements to their housing, environment, basic services and tenure security and manage the budget themselves. Instead of delivering housing units to individual poor families, the Baan Mankong Program (which means "*Secure housing*" in Thai) puts Thailand's informal communities (and their networks) at the center of a people-driven and citywide process of developing long-term, comprehensive solutions to problems of land and housing in Thai cities. By November 2019, the Baan Mankong program had spread to 405 cities, in 76 out of the country's 77 provinces, where community housing cooperatives had designed and built 1,035 housing projects which provide decent, secure, permanent housing to 105,739 urban poor families.
- **The Livable Cities Program** was a three-year program (2003-2005) that was funded by CODI and the Thai Health Promotion Fund. In cities around Thailand, the program promoted a more participatory and more collaborative urban development process, by bringing together all the stakeholders and taking action to tackle citywide problems which make the city livable for everyone in the city - the poor as well as the better-off. The program took advantage of provisions in the Thai government's Ninth National Plan (which covered the period of 2002 to 2007), which emphasized a more participatory urban development processes and "livable cities for all" in the country. The Livable Cities program in the southernmost provinces (Pattani, Yala and Narathiwat) was supported by a local NGO called Kampung Tugwa.
- **Kampung Tugwa** ("*Community faith*" in the Malay language) is a local NGO, based in Pattani, which brings together a network of communities, local teachers and local religious leaders in Thailand's three southernmost provinces (Narathiwat, Yala and Pattani). Kampung Tugwa worked with the Livable Cities Program, CODI and the community architects on several community-driven housing and upgrading projects in these provinces, including this project in Kalae Tapae.

LEGAL FRAMEWORK OF THE PROJECT

Land tenure:

The 3.2 hectares of land the Kalae Tapae community occupies falls under two different tenure conditions. The older part of the settlement (with 161 houses) is on land that was granted to the community by the king in the 19th Century, and those families all have land titles. The other part (with 145 houses) is on land which, owing to erosion of the banks, is now permanently under water and officially part of the Bang Nara River. Because those 145 houses are built over the river, they fall under the jurisdiction of the Thai government's Marine Department, which has the power to allow or forbid any encroachments on Thailand's waterways (even though that department was established almost a century after the community had already occupied the land). This distinction was not known to the community people, who understood the whole site to be their land.

When discussions about the upgrading project began with the local government, the municipality brought out a map of the area in which only half of the community appeared - the rest was a blank, as though nobody lived there at all. It was only then that the people came to know that half of their community members were considered as illegal encroachers on a public waterway. So as part of the upgrading project, the community proposed to legalize the tenure of those 145 houses on the river. In the agreement they worked out, the municipality would ask for permission to take control of that Marine Department land, on behalf of the people who stay there, and those 145 families would then get permanent house registration documents, which entitle them to stay legally, and also to access municipal services and public education.

Government support:

The role played by Narathiwat's supportive mayor in the Kalae Tapae project was crucial. He was an enthusiastic supporter of the project from the beginning, visited all the communities, took an interest in the people and became a vital ally in the city government during this and later upgrading projects in the city. He also fully embraced the new possibilities of the kind of community-planned and community-driven development that the Baan Mankong Program supported. At that time, there was no precedent for this kind of arrangement, where the city negotiates on behalf of a poor community to get the land tenure from the Marine Department, and it was the mayor's persistence that made it possible.

PROJECT FINANCING

Project costs and who paid for what?

Land: There were no costs for the land, part of which people already owned and part of which people negotiated to occupy permanently, at no cost.

Houses: A few of the houses had to be altered slightly to make room for the widened walkways, and some families wanted to make some small repairs or replace leaky roofing sheets. But since there was to be no big renovation of the houses, the people decided not to take any housing loans from CODI, but to use their own savings for these small house repairs.

Infrastructure: The focus of the project was on upgrading the common infrastructure and amenities in the community and on the island, which cost 8.6 million baht (US\$ 245,714). That amount paid for:

- Footpath (2m wide x 166m): 2 million baht (US\$ 57,143)
- Waste water treatment (10 tanks): 875,000 baht (US\$ 25,000)
- Electricity: 500,000 baht (US\$ 14,285)
- Recycling bank: 125,000 baht (US\$ 3,571)
- Community center: 300,000 baht (US\$ 8,571)
- Bridge: 600,000 baht (US\$ 17,143)
- Preschool: 750,000 baht (US\$ 21,429)
- Solar cells: 500,000 baht (US\$ 14,286)
- Well: 300,000 baht (US\$ 8,571)
- Mosque: 1.25 million baht (US\$ 35,714)
- Occupation center: 250,000 baht (US\$ 7,143)
- Boat garage: 500,000 baht (US\$ 14,286)
- Park and community vegetable garden: 500,000 baht (US\$ 14,286)
- Pavilion: 150,000 baht (US\$ 4,286)

Financing:

All the project funds for the project in Kalae Tapae were managed by the community's savings group. The funds came from two sources:

- Infrastructure subsidy from CODI's Baan Mankong Program, which was calculated on the basis of a standard subsidy (at that time) of 25,000 baht per household in the project x 306 households = 7,650,000 baht (US\$ 218,571)
- A grant of 1 million baht (US\$ 28,571) from the local government, as a contribution to the cost of building the raised footpath and bridge (which were too costly to be covered by the CODI subsidy alone).

DESIGN AND CONSTRUCTION

Design process:

Doing anything in Narathiwat at that time was extremely difficult. The conflict was escalating, and as it did so, the situation in the city grew more and more dangerous, with bombs going off, soldiers being killed, young men disappearing. Gathering a group of people for a meeting of any sort was risky and could lead to misunderstandings on both sides. For that reason, the community network felt it was safer to organize their

planning workshops with the architects in other cities. Sometimes they held their meetings in Pattani, which was much safer and more calm, and sometimes in Hat Yai or Songkhla. All these southern cities are quite close to each other, just a couple of hours by bus from one to the other. These workshops in other cities offered a chance to invite community people from other city networks to join the meetings, to observe, to learn, to support each other and to start planning their own housing projects.

Because it wasn't possible for the architects to spend much time in Narathiwat - three days at the most - they had no choice but to think about how the people could do things by themselves, as much as possible, and how they could learn from other communities who were also planning their own housing projects in nearby cities. Eventually, this sharing turned into a routine of big monthly meetings, in which representatives from all three cities would come and learn about how to do mapping, and then bring back their homework at the next meeting, report about the progress of their savings, their housing projects, the problems that were coming up.

As the architect Chawanad recalled years later, "When I look back at that time, I realize that one of the important innovations was the way we worked with lots of communities together, in those big design workshops, where everyone was planning their housing projects and everyone learned from each other. This idea of making a network for learning was really important, rather than the architects or NGO people always being the ones to lead and organize everything. The poor communities in these three southern provinces had never had this kind of opportunity before: to find land themselves, to design their own community and houses and to manage the money themselves. There was a lot of excitement and the people were really active. And we felt really excited to work there with them. Some very good projects came out of that excitement, like Kalae Tapae in Narathiwat and Poo Poh in Pattani, and those pilot projects inspired other projects that followed. Those big workshops really strengthened the network of cities in the south, and strengthened people's sense of confidence in their power to bring about change in their cities."

Mapping the community: The first step in the design process was to map the Kalae Tapae community, measure all the houses and identify infrastructure problems. The community is structured in clusters of houses which face onto 21 small lanes leading out to the river, with ten or so houses on each lane. When the architects asked them how to do the mapping, the people said they would divide themselves by lanes, and each lane would choose three people to be trained to survey and measure all the houses on the lane. When the mappers brought back the measurements, the architects showed them how to cut out plans of the houses on grid paper, to put together on a master community map. With so many small teams working on it, the community mapping went very fast, and the lanes of more hesitant residents got mapped by their neighbors. Within a few days, the whole community was mapped.

Besides measuring the houses, they also identified which houses didn't have toilets, which lanes had concrete walkways that were OK (marked in blue on the map), and which walkways needed to be upgraded (marked in red) and began to work out an infrastructure improvement plan. Later, a team of skilled mappers from Kalae Tapae became mentors for many communities in the three provinces, training others to do survey and mapping, and promoting the techniques of community mapping to get people organized and to start a discussion about upgrading.

There is a long, dark history of development projects by the government being imposed on people in these three southern provinces, like a shaft out of the sky, with no warning and no consultation. As a result, the people have good reason to mistrust any intervention from outside. The same was true for this project. When the mapping of Kalae Tapae began, several lanes refused to join. So everyone decided to start with the ten active lanes who trusted in the process and were ready to go. People in the other lanes observed, joined the monthly meetings with other communities and then started to get more confidence and join the process.

Upgrading design and plans:

The upgrading plans the people in Kalae Tapae developed included four elements:

- 1. The walkways:** Upgrading and expanding the network of broken-down old wooden walkways in the community was the people's first priority. The local government joined in these discussions because they felt that adding a walkway along the outer edge of the community would make a clear boundary and stop any further encroachments into the river. Building a sturdy concrete walkway along the river would also benefit the community, giving them a much-needed place to tie up the boats and unload fish and equipment when the boats come back from sea. The community spent about a week discussing the design of the walkways (which would have electric wires and water supply and sewage pipes running underneath) and measuring how long each section would be. In a few areas where walkways had to be built or widened, some families agreed to cut off part of their houses to make room, and then made those alterations themselves, using their own savings.
- 2. The infrastructure:** Some of the houses in Kalae Tapae had pit latrines, some had toilets which discharged right into the river and some had no toilets at all. So developing a proper sanitation system for the whole

community was another high priority. In the system the people designed with the architects, all the houses would have toilets which drained into sewer pipes running under the walkways to a row of ten large 3-step waste-water treatment tanks, along the inland edge of the community, where they could easily be vacuumed out by municipal trucks. After being treated and purified, the water would then drain into the river. This was important because the local government had agreed to the upgrading project on the condition that the people would treat their waste water and sewage properly, before it went in the river.

3. The island: In a community as densely-packed as Kalae Tapae, and surrounded by the equally dense old part of Narathiwat, there was a great need for public open spaces for different kinds of community activities. That's why they decided to include the island in the project, and the community people were full of ideas. In the final plans, much of the island was left open, with big sandy spaces for sports, play, fish-drying and all kinds of community gatherings, in the shade of coconut palms and sea almond trees. The island's principal new buildings were a mosque and a children's religious school. The other new amenities included an open-air pavilion, a community center, a trash recycling bank, a place for repairing boats, an occupation center, a shellfish nursery and a community vegetable garden. Later on, the new mosque donated equipment for a children's playground, and the community planted many kalae tapae (Sea Almond) seedlings, which will some day grow as huge as the trees that shaded the original community, in the 19th century.

4. The footbridge: Everyone agreed on the need for a footbridge linking the island with the rest of the city, and they included a place for that bridge in their upgrading plans. But at the beginning, the local government was hesitant about the idea: reluctant to allow the community people to manage a public space themselves, and afraid that if it was too easily accessible, the island would be occupied by more houses. Those fears dissolved, though, when the people presented their project plans to the mayor, and when other religious leaders in the old town gave their support for making the new mosque on the island accessible to everyone. Finally, the local government not only agreed to the bridge and the rest of the plan, but they chipped in an extra 1 million baht (US\$ 28,571), to supplement the budget from CODI, which wouldn't otherwise have been enough to build all the walkways and the bridge.

Construction of the infrastructure and common facilities:

The community people and local builders did all the construction work themselves, and with very good quality. When the project was approved for Baan Mankong support, the architects worked with a local engineer to design support piers for the bridge and walkways which would be very strong but use much less concrete and materials than the clunky conventional piers. They organized a training workshop where they worked with the community people to build one section of the walkway and one section of the bridge, so they'd understand the details and be able to build the rest on their own. The mosque, community center and other public structures on the island were likewise built by the people and local builders, according to designs the people had developed in their workshops with the architects.

Project timeline:

- **October 2005:** NGO expands Livable Cities into Narathiwat, citywide survey, network forming, dialogue
- **March 2007:** Kalae Tapae chosen by network to be pilot upgrading. Mapping and planning start
- **February 2007:** Construction of walkways, bridge, infrastructure and facilities on island starts
- **December 2008:** All infrastructure and community facilities finished in Kalae Tapae

IMPACTS OF THE PROJECT

Social and political impacts:

In this part of the world, fishing villages and traditional settlements along rivers and coastlines are disappearing very fast - pushed out by the development and market forces which replace them with tourist resorts, commercial ports or industrial parks. This project, in which a poor riverside fishing village planned and constructed its own upgrading project, was the first of its kind in the region to show another way. And it had a very big impact. The project soon became famous, and many local governments from Malaysia and southern Thailand came to Narathiwat to visit Kalae Tapae (and still come today!). Some visitors have even been treated by the proud mayor to a helicopter ride, to see the project from above. There is an extensive network of mosques and religious leaders in Malaysia and southern Thailand, and they have also taken interest in the project, as a demonstration of how poor and vulnerable Muslim communities can use their social power to improve their lives, housing and environmental conditions, in partnership with the city. The project in Kalae Tapae started a new movement of communities managing the redevelopment of their own places. And the project has encouraged other fishing communities - in Narathiwat and other cities in Thailand - to upgrade their settlements in similar ways, with support from the Baan Mankong program.

Before the project in Kalae Tapae began, there were a lot of drug dealers in the area. When the community mapping started, everyone told the architects, "You can't work here! It's very dangerous! The drug mafia will

make trouble for you!" In the course of mapping the community, everyone came to know where those drug dealers were. But they didn't do anything; they just let them know everyone in community knew who they were. Little by little, as the community grew stronger and more open and began linking with the local government, those drug dealers no longer had any shadows to hide in, and they moved out. It happened naturally, without any confrontation. Both Narathiwat and Pattani have been plagued by problems of drug addiction among young people, and the local NGOs helped young people in the community find their way out of addiction. As part of the upgrading project in Kalae Tapae, the community set aside space on the island for a trash recycling bank, where the young people with drug problems could clean and sort the floating garbage they gather with nets from the river. With the money earned from selling these recyclable materials, they set up their own savings group and take pride in helping keep the river and the island clean.

The community spirit is still very strong in these old settlements in southern Thailand, and the project made it stronger. After the upgrading, the newly-energized, newly-confident people in Kalae Tapae started to widen the scope of their development planning to look after the larger neighborhood. A custom was established of monthly community clean-up events. First they clean their houses, then their lanes, and then the whole neighborhood comes together to clean their graveyard. Then they cross the bridge and clean up the whole island. After they've finished cleaning, they pray together and then have a meal together. These monthly clean-ups are a real bonding exercise - not only for the Kalae Tapae community members but for the whole neighborhood. They've also organized a project every year to put up a little dam of sand bags at the start of each rainy season, to keep the flood waters out of the community and off the island, and have also organized river clean-up events where everyone helps pull garbage and water hyacinth out of the water.

FOR MORE INFORMATION ABOUT THE PROJECT

This case study was written by Chawanad Luansang, ACHR, in July 2020.

Please follow this link to a documentary film about the project in Kalae Tapae
https://youtu.be/-l_DVP21tsA

For more information about the Kalae Tapae housing project, please contact ACHR:

Asian Coalition for Housing Rights (ACHR)

73 Soi Sonthiwattana 4, Ladprao Road Soi 110, Bangkok 10310, Thailand

Tel. +66-2-538-0919

e-mail: achr@achr.net

website: www.achr.net

PHOTOS



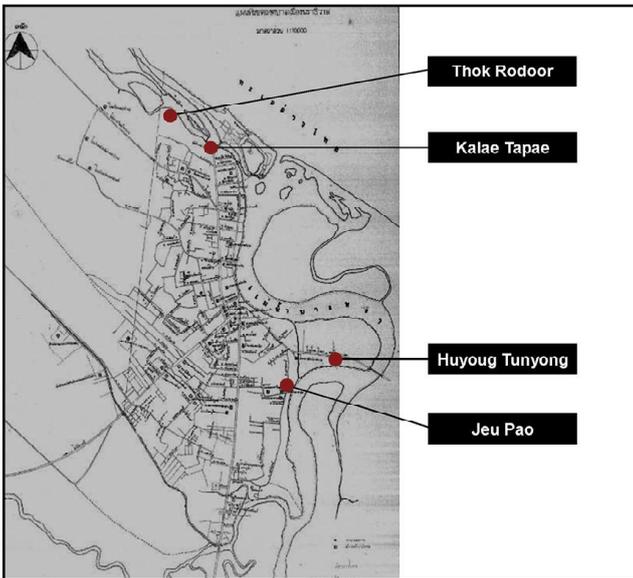
Narathiwat is one of the three southernmost provinces in Thailand that have long been troubled by conflict and mistrust of government.



Fishing remains the core of Narathiwat's economy, and most of the fishing is done from these small, colorfully-painted longtail boats.



This aerial photo of Narathiwat gives a good idea how much water is a part of the city's structure and vitality. The city is built on the edge of the sea, in the delta of the Bang Nara River, which flows through the city and into the Gulf of Siam.



These are the four most vulnerable fishing communities, identified by the community network in Narathiwat for upgrading, with Kalae Tapae chosen to be the pilot.



Looking out from the community towards the island in the river, before the upgrading project.



That's the dough for making "Khao Krieb", the fish crackers this community is famous for, drying in the sun before being sliced and fried.



A couple of photos showing the conditions in the Kalae Tapae community before the upgrading of the walkways and infrastructure.



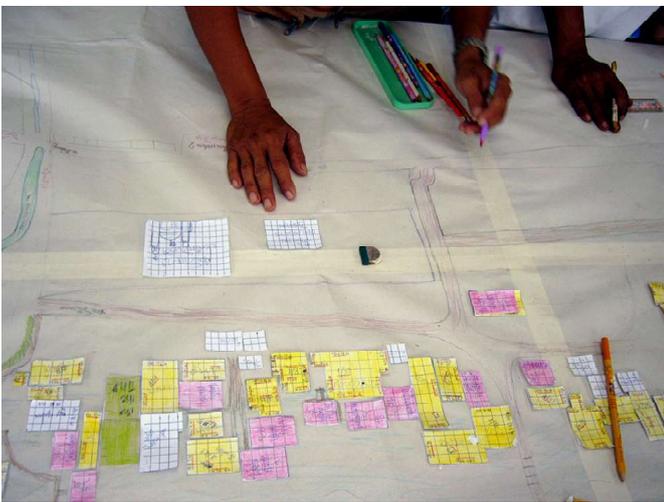
This shows the narrow road along the inland side of the community, with the crowded old town of Narathiwat on the right.



Because the conflict had made doing anything in the city dangerous, many of the design workshops were held in nearby cities.



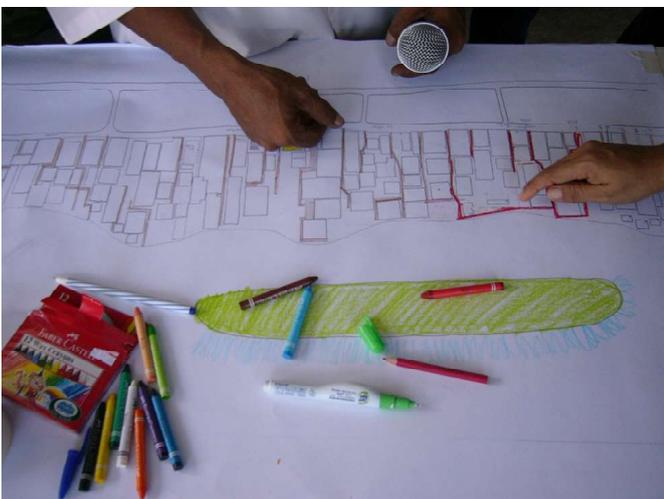
The first step was mapping the community, measuring all the houses and putting together a base map for planning the upgrading project.



When the mapping teams from each lane came back with the measurements, they cut out plans of all the houses with grid paper for the map.



One of the unplanned great things that came out of having to do the planning in other, safer places was being able to join communities from other cities who were also mapping their settlements and planning their own housing projects.



The people in Kalae Tapae were happy with their houses, so they decided to focus on improving the walkways and infrastructure.



Once they had a measured base map of the community, they used that to mark problem areas and problems that needed fixing.



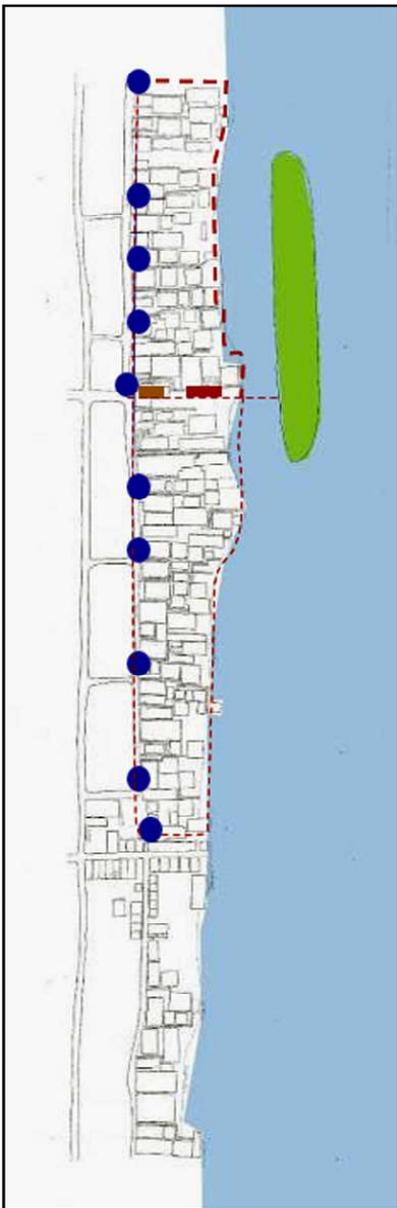
Here is the community's final plan for the upgrading. The blue lines represent lanes that already have concrete walkways that are OK. The red lines are lanes where they have to make a new walkway or elevated walkway over the water.



After a lot of discussion and planning about what things to build in the island, the architects drew up this plan on the computer, showing the mosque, the religious school for kids, the community center, the recycling bank, the boat repair shed, the playground, the savings office and the pavillion.



Once the plans for the new amenities the people were going to build on the island, the architects prepared a scale model of the whole island, with cardboard and balsa wood, so people could study the plans and see how things fit together.



▲ The blue dots on the community map are where the waste-water treatment tanks were built, at the end of each row of houses.



▲ That's the community center and savings group office on the left, with a big verandah, and the mosque in the back, with the green tiled roof.



▲ That's the religious school for children, with the older children learning upstairs, and the more unruly younger kids down below.



▲ In the tradition of southern Thai Muslims, children learn their lessons at the same time they learn about their faith, in community schools like this one in Kalae Tapae.



▲ After the upgrading project was finished, the new mosque on the island provided a set of playground equipment for the children.



Men from the neighborhood walk over the new 100% made-by-people bridge, after joining prayers in the mosque on the island.



There is another view of the new bridge that links the old town to the island, which has become an amenity for the whole town.



The new walkway along the river side of the community, with coral-colored railings, is used for so many things by the community people.



These floating nurseries on the island are where the fishermen raise baby shellfish and crabs to release later into the sea, to bolster stocks.



The mayor was so proud of the project in Kalae Tapae that he often brought visiting dignitaries from other cities up in a helicopter to see it from the sky. One of the community leaders was invited along on one of those trips and took this snapshot.



▲ *The new recycling bank the community set up on the island gives vulnerable young people in the community a way to earn some money at the same time they help clean the river.*



▲ *They use nets to catch floating garbage, sort it by material, clean it and then sell it, by weight, to the recycling middlemen in the city.*



▲ *To deal with the yearly floods in Narathiwat, the Kalae Tapae community now builds its own sand-bag dam around the island every year.*



▲ *One enduring outcome of the project has been a monthly tradition of community cleaning, which starts with the house, then the lanes . . .*



▲ *. . . then everyone goes to the community graveyard, to clean up the place where their ancestors have been buried for centuries . . .*



▲ *. . . and finally they all clean and sweep the entire island, pray together in the mosque, and then sit down to a communal feast.*