

Upgrading costs:

- US\$ 3,600 Laying the sewage and storm-drainage network and constructing 53 manholes
- \$ 7,100 · Concrete paving of lanes (339 m) with half-meter planting strips at sides
- \$100 Planting 122 trees
- \$ 1,200 Repairing fences, painting 57 houses, 39 fences

U\$\$ 12,000 (Total cost of upgrading project)

US\$ 167 per household

Who paid?

- Labor : approximately 2,200 person-hours of labor, all provided by community members
- Technical help : A community member with contracting experience designed the system, set levels and supervised construction
- Budget : \$ 500 cash contribution from community members and \$ 11,500 grant from ACHR.

So much cheaper than relocation !

It's interesting to compare the cost of upgrading Ros Reay in-situ to the **REAL cost of relocating 129 families** to Akphivat Mean Cheay (including the cost of buying the new land, filling it, developing basic infrastructure on it, and including UNCHS staff costs, overheads and consultancies) it comes to about US\$ 330,000, or \$2,500 per household. And when you add to that figure the costs shouldered by families themselves, including moving costs, new house construction, lost income, lost investment in their old housing and increased transport costs, it comes to about :

US\$ 4,000 per household

A complete face lift for Ros Reay:

A brief photo-report from ACHR about the work the Ros Reay community in Phnom Penh has done to upgrade their settlement, January - May, 2003.

Phnom Penh's first experiment in 100% peopleplanned and people-constructed comprehensive settlement upgrading is inaugurated in May 2003

The 72 tightly-packed houses in Ros Reay are part of a much larger neighborhood of over 1,000 households situated behind the French Embassy. Most of the people living in this area settled here in 1979, immediately after the Pol Pot period. Even though it's right next to the city's largest natural drain, Boeung Kak Lake, Ros Reay experiences serious flooding during the rainy season, so building a drainage system was the community's first upgrading priority. Because they own the land they occupy and because they are already well organized through their savings group, Ros Reay was the least complicated and the most ready of the three pilot upgrading projects selected by SUPF. And because it was the first to start work, Ros Reay has became the first



comprehensive upgrading *training-by-doing* for the whole federation and the whole city. Lots of people have visited and taken part in every stage of the work, as the process has been carefully kept in the learning spotlight.

The first step was to survey and map the settlement, which community people did themselves, with some help from UPDF's technical team and groups of "upgrading apprentices" from communities in other districts. On the map, they plotted all the houses, trees, water points and problem areas, and used this to discuss what needs improving and in what order. Once they'd decided what improvements to make, they estimated the costs and drew up a budget for their upgrading plan, which was presented and agreed upon in a city-wide meeting in January 2003. Municipal officials and community people from around the city were invited to the ground-breaking ceremony, where the first \$500 handed over to the community was immediately matched by \$500 in cash contributions from community members.

With this \$1,000 cash in hand, they set to work the following day, dismantling and moving back the fences and compound walls, to enable the lanes to be straightened a bit and to make room for laying the underground sewage and storm drain system, which involved enormous labor. A system was worked out by which each family was responsible for digging up the ditch in front of their house. Even pregnant women pitched in, and people returning from their day jobs dug by lantern-light into the late night, under the unflagging guidance of Ros Reay's energetic leader, Keo Yin, whose husband, a construction subcontractor, provided "in-house" technical assistance determining slopes, pipe sizes and manhole design. The finished drains were given their first test during a torrential rainstorm in early April. Everyone was out under their umbrellas, all eyes on the manholes, through which the water was reported to flow *beautifully!* The lanes have now been paved with concrete, trees and flowering shrubs have been planted in the half-meter planting strips along the lane-edges and most of the house-fronts and yard fences have been freshly painted in bright shades of white, blue and green.



The snowball effect :

The process of actually upgrading a community creates an excitement and a faith in possibilities that no amount of talking or proposing can match. The project at Ros Reay is extremely tiny compared to the scale of Phnom Penh's housing problem, but the ideas started in this small community of 72 houses is already expanding to nearby areas, getting people around the city excited and opening un dramatic new possibilities for the city's poor.

A community transformed in six busy months :

November 2002 :

Ros Reay is selected by SUPF to be one of the three pilot communities to be completely upgraded, as a "learning by doing" training in comprehensive community improvement.

December 2002 :

Over 200 community leaders from across the city join Ros Reay as they conduct a fresh household survey of their community, measure and map their settlement, and begin discussing their problems and developing plans to improve the infrastructure and environment of their settlement with the modest grant of about \$10,000.

January 2003 :

Ros Reay's comprehensive upgrading plan is completed, with full maps, cost estimates and work schedule. The plan is approved by SUFP and UPDF and the first \$500 installment of the upgrading budget is passed to the people in a big ceremony held in the community. This \$500 tops off the \$500 that has already been contributed by the community's 72 households. Excavation work for the sewers begins immediately.





A project which belongs to the whole city :

Every step of the upgrading process at Ros Reay, from surveying to discussing problems to costing the elements and drawing up the budget to digging trenches and buying pipes, was training for everyone, not just for the people in that single community and not just for that district's federation unit. The three pilot upgrading projects, of which Ros Reay is the first, are providing "learning-by-doing" in how to upgrade communities, for the whole federation, for the municipality and for all the poor of Phnom Penh.

April 2003 :

Work on the underground drainage system (which collects sewage from septic tanks behind the houses, "grey" water from washing, and storm water from rain and flooding) is completed. People work around the clock, and a system is worked out by which each family is responsible for cligging the trenches and manholes in front of their house.









Showing that people can do it themselves : Most community upgrading projects are done by contractors and designed by engineers. The technology of this work is supposed to be something that ordinary people cannot understand or take part in. Ros Reav smashes that persistant myth! Upgrading a community is not so hard. The Ros Reay project is a chance to show people that upgrading is not something mysterious or complicated or expensive, but can be done by local people themselves, simply, efficiently, cheaply and effectively.



May 11, 2003 :

Road paving is finished. The people borrow ideas from the Kampung Improvement Program (KIP) and experiment with leaving half-meter planting strips along the sides of some of the lanes and roads, to allow space for planting trees and greenery to provide shade and beautify the streetscape. This is a brand new idea in Phnom Penh.

May 24, 2003:

Fence painting, house painting and tree-planting are completed. The people have chosen a pallette of a few colors, so that the houses are not all the same color, but are painted to look like part of a matched set.





May 25, 2003 :

The Ros Reay community upgrading project is formally inaugurated by Mr. Chev Kim Heng, Vice Governor of Phnom Penh. who cuts the red ribbon. About 500 community people from around Phnom Penh, from ten other provincial cities and from 9 Asian and African countries join in the celebrations, which begin with a festive walk through the settlement (which has been decorated with baloons and Cambodian flags) and continues with a large meeting down the road, where tents have been set up and an exhibition of drawings, photos and models showcasing Ros Reay's upgrading process is on display.

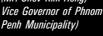


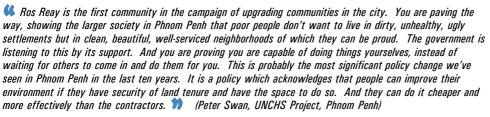


This community-driven upgrading at Ros Reay represents a very important turnaround in poor people's housing development in the city of Phnom Penh. It represents a strategy for enhancing rather than destroying the city's existing stock of affordable informal housing. Ros Reay shows clearly that it is possible for the poor to stay in the city, in settlements that are beautiful, healthy and well-serviced - and it shows that communities can do the work of improving themselves, cheaply and simply and efficiently.



This city doesn't only belong to the rich and high-ranking. It belongs to all of us, so we should all be involved in improving it . . . Now we have a lot of work to do, we have to sit down and set a concrete plan for this upgrading program together.
(Mr. Chev Kim Heng, Vice Governor of Phonom







Ros Reay **BEFORE** and **AFTER**:



BEFORE:

Here is the main road in Ros Reay in a photo taken in November 1999, during the dry season. Imagine the difficulties walking down this same lane in ankle-deep muck and overflowing sewage during the rainy season.



BEFORE :

Another shot from November 1999, looking the other direction along Ros Reay's main lane. Most of the wooden and masonry houses here are fine, it's the infrastructure that is bad.





One of the back lanes of Ros Reay in 1999, when even in the dry season, the run-off from people's kitchens, bathrooms and toilets turns the lane into a stinking and unhealthy swamp.



AFTER :

Almost the same shot taken four years later, after the underground drains have been laid, the road completely paved in concrete and the houses have been repainted and decorated with planting strips in front for flowers and shrubs.





The community is already discussing the possibility of "reblocking" the house plots in part of the settlement on the left side of the lane pictured here, to make room for a small playground.





The new system of underground drains collects all the "grey" water from kitchens and bathrooms, as well as storm water and the partially treated sewage from household septic tanks.