

TAN HOA LO GOM - Building a new life

Context

An indescribable chaos characterises the highly polluted atmosphere of Ho Chi Minh City (HCMC), the economic urban pole of Vietnam. Located at the door of the Mekong Delta, the Southern metropolis has an official population of 6 million, added by another 2 million of illegal. Founded more than 300 years ago, the ex Saigon is now the country's mega-city, attracting 45% of the national industry, with an average urban growth rate of 4.2%¹.

New road building has the almost impossible task to keep up with the shift from 2-stroke motorbikes to cars, whereas public transport still accounts for only 4% of the city's mobility². The important canals' network is heavily polluted by both the crowded population as well as small-scale and large industries. The city's lack of a proper sewerage system causes regular flooding from the canals and the overall quality of life is compromised by an inadequate solid waste collection system and insufficient water and electricity supply. The environment is caught in a downward spiral of degradation.

Slums have always been present in the city but the phenomenon mostly expanded during the war time (1945-1975). In 2002 the Land and Housing Department identified 150,000 low-cost houses (occupied by 5.6 people on average), of which 93,000 were in poor condition located in areas to be upgraded, and 25,000 were encroaching on the canals needing resettlement.



Since *Doi Moi*,³ Vietnam has been developing at an incredible speed. This economical shift from a classical planned economy to a 'socialist oriented market economy' had important effects on the urban landscape in terms of land use right, the development of a proper housing market, and the urban growth. The present national urban population of 23% is expected to reach 45% by 2020⁴. But whereas the annual income per capita reached more than \$2,000 USD in 2006 – three times the national average – the urban poverty increased from 6.6% in 2002 to 10.8% two years later⁵.

The present spatial planning approach

The five-yearly congresses of the Communist Party in Vietnam remain the forum for creating policies of national development. Socio-economic goals are translated into specific projects and plans. In the urban sector master plans are developed by the Ministry of Construction. However, this top-down planning system means that by the time plans are finally approved, realities on the ground have already made them obsolete. Furthermore, more-often-than-not, plans are not linked to realistic budgets and are more paper-dreams than realizable urban visions. Meanwhile, as the formal mechanisms flounder, the informal city continues to expand unabated. Major obstacles remain Vietnam's lack of horizontal coordination among agencies, inconsistencies between national plans and local plans⁶ and absence of a clear national urbanization strategy and policy framework⁷.

Subsidized housing policies

In Vietnam, especially in the South, neither collective buildings nor renting are very popular. In HCMC the former represent only 18.7% of the urban fabric against 48.1% in Hanoi⁸ and the majority of households are owners. In HCMC, subsidized collective buildings are mainly produced within the framework of slum relocation projects. In the past, these were typically

blocks of five to six storeys; however the tendency is now to go up to twelve and even nineteen floors, justified by the increase in land value due to a skyrocketing real estate market⁹. Private developers are producing most of the housing, but are not that focused on social housing, less lucrative by definition.

Studies made on the HCMC relocation projects demonstrate that verticality is not meeting the cultural expectations and the economic needs of the poor, who need a living place close to the street as they are taking their income mainly from the informal sector. Traditionally, a poor income house is not only a place dedicated to living but also to producing and selling.

The PMU 415 project

In the mid-nineties Ho Chi Minh City requested help to tackle pollution and poverty along its canals. The City and the donors' community developed a series of urban project, among which the World Bank, the Asian Development Bank, the Japan International Co-operation Agency and the Japan Bank for International Co-operation focusing either on canal reshaping or on slum upgrading. An Official Development Assistance Partnership (ODAP) was set up to stimulate the exchange of information and experiences among the donors and the city. The Government of Belgium agreed to face the environmental, housing and social challenges in the 'Tan Hoa Lo Gom (THLG) canal sanitation and urban upgrading project'. Since Belgium provided grants and pilot projects it was seen as an 'experiment' for the bigger loan projects.

From 1998 to 2006 the 20 million Euro THLG project managed by the Project Management Unit (PMU) 415 team focused on the basin of the most polluted canal of the city. The canal is located in the western part of the city, adjacent to the Chinese district of Cho Lon. It is one of the five main canals, which structure the flat land of HCMC. In the early 20th century, it was a major navigation channel, connecting the southern part of the city to the Mekong River Delta. However, over recent decades, the canal has lost its significance through the process of urbanization and the increasing shift towards road-based transport. Informal settlements were built on the banks and even on top of the canal. Since *doi moi*, the canal has suffered further environmental degradation as industrial and domestic pollutants are dumped into the nearly stagnant waterway. In rainy season the dirty water increasingly floods parts of the basin, as a consequence of filling up nearby wetlands.

The project had the objective to provide alternative solutions to canal up-grading in a participatory manner. It focused on drainage, sewerage, canal dredging and enlargement and resettlement. The following interrelated pilot projects were implemented: the building of a solid waste small transfer station, low-cost housing upgrading, an apartment relocation project including canal embankment renovation, all located around Ward 11, District 6, while an aerated lagoon wastewater treatment plant and a sites-and-services relocation project were based in Ward Binh Hung Hoa, (BHH) District Binh Tan. The strategy was to develop the pilot projects in an integrated way, grouping them around two different sites that had different challenges. The point was in District 6 to tackle the main problems of the inner city at once – canal pollution, flood management, slum eviction and rehabilitation – while considering the canal as the backbone for the renewal of the area. The objective in BHH was through the provision of some of the lacking infrastructures to structure part of the periphery that was under fast and chaotic urbanization process. Another important component of the approach was the inclusion, throughout the process, of a series of socio-economic and community participation activities.

The Ba Lai Solid Waste Small Transfer Station

Because of its rapid urbanization and industrialization, HCMC is facing many different environmental challenges, such as the pollution of its important network of canal by both solid waste and wastewater discharge. Beside pollution from the households, factories are the second major cause of pollution using outdated, heavily polluting production process technologies, often still located in core urban areas. The solid waste collection is challenging due to the city's morphology, with large and fragmented urban blocks consisting of a dense

and labyrinth network of narrow alleys. Tricycles and pushcarts of private collectors are required for the lion's share of daily collection – all coming at a cost to citizens. As the poorer residents tend to inhabit marginal and vulnerable environments, they inevitably end up polluting their immediate environment since they refuse to pay for waste collection systems that cost only 10,000VND/month (50 Eurocents)¹⁰.

The PMU 415 pilot project with a total investment of 438,000Euro, concentrated on 4 wards adjacent to the canal with a population of 80,000 inhabitants. The first output was the reorganization of the collectors' routes through the set up of an informal cooperative group of 30 collectors. The social workers were facilitators in the discussions with collectors and authorities, in order to streamline the collection process. Collectors finally ended up with shorter collection times and increased incomes. From the initial 40% to 60% of the households having a contract with private collectors – the others illegally dumping waste on the canal – the project reached the ratio of more that 92%¹¹. Collectors also helped designing the new pushcarts.



The second output is more visible. After lengthy discussions with the authorities, the collectors and nearby residents, the PMU designed and built the 72-tons/day Ba Lai small transfer station. Collectors dump garbage from tricycles into large containers, without compaction since the waste density is already 380kg/m³. The building replaces the previous unhygienic rendezvous point in the street. It is washed down every day and causes no harm (odor, rats, dust) to the residents. Early evening trucks pick up the containers and drive to the landfill outside the city. The solution is cost effective and there are plans to build twenty five similar transfer stations in the city.

The third output is the establishment of environmental education programs for primary schools and awareness raising in the communities. The education team produced an Environmental Education toolkit, which was well received at city and national education levels. Communities were encouraged to sort waste at source, thereby helping reduce the waste volume and facilitating recycling, which is a major source of income for private collectors.

While the authority did not accept to formalize the recycling activities within the STS and to provide them the appropriate equipment, it is now taking place informally within the building. This shows the limit of ideology over pragmatics. Beside this issue, this pilot project is probably the most successful one in term of active cooperation of all the stakeholders throughout the process and in term of results. It was initiated by the relevant advices of experimented consultants that suggested taking the lessons learnt from best practices projects in Asia.

Low-cost housing upgrading

The concept of up-grading squatter settlements is not new in HCMC; first attempts were made in 1992 when the Department of Land and Housing received financial and technical support of the Asian Coalition for Housing Rights for a community-based project, which paved alleys and constructed community taps. Over the following years other projects were made in some parts of the city, but the upgrading concept was not widespread among decision/policy makers and upgrading was not developed as a city program. In 1994, slum eviction, with focus on those along canals, became a policy pursued more vigorously through the start of the NLTN canal rehabilitation project. Nonetheless, upgrading projects continued without the direct support of the city but through local and international initiatives. But the

marginalization of the rehabilitation process limited its scale, while the households with no legal status could not be connected to the city's networks.

In such a context, the PMU 415 slum upgrading project completed in 2001 had the difficult task to re-convince authorities of the rehabilitation approach. It focused on a 1ha area with 166 families living along the canal in Ward 11, District 6. Before the project began, only 48% of the households had an official electric connection, most were purchasing water from private sellers while waste collection was non-existent. Part of the area was flooded at least five times a year and more than 40% of the houses were made of temporary materials¹².



The social work team firstly set up a saving-and-credit program. This gave households the opportunity to develop alternative income generation activities and was an excellent communication channel between the population and the project. The next step was to get official house numbers, a precondition for a water and electricity connection, which gave the residents the important feeling of 'being on the map'. The project included the concrete paving of earthen alleyways, the installation of drainage, water and electricity networks and public lighting. Families were offered low-interest loans for individual septic tanks and house rehabilitation and given incentive grants to offset installation costs of electricity and water meters.

Since upgrading implicates no eviction it saves both authorities and residents a lot of headache and costs. The total project investment was US\$ 271 per household. This is low compared to resettlement, but remains high compared to similar projects like Orangi in Karachi, or Surabaya in Indonesia, mainly due to high technical standards and the use of external contractors.¹³ Two other issues were the lack of coordination accounted among the technical agencies during implementation that were not concerned by the project objectives and the fact that the population decided not to remove the major alleys bottlenecks that would have affected eleven families but would have significantly increased the site accessibility. But the support and appreciation from residents was high and the project served as the main inspiration for the World Bank's Vietnam Urban Upgrading Project.

Resettlement in apartments

The project purpose was to relocate inhabitants that had to be relocated because of the canal widening either in situ in apartment blocks or at a distance on a plot of land. Since the projects took a long time for completion they had also the choice of taking their compensation and relocate by themselves. Thus, urban poor were not forced into any one 'solution,' but were offered a variety of typologies and financial choices to reflect the differences in their respective needs, lifestyles and resources. In-situ relocation was favoured because of existing employment and social networks. Thanks to the active role of committed and patient social workers, no forced evictions took place, as commonly seen in other relocation projects.¹⁴

The apartment pilot project is located next to the slum upgrading pilot project. A stretch of 300m canal would be widened causing partial or complete eviction of 214 families. The initial design included 250 apartments and socio-economic facilities. It would be built in two phases to avoid temporary relocation, a common practice in resettlement programs that proved to be very disturbing for the evicted families. PMU 415 and the designer (French NGO 'Villes en Transition') consulted frequently the affected people during the design

process, in order to integrate their view point on the interior organization of the apartments and the general lay-out.

On a 3.4 ha plot of land, of which 1ha was an abandoned agricultural warehouse, the first 72 apartments and infrastructure were constructed for a total investment of 3,310,000Euro, land included. They were designed with wide corridors and public facilities. In between three to four stories blocks, semi-public open space accommodates play areas and green space. The different floors were designed with alternating front facades. The project recreated, in a vertical sense, the atmosphere of the former neighbourhood of individualized small units and alleys with intense social contact. It also included secured motorbike parking, a hawkers market, a community house, and a pontoon for boats along the canal¹⁵.



Early 2005 just before Vietnamese New Year the 72 families moved into their new homes. The sudden luxury of having electricity and permanent water supply and toilets was well appreciated. Apartments are small from 32 to 53 m² to make them more affordable. Some can be extended with a mezzanine. They vary in terms of size, shape and price allowing meeting the needs of the local population. Such a variety is rare in housing for the poor in Vietnam. The selling prices per m² were in line with the price of other relocation projects but not

with the market, and thanks to the small surface the apartments' official selling prices were 30% to 40% cheaper. Repayments can be done in monthly instalments, but in the end the families will become house owners with a formal legal status.

Concerned of using expensive land for low-rise relocations, the city decided to cancel the second phase and designed 12 storey blocks instead on the remaining land. It will take some more years to complete but in the end an upgraded slum area, low-rise mid-density blocks and high-rise apartments will be built side by side. This unilateral decision may be the result of the absence of a formal dialogue platform between the community, the project and the different levels of the authorities that a compromise integrating the visions of all sides could not be agreed upon, though it may also be explained by the plethora of administrative bodies involved in the project approval process. Eleven departments in total had to discuss and approve sometimes controversial and below standard solutions proposed by the project. Some did not understand the innovative approach of the project. Others were inflexible in the application of the complex Vietnamese construction standards and regulations.



This decision was also somehow due to the project failure in demonstrating that high density was feasible with low-rise typology, and adapted to the urban poor in the context of HCMC, as shown in other parts of Asia, where low-rise high-density housing experiments in mega-cities have produced fascinating results – the one of Charles Correa, Raj Rewal, Balkrishna Doshi in Mumbai and Riken Yamamoto in Tokyo for example. Their projects have proved the urban design advantages of this typology – gradients of collective open space, variety in housing typologies and possible integration with pre-existing urban fabrics, and increased affordability.

Although, thanks to a cross-subsidy mechanism, prices of the smallest apartments could be kept low, at the price of \$4,746US, the construction costs were high, \$7,250US per unit, partly due to the non-acceptance by the authorities of some suggestions made by the households and the project, as to provide the apartments without inside finishing. It would have also been wise to increase the ratio of small apartments in order to match the demand. Despite these criticisms, the low rate of reselling – only three apartments after two years – suggests that this project succeeded in taking into account the population requests in its design. At least the project demonstrated that participative design works. People's ideas have been integrated in the design of apartments and public spaces.

The aerated lagoon wastewater treatment plant

The 30 ha lagoon project is located within a 37 ha area at Binh Hung Hoa ward, Binh Tan district. It treats in 14 days and two parallel streams through aerated lagoon and stabilization pond technology the wastewater of the Den Canal, a 4 km long arroyo located north of the THLG basin. It is collecting and treating the water of the present-day 120,000 equivalent inhabitants up to an estimated capacity of 200,000 by 2020. The site, already a natural wetland, was identified in 2000 as one of the last remaining open spaces in the northwest urban periphery. It was slated to be a park in the city's approved master plan but it was only a matter of time before the existing lotus ponds were informally taken over by uncontrolled urbanization. The objective of the project was therefore twofold: to explore an alternative solution to wastewater treatment and to freeze the urbanization of a large plot of land for eventual future uses.

Investments costs are relatively low – 2.5 million Euro – but land acquisition costs the double, giving a total investment of 27.5Euro per inhabitant, and maintenance is simple. It is in full operation since April 2006 and treats the most polluted domestic wastewater according to the Vietnamese norms for surface water¹⁶. It is considered now a worthy alternative to classical treatment systems.



The treatment station has been conceived with two parallel streams for research purposes. There is no excessive noise or smell or mosquito appearance to the neighbourhood despite a buffer zone of only 10 m wide. The latter is designed according to local taste and the community is enjoying the green spaces and recreational facilities, which partially explain the speculation that has been now taking place around it¹⁷. It is noted that this treatment station was not designed in combination with a wastewater collection system, thus limiting the effectiveness of treatment plant due to the direct dilution of effluent water in untreated one. In a first phase the energy efficiency, sludge management and water reuse will be studied and improved.

Although the potentials of urban design combined with engineering logics did not reach their zenith in this project, the effort is laudable and results respectable. As space is an absolute luxury in HCMC, the surface area of the ponds required to reach treatment standards was very tight and therefore excluded larger surfaces dedicated solely to recreational activities; urban project integration was thus limited in the spatial sense. Nonetheless, further collaboration between the disciplines – particularly at the beginning of the process when the plan of the lagoons was being established – could have no doubt resulted in a more nuanced intervention where the lagoon and surrounding urban tissues truly complemented one another. Despite the positive results of the lagoon, it is doubtful that the city would use a

similar technology for other basins in the future, still considering firstly the value of the land. Once can hope that at least secondary cities will go for it in the future.

Resettlement in 'sites and services'

As an alternative to the apartments, plots of land were offered to the evicted families for building a house, this type of housing being the dream of the majority of Vietnamese. Since this option is more expensive PMU 415 had to look for cheaper land in a suburban district. A 1.6 ha site was chosen in ward BHH, between the lagoon treatment plant and an informal residential area. The site is 8 km north of the eviction site of District 6.



The concept of sites-and-services is not new in HCMC, but until recently such initiatives were applied in suburban districts for higher income groups. Besides 119 plots of land, roads and utilities, the project also built a primary school. The project's plots were small (from 40 to 53m²) but were originally even smaller (30m² – 48m²) and there was a hierarchy of roads (12m – smaller alleyways) – responding to the limited financial capacities of the population, but this proposal was also rejected by the authority, as in contradiction with the official planning standards.

With a total investment of 880,000Euro, the project was an answer to the request of the project affected families, of whom sixty had built a house by March 2006. The families got technical support for the design and construction supervision from the project. The social work team guided them through administrative matters and financial headaches. A revolving fund was set up to provide loans from 30 to 80 million VND (1,500 to 4,000 Euro) with a repayment period of up to 15 years and 0.55% monthly interest for both the land and the house.

At the request of the project affected families and the neighbourhood, the original idea of a market as socio-economic support was changed into a primary school. The existing informal



alleys were connected to the new drainage and sewer system, and alleys raised with technical support from the project. The result is a colourful diversified neighbourhood with a density of 91 households/ha and an average investment cost per household of \$9,613 USD (including the land), an investment that is two times lower than the apartment relocation option. But reselling is relatively high – 20% of the households having sold their house after two years – that could be explained by an overborrowing.

PMU 415 had the ambitions to create more elaborate guidelines for the construction in order to establish an urbanistic language – as Doshi managed in his 1982 Aranya Community Housing (Indore, India) – but, unfortunately this was not possible. As well, self-construction was not as popular amongst the population as envisaged; only 18% participated in this manner. The low rate can no doubt be attributed to the distance from the original site and its poor accessibility.¹⁸ Nonetheless, most families took advantage of the guidance of social workers to facilitate the required paperwork in the new district.

Here again, the project did not manage to convince the authorities of endorsing all the ideas developed by the project to make this relocation option more affordable to the poor. Plot sizes and infrastructure standards could have been reduced to provide a decent place to the poor within the city at an affordable cost, while providing an acceptable density level.

Resettlement reflections

The only way to limit the reselling phenomena is to reduce the quality gap between the slum and the relocation scheme, with small surfaces. Construction standards should be more incremental, and more adapted to the urban poor affordability. In that view, based on the World Bank, from 10 to 15% of the income of the urban poor should be allocated to housing. The average is of 21% in the apartments and 49% in the sites and services project. The loan extension from 10 to 15 years would decrease these ratios to 9.5% for the former and 32% for the latter. Loan extension should therefore be favored but with caution, remembering that traditionally only 17.5% of the households in Vietnam take a loan from a bank¹⁹.

Due to these high investments, whatever the relocation option selected, all the families faced socio-economic difficulties after resettlement. The in-situ relocation minimized the socio-economic troubles of the affected population that managed to preserve most of its activities, 23% of the households reporting a reduction of their income one year after having moved to the apartments. This figure reached 40% in the case of BHH, where most of the families started a new business, when possible, or were unemployed. But the self-relocated people are facing the highest difficulties, 41% having accounted a reduction of their income, while they could not benefit from the socio-economic supports that have enjoyed the first two groups.

The social workers role throughout the project implementation has been crucial. They have been information channel, facilitators, advocates, providing through saving and credit activities, vocational training and loans activities the socio-economic supports and the advices that the population required. Unfortunately, their number in the city is limited.

The most important lesson related to resettlement is that it should be avoided whenever possible. The project also experienced that the affected families need several resettlement options to meet their different expectations and possibilities.

The participatory approach: outlook and perspectives

For the last fifteen years, many different community participation projects have been developed in Vietnam, all initiated by local and international NGOs, and thus remaining small scale. The PMU 415 project was the first experiment in HCMC including this type of activities within a bilateral development framework. The project developed different levels of participatory approaches, trying to integrate the communities from the start. This worked well in the case of the solid waste management, the authorities accepting to include the private collectors in the process, as well as in the case of the slum upgrading project. Participation was also good during the discussions related to the apartment design, but was lacking during the design and the implementation of the sites and services project. Project ownership could not be raised up to a level where the community would feel responsible of the maintenance of the pilot projects. For these reasons, as pointed out by S. Boonyabanha, the affected people were kept within the role of beneficiaries without becoming real partners with similar voice in the decision and implementation process as the other actors²⁰.

Although the participative process in the PMU 415 projects has not reached the final and more complete stage described by Arnestein²¹, it gave the chance to demonstrate the positive outcome that this type of approach can bring. The authorities acknowledged that thanks to the active role of very committed social workers and the development of the socio-economic activities throughout the project duration, no forced eviction took place, while the socio-economic negative impacts of resettlement were reduced.

From pilot projects to a more strategic approach

On the one hand, the project worked bottom up with an enthusiast team of social workers in term of mobilisation of community participation in urban upgrading and resettlement pilot projects during the design and construction supervision phases. In this respect the real pitfall was in the lack of dialogue between the community, project and local/city authorities that led to the relatively delayed approval of resettlement pilot projects by the authorities. Gradually results were achieved, sometimes failures encountered. Quite some successes of the project finally reached out far beyond the project itself, as for the STS experiment that will be scale-up. On the other hand, it demonstrated the difficulty of being innovative in a still very conservative context. The authorities are still embracing the classical top-down planning approach devoted to zoning, in which the users are considered as clients rather than actors of the City's development. Having to deal with a complicated and sometime conflicting regulation system, the different authority levels were worried to take decisions that might not be in line with the hierarchy, and therefore preferred to apply strictly construction standards not adapted to social housing rather than approving the project most controversial proposals. Having no official place where all the stakeholders could express their point of view and reach an agreement, a consensus could not be found. This may explain why the apartment project missed the opportunity of integrating the authority requirement of high density as well as the population request of being low cost.

It is not easy to measure the cost of making the two bureaucracies to work together. On the one hand, the 1st phase (1998-2001) project formulation with ambitious project scope, unclear identification of pilot projects and unrealistic mode of project management by both governments, and the lengthy approval process of the design of resettlement pilot projects by local government took a lot of time, requiring the extension of the project. On the other hand, the bilateral cooperation within ODA framework also took advantages over domestic funded development projects in term of budget (counterpart contribution) allocation and priority, having separate mechanism of problem solving/decision making through project Steering Committee that helped accelerating land acquisition process for project implementation. In total, compared to local funded projects, this bilateral project has been completed in relatively acceptable timeframe, if not faster.

The project in District 6 shown that in situ relocation was possible by using one of the remaining large plots of land occupied by obsolete industries that still exist within the inner City. Most of them being State's property, these areas could be used without necessarily having to spend huge amount in land acquisition and be renewed for relocating slum dwellers. In order to preserve the diversity of functions and social mixing that still characterizes the City, such type of projects should integrate not only various income housing but also producing and selling activities as well as social equipments that are still in need. This could be achieved by developing public/private joint ventures.

The BHH pilot projects were a good example of how a strategic intervention could structure a periphery under fast and uncontrolled urbanization. They managed to take a large portion of land out of the hand of the speculators for the interest of the collectivity, while giving the landmarks to the future illegal settlements for building a city front around the lagoon.

Through its integrated approach, the PMU 415 project demonstrated the interest of coordinating within a single strategy a series of activities related to the same area but dealing with different interrelated issues. Doing so, the different pilot projects managed to improve the environment and the living conditions of the population of two sections of the city that could be a good base for future developments. At the same time, due to the unavailability of land for wastewater treatment plant project, which is located in the basin of another canal, and the pilot scale of canal widening and embankment focused on a small section of the canal, the integration effect of pilot projects in a single location has been limited to demonstration of a part of integrative approach only.

One of issues upon the project completion is that all technical staff left without continuing working in similar projects and/or in respective (local) government agencies. The solution for this issue is in the personnel policy improvement by local government that provides incentives to utilise the project expertise, together with a comprehensive institutional strengthening and capacity building program for existing agencies.

To conclude, the project idea did not start around the master plan of the city that was approved by the Prime Minister. It started from the identification of interrelated problems: canal pollution, slums and poverty in one of the most critical part of the city. All these problems have been addressed by implementing pilot projects with community participation approach. This approach has been now applied in the similar Vietnam Urban Upgrading project funded by the World Bank at a larger scale.

Footnotes

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