

**THE CITIES ALLIANCE**

**VIETNAM**

**ENHANCING ACCESS OF THE URBAN POOR  
AND VULNERABLE GROUPS IN VIETNAM  
TO BASIC INFRASTRUCTURE AND SERVICES**

**TASK 2**

**REVIEW OF RECENT AND ON-GOING  
URBAN UPGRADING PROGRAMS**

**ASSESSMENT REPORT**

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## Abbreviations and Acronyms

VD	- Vietnamese Dong (VD 15,000 = US\$ 1)
SRV	- Socialist Republic of Vietnam
MPI	- Ministry of Planning and Investment
MOC	- Ministry of Construction
MLH	- Ministry of Land and Housing
HCMC	- Ho Chi Minh City
PC	- People's Committee
TUPWS	- Department of Communications and Public Works, HCMC
DLH (LHD)	- Department of Lands and Housing, HCMC
DPI	- Department of Planning and Investment, HCMC
CAO	- Chief Architect's Office, HCMC
ODAP	- Official Development Assistance Partnership (HCMC)
KT	- Land Occupancy Category
PPI	- Provincial Departments of Planning and Investment
NLTN	- Nhieu Loc - Thi Nghe Basin
THLG	- Tan Hoa - La Gom Basin
CA	- Cities Alliance
SDC	- Swiss Development Cooperation
IBRD	- International Bank for Reconstruction and Development (World Bank)
IDA	- International Development Association (World Bank)
IA	- Irish Aid now Ireland Aid
UNDP	- United Nations Development Program
UNCHS -	- United Nations Centre for Human Settlements
JICA	- Japanese International Cooperation Agency (Japanese Aid)
DfID	- Department for International Development (British Aid)
DANIDA	- Danish International Development Agency
BTC	- Belgian Technical Cooperation
WHO	- World Health Organisation
ABO	- Area Based Organization
CBO	- Community Based Organization
RDC	- Residents Development Committee
SCP	- Sustainable Cities Programme
NGO	- Non Government Organisation
GDP	- Gross Domestic Product
PMU	- Project Management Unit
PIU	- Project Implementation Unit
PCU	- Project Coordination Unit
PPU	- Project Preparation Unit
PMU	- Project Management Unit
Kwh	- kilowatt hour
Lcd	- litre per capita per day
<u>Indonesia</u>	
KIP	- Kampung Improvement Program
LCH	- Low Cost Housing
IUIDP	- Integrated Urban Infrastructure Development Programme
MCK	- Washing and Toilet Block
<u>Pakistan</u>	
NWFP	- North West Frontier Province
OPP	- Orangi Pilot Project

LGERRD - Local Government, Elections and Rural Development Department  
CAP - Community Action Plan

Ghana

UESP - Urban Environmental Sanitation Project  
ADRP - Accra District Rehabilitation Project  
PWP - Priority Works Project  
CIUP - Community Infrastructure Upgrading Program

Swaziland

MHUD - Ministry of Housing and Urban Development  
SUDP - Swaziland Urban Development Project  
SNHB - Swaziland National Housing Board  
SWSC - Swaziland Water and Sewerage Corporation  
SBS - Swaziland Building Society  
MbCC - Mbabane City Council  
MzCC - Manzini City Council  
SGO - Surveyor General's Office  
DRO - Deeds Registry Office  
IA - Implementing Agency  
POF - Project Outreach Facilitators

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## 1.0 MAIN FINDINGS AND RECOMMENDATIONS

### 1.1 Introduction

1. Internationally the usual understanding of the term “urban upgrading” is the improvement of basic infrastructure and services, often including community facilities and security of tenure, in low-income communities, often informal, with the full participation of the communities. It does not include the provision of housing although credit schemes for income generation activities and which could include loans for house improvements, may be components of upgrading schemes. Upgrading is very much an improvement of a community “in-situ”. This view of upgrading does not yet appear to be well understood in Vietnam where most infrastructure improvement schemes in cities and towns are considered to be “infrastructure upgrading” schemes and the clearance and relocation of existing, mostly “illegal”, communities and the replacement of the housing stock (built by the people) with high, medium rise, or indeed other government-built housing solutions, appears to be a common understanding of “urban upgrading”.

### 1.2 Vietnam

1. Whereas the usual definition of urban upgrading may not yet be well understood in Vietnam, many of its cities and towns have, in fact, been carrying out “upgrading” initiatives for many years. These have however tended to be “single-sector”, tertiary infrastructure efforts. The alley improvement schemes carried out in dense urban communities of mixed income residents are probably the most common example of local “urban upgrading” initiatives. These schemes have usually been collective efforts between Districts and /or Wards and groups of residents who have come together and agreed to set back the front of their properties to permit the common alley to be widened and paved and to facilitate provision of other infrastructure (e.g. drainage). This has often been partially at the residents own cost and is a good example of local urban upgrading, albeit on a small scale.

2. New government policy requires that projects should be presented to, and discussed with, and controlled by the people – the State and the people should work together. Although some consider this process as somewhat dictated community participation, community meetings are held and projects and their financing is discussed.

#### *Ho Chi Minh City.*

3. *Local Initiatives.* There have been over 4,000 infrastructure improvement projects in HCMC over the past ten years and a number of these might be described as “urban upgrading projects”. These local upgrading projects (tertiary infrastructure) are usually proposed by the various ward authorities based on requests from constituents channelled through the local cells and neighbourhood leaders. The respective District Urban Management Units reviews these and often makes its own proposals. Ward authorities hold discussions with neighbourhood groups and works and levels of contributions agreed. It is quite usual that for any discrete project (e.g. an alley upgrading) that the residents fronting onto the alley to be improved would contribute up to 30% of the capital cost. Remaining funds would come from city budget passed down to the districts and wards and sometimes from the ward itself from the small “public service improvement” tax collected each year from each household in the ward. The level of these taxes varies from district to district. For these locally generated funds the districts and wards thus have a degree of autonomy.

4. For larger schemes for infrastructure (e.g improvements to district roads) serving areas larger than 1 ha, funded through city budgets, the usual Feasibility Study process is followed through to central government. When approved the district often manages the design process and any relocation required. Projects should however conform to the Master Plan and local area plans for which the Chief Architects Office is the arbiter. Projects are categorised into 3 classifications. For Class C urban infrastructure projects up to VD 5 billion (US\$ 350,000) procedures are simpler and decisions can be made at city department or district level. Broadly the distributor roads between districts are funded by the city, local district distributor roads by the districts and the local alleys by districts and wards in conjunction with the frontagers. Lessons learned include:

- a. Alley upgrading schemes are popular and effective but cover only “legal” residents and not the very poor.
- b. Alley upgrading schemes demonstrate the “re-blocking” concept which has proved a useful tool in achieving improved layouts and standards of access for residents as well as demonstrating the willingness of communities to contribute (on average 30%) to initiatives to improve their living environment. Their application in low income areas which are largely unplanned is required.
- c. The sectoral approach of alley upgrading schemes (access and drainage) carried out to date may have lost an opportunity to achieve even greater impact, as well as improving the efficiency of infrastructure delivery, by including other basic services (particularly in-ground services such as water supply)

5. *NGO Initiatives.* The involvement of NGOs in urban upgrading in HCMC commenced in the early 1990s through city Land and Housing Department (LHD) with the support ACHR. The HiepThanh community development project included 7 community water taps, upgrading of 400 meters internal alleys, access to loans for income generation activities (400 people with VD 86 million), waste collection system improvement and the construction of public latrines. The project was successful in getting the community to improve its own environment. In 1992 the LHD organized the first forum related to low cost housing improvement in HCMC including the different city departments, mass organizations and about 100 community leaders of different LCH areas. The forum encouraged upgrading as an important housing alternative for the poor. Several NGOs were interested in this approach and cooperated with LHD to develop 7 other projects between 1992 and 94.

6. City policy changed after 1994 with the development of the major relocation project of NLTN. At the same time the eviction program in District 4 lead to the destruction of the Hiep Thanh community. This experience showed the danger of potential eviction of communities even after being upgraded. The multi-storey collective building model became the major “upgrading” model for the city and the cooperation between the LHD and the NGOs ceased. Some international NGOs shifted their support to other partners such as the mass organizations or the ward authorities, while keeping the small-scale projects orientation. Some agencies eventually neglected the housing and infrastructure upgrading components, given their complicated nature, while focusing mainly on micro-credit initiatives.

7. From 1996, different integrated upgrading projects were initiated by the French NGOs, Enda and Villes en Transition (VeT), in partnership with local partners, namely the Youth Association, the Women’s Union and the Women Studies Department of the Open University. Areas selected for upgrading were those that would not likely be evicted in the future. Four upgrading projects, a relocation project-through small scale apartment blocks, and two other relocation projects- through site and services schemes were carried out.

8. All the projects had similar objectives, namely to promote sustainable development through a participative approach of local authorities and the community, while targeting the activities on living improvement for the poorest and on flood prevention. Lessons learned include:

- a. Because of land speculation, there is little will from some district authorities to preserve space for the poor especially in the city centre. However when convinced by the upgrading approach Districts play an essential role in project implementation.
- b. When having to be relocated, people prefer to be resettled on-site within low-rise, high-density buildings or through site and services projects especially when linked with housing credit.
- c. Self-built housing construction is the most efficient solution for resettlement in the HCMC context.
- d. NGO initiatives do not attract great city interest as they are at a very small scale but this can be an advantage as it can allow direct contact with the district authorities, that are often more flexible, and are more likely to support more appropriate solutions for upgrading.

9. *Donor supported projects.* There have been examples of “multi-sectoral” upgrading initiatives but these are few, and usually pilot schemes supported by bi-lateral agencies. Probably the best example, or at least the most well-documented, is the upgrading component of the Canal Tan Hoa Lo Gom Sanitation and Upgrading Project in Ho Chi Minh City which is supported by Belgian Technical Cooperation. The scheme that is nearing completion has upgraded water supply, drainage, sanitation, electricity supply and alleys over an area of just less than 1 hectare in which about 169 families reside. The interventions, which also include a micro-credit facility, represent the priorities of the families in the area ascertained following a participatory process. The package of improvements has cost about US\$ 50,000 per hectare or about US\$ 300 per household (approximately US\$ 60 per capita) for what might be considered as a “full” service level. People have not been required to contribute to the capital costs but to fund their individual water, drainage and electricity connections. The scheme has proved very popular with the community although some benefit and impact has been lost, by precluding non-registered householders from having water and sewer connections. Implementation has not been an easy task for the Project Management Unit (PMU 415) attached to the People’s Committee due to rigid requirements of sectoral agencies and long approval processes. Valuable lessons have however already been learned which should prove useful in designing any larger scale upgrading schemes, the very purpose of the pilot scheme. These lessons include:

- a. As no capital contribution was involved it is difficult to gauge the true priorities of the beneficiary households and whether, if a substantial part of the cost were required from the households, “full” service levels for all sub-sectors would have been selected, or whether they had a choice. Future processes of community participation would need to give some focus to this aspect.
- b. Engineering design standards as normally used for all development in Vietnam have been used although more functional standards (e.g. for water distribution network and electricity and streetlighting) might have been more appropriate.
- c. Cost does not appear to have been a design parameter considered and would need to be considered in future as an input to the design rather than an output if limited resources are to be spread as far as possible in an equitable manner.
- d. Physical works have been carried out on a sectoral basis (i.e. individual contracts for water supply; drainage and accessways; electricity supply) rather than in one “integrated” contract which would place the onus for installation of the various sectoral works on the contractor rather than the PMU.
- e. As the installation of both water and sewer connections are the responsibility of the individual households both to arrange and fund then there is likely to be repeated excavation/disruption in alleyways until all connections are made. Implementation of works would be more efficiently carried out in comprehensive packages of improvements.
- f. Bid documents should allow for an adequate contingency figure to permit on-site changes found necessary because of the difficulty in defining all works at the outset because of the density and irregular layout of the many communities.
- g. The participation, planning, design and implementation process for a very small scheme has been a long and costly process (15 months).
- h. The non-connection of non-regularized households, who have often resided in the community for some years, prevents optimum use of the upgraded infrastructure networks and more importantly reduces the benefits of the upgrading.
- i. If similar upgrading efforts are to be scaled up in any reasonable time frame then consideration should be given to “streamlining” the various sectoral approval processes.

## *Other Cities*

10. *Nam Dinh Urban Development Project.* Whereas the PMU 415 project is an example of the more typical urban upgrading scheme whereby the goal is upgrading of the quality of life of the residents through infrastructure and service improvements identified and planned in concert with the people (i.e. community participation is a means to an end), a very different type of upgrading scheme is a component of the Nam Dinh Urban Development Project which is supported by SDC. Here the project component is called a Community Participation Programme (CPP) under which the Environmental Health Micro Activities Programme (EHMA) sub-component is more focused on the upgrading of community awareness, skills and their empowerment. Basic environmental infrastructure and service improvements are seemingly a consequence of this process, rather than an objective at the outset. There are lessons to be learned from this approach particularly if the “scaling up” of upgrading efforts and the efficiency of infrastructure provision are overall city goals. These lessons include:

- a. Small community groups (up to 150 households), if fully included in decision-making regarding initiatives within their community, and if continually motivated, can make significant contributions (mostly the provision of labour) and feel a greater sense of ownership in what is provided thereby enhancing the possibility of continued maintenance (sustainability).
- b. The problems that motivated the CPP in the first place, namely poor environmental conditions, poor access to services, insufficient solidarity of community members and lack of awareness of environmental health problems are still prevalent (over 3 years after commencement) due to, among other things, community-based activities being not adequately coordinated with, and supported by, Municipal Service delivery and planning agencies.
- c. Communities normally have insufficient access to financial resources for local improvements as indicated by the Project’s successful credit programme for septic tanks.
- d. The implementation of network infrastructure (e.g. drainage and sewerage systems), albeit only tertiary, demands that the overall plan for the relative catchment or supply area has to be considered. If this is not done then interventions that people have contributed to may be of limited benefit and may, in the longer term, worsen the situation if, for example, drains are constructed to levels not in concert with upstream or downstream lengths. Thus great care is required in deciding what communities can and should do in terms of upgrading their environmental infrastructure. International experience has shown that communities are not normally best placed, nor technically competent, to address network infrastructure needs.
- e. The very positive gains made in the CPP in organising and empowering communities should be used to support responsible authorities in carrying out the functions they are charged with providing. If not then technically efficient, sustainable infrastructure, implemented to benefit as many people as possible in a reasonable time frame, and that also consider district and city-wide implications, is unlikely to result.

11. *Provincial Cities Project.* This UNDP supported project that was carried out in 5 cities (Viet Tri and Hia Dong in the northern region; Hue and Quy Nhon in the central region; Can Tho in the southern region) was aimed at building capacity for participatory planning and community-based approaches for development. It sought to support the generally under-resourced small, provincial cities to strengthen their role in national development. It thus worked directly with the cities rather than channel support through central and provincial government structures. The project gave focus to the alleviation of poverty through strengthening of the informal economy, the delivery of basic services, environmental improvement and development of partnerships with all stakeholders in such activities. Small pilot projects utilizing savings and credit group approaches and establishment of revolving funds were carried out. Projects such as alley paving, solid waste collection, water connections, latrines and septic tanks etc. benefited about 1500 households in the 5 cities. The Phase 1 preparatory assistance was intended to frame a major investment

project and a project document was produced but has apparently received little interest to date. Lessons learned to date include:

- a. Initial gains made in the involvement of communities (or small groups/individual households), particularly with regard to savings habits and contributions to capital improvements, are soon lost if there is not continual motivation and support and this threatens the sustainability of improvements made.
- b. Community participation efforts are constrained by a lack of trained and experienced national professionals in this field.
- c. Government agencies (central, provincial and local) may feel that some control is lost with “bottom up” approaches and traditional “top down” planning approaches (e.g. centrally prepared development plans) rarely address the needs and concerns of the poor and, in fact, usually affect the poor detrimentally (e.g. require the poor to be relocated).
- d. The limited visible impact of a few small projects and the relatively high software and transaction costs for limited capital investment appear to attract little interest from government and donors for continuing support. This essentially “micro” approach to addressing what are significant basic services and environmental problems in poor urban communities appears to achieve limited visible impact.

### 1.3 International Best Practice - Examples

1. To enable a comparison of local upgrading efforts with typical urban upgrading programmes and projects carried out in other countries, upgrading efforts that have been carried out over the years in four different countries and which are considered examples of best practice in urban upgrading have been reviewed. A detailed analysis (a case study) of one project in each of the countries has also been carried out. Purposely, to illustrate varying approaches adopted by different countries and cities, the countries selected are very different as is the upgrading typology undertaken. The countries are Indonesia (south-east Asia), Pakistan (south Asia), Ghana (western Africa) and Swaziland (southern Africa).

### 1.4 Indonesia

1. The Kampung Improvement Programme (KIP) in Indonesia is sometimes described as the “grandfather” of upgrading projects. International support for KIP started in the early 1970s and whereas the upgrading typology has evolved, still the upgrading of kampungs continues. Some kampungs have had a number of “passes” with incremental improvement. It is undoubtedly the best example of “scaling up” in that it became “institutionalized” with a national program of KIP supported with subsidies from central government across 200 cities in the country.

2. Although communities were involved in KIP (community participation or “gotong royong” has a long history in Indonesia) the programme has however been considered by many as more of a “top down” programme and certainly there was central, provincial and local government as well as much donor support. Inevitably therefore much was driven from above. However the achievements of KIP in improving the basic infrastructure and services to some tens of millions of people in cities across the nation in such a relatively short time at costs (in the 1970s-1980s per capita costs ranged from US\$35 –US\$75 depending on the time and the city) affordable by government have never been matched elsewhere.

3. The KIP typology was essentially basic services and infrastructure provision, including social infrastructure facilities (i.e. primary schools and health clinics) without direct capital cost recovery nor the addressal of land tenure issues. Lessons learned from over 30 years of kampung improvement include the following.

4. Urban upgrading is an appropriate and replicable approach to upgrading infrastructure deficient poor areas.

- a. Integrated multi-sectoral improvements designed to basic functional standards were successful in creating significant impact and benefit over a short period at low cost.
- b. The alleviation of unhygienic living conditions had a major impact on public health and provided an economic stimulus by improving services and promoting better hygiene/health, access and education.
- c. The upgraded infrastructure provided by KIP created enthusiasm in the communities, demands for further works and motivated the communities to provide more for themselves (e.g. housing improvement).
- d. With the kampungs normally making up more than half of the built-up area of most cities and estimated to house up to 70% of residents in many of them, urban upgrading programs are clearly the most important instrument for effecting rapid and affordable improvements to such areas. It would be important to remember that early urban upgrading programs (KIPs) were essentially physical improvement programs (tertiary and secondary infrastructure) providing elements that people alone find it difficult to provide from technical and financial viewpoints (e.g. infrastructure networks). However successful implementation of the programs, and perhaps more importantly, the successful sustaining of improvements provided, rely on the active support and participation of the benefiting communities.
- d. Urban upgrading programs (KIPS) provided only basic improvements and were not seen as the final solution to the areas. Infrastructure provided was to be capable of being further upgraded incrementally over time as and when aspirations and affordability of the communities increased.

5. The KIP Unit (Project Implementation or Management Unit) concept was successful in achieving physical aims of the project but did not support longer term strengthening of established local government departments. The future role of such Units is also unclear. More specifically:

- a. Project Management Units (KIP Units) planned and implemented the capital works programs generally successfully but the established delivery agencies saw their power and influence being eroded and considered they were better equipped and staffed to implement programs. Many KIP Unit staff worked part-time on KIP as they did not wish to jeopardize promotion opportunities in established career posts.
- b. Existing agencies were charged with maintaining additional infrastructure designed by, and for which construction was supervised by, others but they were generally in no better position to do so than prior to the KIP Projects. In future the capacity of institutions should be analysed in greater detail in formulating projects to determine whether, with appropriate strengthening, such Projects could be implemented through them or whether Project Management (KIP) Units are necessary. Where this analysis, and the size of the city and program, is considered to warrant a KIP Unit then it should be given departmental status and perhaps wider authority to deal with all kampung and/or housing related matters.

6. Greater focus is required on the operation and maintenance of tertiary and secondary (KIP) infrastructure, and city infrastructure generally. More specifically:

- a. For various reasons including lack of skilled knowledge and experience of maintenance programming and techniques, competing demands on limited budgets, the greater desire by cities for new, more visible projects, infrastructure provided is not being properly protected. Also community potential for carrying out routine maintenance programs was not harnessed as effectively as it might have been in many cities. Surabaya was perhaps a notable exception.
- b. Early projects gave insufficient tangible support to O&M. Development and implementation of such urban upgrading programs should consider beneficiaries as a major resource opportunity

and should recommend/implement mechanisms to efficiently channel and organize such resources for simple O&M activities.

7. KIP (micro or tertiary) infrastructure and services would more consistently achieve optimum efficiency and benefits if greater attention were paid in program design to city wide (macro or primary or trunk) infrastructure and the linkages between. More specifically:

- a. In planning urban upgrading projects due cognisance of off-site or city-wide needs (primary and secondary infrastructure) has not in many cases been taken into account or, if needs have been recognized, budget has not been available to implement necessary linkages to ensure tertiary and secondary infrastructure can operate effectively.
- b. A more comprehensive, city wide, approach should be adopted in future programs. This was recognized and the integrated infrastructure approach latterly adopted gave the opportunity to redress past 'linkage' problems.

8. Sanitation probably constitutes the most difficult problem to solve in often densely populated, poorly drained, flood prone, infrastructure-deficient, low income areas. Communal toilet and washing blocks (MCKs) can be effective (certainly in the short/medium term) but require to be very well managed and have good access and a reliable water supply. More efficient solutions still require to be identified in such areas in the longer term. More specifically:

- a. Some MCKs worked well and raised the community consciousness about the importance of good sanitation for health care, and persuaded residents of the need to replicate good sanitation facilities in their own houses.
- b. A high proportion of MCKs built in the projects did not operate effectively and predominant reasons were poor management leading to inadequate maintenance, a lack of a reliable water supply and poor location. Unless these problems are addressed communal washing and toilet blocks are a wasted investment.
- c. In the longer term with ever increasing pressure on land and with increases in water supply (creating more wastewater) it would be important to identify more effective but affordable sanitation solutions for low income areas.

## 1.5 Pakistan

1. Pakistan has a long history of urban upgrading, both through local efforts and efforts supported by multi-lateral and bi-lateral agencies, for over twenty years. Probably the most famous is the Orangi Pilot Project in Karachi, which was essentially a single-sector (sanitation) program, but carried out by the community itself. The toilets and lane sewers provided eventually covered about 1 million people in the low-income informal settlement. The program was planned, designed and implemented with the support of an NGO, actually called OPP.

2. Upgrading schemes have also been carried out in Lahore, both in very low income areas in the north-east of the city and in the old historic walled city. In north-east Lahore a subsidised multi-sectoral infrastructure scheme was implemented as was the case in the old walled city. In Faisalabad the upgrading typology was more focussed on the development of the community itself.

3. The North-West Frontier Province Community Infrastructure Project (CIP) also adopted a multi-sectoral approach, but had much greater community involvement starting with the development of community action plans by the respective communities, of which some fifty, covering 3,500 ha in which 420,000 people resided, were upgraded. The project was province-wide and included urban, peri-urban and rural communities. The project also supported necessary primary infrastructure. Densities tended to be low in NWFP and the per capita costs of the upgrading ranged from US\$43 to US\$52. A further refinement of the "infrastructure typology" was that up-front contributions from the communities at 20% of the cost of secondary and tertiary infrastructure were agreed and communities were also made

responsible for operations and maintenance of the infrastructure provided in the community financing agreements. Major lessons learned from the CIP include:

- a. Innovative, community-based projects must respond flexibly and adapt to the varying demands generated during the community mobilization process. Very few projects start out as truly demand responsive and adaptive. This often has to be learned. Process Monitoring is a useful tool to enable projects to learn from themselves by identifying, analysing and communicating problems arising from the complex interactions between projects and communities.
- b. Clearly stated project rules and proper understanding of these rules (e.g. selection criteria, scheme identification and prioritisation) by both project staff and communities and the correct application of those rules are essential ingredients for project success. For example inflexible rules regarding ratios of primary, secondary and tertiary infrastructure, prevented the Project from responding to communities that were willing to contribute more than required for a different mix of infrastructure. A case in point is that a community might demand a greater amount of primary infrastructure and be willing to pay a greater percentage of the capital cost for corresponding community infrastructure. Thus an opportunity to introduce an element of competition between communities was lost because of rigid project rules.
- c. Coordination and complementarity between social and technical assessments is critical for project success. The quality of social mobilization has important repercussions for scheme identification and selection, and community development units in the project need to be properly staffed and functional.
- d. To prevent loss of credibility due to delays in physical implementation resulting from lengthy government procedures, these procedures have to be streamlined but the sensitisation of communities too early should also be avoided. Communities must be effectively and sufficiently motivated, well aware and clear about rules and terms of the partnership, obligations and reasons for possible delays.
- e. Coordination and consistent policies and strategies between government (all levels) line departments and projects to prevent duplication and wastage of resources and inconsistent messages to communities are critical.
- f. A Monitoring and Evaluation system should include process indicators and mechanisms for timely feedback to project management and identify remedial action to allow problems to be addressed at the right time.
- g. The Community Action Plan (CAP) is a systematic and thorough procedure for identifying and prioritising community needs and an effective way to collect baseline information for later use in assessing impact. However the following weaknesses should be avoided:
  - i) Unreliable data collection by inadequately trained community members, and CIP staff overburdened in the data compilation process leading to numerous "clerical" errors.
  - ii) Excessive time spent in data collection at the cost of a participatory planning process and dialogue with communities which could lead to a more accurate determination of community needs.
  - iii) Too much unnecessary information collected.
  - iv) Community need assessments not based on participatory approaches but on formal surveys at the individual household level.
  - v) Too little time for actual community mobilization and awareness-building.
  - vi) Lack of meaningful involvement of women in the Project; women's participation is superficial, with no involvement at the time of subproject identification and planning.

- h. Sufficient time (a minimum of 56 months) has to be spent on community mobilization and awareness building before entering into an agreement with the community for the community to participate as an equal partner with the Project.
- i. There should be separate and effective measure (e.g. specific women's CBOs with linkages to the male CBO, a separate needs assessment focussed on the women's CBO etc.) for giving women "voice" and "choice", and involving them from the beginning of the planning process, particularly to engender ownership of the facilities provided and ensure their participation in the development process.
- j. Particular attention should be given to ways to best capture community demand, as opposed to individual household demand; one way of doing this involves dialogues and mass meetings and the use of participatory tools.

## 1.6 Ghana

1. Since the mid-1980s a series of urban development projects have been implemented in Ghana with World Bank support. Each has included an urban upgrading component. The Ghana upgrading typology is very much infrastructure driven. Early schemes were "top down" but evolved into the most recent community infrastructure upgrading project (CIUP), part of the World Bank supported Urban Environmental Sanitation Project. The CIUP made much greater effort to involve communities at the outset. Agreements reached with communities regarding what was to be provided (within an overall "menu"), local management structures, financing and operation and maintenance requirements were all set out in what were called "Facilities and Management Plans" which were signed by the community and the local government. The concept of cost per hectare limits and functional standards for infrastructure to keep costs in check were also key aspects of CIUP. Also at the outset project principles and the planning and design process was established. Although the scheme did not involve contributions from communities, for the first time local authorities contributed to capital costs and were responsible for managing and implementing the project. In earlier projects this had all been done by central government.

2. To date in Ghana upgrading projects have not addressed land and tenure issues or the provision of social infrastructure facilities. In the UESP over 260,000 people living in over 500 ha in 7 communities in 3 cities benefited from upgrading with costs in the order of USD26,500 per ha or approximately US\$52 per capita. Minimal resettlement was a design objective but where some houses did require removal to enable infrastructure to be provided resettlement and compensation arrangements were discussed and agreed with the communities. General lessons learned from this approach include:

- a. Efficiency gains in the management of the construction process were made by the use of local consultants and established local contractors who become an important interface with the communities during implementation and who often sub-contract small-scale contractors or community groups. Once completed, the upgraded infrastructure was taken over by the responsible authorities for operations and maintenance.
- b. "Keeping It Simple" was of paramount importance. The UESP was kept as simple as possible for ease of design and implementation. Consequently, it was completed close to planned time schedules, within estimated costs, and to good standards of workmanship. Investment in housing stock and small business by the people themselves soon began occurring in the upgraded communities demonstrating a positive effect of upgrading.
- c. Although the UESP (and earlier upgrading schemes) may be considered successful, certainly by most beneficiaries, government officials, donor officials and the public at large, there are, however, two major issues that need to be addressed in the future in subsequent upgrading projects and other parallel, complementary, initiatives. These are as follows:
  - i). Cost recovery. The UESP and earlier schemes have been subsidised by central government with, in the UESP, some contribution from local government (through their Common Funds- annual transfers from central government). Thus sustainability questions are

raised. Can government afford to adopt a similar approach with regard to infrastructure provision across all of Ghana's urban poor communities? If the answer to this question is no, then in future consideration needs to be given to devising a sustainable but at the same time equitable arrangement for recouping at least some of the capital outlay.

ii) Land and Tenure. The first issue above could be achieved by addressing the second issue and that is with regard to tenure and therefore land. To date tenure issues have not been addressed because of land administration complexities and also because the need for more formal security of tenure (i.e. some form of formal land title) is not always seen as the most critical need by the urban poor in Ghana. Investment in infrastructure by government has proved to be enough to encourage residents to invest in improving their dwellings and small businesses. Areas upgraded, and requiring to be upgraded, are generally established communities within cities albeit there may be pockets of informal development within them. However where land issues are clearer and the issue of formal title, as part of an upgrading scheme, is a possibility, then this also provides an opportunity to recover costs for the upgraded infrastructure through the sale of the plots. If this is not possible then recouping some costs in other ways, for example through betterment levies or through the property tax system should also be considered.

3. More specific lessons learned from upgrading schemes carried out in Ghana to date are summarized below.

- a. A "first wave" approach of providing minimum basic infrastructure allows a program to quickly reach large numbers of the population. In this, the community can experience the benefits and can better organize to participate in subsequent stages. With incremental follow-up, other infrastructure and social services, such as health and education facilities and income generation activities, can be built on this foundation. This staged process calls for advanced planning in the design of infrastructure to ensure easy "add-on" of expanded services.
- b. The lowest cost options should be actively sought to allow greater coverage with limited resources. This can be achieved through utilizing appropriate functional standards for infrastructure; developing reasonable resettlement packages (not overgenerous ones that can stimulate people's desire to be resettled); and not compromising on cost targets.
- c. Large scale programs cannot be carried out without the active involvement and fiscal commitment of local authorities. Greater efforts to increase local government revenues and recover the costs of upgrading should be built into programs.
- d. Enhanced cost recovery efforts should include, in the medium term, a plan to address land security/ownership (including registration and titling), as this would allow the government to recoup at least part of the cost of upgrading. Property valuation rolls should be kept up to date and property tax collection efficiency improved, possibly by use of the private sector. Betterment taxes could also be considered, but within a context of equity and ability-to-pay of residents.
- e. Realistic programs for improving city-wide operations and maintenance by local governments need to be developed. Ad-hoc maintenance programs, driven and funded by the communities themselves cannot support a scaled-up program. In the long term, the bodies legally charged with the task should be responsible for O&M. Financing of the start up costs of a revitalized O&M program could be considered as a component of the program.
- f. A large scale upgrading program invariably puts great pressures on the city-wide primary infrastructure and services networks. Planning for the expansion of the primary networks in conjunction with the upgrading of smaller communities is critical to ensure a functioning infrastructure delivery system.

- g. Any large scale program should establish a robust mechanism for monitoring progress and measuring the impact of its interventions. Greater efforts should be made to (a) determine baseline data on access to services (both infrastructure and social services such as health and education), on employment, on incomes, etc.; and (b) establish schemes to monitor the impact of upgrading schemes, particularly the social impact, would give a clearer picture of the true value of upgrading.

## 1.7 Swaziland

1. The Swaziland Urban Development Project (SUDP), which is supported by the World Bank, includes an upgrading component. Already in the on-going project, the upgrading of the Msunduzi informal community in Mbabane has been completed. The upgrading component of the SUDP is what might be described as the “classic” upgrading typology. This is so because the informal settlement, where people had squatted on government land over the years, was serviced with infrastructure, plots were re-blocked, a cadastral plan prepared and the cost of the secondary and tertiary infrastructure provided was recouped from the existing occupiers through the sale of their plots/houses to them and the issue of land title. This was done by costing the infrastructure provided on the basis of the saleable square meters and by charging the residents according to the number of square meters purchased (i.e. the plot size). As not all plots had a frontage on to a road in the very hilly topography and not all were able to connect to the existing sewerage system then there was also a mechanism to adjust per square meter costs according to different servicing scenarios. The Msunduzi scheme upgraded infrastructure and services to about 1350 plots (10,000 people) at an average cost of about US\$ 2 per square meter equivalent to about US\$ 12,000 per hectare or US\$ 120 per capita.

2. Other innovations were that the community also agreed to assist the “destitutes” (those who could not afford to purchase) within the community. Project Outreach Facilitators guided the community in the whole process including how to deal with government agencies in such matters as obtaining their title deeds or securing mortgage funding from the Swaziland Building Society that agreed to lend to the very low income.

3. Primary infrastructure was provided under other components of the SUDP and those elements of the Msunduzi scheme which had a more city-wide benefit ( e.g. the main loop road through the community linking it with the city road network) were given as a government subsidy to the scheme as was the land itself (already captured by the squatters in any event).

4. A number of very positive outcomes are already evident. The fact that the government agreed to sell the land, and the informal settlers agreed to purchase their plots, for the cost of the infrastructure provided, which is now happening demonstrates that the “classic” typology can work. The fact that plots thusfar purchased have been purchased with cash is interesting but also the fact that the premier housing finance institution stands ready to lend for the plot purchase, should people apply, is very positive. In addition beneficiary communities agreeing to assist the destitutes within their communities (e.g. through provision of small plots created through re-blocking) and government officials seeking ways, within existing legislation, for women to own plots are other very positive outcomes. On the technical side the acceptance of the multi-sectoral approach for infrastructure provision by the various concerned agencies and the adoption of appropriate functional standards to keep costs down have also contributed to the success of the scheme thusfar.

5. Lessons learned include:

- a. Relevant policies and legislation should be in place prior to implementation.
- b. Mechanisms for coordination between various stakeholders are important for effective implementation (e.g. Project Steering Committee, Project Coordination Unit, Community Development Committee)
- c. Project ownership by the beneficiary community is an essential pre-requisite that can only be achieved by effective community empowerment –

- Politically, through participatory decision making on matters affecting them
- Economically, through small works contracts and granting secure land tenure
- Socially, through community meetings and interaction with government through appropriate facilitators recruited from the community and trained

- d. Housing finance has to be made available through sympathetic financial institutions willing to participate and lend relatively small amounts with simplified application and processing procedures. Also supporting agencies may also need to be strengthened such as the Surveyor General's Office (for processing of township plans) and the Deeds Registry Office (for the issue and registration of land titles), as was done under SUDP.
- e. Implementing Agencies (IAs) need access to soft loans and/or subsidies, for some elements of upgrading from government, to undertake upgrading schemes for the poorest urban dwellers
- f. As technical and managerial capacity should be strengthened for implementation and to ensure sustainability through effective operations and maintenance
- g. Arrangements (e.g. enhancing affordability) to deal with marginal/destitute group need to be identified to avoid flight from the community and squatting elsewhere (e.g. peri-urban areas)
- h. Schemes involving interaction with, and participation of communities, are time consuming and their financing through revolving funds, which necessitate sequential implementation, may not be workable in acceptable time frames usually set by government and/or donors.
- i. Given that upgrading schemes by their nature are time consuming which means ever-increasing costs it is important not to sensitise communities, as to costs and affordability requirements, too early and risk having to inform them at a later date that costs have increased and they are required to pay more. This emphasizes the need for rigorous adherence to, cost conscious, affordable standards by IAs.
- j. Schemes where "network" infrastructure is provided in difficult conditions require careful planning and management. Experienced civil works contractors and experienced supervision consultants with local knowledge should thus be engaged

## 1.8 Comparison of Upgrading Typologies and Costs

1. There is no right or wrong "model" or typology for upgrading. What is decided upon will vary according to the particular situation. However there are some basic principles that generally apply to all schemes and which centre around sustainability. These include such aspects as the use of functional, appropriate standards/service levels to ensure affordability at all levels (i.e. householder, utility company, local government and central government), the need to ensure arrangements for adequate operation and maintenance and the need to ensure that there is adequate trunk infrastructure to ensure that any local infrastructure provided under an upgrading schemes is able to function properly. Also, and most importantly, schemes should be planned, designed and implemented in concert with the beneficiary communities to foster ownership and commitment. Implementation may follow an integrated approach or a sectoral approach. Whereas a sectoral approach is often less complicated, for impact and reduced disruption considerations, experience has shown that an "integrated, comprehensive or multi-sectoral" approach is generally more appropriate. The multi-sectoral approach with balanced investment across the basic infrastructure sectors with the "network" elements implemented together, usually in one "area-based" package for, among other things, construction management efficiencies and impact. However it has to be acknowledged and addressed in project design that such an approach is more complex and administratively more difficult. Cost recovery may vary from virtually full recovery (Swaziland) to full subsidy (Indonesia and Ghana). Likewise formal tenure, considered very important in some places and less so in others, may be given (Swaziland) or not featured (Indonesia, Ghana).

2. Based on a study of upgrading projects in a number of countries the more common upgrading typologies are set out and compared in the following table (Table 1). Vietnam's local upgrading experiences to date would appear to fall into the "sectoral with partial cost recovery –SCRNT" category. All have both advantages and disadvantages some of which are listed in the Table.

3. Current costs for "multi-sectoral" upgrading initiatives range from US\$ 14,000 to US\$ 57,000 per hectare or US\$ 40 to US\$ 120 per capita (see Table 6- Chapter 7). The key factors affecting costs are the service levels and standards (i.e. planning, design and construction standards) selected for the specific upgrading scheme. Population density also has a significant bearing on per capita costs particularly where schemes involve the provision of network infrastructure. The provision of such infrastructure, which is "area sensitive", for low-density communities means that per capita costs tend to be somewhat high and are often not affordable.

*Table 1: Comparison of Upgrading Typologies*

	<b>Typology</b>	<b>Description of Typology/Method/Approach</b>	<b>Advantages/Disadvantages</b>	<b>Country Examples</b>
1	Classic – plots sold (CS)	Comprehensive, multi-sectoral, integrated with land title/plot title given and based on cost recovery with plots priced to cover capital cost of infrastructure provision calculate on a “saleable square meter basis and plots priced according to size. Plots become “legal” and ultimately contribute to costs for maintenance through formal local taxation system (e.g. property rates)	<u>Advantage</u> Sustainable (covers capital costs) and “legalizes” beneficiaries, bringing them into the city and into payment for O&M <u>Disadvantage</u> Complex and time-consuming and expensive for low income and thus protection for “destitutes” required.	Swaziland Namibia
2	Classic-plots rented (CR)	Comprehensive, multi-sectoral, integrated with no land title/plot title given but a rental agreement and rentals based on partial capital cost recovery over time through rent	<u>Advantages</u> Legalizes beneficiaries and gives them some security. Provides a formal housing option for those unable to afford. <u>Disadvantages</u> Long term financing required and housing management by LA of Housing Authority needed.	Namibia
3	Integrated Infrastructure with cost or partial cost recovery (ICRNT)	Comprehensive, multi-sectoral, integrated but with tenure issues not addressed and with capital cost recovery via a betterment levy or similar payment for infrastructure provided.	<u>Advantages</u> Sustainable. <u>Disadvantages</u> Loses opportunity to give beneficiaries secure tenure.	Pakistan
4	Integrated Infrastructure without cost recovery (INCRT)	Comprehensive, multi-sectoral, integrated but with tenure issues not addressed and without capital cost recovery thus a government-subsidized approach.	<u>Advantages</u> Comparatively quick and easy to implement. <u>Disadvantages</u> Subsidized.	Ghana Tanzania Nigeria Indonesia THLG Pilot in HCM,Vietnam Cambodia India
5	Sectoral with cost recovery or partial cost recovery. (SCRNT)	Single sector (usually) but with tenure issues not addressed but capital costs partially recovered from beneficiaries direct.	<u>Advantages</u> Comparatively quick and easy to implement <u>Disadvantages</u> Loses opportunity to give secure title, to create a visible impact thus encouraging people to maintain infrastructure provided. Can create and imbalance in infrastructure provision and create inefficiencies in future with piecemeal provision and disruption and waste.	Vietnam
6	Sectoral without cost recovery (SNCR)	Single sector (usually) but with tenure issues not addressed and without capital cost recovery thus a government/utility subsidized approach	<u>Advantages</u> An improvement in service level in sector(s) upgraded <u>Disadvantages</u> As for above plus relies on subsidy.	Zambia (upgrading cannot take place without area being declared)

1. A number of challenges face Vietnam's government and local government in preparing and subsequently implementing an urban upgrading project. Although in recent years there have been moves towards decentralization, and the giving of more autonomy to local government, much still needs to be done to reduce constraints to helping the urban poor and to the upgrading of their basic services and living environment. Important factors and issues identified are summarized below and both short term and long term recommendations are made to address them.

2. **Master Plans, Detailed Area Plans and Community Upgrading Plans** Although such plans should be city-specific and hence contributed to by those affected and produced by city administrations, at present these are produced centrally. International experience of physical plans that apply rigid planning standards, are not linked to social and economic development plans and which are prepared without consideration of both financial and implementation capacity to implement them are thus rarely implemented in their projected time frames. Furthermore, rather than be a stimulus to providing innovative solutions to help cities and ALL their citizens develop, they tend to achieve the reverse and place difficulties in the way of such efforts. All cities should have visions as to how they would like to develop in the future and strategies to get there but these should be realistic. Urban upgrading programmes and projects which focus primarily on the provision of basic infrastructure and services for the poor should not be seen as a final solution to a particular area but as a first, incremental step and strategic element in achieving these visions. Unless this is so it is likely that nothing will be done in such areas and these unplanned, informal, infrastructure deficient communities will grow, and they and the neighbourhoods that surround them, will suffer further environmental degradation. ***In the short term it is recommended that local government consider existing approved Master plans and detailed local area plans as long term visions and apply them in a realistic, flexible manner. In the absence of realistic formal (legal) plans the Community Upgrading Plans to be prepared for Phase 1 communities in the VUUP sub-projects, which should not be only physical plans but management plans which set out all community upgrading details, costs, recovery arrangements, management arrangements and agreements between stakeholders should prove most useful tools. In the long term, consideration should be given to modifying the planning process such that plans cover, among other things, the following; i) are produced locally; ii) link social and economic development goals; iii) are costed; iv) take account of the financial and human resource capacity to implement them.***

3. **Community Participation.** Experience in many countries in recent years has concluded that if conditions in poor communities are to be improved and the improvements are to have a better chance of being sustained then such communities need to be actively and seriously involved in what is planned and what is implemented in their respective communities. If this is done then communities, even if poor, are usually willing to contribute to efforts to improve their environment and, more importantly, to see that improvements are looked after. ***In the short term the preparation of the Vietnam Urban Upgrading Project should ensure the active participation of the selected low income communities, as well as other stakeholders (e.g. utility companies, local District and/or Ward administrations) in the planning and implementation of the upgrading proposals for their areas which should respond to their requirements. In the long term the formal planning process should make such participation mandatory on local government that in the future should have responsibility for preparing plans to guide development***

4. **Human Resource Capacity.** Experience in many countries, which have embarked on upgrading programs, is that it is often not finance that is a constraint to preparing and implementing such programs, in both desired and given time frames, but the local capacity in terms of staff and procedures. Whereas in Vietnam there appears to be no shortage of technical expertise, there are few persons experienced in participatory planning and community motivation. ***In the short term projects will have to be realistic in what can be reasonably achieved in a given time frame. In the longer term the appropriate establishments (e.g. universities, institutes) should give greater focus to capacity building in this field as well as in the field of modern town planning.***

5. **Approval Processes** In addition to the above rules and regulations and the many sectoral approval processes required mean that considerable time, and much effort, is required to get from concept to implementation. This is usually made more tortuous when donors are also involved because of the addition of their procedures to the local processes. The pilot project in Tan Ho- La Gom in HCMC has provided valuable lessons with regard to this matter. ***In the short term local government should give consideration to streamlining the approval processes. This could be done through Project***

**Management Units and their Steering Committees where key infrastructure delivery departments and utility companies could be represented. In the longer term greater responsibility should be given at the local level (District and/or Ward) for issuance of approvals with regard to such matters as upgrading plans, planning, design and construction standards etc.**

6. **Security of Tenure and Unregistered Citizens.** International experience has shown that giving some form of secure tenure to the poor, who have often migrated to cities in search of employment and settle in informal, squatter areas, is the best way to stimulate such people to invest in their own shelter needs. Such security of tenure may take many forms and depends on many things including culture and history. In countries which have suffered oppressive, restrictive regimes in the past (e.g. South Africa) which have resulted in much relocation, official title documents giving security of tenure are invariably top of the list of demands of poor communities. In other countries (e.g. Indonesia, Ghana) the fact that government has decided to invest in the upgrading of the infrastructure in such areas and has crated significant visible impact in so doing, has been sufficient to stimulate both housing improvement and the establishment of small enterprises. In upgrading schemes in these, and many other countries, land and tenure issues were not addressed as part of upgrading projects. In Swaziland however the issuing of formal 99 year leases to existing occupiers (long term squatters) of plots at leasehold sale costs that covered the cost of the infrastructure provided was a cornerstone of the upgrading project. In Vietnam, whereas the difficult situation government finds itself in endeavouring to control the influx of migrants into its towns and cities is well understood, international experience has shown that it is difficult, and not humanely possible, to control such movement. The contribution that “illegal” migrants make to city development could be further extended (e.g. through greater investment by themselves in their housing needs) if they were made legal. The giving of official addresses and the formal registration of such people could have a significant affect on housing and environmental conditions in the poor, infrastructure deficient areas to which new entrants to cities migrate. Furthermore, in some cities (e.g. HCMC) utility providers are prohibited from providing a formal service connection (i.e. water, sewer, electricity). This results in the poor buying their basic service needs at up to 5 times more than they would have to pay the utility companies if they were allowed formal service connections or alternatively making illegal, and often dangerous connections to city utility systems. In addition the utility companies, in the process of becoming more commercially oriented, and which have often invested in networks to serve the “legal” occupiers of an area, are prevented from expanding their customer base and thus generating more revenue. Thus the policy of preventing “illegal: city dwellers from having a formal service connection appears to be a “no win” situation for the poor and the utility companies alike. ***In the short term, local governments and others should ensure that incoming migrants once settled are permitted to have an official address or whatever is needed to ensure that utility companies are able to provide formal basic water, sewerage and electricity services. In the longer term consideration should be given to phasing out the “registration” process such that people were free to move wherever they chose.***

7. **Scaling-Up Urban Upgrading.** There are many examples of urban upgrading pilot or demonstration projects throughout the developing world where there has and continues to be rapid urbanization and government (central and local) systems that are unable to respond appropriately through both financial and institutional constraints. Vietnam is one such example. There are a number of upgrading initiatives that have taken place over recent years through wholly local efforts (e.g. the alley improvement schemes), through NGOs (e.g. the Enda/VeT initiatives in HCMC) or through donor efforts in tandem with local government (e.g. THLG upgrading scheme in HCMC with BTC support and the community participation program as part of the UDP in Nam Dinh with SDC support). So the world is full of upgrading pilot projects. The challenge and the difficulty is to move from pilot projects to city-wide and nation-wide programs. With such programs now being more “demand driven” from the bottom up and the active participation of communities being a key project principle there are opportunities but also dangers when scaling up. With community “buy in” to efforts to upgrade their communities then support for programs and the likelihood of improvements being sustained are significantly higher than with the former “top down” approach. However gaining community consensus, and actively involving the communities throughout the planning and implementation process, is both time consuming and expensive. A balance has to be struck and project planning and implementation put within some boundaries. If not informal areas will grow faster than the process will be able to address their upgrading needs. A danger in targeting upgrading specifically on low-income communities is that infrastructure and service provision can become inefficient. The planning and implementation of basic network infrastructure (e.g. drainage/sewerage, electricity supply and often water supply) has to be looked at on catchment area, supply zone basis) if sense is to be made of service provision. On the other hand dangers inherent in

scaling up upgrading efforts is that much good work done in involving communities and that may have resulted in micro-infrastructure improvement may be undone if such efforts are disregarded when planning and implementing schemes on a wider scale. However unless efforts are scaled up so that the majority of urban poor communities can be significantly improved within the lifetimes of many of their residents then pilot projects which often give significant benefit and support to a few to the exclusion of the majority will continue. ***In the short term (preparation and subsequent implementation of the VUUP) planners, engineers and service providers generally should constantly remind themselves that the project is taking a “bottom up” approach and a key principle is the active participation of communities throughout. Likewise social planners/community participation specialists should constantly remind themselves that urban poor needs usually centre around basic infrastructure and service needs and that the efficient provision of these has to be viewed on a wider scale, not only for the benefit of the poor communities themselves but the city as a whole and of the service providers.***

8. ***Support Programs*** Although the majority of urban upgrading programs and projects most often focus on the provision of basic tertiary infrastructure and services, as these are usually the highest priorities of the poor communities being addressed, other components often form part of an overall upgrading program and can be equally as important. Social infrastructure facilities (e.g. pre-schools, primary schools, primary health care clinics, market improvements) are often included as part of, or parallel with, basic infrastructure and services initiatives. In addition micro-finance programs that can provide loans for small-scale enterprise development at the household or community level and also small loans for house improvements (e.g. toilet/septic tank provision) are also quite common upgrading program components as is already the case in some projects in Vietnam (e.g. provincial cities community development program). Where security of tenure and the issue of land/plot/house titles is deemed critical then programs to support improvements to the land, cadastral and registration institutions and systems is also often necessary and is a support component either as part of the upgrading program or as a parallel initiative. Thus upgrading programs can become very complicated and this presents a danger. In covering basic engineering/utility services, which require the input of local government and utility agencies such multi-sectoral programs are already complicated. With the addition of social infrastructure, health and education departments also have to become involved as often does the financial/banking sector if micro-finance components are also included. Thus great care has to be taken that well-intentioned upgrading programs and projects, which attempt to respond to the various demands of communities, do not become so complex as to make their timely implementation very difficult if not impossible. The old adage of “keeping it simple” should always be borne in mind. In framing upgrading initiatives it is not imperative to include ALL components in one program with management and implementation responsibilities in one department or Project Management or Implementation Unit. ***Consideration should be given to “support” programs being separate programs, complementing the mainstream upgrading activities, but managed by the specialist departments responsible and financed and implemented separately. This may give all activities a greater chance of being implemented in a timely manner.***

9. ***Comprehensive, Multi-Sectoral Approach.*** As can be seen from the “Typologies” table earlier there are many differing approaches and typologies that have been used to improve basic services for the poor. The usual approach has been the single sector approach, which is usually the normal way of delivery of infrastructure and services for all income groups across the cities of the world. Whereas such an approach is the simplest it has a number of shortcomings particularly in the provision of services in poor, often informal and unplanned communities. A common objective of upgrading programs is to give existing residents, often living informally or illegally, a sense of security that they will not be evicted. As stated earlier in some countries (e.g. South Africa) this has to be a formal title but in others (e.g. KIP in Indonesia) the mere fact that government has invested in an area is sufficient security and people invest in their own houses and small-scale businesses. However for this to happen there is a need for improvements to be very “visible”. This means that single “in ground” sectoral improvements, although often greatly benefiting individual households do not always achieve the visible impact required to stimulate the community as a whole to invest in, and subsequently take greater pride in, their community. In addition if communities actually see the impact of upgrading efforts they are also more inclined to pay their local dues (e.g. property taxes) such that the responsible authorities have less excuse for not maintaining the infrastructure provided. Another criticism that most communities (all income levels) often level at local government and delivery agencies is that there is continued disruption in communities due to the piecemeal provision of services. Stories of Water Companies, for example, laying new water supply lines in roads soon after the roads have been constructed or resurfaced are heard all over the world. The

same applies to drains and sewers and electricity cables. In poor communities, which have little in the way of existing infrastructure, there is thus an opportunity to provide a package of service that respond to the people's demands and that can be constructed together for maximum impact and minimal future disruption. This has been achieved with considerable success in many places (e.g. all the four international experiences described in this report). ***The adoption of the multi-sectoral approach to upgrading is however a considerable challenge for Vietnam where there appears to be a greater rigidity in infrastructure and service delivery agencies and a very sectoral approach. Nevertheless it is considered that if the VUUP is to be a success such a multi-sectoral, comprehensive or inclusive approach has to be adopted.***

10. **Standards, Service Levels and Community Choice.** Both from "ownership" and limited financial resources of government (central and local) contributions from communities are often sought. Willingness to pay and affordability are thus key considerations in the participatory process. Financial considerations have to be part of the dialogue with communities when priorities, standards, service levels, and choice is discussed. One of the greatest mistakes that many governments and the responsible agencies have made in many places is providing infrastructure to standards and service levels that people do not need. This is a waste of scarce resources and usually ends up providing a high service level to a few and no services to the majority. In dialogue with communities many programs have benefited from using a costed matrix of basic infrastructure and services, which indicates arrange of possible service levels and the cost implications of choosing one as opposed to another. Both capital and recurrent cost implications on households regarding the community's choice of service level can and should be shown. The establishment of such a costed matrix also has other advantages and that is for those involved in costing overall programs and in making ultimate decisions on standards and service levels. A sample of such a matrix is set out in this report as Annex B ***It is recommended that consultants to be engaged in the planning and design of upgrading programs should develop such a matrix in each city in concert with the respective service delivery agencies which should be used as one tool in the community participation process as well as a quick, order of magnitude tertiary infrastructure costing tool.***

11. **Costs.** Linked to the above is the question of costs, affordability and the most efficient use of scarce financial resources. For communities, local government and utility agency planners and engineers it is necessary to set out some cost parameters at an early stage. Unless this is done a project can finish up using its limited resources to benefit only a few thus defeating its objective of providing functional improvements to many rather than high service levels to a few. Right from the early days of KIP in Indonesia the concept of total and sectoral cost limits has been applied in many schemes. It is still considered an appropriate concept to avoid imbalances in service provision both between and within communities. Adjustment is of course need depending on the particular existing conditions in any community. ***However generally cost per household or cost per hectare limits (more appropriate for network infrastructure costing although not for household discussions) should be developed and adhered to unless in exceptional situations. Thus for different density and service level scenarios realistic upgrading costs on a per hectare, per household/capita basis should be developed by the preparation consultants in conjunction with the relevant agencies and once agreed as maximums should be adhered to during project development and implementation.***

12. **Primary and Secondary Infrastructure.** A problem that has occurred in the past on many upgrading initiatives internationally is that in planning and designing the tertiary infrastructure for upgrading communities scant attention has been paid to the primary and secondary infrastructure that is required to adequately serve the tertiary infrastructure proposed. To a degree this has occurred in the Community Participation component of the Nam Dinh Urban Development Project where micro level improvements for one small group of households has not adequately considered the implications for adjacent communities and on the secondary infrastructure availability and/or needs. There have been too many instances of new water distribution systems installed but little water and/or insufficient pressure to serve them. ***In planning and designing the tertiary infrastructure components of upgrading programs therefore due consideration must be given to the secondary and primary infrastructure position such that the tertiary infrastructure may be effectively served.***

13. **Resettlement.** Unless households have settled on hazardous areas which places their lives in danger (e.g. canal banks, railway lines) or where the functioning of, for example natural watercourses, is seriously impeded, then every family that has to be resettled should be seen as a failure on the part of

policy makers, planners and engineers. It means that they have failed in developing innovative and flexible policies, plans and solutions to try to keep households in place. Considering people first rather than planning standards and infrastructure would likely avoid much resettlement in Vietnam's cities and hence much cost and disruption of families. Funds saved, by reducing compensation payments allows more funds for positive in-situ improvements. Where resettlement is unavoidable people should be relocated in appropriate shelter close to where they currently reside such that they are not worse off economically. ***A fundamental principle of upgrading projects from very early days was that the removal and resettlement of families as a result of upgrading schemes should be minimized. It is recommended that this be a fundamental principle in the planning and design of the VUUP.***

14. ***Operation and Maintenance.*** An important aspect of upgrading projects relates to the sustainability of infrastructure provided. Sustainability in this case means the arrangements put in place to ensure the investments provided are properly operated and maintained. Unless appropriate arrangements are made there is a risk that the infrastructure provided will soon fall into disrepair particularly given the high densities and thus heavy use that the infrastructure receives. With "ownership" by the communities and often high levels of unemployment and under-employment there are opportunities for involving communities in maintenance tasks, certainly those that are labour-intensive. At the same time the poor should not be asked to do, and pay for, what the better off have never done or paid for. Also the authorities that are legally responsible for maintenance should not be allowed to escape their responsibilities. ***As part of the participatory planning exercise O&M responsibilities need to be discussed between all stakeholders and it should be agreed and clearly understood who is to be responsible for what, who pays, what sanctions may be applied etc. and details should be set out***  
***in the Community Upgrading Plans.***

## **2.0 BACKGROUND TO STUDY AND METHODOLOGY**

### **2.1 Background to Study**

Recently there has been a revived interest in upgrading poor urban communities in many developing and transitional countries across the world. In the 1970's and 1980's international donors supported many projects which sought to upgrade low income communities but interest faded such that few projects aimed specifically at the urban poor were embarked upon through the 1990's. Fortunately the renewed interest has prompted many multi-lateral and bi-lateral agencies to again focus on programs and projects aimed directly at improving the quality of life of the urban poor.

Many millions of people live in poor urban communities in often squalid, unsafe and unhealthy environments that lack basic infrastructure and services. These communities, often referred to as slums, are growing rapidly and are projected to double in size in the next 25 years. To date efforts have largely been locally driven with limited resources hence serving only a few lucky deficient communities.

In May 1999 a global partnership was formed which included the UNCHS and the World Bank with other UN agencies, regional development banks, bilateral agencies, local authority associations, NGOs and the business community. This multi-donor alliance and their development partners were named The Cities Alliance. The CA marshals the resources, experience and knowledge of its partners to focus on two priorities of action. It was conceived to improve the efficiency and impact of urban development cooperation, namely a) linking the process by which local stakeholders define their vision for their city, analyse its economic prospects and establish priorities for action, with investment strategies for implementation, and b) making unprecedented improvements in the living conditions of the urban poor by moving to city wide and nationwide scales of action. In September 1999 the "Cities Alliance Cities Without Slums" Action Plan was prepared and distributed at the World Bank's Annual Meetings.

Within this context, namely citywide and nationwide upgrading of low income communities to improve the environmental circumstances of the urban poor, this study, "Enhancing Access of the Urban Poor and Vulnerable Groups in Vietnam to Basic Infrastructure and Housing", was approved for funding by The Cities Alliance, following a Government/Donor/NGO workshop held in Vietnam, in October 2000.

The Study was framed to include 5 main inter-related tasks. These were:

- Task 1- Assessment of Constraints faced by the urban poor in housing and infrastructure;
- Task 2- Review of Recent and on-going urban upgrading programs and comparison with international best practices;
- Task 3- Development of a National Policy Statement on the provision of shelter and access to basic infrastructure and services for the urban poor;
- Task 4- Development of a detailed action plan for a selected city based on the policy developed in task 4;
- Task 5- Dissemination and Capacity Building.

In May 2001, Banes Dawes Associates (BDA) were contracted by the World Bank (the secretariat for The Cities Alliance) as the prime consultant to carry out Task 2 of the Cities Alliance study and within BDA Mr. Chris Banes, a principal of the firm was charged with managing and carrying out the Task. This report is in response to the Terms of Reference (Annex A) for Task 2 of the study.

The overall objective of Task 2 is to evaluate past and current upgrading interventions, both national and local, which have targeted the urban poor and make a comparison with world-wide best practice, all to serve as a guide to future initiatives for the urban poor. Projects past and present will be examined in order to elucidate the key factors that have contributed to the successes and/or failures of urban upgrading efforts in Vietnam and in other selected countries.

## 2.2 Methodology

For purposes of carrying out and managing the study the task was divided into a number of major tasks and sub-tasks. Responsibilities and dates were given to each of these tasks and sub-tasks. Two major fields of information were required. These were firstly information on upgrading initiatives in Vietnam and secondly information on major upgrading initiatives, past and present that have been carried out internationally. For information on donor funded local upgrading initiatives and for collection of information on "international" upgrading projects Mr. Banes visited Vietnam in May/June 2001 and October/November 2001 and used his personal experience, and that of multi-lateral and bi-lateral agencies. For collection and presentation of selected data on locally funded upgrading initiatives two Vietnamese consultants were engaged one focussing on the south (HCMC and Can Tho), Mr. Nguyen Viet Thanh and one in the north (Hanoi and Haiphong), Professor. Dr. Le Hong Ke. In addition, further information was collected by Mr. Benoit Legrand, carrying out a related task for BTC. Mr. Banes and Mr. Legrand liaised in Vietnam during October/November 2001.

Formal presentation of the Final Assessment Report for Task 2 and for other CA Tasks (carried out by others) will take place at workshops to be held in March 2002.

## 2.3 Acknowledgement

Banes Dawes Associates Ltd. would like to acknowledge the help and assistance of all who gave their time and assistance and supplied information that has enabled the preparation of this Country Assessment Report. Particular thanks go to officials of the Ministry of Construction, of various departments of the Ho Chi Minh City administration, ODAP, local staff responsible for urban development of the World Bank, UNCHS, SDC and BTC particularly the staff of Project 415, the Canal Tan Hoa Lo Gom project in HCMC and consultants working on various upgrading and related initiatives in Vietnam.

### 3.0 CONTEXT

#### 3.1 The Country

Located along the eastern coast of the Indochinese peninsula Vietnam is about 1600 km long. It is very narrow in the centre, being only 50 km wide at one point. It has an area of approximately 330,000 square kilometres and a population of approximately 76 million giving a population density of about 230 persons per square kilometre making it one of the most populous countries of the world.

The country has two main cultivated areas namely the Red River Delta in the north and the Mekong Delta in the south where mostly rice is grown, Vietnam being one of the World's largest rice exporters. Approximately 75% of the country consists of mountains and hills.

All of the country lies in the tropics or sub-tropics and it has in fact a very diverse climate because of its wide range of latitudes and altitudes. It lies in the eastern monsoon zone and most areas of the country receive in excess of 2000mm of rainfall annually.

Years of war and unsustainable economic policies have exacerbated the economic difficulties the country faces. It is one of the poorest countries in Asia and is highly indebted. It has an estimated per capita GDP of US\$ 320. Monthly earnings in Ho Chi Minh City are less than US\$ 100 per month and in other areas around half of this.

#### 3.2 Organization and Administration

The Socialist Republic of Vietnam (SRV) espouses a Marxist-Leninist political philosophy and has a political system dominated by the Communist party. The most powerful institution in the Party is the Political Bureau. The Party's decentralised structure has however allowed local leaders a fair degree of responsibility. Major policy changes are ratified at periodic Party Congresses. The highest legislative body in the land is the unicameral National Assembly, with upward of 500 deputies, which ratifies Politburo decisions and legislation. The Government, an executive body of Congress is the highest national administrative body of the SRV. Under this structure there are some 25 Ministries. Key Ministries that impact on urban development are as follows:

- Governmental Office which evaluates projects submitted by Ministries;
- Ministry of Planning and Investment which is responsible for managing the overall socio-economic development plan, managing domestic and foreign investment, assessing investment projects and coordinating resources;
- Ministry of Finance which is responsible for accounting of government funds;
- Ministry of Environment, Science and Technology which enforces regulations and standards related to the environment and approves environmental impact reports;
- Ministry of Construction, which is responsible for overseeing development of Master Plans, ensuring projects correspond with approved urban planning, and enforcing construction regulations and standards.

At major city level (e.g. Ho Chi Minh City) the People's Council is the legislative body and the People's Committee the executive body. The President of Ho Chi Minh City for example is equivalent to a position of Minister in central government and reports directly to the Prime Minister. To support the People's Committee there are Municipal Departments as well as City Companies. Key departments and companies are as follows:

- Department of Communication and Public Works (TUPWS) responsible for public transportation including roads, waterways, drains, sewers, lighting, parks, bus depots and overseeing the Transportation Company;
- Department of Cadastre, Lands and Housing (DCLH) responsible for mapping, land and housing management;
- Price (Finance) Department responsible for managing City budget;
- Department of Planning and Investment (DPI) responsible for the development budget, distributing the capital resources from central government, approval and evaluation of development projects;

- Department of Construction responsible for housing and issue of building permits etc.
- Chief Architects Office responsible for physical planning including monitoring of the City Master Plan and approval of planning applications.
- Water Company responsible for production, transmission and distribution of potable water;
- Power Company responsible for the distribution of electricity;
- Urban Drainage Company responsible for planning and implementing drainage projects.

Large cities are also sub-divided into Districts (Quan) and Wards (Phuong) each with their own administrative structures. Both levels of government have their own staff and are responsible for certain activities. In Ho Chi Minh for example Districts are involved in secondary infrastructure upgrading and Wards in tertiary level infrastructure upgrading. At the District level Urban Management Units are key units with regard to planning and implementing secondary and tertiary infrastructure projects. Smaller cities (e.g. Can Tho and Nam Dinh) do not have districts. Wards are the highest level sub-unit of the local government of smaller cities.

### 3.3 Urbanization and Problems Created

#### The Country.

Although Vietnam is densely populated it is not highly urbanized with an urban population of only about 20%. However in recent years it has experienced rapid urbanization and it has been projected that the urban population will increase from the 15 million in 1995 to about 46 million in 2025. It has been estimated<sup>1</sup> that about 40% of HCMC's population live in "temporary" housing in poor, largely unplanned settlements with poor infrastructure, services and environmental conditions.

Vietnam has 12 towns with populations in excess of 150,000. Of these some 80% live in three cities, Ho Chi Minh City (approx. 6 million), Hanoi (approx. 3 million) and Haiphong (approx. 1.7 million). The population density (230 persons per sq. km) is one of the highest in the World for an agricultural country largely due to the period when Vietnam encouraged large families. Much of the Red River Delta area has a population of 1,000 people per sq. km. The national population growth rate is now approximately 1.5% per year but the urban growth rate is in excess of 2.5 % per annum.

Vietnam's cities suffer the familiar problems of rapid urbanization experienced by many countries in Asia, Africa and South and Central America. A failure on the part of governments, both national and local to adequately respond to such growth has led to the proliferation of unhealthy, poorly serviced, infrastructure-deficient, informal settlements which prove to be the only housing solution to the urban poor. Because of land constraints the development of such settlements is often on public and/or marginal land. They are the products of failed policies, poor governance, corruption, inappropriate regulations and planning and technical standards, dysfunctional land markets, unresponsive financial systems and often a lack of political will.

#### Ho Chi Minh City.

*Background.* Formerly Saigon, in the south, and some 300 years old, it was developed following the old French grid pattern for a population of 500,000. It is the commercial and economic hub of Vietnam, producing a quarter of the country's gross domestic product. One third of all small enterprises and light industry as well as 35% of the country's trade are concentrated in the city. The economic structure of the city in GDP terms is service (55%), industrial (42%) and agricultural (2%), in GDP structure. The annual economic growth, in recent years, has ranged from 7% to 13%.

It is the main destination for rural dwellers migrating to urban areas although this was officially curtailed by the new regime established after the war in 1975. Although this policy is still in place the city, Vietnam's largest, has continued to grow and is said to contain approximately 2 million "temporary" residents in its total of about 6 million with population densities over 1,000 persons/ha. Many of these residents are located on hazardous land including most of the banks of the canal network within the city.

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<sup>1</sup>Urban Poverty in the East Asia Region: Particular Focus on the Philippines, Indonesia and Vietnam by EASUR, World Bank, July 2001

Administratively Ho Chi Minh City, has 17 inner districts and 5 suburban districts. It has a population of over 5 million inhabitants and in the city centre population density reaches 2,300 per ha. There are some 3.4 million inhabitants living in the city centre with population density reaching 2,000 per ha. Population is forecast to reach 7.5 million inhabitants by the year 2010, of which the urban population is forecast at 6.5 million (growth at 2.7%-2.8% p.a). The transient population is estimated to be another 20-25% of urban inhabitants giving a population to be served of approximately of 8.7 million inhabitants.

The city is situated on flat, low-lying land and is affected by semi-solar tide and has an average level from 0.5m to 10m above sea level. More than 50% of land proposed for urban development lies only 2m above sea level. Natural rivers of Ho Chi Minh City form an interlacing system. Canals in Ho Chi Minh City form the primary sewerage system for the area of 14,000 ha. There are 5 catchment areas, namely: Nhieu Loc – Thi Nghe (33km<sup>2</sup>); Doi-Te canal (37km<sup>2</sup>); Tau Hu – Ben Nghe canal (12km<sup>2</sup>); Tan Hoa – Ong Buong – Lo Gom (16km<sup>2</sup>); and Tham Luong – Ben Cat – Van Thuat (44km<sup>2</sup>). Ho Chi Minh City is a very important strategic location for transportation both local and international.

Development has not followed any coherent pattern and densities vary considerably between and within Districts. For example within Tan Hoa La Gom drainage basin, densities range from about 500 persons per hectare in District 11 to only 130 p/ha in Tan Binh District. Some areas, particularly the ones along the canal, are particularly crowded with almost 1,000 p/ ha albeit that development is largely one or two storeys only. These residential areas consist of compact blocks with tortuous and narrow alleys (from 1 to 3 m). In contrast, the new urbanized sections developed by District “companies”, such as the Binh Phu project in District 6, are well structured with wide roads and good quality buildings of 3 to 4 storeys. However this type of development is the exception. Generally the urban development is rapid and largely uncontrolled. There are also an increasing number of legal owners of agricultural lands who are subdividing but providing only minimal services without legal authorization but through “arrangements” with the local authorities.

*Organization.* Ho Chi Minh City is the city belonging to the centre level (similar to a Province) and reports directly to the Central Government. The People’s Council is the city-level legislative body; and the People’s Committee the executive body.

The People’s Committee of Ho Chi Minh City has overall responsibility for infrastructure projects in the city including urban upgrading projects. In future years it is envisaged that there will be many urban upgrading projects, such as electricity, transportation, schools, hospitals, sewerage and solid waste management and thus the capacity of the People’s Committee of Ho Chi Minh City in preparing, managing and implementing projects will be critical to their success. The Municipal Departments and their Companies support the People’s Committee and are responsible for managing their own tasks (see section 2.2).

Many local tertiary upgrading initiatives are however planned and implemented by District Administrations and, within them, often Ward Administrations.

*Problems.* In HCMC the most significant problems occur adjacent to the many canal systems. Here low-income development has generally taken place on or near to canal banks on land prone to flooding and originally reserved for canal access and maintenance. However in most central areas densities are high and public space limited. Up to 40% of the population are classified as poor and about one-third are “illegal” and living in housing conditions described as temporary. With regard to infrastructure the most significant problem relates to drainage/sewerage and waste disposal. The many, often navigable, drainage canals are also the primary foul sewers to which the secondary and tertiary combined drain/sewers discharge. The environment close by to these canals is extremely unhealthy and unpleasant. As is common with most unplanned areas the availability of potable water is limited and is only available in sufficient quantities through water vendors at costs many times the official cost charged by the Water Company when and where water is available. Given that in most Districts of the city much development has occurred in an unplanned manner access to, and within, many residential areas is tortuous with narrow, winding alleyways. These create environmental and fire hazards and make access for emergency service vehicles difficult. Much of the solid waste generated in these areas finishes up in the canals and open drains exacerbating drainage and environmental problems.

### Hanoi.

*Background.* The nation's capital situated in the north, is the second largest city and has a thousand year history. It covers almost 1million square kilometres and has a population approaching 3 million giving a density of approximately 3,000 per/sq. km. but with much higher densities in central city areas. Since 1986 it has followed a Renovation Strategy and adopted an Open Door Policy to stimulate economic and social development. Between 1995-2000 GDP growth was 14%. The city has 7 inner city districts with 220 wards plus 4 peri-urban districts with 118 communes.

The city's Master Plan for 2020 envisages a population of between 4.5 –5.0 million of which half would locate in central districts and the other half in the peri-urban areas with a city extended by a further 120 sq. km. If population predictions are correct the demands for housing and infrastructure will be significant and met predominantly from illegal, semi-legal settlement and densification.

*Organization.* Central ministries, city departments, agencies and companies are all involved with urban upgrading. Apart from central government ministries, such as the Ministry of Planning and Investment and the Ministry of Construction, there is the National Institute for Urban Society (NIUS) and the National Institute for Urban and Rural Planning (NIURP) that prepares Master Plans. At the city level key agencies are the Department of Investment Planning, Department of Construction and Department of Land and Housing and the utility companies.

*Problems.* The city is deficient in many of the infrastructure sectors, and particularly those serving the poor. Deficiencies include: Insufficient water supply with significant losses; inadequate drainage causing frequent flooding in the rainy season; and less than 60% of the city's solid waste managed. Nevertheless the problem and extent of poor quality, temporary housing and large concentrations of slum areas is not as evident as in HCMC.

### Other Cities and Towns

The situation in Vietnam's other cities, while not of the same scale as HCMC, is nevertheless similar as regards poverty, infrastructure, housing and legal status. Particularly poor housing and infrastructure conditions are evident in Can Tho in the south and densities are high in central areas of Nam Dinh where old state housing is also in very poor condition. In Haiphong the most acute problems appear to be in the peri-urban areas rather than the more central areas. Generally in the north the quality of housing stock is better than the south which is in large part due to the more harsh climatic conditions in the north in winter.

## 3.4 Past Responses

Until very recent years the overriding response to informal, "illegal", settlements has been much as in other countries, that is they should not be there and thus considered only as temporary and to be removed in future. This position has often made it difficult to carry out improvement programs, other than on an emergency services basis. In Vietnam there appears also to have been a misconception about what "urban upgrading" means and is! Whereas the international development community consider that it primarily involves the provision of basic services, in-situ, with the participation of the communities benefiting but not involving actual house construction, this has not been the understanding of most in Vietnam. Here the upgrading of an area has usually meant its removal and renewal with something (usually high or medium rise apartments) considered superior. Also, a much broader definition has been assumed by many and that is that any infrastructure investment improvement in an existing urban area is "urban upgrading".

However some tertiary infrastructure improvement has occurred in many Wards, often carried out through the Ward or District authorities which may be considered as upgrading, in accordance with the usual international definition, but which has been seen as just a usual infrastructure improvement by the Authorities. Particular examples of this are the alley improvement programs carried out in most cities where, under the guidance of local District or Ward officials groups of residents fronting an alley have joined together and have partly contributed to schemes to improve their alley. Such schemes would include the provision of new drainage and alley surfacing and in some cases people have agreed to take their building lines back to achieve a widened alley. People have also contributed to such schemes. This is an example of urban upgrading with active community participation albeit for only limited sectoral

improvement and for those with a legal occupancy right and who would unlikely classify as poor using Vietnam's poverty criteria.

A few other, more comprehensive, multi-sectoral upgrading schemes have been carried out on a pilot basis with donor support. These include the Canal Tan Hoa Lo Gom Project in HCMC which has a pilot upgrading component and is supported by BTC. This is detailed in section 4.0 as a Case Study. In addition there have been a number of other pilot upgrading initiatives mainly with French support and planned and managed by a French NGO group (ENDA/Villes en Transition). However there is no policy that covers multi-sectoral urban upgrading. The fairly rigid structure of local city administrations makes it very difficult for such upgrading to become "mainstream" and thus the many useful lessons learned from the small scale efforts carried out to date have not yet been applied in a scaling up of upgrading initiatives.

## 4.0 UPGRADING PROJECTS AND PROGRAMS

### 4.1 Ho Chi Minh City

#### Local Initiatives.

4.1.1 *Legal Framework and Expenditure.* Decrees of August 1999 and May 2000 amended regulations with regard to investment and construction. Such projects are divided into three different classifications (A, B and C) dependent on, among other things, type of project and its value. From information supplied by HCMC that projects, considered by HCMC as urban upgrading projects, implemented over the past 10 years number 4,285 projects with a cost of VD10,757,723 million (approx. US\$ 827 million). Clearly this is for general infrastructure projects in the city NOT for what are normally considered as urban upgrading projects. Although the definition of urban upgrading projects is unclear in Vietnam nevertheless many tertiary infrastructure projects focussed on poor, infrastructure deficient areas have been carried out over the past ten years. As an example in one district (8) in HCMC the average annual expenditure on the alley and drainage improvement schemes, the most common local upgrading initiative, is approximately VD 3 billion.

4.1.2 *Local Initiatives.* Districts in the city have carried out a number of tertiary infrastructure upgrading projects over the past three years. Most of them have completed the paving of the alleys as requested by a Party Decree. Whereas local initiatives are carried out relatively quickly, district authorities express concern over the long planning, design and implementation schedules of donor-funded (ODA) projects and the fact that they do not always focus on the priorities of the districts.

4.1.3 *Project Preparation Process.* The ward authorities propose their priority activities to their district authority each year usually based on requests from ward constituents that, in turn, have been collected through the cells, neighbourhood and Party Unit leaders. The district authority's Urban Management Unit review the needs, conducts any necessary technical surveys and eventually frames proposals for submission to the People's Committee of the District (PCD). Based on its budget, the PCD informs the wards about the selection of the projects and the available funds. The ward consults the population in order to define its own contribution. The wards can also finance an upgrading project from annual revenues collected from household taxes. The tax for "public service improvement" varies from a minimum of VD 12,000 year/HH to VD 70,000 year/hh (see Table 1) depending on the district. With district approval, the ward is free to use these revenues. The district does not have to report all these small upgrading projects to the respective city departments.

**Table 1 : Example of local taxes and other contributions of a household**

Item	Amount		Authr'ty	Status	Remarks
	HH	PWA <sup>2</sup>			
<b>Solid waste coll</b>	7,000/month		Private coll	Obligation	Depend on business activity
<b>Flood prevention</b>	2,000/year			Obligation	
<b>National defence</b>	200,000/year			Obligation	Depend on the area and business activity For business 500,000 /year
<b>Upgrading support</b>		70,000/yr		Obligation	From 18 to 65, exemption for women having a child under 3 years, reduced for some categories
<b>Local security</b>	30,000/month			Non oblig.	
<b>Poverty alleviation</b>				Non oblig.	
<b>War heroes support</b>				Non oblig.	
<b>Natural disaster</b>				Non oblig.	
<b>Specific upgrading</b>	200,000			Obligation	Alleys upgrading in D6

4.1.4 *Project Approval Process.* To illustrate the project approval process, some roads projects have been reviewed. For projects funded from the city budget the district prepares technical information and submits the proposal to the CPWD for evaluation. When potential funding is approved, the district is in charge of the preparation of the FS to be submitted to the People's Committee of HCMC, and the related departments, as well as for the land acquisition procedure to be submitted to the Prime Minister for approval for areas larger than 1 ha. When it is approved, the district requests a consultant to prepare the cost estimate to submit to MOC, CPWD & DPI. When this is supplied the district calls for tenders. At the same time the district informs the population and prepares the project relocation details, following city rules. However if all the money is to come from the district and the budget is less than VD 5 Billion (US\$350,000) the procedures are simpler. This limit was previously VD 2 Billion and has been recently reviewed and increased by PCHCM. The smaller projects only have to be submitted to CAO to guarantee conformity with the Master Plan and after approval implementation can start by selecting a contractor without bidding procedures.

4.1.5 *Community Participation.* Given the political history in Vietnam's cities the population is used to attending regular meetings at cell, neighbourhood or ward level. Whereas social workers may describe this as "forced community participation", participation is nevertheless taking place even though at present the local authorities may still not adequately take account of community wishes. Present Government policy states that projects should be "presented, discussed and controlled by the people". The slogan "the State and community working together" suggests that communities should contribute to the capital costs of upgrading, which, in most cases, they do.

4.1.6 *Community Contributions.* For many local schemes (e.g alley improvements) the normal ratio for upgrading financing is 70% by the local authority and 30% by the community. Proportions may change according to the motivation of the population, as in the case of Ben Nghe where all the funds came from the population. In the case of district 8 a somewhat bizarre situation occurred where the norm was to request a maximum of 30% for upgrading of alleys smaller than 2-m wide but for alleys wider than 2-m, the costs were estimated to be too expensive to request population contribution and thus the project was wholly funded by local government. This would appear to be a disincentive for encouraging communities to adopt affordable functional standards.

<sup>2</sup> PWA: person in working age

4.1.7. *Typical Projects.* Generally speaking the city authorities invest in the secondary infrastructure, for example, the inter-district and the intra-district road networks while the population contributes to local access (e.g. alley improvements). An objective of the city is to enlarge all the alleys to a minimum of 4-m wide. For example District 8 receives VD 2.8 to 3.1 billion from the city each year for road and alley upgrading. The priority goes to alley enlargement. This activity follows a 3 phase process. Firstly, all the alleys are paved. The second phase consists of the removal of the elements being on the public land such as balconies and gardens. Thirdly the alley is enlarged to 4-m wide. Thusfar the affected population has seen the benefits of the intervention on both environmental improvement and land value and appear willing to make contributions at each phase. Except in the very poorest areas households are contributing up to 30% of the costs. District 8 budget for this activity in year 2000 was VD 3.6 billion primarily from the tax on working age residents (VD70,000/year).

Recent annual budgets allocated to Binh Chanh district by the city have been approximately VD 50 to 100 billion for road upgrading projects, a significant sum which funds approximately 200 projects per year of differing size.

For the main roads, CPWD is in charge of the upgrading and enlargement. The districts sometimes decide to finance the investment with their own funds and may request contributions from district residents. When having to take part of the land, district 5, for example, applies the city relocation policy but with a long negotiation phase. It is only when all the families agree with compensation rates that the district officially reports to the city and asks for the funds although the district is reluctant to conduct land clearance. There are cases of alleys not having been enlarged because one or several houses, with official or legal status, do not want to be relocated. The compensation cost is generally the highest cost component of road upgrading project, averaging about 75% of the total investment costs.

4.1.8 *Water and Electricity Supply Projects.* For these sectors the relevant companies manage investment budgets independently from the districts and carry out works.

4.1.9 *Operation and Maintenance.* The city is in charge of the maintenance of all major (usually tarred) roads. In Binh Chanh district for example the maintenance budget is based on the calculation of VD 10,000 m<sup>2</sup>/year for tarred roads and VD 6,000 m<sup>2</sup>/year for other types of road including earth roads. Starting from next year the district will be in charge of the maintenance of the inner district roads as in all other districts. For operation and maintenance in district 8 the district has a budget of VD1.4 billion for sewers for 2001. In some districts the population has established a fund for maintenance and infrastructure support.

4.1.10 *Community Based Initiatives.* The experience of Ben Nghe Ward in district 1 is relatively unusual as the complete area was officially illegal and managed its upgrading without any authority support. The area initially belonged to the army that decided to transform it into a residential area without the district authority's approval. All the people that bought plots of land were in the army. Realizing the difficulties in getting access to basic infrastructure and services, they decided to set up a community committee to organize the work. This committee included Cell and Party leaders as community-elected representatives and this has been successful in completing the upgrading in three years with an average contribution equating to approximately US\$ 368 per household. The committee is still in place to manage the O & M, using a fund established through contributions of the different contractors<sup>3</sup> engaged in the work, another initiative peculiar to Vietnam. This example, although unusual demonstrates, that with homogeneity and discipline, a community is able to upgrade its area through its own initiatives and resources.

#### NGO Initiatives

4.1.11 *Early Projects.* At the beginning of the nineties the LHD, with the support ACHR<sup>4</sup>, developed the first urban community development project in Vietnam. The Hiep Thanh community started in 1990 as a three-year project with some external financial input from ACHR. The project included 7 community water

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<sup>3</sup> The local habit is that the contractor provides 5 to 15% of the total budget to the people that have helped them to sign the contract.

<sup>4</sup> ACHR: Asian Coalition for Housing Rights

taps, upgrading of 400 meters of internal alleys, access to loans for income generation activities (400 people with VD 86 million), waste collection system improvements and the construction of public latrines. The project was successful in encouraging the communities to improve their own environment.

At the end of 1992 the LHD organized the first forum related to low cost housing improvements in HCMC and included various city departments, mass organizations and about 100 community leaders of different LCH areas. The forum encouraged “upgrading” as an important housing alternative for the poorest. Several NGOs became interested in this approach and cooperated with LHD to develop seven further small projects between 1992 and 1994.

City policy changed after 1994 with the development of the major relocation project at NLTN. At the same time the “eviction” program in District 4 led to the destruction of the Hiep Thanh community. This experience demonstrated the need for secure tenure as eviction of the community occurred even after having been upgraded a few years earlier.

As the multi-storey collective building model became the major model for the city, the cooperation between the LHD and the NGOs stopped. Some international NGOs shifted their support to other partners such as the mass organizations or the ward authorities, and kept with small-scale projects. Some agencies eventually neglected the housing and infrastructure upgrading components, due to their complexities, and focused mainly on credit schemes.

From 1996, different integrated upgrading projects were initiated in partnership with the French NGOs Enda and Villes en Transition (VeT), and local partners as the Youth Association, the Women’s Union and the Women Studies department of the Open University. A key selection criterion for areas to participate was that they were unlikely to be evicted in future.

4.1.12 *VeT and Enda*. Since 1994 Enda<sup>5</sup> and Villes en Transition<sup>6</sup> (VeT), combined their efforts with local partners to develop participatory planning activities. They supported four upgrading projects, a relocation project through small-scale apartment blocks and two others through site and services schemes. All of the projects had similar objectives namely to promote sustainable development projects through participative approaches, including local authorities and the community, while targeting the activities on living improvements of the poorest, as well as on flood prevention. Summaries of these projects are given below.

4.1.13 *VeT/Enda Upgrading Projects*. For most of the projects, the selected areas have for years been subject to land pressures and poor environment quality, being located close to canals. The projects focused on the common upgrading activities namely paving the alleys, upgrading the drainage system, installing street lighting, providing loans for house improvements (focusing mainly on toilets), and on flood prevention. Although water supply distribution improvements may have been a community priority, the various projects did not address this as the city network was considered incapable of delivering water due to pressure and water quantity limitations in the specific areas. To extend the network was not viewed as a viable solution and was also expensive but the local authorities would not accept the option of installing deep wells.

The strategy of the NGOs was to provide, as a first step, a grant for project implementation so as to interest both the communities and the authorities. The second step was to propose a credit to the community so that they would have the cash to request to the district authorities to provide a contribution, which was also intended to insure the project’s sustainability with regard to future operation and maintenance.

In more recent projects Enda has managed to involve the population in the provision of labour to carry out the works so as to reduce costs. The ward authorities and the NGO provided technical support. In parallel, the NGOs, together with ACHR, organised training at the HCMC University to raise awareness of future professionals of the living conditions and the needs of the poor. A group of young professionals has

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<sup>5</sup> An NGO promoting the participation at the grassroots level

<sup>6</sup> Another French NGO more orientated on technical support

been established and is expecting to be able to provide support in the future for community upgrading and sites and services projects.

4.1.14 *VeT/Enda Relocation Projects*. The Tan Dinh project had two components namely upgrading and relocation. Following requests from the population, on-site relocation was proposed to the city authorities through the construction of buildings of three storeys. The population participated in the design of the apartment blocks and was requested to take care of the finishing so as to reduce costs. Technical standards were also reduced. A 10 year-housing credit scheme was planned. Although the project was approved by the CAO, the project could not be implemented unless supported by the district authorities. However this was not forthcoming which may have been because the land was considered to be too valuable for social housing and the authority was looking for a more profitable use for the land. After a study of more than 2 years, the project was abandoned.

The local authorities of district 2 have been more cooperative with regard to the Binh Trung Dong project. The objective was to support the local authorities to reorganize a vast area occupied by illegal settlers. The NGOs proposed a land-sharing concept. After negotiation with the population, the site and services option was selected. The families could either buy or rent the land, having access to technical and financial support for building their houses. This project may be the first successful experience of the site and services housing concept in HCMC as well as the first to provide access to housing credit to the poorest. It is important to note that the NGOs and the district authority did not request the authorization from the City level knowing that the scheme would not in accordance with the City Master Plan, with the area, zoned as high income, low density residential.

#### Lessons Learned from Local Initiatives

4.1.15 Through their different experiences the NGOs have gained a great deal of knowledge of how to deal with relocation and upgrading projects and have adjusted their long-term strategies. With Tan Binh project they realized that they imposed their vision of community participation to authorities that did not have a clear understanding of the concept. The NGOs were also not fully aware of the land value of the site, focusing mainly on the poor without looking to the needs of the other population categories and the district authority's ideas. The advantage of the district 2 experience was that it was initiated by the district authority itself which was willing to clear a site while being sensitive to the social issues. The role of the NGOs was clearly identified as a link between the authority and the population. The critical point was that all actors had to work within a very unclear framework. Up to this time the community residents are not completely legalized and they rent land without having long-term guarantees. Enda continues to try to formally legalize the population.

The lessons of these NGO experiences can be summarized as follow:

- i) Because of the land speculation, there is no will from some district authorities to preserve space for the poor especially in the city center. However when convinced by the approach they play an essential role in the success of the project implementation.
- ii) When having to be relocated, people prefer to be resettled on-site within low-rise, high-density buildings or through site and services projects especially when linked with housing credit. But most importantly the location of the project should remain close to the city center or an economic pole.
- iii) Self-built housing construction appears to be the most efficient solution for resettlement in the HCMC context. The technical support of NGOs and/or others is however necessary.
- iv) Upgrading can be seen as a way to provide a better chance for a community to achieve better conditions and of being legalized.
- v) The different NGO initiatives are at too small a scale to really attract city interest but the small size does give more flexibility to deal directly with the district authorities and to find more appropriate solutions.

4.1.16 In the case of district 1, the support of the city authorities was not strong enough to convince the district authorities to achieve a social relocation project. In the case of district 2 it was because the district authority was convinced by the site and services project that it was completed although not in accordance with the City Master Plan. The district authorities have therefore a crucial role to play and should receive capacity building support.

4.1.17 Speculation and the City Master Plan are important obstacles to overcome in providing housing solutions for low-income families. After a few months some families have sold their plots in the site and services project. Monitoring is needed to define where these families have resettled. If it is within illegal, low income areas this suggests that the project will have not have completely managed to avoid “slum” displacement during the relocation program as is the case with NLTN.

4.1.18 The land rental solution is a good way to reduce the initial investment provided guarantees are given to the population to preserve their rights in case of future eviction.

### Donor Supported Initiatives

4.1.19 There have been donor-supported upgrading initiatives in HCMC and probably the most notable is that carried out in ward 11 of district 6 in the Tan-Hoa-Lo Gom basin under the BTC supported Sanitation and Upgrading Project (PMU 415 Project). This was a “multi-sectoral” or comprehensive, integrated upgrading initiative carried out over an area of just less than 1 ha with 169 households. This scheme is a Case Study in Chapter 5 and details and lessons learned are set out there.

## 4.2 Hanoi

4.2.1 In Hanoi there have been a number of sectoral upgrading projects carried out in recent years mostly focusing on water distribution. However a more comprehensive planning scheme, that embraces some “urban upgrading”, developed at the ward level is on-going in one ward of the city namely Phu Thuong ward in Tay Ho District. This follows a study carried out earlier sponsored by UNDP.

4.2.2 *Project Context.* Phu Thuong is one ward of Tay Ho district. It is located in the Northwest of Hanoi City. The area is about 610 hectares and the population is approximately 10,000 persons. There are 3 sub-communes with 9 population units in the ward.

4.2.3 *Key Activities.* This is a comprehensive development planning project at the ward level and activities include:

- Creating traditional jobs,
- Low-income housing,
- Public service buildings,
- Transportation,
- Water supply,
- Sewage, sullage and sanitation
- Solid waste management,
- Mobilization of community participation,
- Institution and policy for development management.

4.2.4 *Investment fund.* The estimated investment fund for the project was calculated on the following basis:

- Population projection for 2010 and 2020.
- Housing and planning standards at National level.
- Investment items listed in the project
- Development planning for Phu Thuong ward.

4.2.5 *Timing.* The project is a long term ward development project to be carried out following Master Plan requirements. This funds will be invested year by year from 2000 to 2010 and then to 2020.

4.2.6 At this stage it is unclear as to the upgrading approach to be followed and thus whether the scheme is sustainable or replicable.

### 4.3 Other Cities

4.3.1 *Nam Dinh Urban Development Project.* Whereas the PMU 415 project in HCMC is an example of the more typical urban upgrading scheme whereby the goal is upgrading of the quality of life of the residents through infrastructure and service improvements identified and planned in concert with the people (i.e. community participation is a means to an end), a very different type of upgrading scheme is a component of the Nam Dinh Urban Development Project which is supported by SDC. Here the project component is called a Community Participation Programme (CPP) or Environmental Health Micro Activities Programme (EHMA) and is more focused on the upgrading of community awareness, skills and their empowerment. Basic environmental infrastructure and service improvements are seemingly a consequence of this process, rather than an objective at the outset. There are lessons to be learned from this approach particularly if the “scaling up” of upgrading efforts and the efficiency of infrastructure provision are overall city goals. These, and details of the CPP are covered in Chapter 5 as a Case Study.

4.3.2 *Provincial Cities Project.* This UNDP supported project that was carried out in 5 cities (Viet Tri and Hia Dong in the northern region; Hue and Quy Nhon in the central region; Can Tho in the southern region) was aimed at building capacity for participatory planning and community-based approaches for development. It sought to support the generally under-resourced small, provincial cities to strengthen their role in national development. It thus worked directly with the cities rather than channel support through central and provincial government structures. The project gave focus to the alleviation of poverty through strengthening of the informal economy, the delivery of basic services, environmental improvement and development of partnerships with all stakeholders in such activities. Small pilot projects utilizing savings and credit group approaches and establishment of revolving funds were carried out. Projects such as lane paving, solid waste collection, water connections, latrines and septic tanks etc. benefited about 1500 households in the 5 cities. The Phase 1 preparatory assistance was intended to frame a major investment project and a project document was produced but has apparently received little interest to date. Lessons learned to date include:

- a. Initial gains made in the involvement of communities (or small groups/individual households), particularly with regard to savings habits and contributions to capital improvements, are soon lost if there is not continual motivation and support and this threatens the sustainability of improvements made.
- b. Community participation efforts are constrained by a lack of trained and experienced national professionals in this field.
- c. Government agencies (central, provincial and local) may feel that some control is lost with “bottom up” approaches and traditional “top down” planning approaches (e.g. centrally prepared development plans) rarely address the needs and concerns of the poor and, in fact, usually affect the poor detrimentally (e.g. require the poor to be relocated).
- d. The limited visible impact of a few small projects and the relatively high software and transaction costs for limited capital investment may also be reasons for subsequent lack of interest on the part of government and donors for continuing support for an essentially “micro” approach to addressing what are significant basic services and environmental problems in poor urban communities.

## 5.0 VIETNAM CASE STUDIES

### 5.1 Canal Tan Hoa Lo Gom, HCMC

#### 5.1.1 Description

The urban upgrading in Ward 11 of District 6 in HCMC is one of a number of components of the Canal Tan Hoa -Lo Gom Sanitation and Urban Upgrading Project that is being supported by Belgian Technical Cooperation, (BTC). The Project Unit established within the People's Committee of HCMC, and responsible for implementation of the Project, is referred to PMU 415.

The component, now substantially completed, is upgrading infrastructure in a poor area of about 1 ha in with approximately 169 households (approximately 870 population). Water supply, drainage (combined sewerage), access and electricity supply improvements are being carried out. Key characteristics of the component are summarized below:

- The scheme is the result of a comprehensive community participation process.
- The “multi-sectoral” scheme is designed to what might be described as “full” service levels (i.e. water supply distribution network for individual household connections; drainage/sewerage network to permit household toilet connections; access ways paved with concrete; electricity supply network to enable all houses to connect; streetlighting).
- Households are paying no contribution to the cost of the works but have to arrange and pay for their water connection to the main including the cost of a water meter (VD 1,400,000) and their electricity connection (VD 700,000). To avoid disruption in the future with connections made by householders at different times PMU 415 is coordinating this work so that it is carried out at the same time. To promote connections the project is offering VD 200,000 for each connection (grant) and also offers a loan of VD 200,000 to purchase the meters as well as for toilet connections and technical assistance.
- Design has been carried out by the City's design companies, apparently using standard design criteria of the respective service companies. Some minor standards have been relaxed such as those for manholes and for streetlighting but only through an informal arrangement with Ward authorities.
- Important components of the project were the “software” components namely the savings and micro-credit schemes as well as vocational training.

#### 5.1.2 Aims and Objectives

The objectives of the pilot project are compatible with both the general objectives of PMU 145, namely, a) the urban and environmental improvement of the people living along the canal, and; b) the institutional strengthening of the involved authorities through the development of integrated and participatory approaches of all the stakeholders (population, ward, district and city authorities).

More specifically, the project aims is to provide better accessibility of the low-income houses to basic infrastructures such as: potable water, electricity, drainage, pavement and enlargement of alleys and streetlighting. In a second phase it is expected that the population, having the guarantee of stay on-site for at least ten years, will initiate major improvements to their houses with their own resources supported by prompt technical or financial inputs from the project.

In parallel, different socio-economic supports are foreseen. The development of specific activities are being developed by the social workers, such as a savings and micro-financing program, vocational training and environmental awareness raising.

On the institutional side, the purpose of the project is to demonstrate the positive alternative of on-site rehabilitation rather than eviction of the poorest population.

This alternative is to improve the sanitation condition and living environment through the infrastructure upgrading and socio-economic support. The project is trying to demonstrate the following:

- This approach is cheaper than any other one while respecting the life-style of the population.
- The benefits of the community participation (bottom-up approach) and the integrated approaches lead to smooth implementation.
- In order to reduce the poverty, all the residents, whatever their status, should be part of the program. The integration of the KT 3 and 4 (land occupancy categories) will also be beneficial to the general environment improvement of the city.
- The upgrading of existing residential areas does not necessitate land clearance, compensation and a relocation program. Therefore, this activity is sustainable and more adapted to the living conditions of the poorest.

### 5.1.3 Technical Aspects

The site includes 5 cells (2,3,4,5, and 11) of the Neighbourhood Unit Nr. 1, Ward 11, District 6, with an area of approximately 0.89 ha housing 169 families. The site is recognized as one of the 49 low-income areas of the district, representing 28% of the total district population. The site was selected mainly because of the strong support of both the local authorities and the population during the preparation phase of the PMU 415 project. Furthermore, it is adjacent to the PMU 415 future relocation site of a 250-apartment project. The area has a triangular shape. Its limits are defined on the West side by the future technical band of the Tan Hoa - Lo Gom Canal and on the East side by a 4 ha spinach garden.

The area is composed of 164 compact houses for 169 households. Some houses are overhanging an existing swamp, and houses along the canal (to be widened in the future) are not part of the project. The characteristics of the area are similar to other low-cost housing zones of the District, namely high density (around 980 p/ha), low average level of income (around VD 410,000 equivalent to US\$ 27 per capita per month), large proportion of low quality construction (almost 99% of the houses are Grade 3 and 4) and a low level of infrastructure and accessibility.

The Ward authorities upgraded most of the drainage and the tortuous and narrow alleys in 1998 but very few houses have a proper water meter or an electric meter. Most of the toilets are directly connected to the spinach garden within the area or the canal.

The priorities for improvement identified from discussion with the community were:

- Water connections
- Electricity connections
- Sewerage
- Micro-credit
- Toilet improvement
- Alleys enlargement
- Waste management improvement

#### *Electricity*

On average a household has a monthly consumption of 72 kwh. Families use 162 kwh when having an individual electric meter and 58 kwh when not. The electricity is 3 times more expensive for the people re-connected to a galvanometer from another family; the normal price being 450 VD/kw, the highest resale price is 2,000 VD/kwh. Some 70% of the families do not have a private meter, not because they cannot pay for the connection fee but because the administrative procedures are too complicated or because of their legal status or because of the absence of a proper electric pillar network. The lack of a

proper network is partly due to the absence of investment of the electric company, and partly because some of the people refused to have a pillar in front of their house.

The local Electric Design Company made a survey in April 2000 and proposed a solution with a cost estimate of around US\$ 15, 292. The design was not suitable for the narrow and labyrinthine alleys as 22 houses would have had to be partially cut. A more adaptable solution with poles in 2 pieces to be assembled on-site was then agreed. This adaptation avoided the destruction of part of the houses but was still expensive compared to the PMU initial proposal. The 4m steel poles solution was, in fact, refused because it did not follow Vietnamese standards. The new design necessitated the destruction of only 2 balconies and one canopy. The concerned families accepted the proposal

During the implementation, the construction company agreed to adapt the design according to the reality of the situation, in one case routing cables over a house and in another case routing them around a balcony. The new network was connected to an existing overhead cable running from an existing transformer relatively close to the site. The work included the removal of the existing messy electricity supply network after having connected all the houses to the new system.

#### *Water*

Water supply was the major concern of the population. Only 10% of the houses were connected to the City network. Two main 100 mm diameter pipes supply the network, but due to their bad condition the actual diameter is estimated at 50 mm with 0.1-kg/m<sup>2</sup> of pressure.

The large majority are buying their water from other families through illegal connection or from private sellers at an average of VD 13,000 per m<sup>3</sup> in comparison to VD 1,250 per m<sup>3</sup> from the city network. The average consumption per household per month for the ones not connected to the network is 8.7 m<sup>3</sup> and 59.8 m<sup>3</sup> for the others. The average expenditure for the families connected is VD 42,500 per month and VD 75,000 per month for the ones not connected. Therefore, it appears that access to the network by all families will both increase the quality of life with more water and will reduce their expenditure.

The Cho Lon Water Company conducted a technical survey in April 2000. Together with PMU two solutions were defined; either to extend the network from the existing main pipes or to realise an independent system for the production of water.

The extension of the network had the approval of the local authority and the design company. Unfortunately, the pressure was very low and the population would have had water only during the night-time. A general improvement of the City network is expected in the coming years. Unfortunately District 6 is at the end of the network and no department was able to give a clear schedule for the improvement of the area.

According to these plans it is expected that two pipes of 300mm and 400mm diameter will be placed along Hau Giang Street together with local distribution lines of 100mm and 150mm diameter. Between 600 to 800 m<sup>3</sup> per day is the estimated quantity required for the area. Each household would have to pay for its 27mm diameter connection and the water meter for an estimated average cost of 1 million. This cost would be reduced with VD 200,000 support from PMU 415.

The Cho Lon Company provided a first-cost estimation of VD 405,589,000 (US\$28,000 approx). Some of the technical solutions were not appropriate and therefore PMU 415 requested the company to provide a new design and cost estimate.

An independent system connected to a deep well (80 -100m) was suggested by PMU which would have had the advantage of providing water immediately instead of waiting for the minimum of 2 years requested for the City network improvement. The water would have needed to be treated to adjust the acidity, remove the iron and manganese ions. The investment of the well was estimated at VD 100 million.

The company and the local authorities were very reluctant to have to take care of an independent system and to collect the money from the families for its operation and maintenance costs. Therefore, this proposal was rejected and the population was thus deprived of seeing any direct, significant improvement

as a result of the upgrading. This situation confirmed the long held view that when designing an urban upgrading programme consisting primarily of tertiary infrastructure cognisance of the primary or trunk infrastructure needs must also be considered at the outset.

### *Sewerage and Drainage*

Most of the alleys were paved with concrete in 1998. The ward authorities completed this activity while requesting each family to contribute VD 200,000. From a total of 1,618 m<sup>2</sup> of alleys, 1,253 m<sup>2</sup> were upgraded, leaving 364 m<sup>2</sup> unpaved in the centre of the area. The absence of drainage has led to regular flooding.

The new alleys are around 30 to 40 cm higher than the floor level of the houses, so as to raise the alleys above flood level. The problem is that the population has not yet raised the plinth levels of their houses. The evacuation of water during flooding periods is now a problem that will be solved as people raise their floor levels.

The project purpose was to pave the remaining alleys while connecting the drainage pipe to the existing network. PMU requested the Construction Company of Ward 11 to provide a design and cost estimate for the installation of drainage pipes and concrete pavement for the concerned area. The first proposal for the job was estimated at VD 107 million (US\$6,607). PMU 415 requested the company to improve its initial design and a more detailed design was submitted with a similar cost estimation.

The design included for the combined drainage/sewerage pipes of 400 mm diameter and a length of 138 m with a slope of only 0.25% and 15 manholes of 1.2 x 1.2 m at the different cross alleys and changes of direction. During the implementation it appeared that the mapping was not completely accurate, rendering some manholes redundant. Unfortunately, the administrative procedure being so complicated, all parties finally preferred to build unnecessary manholes rather than to face the bureaucratic procedures for adapting the design!

### *Alleys*

With regard to the concrete alleys, a length of 150 m needed to be upgraded. The soil was relatively stable, having been compacted for a long time. The concrete of 200 kg/cm<sup>2</sup> was 6 cm thick with a base of compacted soil of 5 cm above the surface of the highest pipe.

In order to give better accessibility and to connect the LCH area to the adjacent future relocation site, PMU 415 had proposed to enlarge some alleys in key places and to remove the bottlenecks of 1m in width that would have affected a few families. The collection of waste and the local transportation would have been considerably improved. Although some parties registered their interest, the issues remained very controversial for the population and the alley widening was not implemented.

### *Streetlighting*

The population, by themselves had, in the past, placed small lamps in different locations within the area, connected to the meters of the private houses. This informal system did not cover all of the area and was relatively dangerous.

Thanh Tinh Company proposed, that the regular standards for streetlighting be followed which would entail the installation of 30 high voltage sodium lights of 70W/22V. These installations are very expensive (with a cost estimate of over US\$ 8,000) and are not well adapted to the narrow and tortuous alleys. The project requested the company to study an alternative adopted in other low-cost housing areas of the City that was a system of suspended neon lamps. Further investigation revealed that such systems are put in place by the local authorities themselves and, after a year, are handed over to the Public Lighting Company. The social workers suggested to PMU 415 to follow the same procedure, the population being requested to contribute for the electricity during the first transitional year.

A second cost estimate design following this concept was presented to the project with the total amount of around US\$ 3,800 less than half the price of the first design. Unfortunately no agreement was found between the ward authorities, the Street Public Lighting Company, the project or the population and thus the streetlighting was not implemented.

#### 5.1.4 Financial Aspects

The final costs of providing the infrastructure to the “full” service levels expressed in US\$ equivalent were estimated as follows:

- \* drainage and pavement US\$ 9,362 (18.5%)
- \* electricity supply US\$6,524 (13%)
- \* streetlighting US\$ 8,750 (17%)
- \* water supply US\$ 26,068 (51.5%)

Total= US\$50,704 (100%)

Some parts of the community already had infrastructure and thus the total cost of approximately US\$50,000 is for serving only part of the 1 hectare area. The costs for an average household (i.e. house with a water line, drain, mains electricity supply in alleyway in front of house) to connect to the 3 services are not included in the above costs. The costs show that over half of the cost is on water supply augmentation which international experience suggests is an unusually high percentage for an upgrading scheme providing a “full” level of service for all sub-sectors. This would in turn suggest that design standards for such supply for a low-income residents, used to paying high prices for vendor supplied water and thus frugal users, may be unnecessarily high and thus costly. Also with limited water presently available in this area of the city, the need for a more thorough analysis of standards, possibly a more flexible approach and the need for trunk infrastructure to be a consideration in both community selection and design standards selection are other useful lessons to be learned from implementation of this scheme.

The total cost equates to about US\$ 300 per household or US\$ 60 per capita, which although for the service levels provided is not a very high cost by international standards would unlikely be affordable if households had to find the full capital cost or a substantial part of them.

#### 5.1.5 Institutional and Implementation Arrangements and Procedures Followed

The PMU was established to manage the whole project process. It is answerable to the People’s Committee within the HCMC administration (directly to the Vice Chairman responsible) within the People’s Committee of HCMC. It is staffed by local professionals and support staff. A permanent expatriate advisor funded by BTC has supported the PMU and from time to time specialist short term expatriate advisors have been used (e.g. for resettlement advice)

Before implementation commenced there were a number of preliminary activities namely both technical and socio-economic surveys. A process to obtain the priorities of the residents was the second part of the socio-economic survey.

Further in-depth discussions in small groups helped to clarify the needs. During these discussions it appeared that the idea proposed by PMU was to enlarge some alleys but this was not supported by the majority of the inhabitants. Originally, according to the PMU design, 19 houses would have had to be partially cut. The final technical solution affected only 3 houses. Even this proposal was considered controversial and did not lead to an agreement among the population. Even though a large majority supported the project, they did not manage to convince either the concerned families or the local authorities.

The low-cost housing area is adjacent to the relocation project and consists of 250 apartments. The city requested PMU to prepare a Feasibility Study to submit to PC and DPI for their approval. This procedure took 8 months. In order not to lose further time, after 5 months, PCHCM tacitly approved the fact that

PMU 415 would go ahead and directly subcontract local consultant companies to prepare the final design for each project component.

Following the participatory approach of the project, the design phase was relatively long and complex. The PMU 415 technical team developed a preliminary design that was the basis for discussion with the local authorities and the population. Once approved, the project contracted Vietnamese State Companies to prepare the designs, which were once again submitted to the different stakeholders. Once a common agreement was found, the adopted design was submitted to the company to which the system would be handed over at project completion for its approval.

The objective of the PMU team was to prepare a project that adapted to the site (very high density, very narrow and tortuous alleys) and to the economic condition of the inhabitants.

With regard to the water supply, as the pressure of the existing system was particularly low, the concept was to develop a network that would be connected as a first step to a borehole. Later, when the City network capacity was improved, the upgraded area would be reconnected to this system.

For the electricity network, the electric poles would be 4 metres high, made of steel, and also used to support the basic neon streetlighting. This type of pole due to its height and its weight would be easy to carry and bring on-site. The streetlighting would be a low consumer of energy, inexpensive and, therefore, not valuable enough to steal.

For sewerage it was proposed to use community labour to carry out the works based on the Phnom Penh, Cambodia, experience. This approach was intended to reduce costs and ensure the ownership of the project by the population.

Based on the design concepts agreed at the pre-design stage, final designs were then completed with Vietnamese State consulting companies for each of the various sector interventions proposed. This was an accepted way of designing infrastructural elements as opposed to the alternative of one “multi-sectoral” consulting company designing all of the facilities, (i.e. the integrated approach). The designs were then used as a basis of discussion with the District and Ward authorities.

The discussions highlighted the rigidity and inflexible attitude of the utility design companies while the Ward authorities, those closest to the people, were far more amenable to adopting a flexible approach taking into account the realities of the site, population and conditions. Proposals were finally agreed and submitted to utility authorities that were to take over the improved facilities on completion for their approval, a process that was particularly long and bureaucratic.

The implementation of the works took about 5 months being substantially completed by March 2001. PMU tried to get the three main utility companies implementing the project to coordinate their activities but none of the three companies accepted responsibility for coordinating the other two. Thus the works were carried out “sectorally” in a number of contracts and the shortcomings of the rigid sectoral approach were illustrated. The responsible water company was particularly slow and uncooperative in approving designs.

For each sectoral activity four independent bodies conducted supervision. These were:

- An independent supervisor paid by PMU and accredited by the design company;
- The supervisor of the utility agency taking over the system;
- A supervision committee, as the informal representation of the local authorities and the population;
- The supervisors of PMU 415 itself.

Only the first two had an official mandate.

The project proposed to support families in making their private connections for water, electricity and toilets. This was for two main reasons. Firstly, for the technical reason that it would be easier to make connections all together before the alleys were upgraded and allow for the removal of old systems at the same time to avoid reopening of alleys, and the damage that this would cause. The second reason was social. The project was to support all families living in the area, especially the poorest, who in most case

were “illegal”, having only a KT 2, 3 or 4 status. These categories are not allowed, by law to have connections of water and electricity. By supporting and financing the connections, the project tried to overcome the banning of KT 2 and 3 and find an alternative solution for KT4, such as common meters.

PMU proposed incentives to the families who decided to integrate the project in its first stage through financial and administrative support. The project offered to take-over a charge of VD 200,000 per meter per family and to propose a one-year loan (with an interest rate of 0.6%) to the poorest families. The project was also to conduct all the administrative procedures for access to these meters on behalf of the population.

The social workers collected the requests of each family, defined their financial capabilities and looked at their official documents. Based on the survey of 164 houses, 41 had an existing electricity meter and 110 requested such a meter and 124 requested a water meter. Among the families requesting both meters 26 asked for a loan.

The first decision of both Binh Phu Electric Company and Cho Lon Water Company was that only 64 families were eligible. Complementary surveys of the official documents made by the social workers showed that they should have accepted 74 families using their criteria but they finally accepted only 56. The criteria are:

- To have an official address in the area, which means to have a KT 1 occupancy right or KT3 by extension;
- Or to have a housing certificate;
- Or to have a construction permit.

Category KT 2 occupancy right is the category of a citizen registered in another part of the City. Due to not having an official address in the area, the companies rejected them. A total of 24 families were in this situation.

After some time 16 KT3 families became eligible. These long-term, “illegal” people have informal documents from the local authorities that were accepted by the companies.

The biggest problem remains for the recent illegal people, the KT 4, who have virtually no rights (this concerns 8 families), and also for the people who have lost their papers, which is the case for 6 families.

Early in 2001 PMU 415 discussed with the District authorities a method to resolve these cases but without success. Negotiations were then started with the City authorities. The project finally accepted to connect the 56 families as a first step. The negotiation regarding connection of the remaining is expected to be very lengthy.

#### 5.1.6 Lessons Learned

Based on the experience to date, albeit very soon after the project has been completed, future urban upgrading projects would need to consider the following:

- As no capital contribution was involved it is difficult to gauge the true priorities of the beneficiary households and whether, if a substantial part of the cost were required from the households, “full” service levels for all sub-sectors would have been selected, or whether, in fact, they had a choice. Future processes of community participation would need to give some focus to this aspect.
- Engineering design standards as normally used for all development in Vietnam have been used although more functional standards (e.g. for water distribution network and electricity and streetlighting ) might have been appropriate.
- Cost does not appear to have been a design parameter considered and would need to be considered in future, as an input to the design rather than an output, if limited resources are to be spread as far as possible in an equitable manner.

- Works have been carried out on a sectoral basis (i.e. individual contracts for water supply; drainage and accessways; electricity supply) rather than in one “integrated” contract which would place the onus for installation of the various sectoral works on the contractor rather than the PMU and lead to a number of efficiencies (e.g. avoid continual disruption of accessways).
- As the installation of both water and drainage/sewer connections are the responsibility of the individual households, both to arrange and fund, then there is likely to be repeated excavation/disruption in accessways until all connections are made.
- Bid documents should allow for an adequate contingency figure to permit on-site changes found necessary because of the difficulty in defining all works at the outset because of the usual high density and irregular layout.
- The participation, planning, design and implementation process has been a long process (15 months) and thus the future projects/programs should be cognizant of this.

## **5.2 Nam Dinh UDP – Community Participation Programme**

### 5.2.1 Description

Nam Dinh is the administrative, political, cultural and scientific centre of Nam Dinh Province, one of three main cities in the Red River Delta. It has an urban population of approximately 200,000 with an urban area of 960 ha. The city's economy was formerly focused on the textile industry but with the industry's decline the city has declined. Housing and living conditions are very poor with inadequate infrastructure and servicing.

Nam Dinh, classified as a Class II city under the country's settlement classification system, was selected by government as a site for one of the country's Public Administration Reform Pilot Projects (PAR) at municipal level. The Swiss government agreed to support an Urban Development Project in Nam Dinh through the Swiss Development Cooperation (SDC) as part of its urban development programme in Vietnam. A phased project was agreed and Phase 1 of the project was implemented between April 1997 and June 1999. The NUDP had a number of components. Apart from some primary infrastructure components and institutional and human resource development components the project also had a Community Participation Programme (CPP) component. The CPP evolved during its implementation and ultimately included:

- Public health education
- Community-based Environmental Health and Micro-Activity (EHMA) programme
- Credit Programme for Septic Tanks
- Schools Programme
- Community involvement in solid waste, water supply and drainage improvements

In Phase 1 the programme completed the first cycle in 118 population groups in 9 Wards.

### 5.2.2 Aims and Objectives

The overarching aim of the CPP was for the people of Nam Dinh to become self-reliant with all components under the CPP to be taken over and managed by the community. The emphasis of the program has been on demonstrating benefits of certain approaches in developing the capacity of the community, encouraging initiative, building confidence, as well as improving knowledge of the people and the environment in Nam Dinh.

### 5.2.3 EHMA Programme (sub-component of the CPP)

The programme involves working with household groups to disseminate health messages and to assist in groups themselves evaluating their own living conditions. Basic services evaluated included drainage, water supply, cleanliness of accessways and toilet facilities. Groups arrived at their priorities and could decide on what and how many problems they wished to address. Discussions with the groups then assisted them in arriving on what should be done, where, how and by whom.

The concept of the works programme is that the project provided a total of US\$ 100 for the purchase of materials on the understanding that the groups themselves provide the labour to carry out the agreed works. After works are completed the process can start over again with new priorities agreed and activities carried out. The repeat process is to encourage the group to recognise that they can continue to carry out activities on their own. In summary the steps are: i) health education messages; ii) preparation of self-survey form; iii) conduct self-surveys; iv) evaluate self-surveys and set priorities; v) carry out activities to address the identified problems; vi) repeat the process. To date some 250 micro-activity projects have been carried out across the city and if labour and funds provided by the community is considered then with the small incentive of US\$ 100 the multiplier effect has been over 10 times in many instances.

With the focus of “upgrading” being on people’s empowerment and skills with micro-infrastructure improvement being an outcome rather than the rationale for the programme one would expect the technical aspects to be given less emphasis and this appears so in the programme. The types of micro-infrastructure interventions have been as follows:

- Building/repairing drains and installing manhole covers
- Building /repairing footpaths
- Installing/repairing streetlighting
- Planting trees
- Desludging drains
- Removing refuse

As would be expected from a programme involving continued dialogue and motivation of numerous small household groups, a high percentage of programme costs (approximately 30%) have been required for project management and support.

In Phase 1 of the NDUDP the CPP worked as a partnership between project staff, the Women's Union (a mass organisation) and community groups. The proposed institutionalisation of the programme proposed to place a Municipal agency in the coordination role and expanding the partnership to include other mass organisations. This has occurred in part and the local government is also carrying out micro-schemes following the procedures established under the project.

#### 5.2.4 Outcomes and Lessons Learned

The lessons learned in Phase 1 of the CPP under the Nam Dinh UDP are listed below and based on the experience of Phase 1, Phase 2, now underway, is addressing at least some of them;

- a. Small community groups (up to 150 households), if fully included in decision-making regarding initiatives within their community, and if continually motivated, can make significant contributions (mostly the provision of labour) and feel a greater sense of ownership in what is provided thereby enhancing the possibility of continued maintenance (sustainability).
- b. The problems that motivated the CPP in the first place, namely poor environmental conditions, poor access to services, insufficient solidarity of community members, lack of awareness of environmental health problems are still prevalent
- c. Communities normally have insufficient access to financial resources for local improvements as indicated by the Project’s successful credit programme for septic tanks.

- d. The implementation of network infrastructure (e.g. drainage and sewerage systems), albeit only tertiary, demands that the overall plan for the relative catchment or supply area has to be considered. If this is not done then interventions that people have contributed to may be of limited benefit and may, in the longer term, worsen the situation if, for example, drains are constructed to levels not in concert with upstream or downstream lengths. Thus great care is required in deciding what communities can and should do in terms of upgrading their environmental infrastructure. International experience has shown that communities are not normally best placed, nor technically competent, to address network infrastructure needs.
- e. The very positive gains made in the CPP in organising and empowering communities should be used to support responsible authorities in carrying out the functions they are charged with providing. If not then technically efficient, sustainable infrastructure, implemented to benefit as many people as possible in a reasonable time frame, and that also consider district and city-wide implications, is unlikely to result.

The need for upgrading is usually driven by a communities demand for better infrastructure and services whether this be for basic services such as water supply or community infrastructure such as schools. Such needs are normally identified and planned by the responsible agency (ies) and communities through a participation process. The CPP has a somewhat different focus. The major aim is to empower, train and educate communities focusing on health and environment. Physical programmes appear to be somewhat incidental to this but nevertheless are what the people really need at the micro-level. To use the gains made in the CPP in organising and empowering communities but to support responsible authorities in carrying out the functions they are charged with is perhaps the way to go in future. If not then technically efficient, sustainable infrastructure, implemented to benefit as many people as possible in a reasonable time frame and that also consider district and city-wide implications is unlikely to result.

## 6.0 INTERNATIONAL BEST PRACTICE IN UPGRADING

### 6.1. Indonesia

#### 6.1.1 Overview of Initiatives

The Kampung Improvement Programme (KIP) is without doubt the most famous urban upgrading in the world. Kampung is an urban settlement such as the favelas in Brazil or shantytowns in India and are characterised by poor quality of environment, few basic services, poor health of residents, low productivity and widespread poverty. In 1969 the provincial Government of Jakarta decided that conventional approaches to service provision and thus improvements for city kampung dwellers were not working and that a new approach was required. The modern KIP, that the international donor community soon after began to support, was thus born. However KIP had in fact started almost 45 years earlier in Indonesia's second and oldest city, Surabaya. Over the years there were many KIPs ranging from single-sector infrastructure improvements to later more comprehensive multi-sector programs but all with a greater or lesser extent of community involvement. The important factor here was that the programmes attempted to engender ownership by the people – the programmes were theirs, supported by government, not vice versa.

A fundamental factor is that from the early times in Surabaya, and later in the launch of KIP in Jakarta in 1969, the programmes were local initiatives but, given limited local resources, were limited in scope in terms of people and area covered. What the international donor community was able to do in Jakarta and Surabaya (and later in many other cities) was to enable the “scaling up” of KIP such that many more could benefit from basic improvements to their living conditions and quality of life much sooner than otherwise would have been the case.

It was not long before the advantages of KIP, in the improvement of basic services to the poor communities to simple functional standards in quick time and at low cost, were soon recognised by central government. KIPs became “institutionalised” in that central government agreed to allocate resources to them if provinces and cities embarked on programmes. Urban upgrading had become entrenched in government development policy. By the 1980s KIP was the accepted way of providing improvements in the kampungs in over 200 cities.

The unique advantages of KIP have been well-documented and include; a) low cost; b) easy and rapid replication because of simple appropriate technology; c) people remain in-situ; d) flexibility, enabling future incremental improvement; e) positive impact at low investment costs and high economic return; f) do not encourage influx of higher income groups into the kampungs.

However, KIPs did have their shortcomings which included; a) a largely subsidised programmes with no direct cost recovery and thus did not encourage self-reliance; b) arrangements for subsequent operation and maintenance of facilities provided were weak; c) organizational structure for management of KIP dominated by government officials which marginalized communities; d) over-emphasis on physical improvement.

Based on the earlier experience of KIP and studies carried out to address some of the perceived shortcomings, a new policy was formulated that consisted of three approaches better known as “Tribina” (three developments), namely; a) social development; b) economic development, and: c) physical development. Whether KIP could have achieved all of its gains had this more complex approach been adopted at the outset is doubtful and perhaps Tribina is just a natural progression. What is fact is that over a thirty year period in Jakarta alone more than 7 million people living in 18,000 hectares benefited from KIP, the largest urban development programme in the world.

#### 6.1.2 Aims and Objectives

The overarching objective of KIP was to improve the well-being of the low income urban population by providing improvements in the physical environment of their neighbourhoods. These improvements were intended not only to create a healthier and more productive environment but also to encourage people to improve their shelter with their own resources.

In embarking on the approach of upgrading the kampungs the government had accepted that their removal and replacement with “modern” housing stock was neither socially acceptable nor economically possible.

The KIPs did not attempt to address the legal issues of land ownership and tenure but accepted that the residents of kampungs were a mix of owner-occupiers and renters some with formal (legal structures) and others with temporary, informal (illegal) structures.

### 6.1.3 Technical Aspects

Functional planning and design standards for infrastructure were adopted and old, entrenched, inappropriate standards were set aside for the purposes of upgrading the kampungs. This was to; a) keep costs low; b) minimise disruption and demolition of houses in kampungs, where population densities were often around 2000 persons/ha; c) enable rapid implementation. Typical infrastructure and service standards for a kampung improvement project are set out in Table 2 later.

To ensure that no one kampung received a disproportionate share of available budget then unit cost guidelines were also adopted which were costed based on provision of basic infrastructure to the agreed functional standards.

In the early KIPs were controlled through a fairly strict technical method of allocating budget. This ensured that available budget would spread to all kampungs slated for improvement in one year and that no one sector or one kampung received a disproportionate share of funding. Guidelines were built up which allowed only a certain percentage of the available budget to be spent on the infrastructure elements to be upgraded., vehicular roads, footpaths, water supply etc. From these percentages actual available budget amounts for the different sectors were determined and proposals detailed accordingly.

### 6.1.4 Financial Aspects

Guidelines for costs per capita and costs per hectare were developed which assisted future preliminary planning and budgeting. In early KIPs in Jakarta (pre 1974) the capita; outlay was only about US\$ 13 per capita. From 1974-80 costs increased to about US\$ 40 per capita overall. In the IBRD supported Third Urban Project from 1980 to 1985 which supported KIP in 5 cities including Jakarta and Surabaya costs ranged from US\$ 69 per capita in Jakarta to US\$ 35 in Surabaya and Surakarta.

The IBRD supported Fourth Urban Project which supported KIP in six provincial cities introduced the more meaningful tool, as regards cost planning, of cost per hectare as well as cost per capita. Here per hectare costs averaged about US\$ 11,300 per hectare with per capita costs ranging from US\$ 35 in Samarinda to US\$ 75 in the very low density Denpasar.

As outlined earlier major shortcoming of KIP, when considering its replicability in other countries, was that there was no direct cost recovery. There was however a level of indirect cost recovery through increase in the property tax due to increased property values as a result of infrastructure improvements in the kampungs.

### 6.1.5 Community Participation

There is a long history of mutual self help at village level (gotong royong) which the government actively encouraged as an aid to the process of development, operation, and maintenance of facilities and services provided. While this tradition may be slowly breaking down in the urban areas, under the KIPs

the government tried to redirect the traditions to achieve public participation in, and public co-operation for, development projects.

Each sub-district is divided into two levels of community unit, an RW which contains about 150 families and an RT which contains about 20 families. Community leaders are elected for each unit by persons living within the community. They are unpaid and generally work at some other job. Their main functions are to collect data on community activities such as population movements, report to the sub-district chief on problems in the area, advise on the attitude of the people towards development projects and other activities, such as general peace-keeping in their area. The community leaders also disseminate information to their people about government programs, the use and operation of facilities and the availability of social and economic opportunity offered by the government. It is the sub-district chief's responsibility to check that the community leaders carry out their tasks properly. There is no doubt that the effective co-operation of the community organisations is critical for the successful implementation of any upgrading project and this was so for the KIPs.

Proposals prepared by the KIP Units of the responsible provincial or local government were discussed with the communities through the District (Kecamatan), Sub-district (Kelurahan), and neighbourhood (RW/RT) structures. Demolition of structures and thus removal of families was avoided where at all possible and where demolition or part-demolition of structures was considered unavoidable then the community collectively helped find and build an alternative structure within or nearby the community or, in the case of part-demolition, helped with the building modifications. More however could have been done in involving the communities in subsequent maintenance activities.

#### 6.1.6 Institutional and Implementation Arrangements

In all cities the KIPs were planned, designed, supervised and managed by specially formed units. Works were carried out by local contractors following competitive tendering procedures. Usually four tendering cycles were arranged in any one budget year. The pace at which schemes were planned, designed and implemented was impressive and has probably never been achieved anywhere else in the World. As an example, the KIP in the IBRD-supported Second Urban Project in Jakarta improved on average 1,100 hectares per annum for three years with 15 different infrastructure sub-components, benefiting 1.25 million people living in 136 different kampungs costing some US\$ 70 million, an impressive achievement.

#### 6.1.7 Operation and Maintenance

In common with most other countries and cities this was an area that was neglected. Insufficient thought and effort went into planning for operation and maintenance of the much improved facilities which in large part was responsible for earlier than expected deterioration which in turn has led to understandable criticism of KIP, or at least this aspect of it. The various facilities when completed were handed over to the various responsible departments of the local authority. Large increases in the inventories of the various departments occurred over a very short time resulting in the maintenance capacity of the departments in terms of money, manpower and equipment not being able to adequately cope. Greater attention should have been paid to this at the outset and adequate arrangements made. The role of the community in carrying at least some basic first-line maintenance should have been explored and developed in more depth.

## **6.2 A Case Study – Fourth Urban Development Project (Urban 4): Six Cities KIP**

### 6.2.1 Description

The Kampung Improvement Program (KIP) for each of the six cities was designed along the lines of earlier World Bank-supported projects (Jakarta UDP, Urban 2 and Urban 3) in Jakarta, Surabaya, Semarang, Surakarta and Ujung Pandang. The basic concept was to use limited available funds to provide basic minimum services to as large an area of kampungs, and in as short a time, as possible.

These services included footpaths, secondary roads, surface drainage, water supply from public standpipes, individual and communal toilets and washing facilities, local solid waste facilities, elementary schools, and community health centers. Table 1 sets out the overall programmes as envisaged at the outset.

The KIP activities were grouped according to the assignment of responsibilities within the responsible government department (Dept. Housing, Building and Planning or Cipta Karya) for the services. Activities, which were the responsibility of the Housing division, were designated “Core KIP” while water supply and drainage, under the Water Supply division, were called “Supporting Programs”. Each group was financed and managed under its own program. Core KIP (footpath, secondary roads, sanitary facilities, solid waste management), was designed according to Cipta Karya’s minimum standards, and cost up to US\$ 10,000 per hectare. The financing and administrative implications of these arrangements are discussed elsewhere.

Table 1 – Indonesia Fourth Urban Development Project KIP

<u>City</u>	<u>Area (ha)</u>	<u>Av.Pop. Density Persons/ha</u>	<u>% of City population upgraded</u>	<u>Core KIP Cost/cap US\$</u>	<u>Core KIP Cost/ha US\$</u>	<u>Overall KIP Cost/cap US\$</u>	<u>Overall KIP Cost/ha US\$</u>
Banjarmasin	270	319	22	22	7,125	46	14,570
Pontianak	420	210	25	30	6,360	46	9,550
Samarinda	210	405	33	15	6,200	35	14,300
Denpasar	430	84	20	30	2,530	75	6,280
Padang	260	181	15	31	5,255	73	13,290
Palembang	320	492	23	13	6,265	29	14,055
<u>Total/Av</u>	<u>1,910</u>	<u>262</u>	<u>22</u>	<u>21</u>	<u>5,450</u>	<u>43</u>	<u>11,310</u>

### 6.2.3 Technical Aspects

Although hard and fast standards for KIP were not possible, or desirable, given the considerable variation in existing conditions, levels of service and population densities, some guidance and control is necessary to maintain a reasonable balance of services within budget constraints. The functional standards adopted for the Third Urban Project were maintained, but varied according to the needs of particular cities, such as those where flooding was severe (Palembang, Pontianak, Samarinda, Banjarmasin) and one where densities were lower (Denpasar). Costs were, therefore, adjusted to take account of these conditions. Table 2 below sets out the technical standards adopted for the Fourth Urban Project.

In addition to the basic infrastructure such as roads, footpaths, drainage and sanitation KIP also gave the opportunity for basic primary education and basic first line health facilities to be augmented.

Table 2- Indonesia Fourth Urban Development Project- Planning Criteria and Design Standards

<u>Infrastructure Element</u>	<u>Planning Criteria</u>	<u>Standards</u>
<u>Access</u> Roads  Footways	All dwellings to be within a maximum distance of 100m from a one-way road and 300m from a two-way road.  Paved footways to within 20m of every dwelling not located on a road	<u>Access Length (m/gross ha)</u> 2-way: 15 min; 20 target:35 max 1-way: 50 min: 60 target: 100max footway: 150 min & 200 target <u>Widths</u> 2-way: Max. 6m 1-way: Max. 4m Footway: 1m to 3m
<u>Drainage</u>	Open secondary drains along road and footways or under centre of narrow footways with primary drains as required	Design storm for main: 5 years  Design storm for local network: 2 years
<u>Water Supply</u>	Connection to city main supply or deep wells. One standpipe to be provided to serve 20-50 households. Private connections allowed where sufficient supply available	60 lcd
<u>Sanitation</u> Human Waste  Sullage Disposal  Solid Waste Disposal	Pit latrines with water seal for households where soil and density permits. In other areas community toilet and washing facilities provided within 80 m walking distance from dwelling  Discharged to drainage network  Handcarts with bins for regular hh collection taken to covered containers each to serve 2-4 hectares.	Aqua privies at 1 per hh, or up to 3 grouped hh. Public toilets at 1 seat per 12 families  45 lcd  1 cu.m handcarts 6 cu.m fixed containers
<u>Community Facilities</u> Primary Schools  Health Clinics	To make up the deficiency of facilities and to provide for 75% of school age children in two shifts. Rehab. and expand existing facilities as appropriate.  Sub-clinics to bring areas to MoH standards	1 or 2 storey based on density and land availability. Typical size 600 sq. m with 6 classrooms and furniture.  3 to 6 rooms up to 300 sq. m area with furniture and equipment

#### 6.2.4 Financial Aspects

The Core KIP activities were estimated to cost an equivalent of US\$ 9,600 per hectare. The KIP infrastructure was funded by 50% grant and 50% loan to the cities and a similar funding arrangement applied to the supporting sectoral programs. The program was 100% subsidised and the residents of the kampung communities were not required to fund any costs.

#### 6.2.5 Institutional and Implementation Arrangements

Under the Ministry of Public Works, Cipta Karya (Directorate General of Housing, Building and Planning) was the principal agency at the national level responsible for developing housing and urban development programs responsive to policy guidelines. Within Cipta Karya there were five Directorates, each responsible for different aspects of housing and its related services. These Directorates were: Housing; Building; Planning; Water and Sanitation; and Building Materials Research. Cipta Karya assisted provincial and municipal government agencies involved in public works infrastructure, housing programs, and regional planning, by providing technical advice and financial support. The Directorate of Water and Sanitation provided technical guidance for the water supply, solid wastes and drainage programs, while the Directorate of Housing (Directorat Perumahan) was primarily responsible for providing technical assistance regarding KIP to cities through its Sub-directorate of Land and Housing Development. The Sub-directorate was organized into five units responsible for the preparation, administration, supervision and financial control of the KIP program financed from different sources.

The Kampung Improvement Program (KIP) was the largest public capital investment project in each city. The planning and implementation of the program was under a separate city KIP unit, whose manager reported to the Mayor. The KIP unit was be guided by a Steering Committee chaired by the Mayor. Its membership included the heads of the (i) Subdirectorate of Planning; (ii) Subdirectorate of Development; (Subdirectorate of Budget and Finance; (iv) City Planning Department; (v) City physical and social infrastructure agencies; and (vi) District Heads (Camat) where relevant. The function of the steering Committee was to review the KIP budget and financing for the coming fiscal year; to agree on selection of kampungs for improvement; to resolve problems of coordination with other municipal departments; to expedite land acquisition; to supply suitable staff for the KIP unit; and to refer larger policy issues to the City Council, the Province and the Central Government, as appropriate. This committee had authority to coordinate economic and social, as well as physical infrastructure programs, together with other development projects of the city.

The functions of the KIP units were to prepare and implement the social, economic and physical components of KIP from pre-planning through supervision on a yearly cycle. The units in all cities defined kampung areas for improvement, developed a budget and financial plan, and prepared designs, drawings and specifications and then procured and managed the infrastructure contracts. They also arranged for necessary land acquisition and relocation of families, as necessary, in close coordination with the Office of Agraria, the land acquisition committee and the social affairs department. The planning and implementation of the program was done in collaboration with the communities affected and, for this purpose, a field office staffed by a social worker was established in each kampung slated for upgrading. The office informed the kampung committee (Camat, RWs, RTs), and other non-governmental community associations about the program, provided a forum for discussion and modification of the plans and provided liaison between the KIP office and the kampung committee. The field office was also the base for supervision of the physical work.

In earlier projects, the KIP units had been organized into three divisions: planning, construction management, and finance and administration, reporting to a project manager. Apart from occasional weak coordination between planning and supervision, this arrangement worked well and was continued in Urban 4 and established in the new project cities. A core of full-time staff in the KIP unit managed most of these functions supplemented by the line agency staff (Dinas) of each city. The core staff requirements for the program in each city were agreed with the municipal governments concerned and with Dalam Negeri.

#### 6.2.6 Lessons Learned

The Project Completion Report for both the Third and Fourth Urban Projects in Indonesia identified the lessons learned. They further confirmed what the earlier three Urban Projects, which were all predominantly KIPs, had identified. These are listed below.

1. KIPs are an appropriate and replicable approach to upgrading infrastructure deficient poor areas. More specifically:

- (a) Integrated multi-sectoral improvements designed to basic functional standards were successful in creating significant impact and benefit over a short period of low cost.
- (b) Basic improvements provided followed closely the target cost standards set and were: U3 Av. US\$ 61 per capita or US\$ 22,900 per ha; U4 Av. US\$ 52.5 per capita or US\$ 13,550 per ha.
- (c) Over 2.0 million people benefited from the basic infrastructure and service improvements provided in the kampungs in 11 cities over about 8 years in the two projects adding further to the 2 million approximately that benefited in Jakarta and Surabaya under Urban 1 and 2 KIPs, further demonstrating the replicability of the KIP approach.
- (d) The alleviation of unhygienic living conditions had a major impact on public health and provided an economic stimulus by improving services and promoting better hygiene/health, access and education.
- (e) The infrastructure provided by KIP created enthusiasm in the communities, demands for further works and motivated the communities to provide more for themselves (e.g. housing improvement).
- (f) With kampungs normally making up more than half of the built-up area of most cities and estimated to house up to 70% of residents in many of them, KIPs are clearly the most important instrument for effecting rapid and affordable improvements to such areas. It would be important to remember that KIPs are essentially physical improvement programs providing elements that the people alone would find difficult to provide from technical and financial viewpoints (e.g. infrastructure networks). However successful implementation of the programs, and perhaps more importantly, the successful sustaining of improvements provided, rely on the active support and participation of the benefiting communities.
- (g) KIPs provide only basic improvements and should not be seen as the final solution to the areas. Infrastructure provided was to be capable of being further upgraded incrementally over time as and when aspirations and affordability of the communities increased.

2. The KIP Unit (Project Implementation Unit) concept was successful in achieving physical aims of the project but did not support longer term strengthening of established local government departments. The future role of KIP Units was also unclear. More specifically:

- a. KIP Units planned and implemented the capital works programs generally successfully but the established delivery agencies saw their power and influence being eroded and considered they were better equipped and staffed to implement programs. Many KIP Unit staff worked part-time on KIP as they did not wish to jeopardize promotion opportunities in established career posts. Existing agencies were responsible for maintaining additional infrastructure, designed by others and for which construction was supervised by others. Generally however they were in no better position to do so than prior to the Projects. Meanwhile the future role of many established KIP Units was unclear and they “died” after project completion.
- b. In future the capacity of institutions should be analysed in greater detail in formulating projects to determine whether, with appropriate strengthening, such Projects could be implemented through them or whether KIP Units are necessary. Where this analysis and the size of the city and program are considered to warrant a KIP Unit then it should be given departmental status and perhaps wider authority to deal with all kampung and/or housing related matters.

3. KIP infrastructure was showing signs of distress and greater focus was required in future on the operation and maintenance of KIP infrastructure and city infrastructure generally. More specifically:

- a. For various reasons including lack of skilled knowledge and experience of maintenance programming and techniques, competing demands on limited budgets, the greater desire by cities for new, more visible projects and probably in part due to the issue outlined in 2 above, infrastructure provided was not properly protected. Also community potential for carrying out routine maintenance programs was not harnessed as effectively as it might in many cities. Surabaya appeared to be the notable exception.
- b. Previous Bank-supported Projects including Urban 3 and Urban 4 gave insufficient tangible support to O&M. It would be important for the subsequent municipal management programs

(Urban 5) to provide visible results as quickly as possible to begin to protect recent past investments. Development and implementation of such programs should consider beneficiaries of KIP as a major resource opportunity and should recommend/implement mechanisms to efficiently channel and organize such resources.

4. KIP (tertiary) infrastructure and services would more consistently achieve optimum efficiency and benefits if greater attention were paid in program design to city wide (primary and secondary) infrastructure and the linkages between. More specifically:

- a. In planning KIP projects due cognisance of off-site or city-wide needs was not in many cases been taken into account or, if needs were recognized, budget was not made available to implement necessary linkages to ensure tertiary and secondary infrastructure could operate effectively.
- b. A more comprehensive, city wide, approach should be adopted in future programs.

5. Sanitation probably constitutes the most difficult problem to solve in the often densely populated, poorly drained, flood prone kampungs. Communal toilet and washing blocks (MCKs) can be effective (certainly in the short/medium term) but require to be very well managed and have good access and a reliable water supply. More efficient solutions still required to be identified in the Kampungs in the longer term. More specifically:

- a. Some MCKs worked well and raised the community consciousness about the importance of good sanitation for health care, and persuaded residents of the need to replicate good sanitation facilities in their own houses.
- b. A high proportion of MCKs built in the projects did not operate effectively and predominant reasons were poor management leading to inadequate maintenance, a lack of a reliable water supply and poor location. Unless these problems were addressed MCKs would be a wasted investment.
- c. In the longer term with ever increasing pressure on land and with increases in water supply (creating more wastewater) it would be important to identify more effective but affordable sanitation solutions for the kampungs. 'Strategy' studies should give this aspect of kampung development particular focus.

### **6.3 Pakistan**

#### **6.3.1 Overview of Initiatives**

*Karachi.* Pakistan has a long history of efforts to improve the living environments of poor urban and peri-urban communities through "urban upgrading". Multi-lateral and bi-lateral agencies have been assisting federal, provincial and local governments in urban upgrading projects for 20 years or more. Probably the most famous upgrading project, albeit a largely single sector upgrading initiative, is the Orangi Pilot Project (OPP) in Karachi that is well documented. Orangi is a low-income informal settlement (katchi abadi) consisting of about 1 million people. After some years of action research and extension education a low cost sanitation model evolved. In this model government and communities became partners and sanitation development took place at two levels. Level One was called "internal development" comprising a sanitary latrine inside the house, an underground sewerage line in the lane and a collector sewer at the neighbourhood level. Level Two was called "external development" and comprised the trunk sewer or development of natural drains and treatment facilities. Level One was financed, managed and maintained by the community and Level Two was the responsibility of the government. The programme was largely locally funded with only international support for OPP (the NGO) itself. It was well publicised and spawned requests and programs for other katchi abadis in Karachi and nationally.

*Lahore.* In north-east Lahore in the early 1990s a more comprehensive, “integrated” upgrading scheme was implemented under the World Bank supported Punjab Urban Development Project. The scheme provided tertiary water supply, sewerage, drainage, local roads, footpaths and streetlighting improvements over about 415 hectares of existing low-income area in which about 250,000 people resided. This scheme was an example of a more physical approach to upgrading.

A unique upgrading scheme was also implemented in the old walled city of Lahore where water lines and sewers were constructed in the very narrow lanes or alleys which were then brick paved creating much water supply and sewerage as well as better access designed and constructed in a sensitive manner in keeping with the world heritage site.

*Faisalabad.* The Faisalabad Area Upgrading Project supported by ODA (DfID) later in the 1990s was described as a participatory project to raise the socio-economic conditions of communities living in low income urban areas leading towards sustainable development and empowerment. The focus was thus on development of the community itself in order that they could participate in the design, implementation and management of infrastructure projects as well as to develop income generating possibilities and also to improve the status of women and meet their socio-economic needs. Physical infrastructure projects were carried out but on a relatively small scale.

*NWFP.* The North West Frontier Province Community Infrastructure Project (CIP), supported by the World Bank, was developed from an earlier, major low income housing study supported by the UN. This project was a comprehensive, integrated upgrading project that addressed the needs of over 50 communities both urban and peri-urban across the Province. It was planned that some 420,000 people living in 3,500 hectares would benefit from the scheme. The project also supported necessary primary infrastructure, needed to ensure secondary and tertiary infrastructure provided would operate effectively, a fact often neglected in some upgrading schemes.

*Approaches to Upgrading.* As demonstrated in the overview above there were different emphases on the objectives of the various projects and varying approaches adopted. These varied from the infrastructure improvement dominated objectives and approach which involved participation of the community to the situation where infrastructure improvements was seen almost as incidental to the main thrust of community education and empowerment.

There is no right or wrong approach as the approach or “model” decided upon will vary according to the particular situation. However there are some basic principles that generally apply to all schemes and which centre around sustainability. These include such aspects as the use of functional, appropriate and affordable standards/service levels, the need to ensure arrangements for adequate operation and maintenance and the need to ensure that there is adequate trunk infrastructure to ensure that any local infrastructure provided under an upgrading schemes is able to function properly. Also, and most importantly, schemes should be planned, designed and implemented in concert with the beneficiary communities to foster ownership and commitment. Implementation may follow an integrated approach or a sectoral approach. Whereas a sectoral approach is often less complicated, for impact and reduced disruption considerations, experience has shown that an “integrated” approach is generally more appropriate. The “integrated” approach is a multi-sectoral approach with balanced investment across the basic infrastructure sectors and with the “network” elements implemented together, usually in one “area-based” package for construction management efficiencies and impact. However it has to be acknowledged and addressed in project design that such an approach is more complex and administratively more difficult.

As with Indonesia, and in fact most countries that have embarked on upgrading projects and programs the complex issue of land (e.g. ownership, occupation rights, titling) has not usually been addressed in Pakistan’s upgrading initiatives to date.

Likewise whereas there have been other projects which have attempted to provided or facilitate people to build their own shelter upgrading schemes themselves have not addressed actual shelter needs. However in Hyderabad an Incremental Development Scheme has been carried out which is a form of sites and services scheme that sets few or no standards other than a scheme layout. The critical factor identified is the issue of plot title to the scheme allottees.

The Sindh Community Shelter Project also addressed shelter issues for low-income communities by looking at three main issues, namely; a) land development; b) micro-credit and, c) settlements upgrading. The three year project learnt useful lessons and with regard to upgrading reaffirmed the difficulties with regard to land delivery for housing for the poor.

### 6.3.2 Aims and Objectives

The overriding objective of the latter upgrading projects was to increase the productivity and well being of low income groups through improving their living conditions by provision of basic infrastructure and improved land title. This was achieved by: a) infrastructure upgrading and community development in existing low income settlements; b) promoting the use of demand-driven, participatory design procedures and affordable standards for infrastructure; c) promoting sustainable arrangements for operation and maintenance; d) facilitating the land market by improving registration systems to minimize land transaction costs and building a framework for secure land tenure.

In the CIP in NWFP (see Case Study later) the Provincial Government formulated a policy framework to achieve these objectives. Aims were that the project would:

- a) provide integrated physical, social and economic infrastructure to low-income communities in selected urban and rural areas of NWFP;
- b) give priority to those communities which demonstrate commitment through their capacity for social organization and financial contributions;
- c) allow communities, organized into CBOs or user committees to participate in, and be jointly responsible for the design, preparation and implementation of infrastructure services and would be fully responsible for subsequent operation and maintenance;
- d) develop infrastructure according to planning , design and construction standards suited to and affordable by the communities concerned and local infrastructure would be supported by primary infrastructure as necessary to ensure its efficient and effective operation;
- e) require communities to contribute any land required and at least 20% share of the capital costs (other than for trunk infrastructure) plus 100% of O & M costs;
- f) require local councils to contribute a 10% share of the capital costs (other than trunk infrastructure).

### 6.3.3 Technical Aspects

Planning and particularly engineering standards have generally been decided upon after much debate within the strong government engineering departments in Pakistan and usually have represented a compromise between the radicals and traditionalists. Much has also been written on standards and procedures with regard to urban upgrading in Pakistan.

### 6.3.4 Financial Aspects

Given that Pakistani upgrading projects have varied from the single-sector to the multi-sector costs have varied widely. Also unlike Indonesia, programs and projects were not designed using unit cost guidelines as a design parameter that for, replicability reasons at least, have to be considered. In the NE Lahore program per capita costs were in the order of US\$ 40 or US\$ 14,000 per hectare. In the CIP in NWFP the costs for a balanced package of basic priority improvements was approximately US\$ 6,000 per hectare for tertiary infrastructure only. With densities in NWFP communities very low (115-140 persons/ha) by normal urban standards per capita costs ranged from US\$ 43 to US\$ 52.

In Lahore the project was subsidised and there was no requirement for beneficiaries to contribute. In the Orangi Project in Karachi the people organised the internal development of the sewerage system and paid for it themselves. In the CIP in NWFP the people benefiting actually made contributions to the capital costs even though the works were carried out by contractors appointed following approved competitive procedures. Up front contributions from communities were agreed at 20% of the cost of secondary and

tertiary infrastructure. In addition the operations and maintenance of the infrastructure provided was the responsibility of the communities.

### 6.3.5 Community Participation

As witnessed through all of the more recent (past 15 years) upgrading projects in Pakistan there has been considerable emphasis on community participation from infrastructure driven projects that have been forced to involve communities to upgrading projects whose prime objective was to engender community participation with infrastructure improvement as a consequence of this. As with many facets of life the pendulum swings from one extreme to the opposite and it is not always easy to achieve the correct balance. The old fashioned, technically driven approach to upgrading, pursued by international funding agencies based on the need to make best use of scarce resources in as simple a way as possible (for such agencies) had many shortcomings and, understandably, later on, many critics. However the approach that suggests that communities can and should do just about everything with regard to infrastructure provision for their communities, and its operation and maintenance, is equally flawed. Given that collectively beneficiary communities and responsible delivery agencies agree on the upgrading scheme there are clearly activities that communities are best placed to achieve and others, usually of a more complex technical or “network” nature, that the authority with the responsibility and expertise should carry out. NGOs play a significant role in upgrading in Pakistan (and in many other countries) and have achieved much success (e.g. OPP). However they are not always technically competent when it comes to dealing with infrastructure other than simple tertiary facilities. Also, as in many countries, in Pakistan an often inherent dislike of NGOs by government agencies and vice versa does little to help communities themselves. It would seem that a sensible understanding of who is best equipped to do what and an agreement on the division of responsibilities at the outset of program planning would achieve much.

### 6.3.6 Institutional and Implementation Arrangements

Implementation of most projects in Pakistan has involved the establishment of a discrete Project Management Unit or Project Implementation Unit. These units have been established under the responsible agency overall usually Provincial Government Department or a Development Authority. Whether projects have been infrastructure-driven, multi-sectoral projects (NE Lahore) or the community involvement dominated projects (e.g. Faisalabad), a PMU or PIU has been established.

For project planning and design activities consultants have usually been engaged to support Project Unit staff and for physical works local contractors have generally been used following local procurement procedures modified to be acceptable to international funding agencies where these have provided funding.

### 6.3.7 Operation and Maintenance

In common with most cities in developing countries, in Pakistan (and indeed in many in the so-called developed world), proper maintenance of infrastructure is lacking. Reasons are fairly obvious namely; a) a lack of funding for maintenance (new projects are attractive to politicians who control annual budgets not maintenance); b) lack of equipment and know-how for planning and executing of maintenance; and, c) different organisations responsible for different sectors. Overall there is a lack of, what as been described as, “a maintenance culture”.

A major issue with regard to funding is that the tariffs charged for utilities provided rarely cover recurrent costs let alone generate funds for operation and maintenance and subsequent replacement. Much strengthening of utility agencies and local authorities is required. Projects to support the commercialisation of utility agencies and to strengthen local authorities and to put them on sounder financial footings are required before the “maintenance culture” is likely to improve significantly. The carrying out of maintenance by Communities themselves is being tried and can work, certainly for a limited period. However this is only usually workable for fairly simple routine maintenance and in the longer term it may not be appropriate to ask poor people to give of their time to maintain facilities without

payment. If payment is made then the same problem arises. The long-term solution surely is to see that the agencies charged with the responsibility for maintenance actually do it!

## **6.4 A Case Study – North West Frontier Province Community Infrastructure Project (CIP)**

### 6.4.1 Description

The Community Infrastructure Project was planned as a demand driven project, with the infrastructure to be provided according to the priorities of some 55 respective communities in 3 phases. The fundamental concept of the project was to foster a sense of ownership of the infrastructure on the part of the communities. Giving communities choice and a voice in what was proposed was intended to encourage communities to contribute financially to the investments they choose, and to take greater responsibility for their operation and maintenance.

Appropriate functional standards for planning, design, and construction were developed taking cognisance of locally available materials, ease of construction and maintenance, and affordability. Affordability and a balanced provision of infrastructure were also seen as important objectives in the design process, although the project allowed communities to choose from a range of alternative standards within cost ceilings. Another important objective of the process was to improve operation and maintenance (O&M), and communities were required to agree to satisfactory O&M arrangements prior to selecting any specific infrastructure scheme.

Infrastructure envisaged included water supply, stormwater drainage, streets, footpaths, sanitation and possibly community facilities dependent on community priorities. In addition to the basic local (secondary and tertiary) infrastructure, trunk or primary infrastructure, required to ensure that the community infrastructure worked efficiently, was also provided where necessary. Together with physical infrastructure, training of communities in health, hygiene and sanitation were also supported and there was a major sub-component to build capacity within communities to be able to meaningfully participate in the project.

The range of options from which communities could choose depended on their level of need, as determined by community and engineering surveys and presented in Community Action Plans developed by the communities with the PIU and agreed by both.

### 6.4.2 Process, Principles and Technical Aspects

#### *Process*

In the whole development cycle there were considered to be 5 distinct processes each with discrete steps.

1. Identification. This consisted of:

- a) Advertisement (to create awareness of project)
- b) Identification according to selection criteria (see below)
- c) Verification (by PIU)
- d) Meetings with community leaders
- e) Coordination with line agencies
- f) Approval of selection of Community for inclusion in CIP

2. Preparation. This consisted of:

- a) Training and Planning (leading to nomination of representatives and community survey)
- b) Mapping the Community and Formulation of Community Action Plans
- c) Preliminary measurement and costing

- d) Formation of Community Based Organizations
- e) Approval and signing of CAP
- f) Opening of CBO Bank account

3. Confirmation. This consisted of:

- a) Surveys of Community
- b) Management Training of CBOs
- c) Monitoring and Evaluation Training of CBOs
- d) Health, Hygiene & Sanitation Training of CBOs
- e) Detailed Engineering Design and Preparation of Government pro-forma
- f) Approval of design by community
- g) Community Financing Agreement
- h) Signing of Memorandum of Understanding
- i) Implementation Plan
- j) Approval of pro-forma by government
- k) Transfer of funds to Assignment account
- l) Transfer of funds to Joint Account (CIP and Community)

4. Implementation. This consisted of:

- a) Procurement of materials
- b) Contract award to Community /Contractor
- c) Supervision of Community/Contractor by Engineer (PIU)
- d) Contract Administration
- e) CBOs training for Operation and Maintenance
- f) Process Monitoring
- g) Physical implementation completed

5. Operation and Maintenance.

- a) Handing over of completed schemes to the community for O & M

### *Principles*

Basic principles were established with regard to various aspects of the project.

*Selection Criteria.* Communities were pre-selected according to:

- a) low income
- b) lack of basic infrastructure or a GONWFP identified slum area
- c) investment potential
- d) size of settlements above 5,000 persons
- e) geographic spread across Province
- f) potential for community participation

In addition sites where land tenure was found to be in dispute were avoided and areas where large number of renters or unstable tenant landlord relationships also avoided.

To be eligible for the project, schemes proposed by communities would need to satisfy certain requirements before they were deemed to be technically sound, ready for implementation and economically and financially viable. These requirements were:

- a) Community and Local Council Participation and Contribution.  
The community had to demonstrate a willingness to participate in the selection, design and implementation and contribute at least 20% up-front to the capital costs of the community infrastructure and to undertake O&M. The local council had to contribute at least 10% to the capital costs of the community infrastructure.

- b) **Resource Availability**  
Primary infrastructure must be available, or would be provided by the project. This provision would be subject to a separate technical and economic justification and feasibility analysis if the primary infrastructure cost of any scheme was estimated to exceed 50% of the gross cost limit per household. Any land required had to be in public or common ownership and available for use.
- c) **Environmental Sustainability**  
The environmental impact of schemes must be acceptable, and mitigating measures included where possible. Areas unsuitable for upgrading because of, for example, natural or environmental hazards, irregular terrain or difficult soil conditions would not be eligible. Resettlement, if any, must be in accordance with World Bank standard requirements.
- d) **Technical Viability**  
Schemes must demonstrate improvements benefiting the majority of households lacking service, endeavour to provide a balanced package of infrastructure elements, as costed at appraisal, conform with technical design standards agreed at appraisal, and have implementation arrangements consistent with proven capacities. Infrastructure sub-components would be designed as completely functioning systems.
- e) **Economic Viability**  
Excluding the cost of primary infrastructure, the cost of schemes must fall below a cost limit of US\$ 200 per household net of community contribution (equivalent to a gross cost of US\$ 250 per household), although communities would still be able to select a higher cost scheme by contributing full incremental costs. If gross costs exceed US\$ 333 per household then data should be provided: (i) to indicate the source of incremental financing; and (ii) to reconfirm that the site conforms to the agreed selection criteria.
- f) **Sustainability**  
The community must be aware of O&M consequences of schemes, and prior agreements should be in place for adopting completed infrastructure, for provision of O&M and for O&M financing. Continuing O&M of earlier phases of project infrastructure must be satisfactory.

### *Standards*

#### **General**

Infrastructure standards and service levels used to plan, design and cost the Project were developed in consultation with selected Phase 1 communities. In developing the standards the need to provide effective infrastructure which is affordable, simple and which, for secondary and tertiary elements, was able to be easily constructed and subsequently operated and maintained by the communities, was of paramount consideration. The standards and service levels were as follows:

#### **Water Supply**

The source of supply was to be springs or tubewells with or without surface of overhead reservoirs. All water supplied was to be to WHO guidelines for drinking water quality. The minimum terminal pressure head was to be 8.0m (rural) and 10m (urban); maximum height of any overhead reservoir was not to be more than 20m.

Supply standards were to be:

Minimum supply from public standposts or community tanks/minimum supply level for rural settlements.

Maximum walking distance: 100m

Design per capita consumption: 25 lcd

Storage: 20% of average daily consumption

Design peak factor: 1.0 (i.e. no allowance).

Improved supply from public standposts or community tanks/target supply level for rural settlements and minimum supply level for urban communities.

Maximum walking distance: 100m

Design consumption: 25 lcd (rural), 35 lcd (urban)

Storage: 35% of average daily consumption

Design peak factor: 1.0 (i.e. no allowance)

Intermediate level service through yard connections (13mm dia pipe from street distributor main); target supply level for urban communities.

Design consumption: 60 lcd (rural), 75 lcd (urban)

Storage: 35% of average daily consumption

Design peak factor: 1.5

Full house connections (13mm dia pipe from street distributor main); ideal supply level.

Design consumption: 60 lcd (rural), 75 lcd (urban)

Storage: 35% of average daily consumption

Design peak factor: 1.5

Tubewells, trunk lines and reservoirs are considered as primary infrastructure. The main pipeline from the tubewell or spring to the reservoir or direct to the community was to be constructed with galvanised iron pipes up to 150mm diameter laid with a cover of between 0.5 and 1.0 metre. The distribution system within communities would generally be constructed from galvanised iron (25mm to 100mm dia) pipes depending on capacity required with a cover to the top of pipes of generally 0.75 metre.

#### Sanitation

The sanitation component was to comprise three main elements: (a) a health and sanitation awareness program, established with the assistance and cooperation of UNICEF, and concentrating on training and health and sanitation education; (b) the establishment of an on-plot sanitation program with incentives (equivalent to a 25% matching grant) for households who are prepared to construct an on-plot, pour flush latrine; (c) provision of simple primary treatment facilities (oxidation ponds) in areas where there are large concentrations of sewage discharging to watercourses via the stormwater drainage network. Particular focus was to be given to on-plot sanitation programs where land, topography, accepting watercourse and climatic constraints prohibit the provision of a suitable and affordable communal disposal/treatment facility. Details of the respective elements are set out below.

Double-pit household pour-flush latrines were encouraged in all communities provided that there is a low groundwater level (at least 2 metres below the underside of the leaching pit), that underlying rock is at sufficient depth and tests determine that leaching can take place. The leaching pits were to be approximately 1.0 metre dia x 1.4 metre deep as determined as a result of tests. In the event that there was a poor response to household latrines, community public 4-cubicle dry pit latrines would be tested, again provided that there is a low groundwater level and that underlying rock is at sufficient depth. Ownership would be offered to determine acceptability.

Provision for sullage or grey water would be via the stormdrainage system with acceptable outfall arrangements (see D below). Uncontrolled contamination of sullage water by human waste should be reduced by the encouragement of on-plot sanitation through improved latrines (see above). Sewerage was only to be considered in urban areas with high water consumption (>120 lcd) and high population density (>150 persons/ha).

#### Solid Waste

Improved solid waste management would be achieved by improved operation and maintenance through community-based arrangements. Investment in facilities would likely be small and limited to: (a) the construction of open, brick built, collection containers of approximately 7 cubic meters capacity; and (b) in rural areas, advice on the location of disposal sites. In rural communities, in view of the limited volumes of solid waste remaining to be disposed (the majority of rural waste is recycled), bulk transport would not be necessary. If communities do require periodic haulage they will mobilise agricultural tractors and trailers. However, for permanent disposal from urban communities, linkage will be made with the city-wide waste collection and disposal systems. (Other projects provide solid waste management systems in most of the major towns in NWFP). Where the current disposal arrangements are inadequate, provision

of additional waste containership facilities will be provided. For design purposes, the volume of solid waste generated in urban areas is based on 1.2 litres per person per day and in rural areas, 1.0 litre per day.

#### Stormwater Drainage

The minimum requirement is for adequate drainage, in flat or plain areas, to access roads, minor streets and footpaths. In general, drains would be provided in the centre of footpaths, and on one side or on both sides of roads dependent on need and space availability.

Design capacity for all channels would take into account a sullage volume equivalent to 80% of the amount of potable water supplied and, in addition, for tertiary drains, local rainfall run-off. For larger areas, the capacity of primary and secondary drains would be calculated from the catchment area and rainfall intensity. Run-off would generally be calculated using a maximum storm intensity of 50mm/hour (for smaller areas) representing a 1-year return period, plus an allowance for sullage (dry weather flow).

Drainage channels would consist of either concrete semi-circular or “V” shaped channels or rectangular channels of plastered brick on a concrete base and cunette. Where such channels are liable to carry sullage water including significant volumes of raw sewage, sulphate resistant cement shall be used in the construction. Where possible, drainage gradients would be such as to ensure a self-cleansing velocity of 0.6m/sec at peak flows. Connections from houses would be via small concrete surface channels or 75mm or 100mm pipes. One of four sizes of drains would be constructed depending on anticipated flow volumes.

The provision of flood protection works to divert stormwater away from or around a community, or, where neither solution is practical, to channel and control flood flows through a community, could be included where considered a community priority. Designs were to be prepared on a case-by-base basis and are expected to involve stone masonry and concrete work.

#### Roads and Footpaths

The planned service level target for access and circulation is to provide for all weather access to 100% of houses within the communities. Three typologies were considered, vehicular access roads, minor streets and footpaths. The geometric standards for each typology were to be as follows:

Type A – Vehicular Access Roads: 2.5m width or over

Type B – Minor Streets: between 1.5m and 2.5m width

Type C – Footpaths: less than 1.5m width.

Alternative construction standards were to be allowed to give the communities a choice. In hilly areas where there are steep slopes, concrete surface treatment would be adopted rather than brick. Also where soils are found to be weak, a sub-base will be constructed.

The construction of roads and footpaths within communities would be closely integrated with existing drainage or constructed together with proposed drainage.

#### Street Lighting

In principle the provision of street lighting would only be considered in urban areas. However, in rural communities, community preference for street lighting, based on a perceived priority for reasons of security, may be supported.

Lighting would be pole-mounted, wall-mounted or mounted on existing power lines at strategic points and will not necessarily give full coverage. Lamps would be fluorescent bulbed. Cabling between lights would be via ducts set in concrete or overhead.

#### 6.4.3 Financial Arrangements

The “rules of the game” with regard to costs and financing have been outlined above. Indicative guideline costs for a balanced package of basic services were determined at the outset to ensure balanced

coverage between and within communities for equity. The cost per hectare of such a package was about US\$ 6,000 per hectare.

Overall financing arrangements between communities, local and provincial government are outlined elsewhere in the report and details were set out in CAPs, a Memorandum of Understanding and Community Financing Agreements.

#### 6.4.4 Institutional and Implementation Arrangements

At provincial government level a Project Review Board was created for top level oversight and a Steering Committee for CI policy guidance and inter-agency coordination. The Local Government, Elections and Rural Development Department (LGERDD) was the provincial government department responsible. A Project Management Unit provided the technical resource and capacity for planning, design, implementation and day to day project management. At district level (communities spread province-wide) decentralized Project Implementation Units (PIUs) answerable to the PMU were established for day to day implementation.

The CI component was implemented in three phases over six years. This phasing was in order to gradually develop project management, community mobilization and implementation capacities, and in order to provide, at the end of each phase, further opportunity for review and adjustment of modalities with the benefit of experience. Phase 1 included 20 communities located in 7 urban and 13 rural areas. Phase 2 was 27 communities, anticipated to be 12 urban and 15 rural, and Phase 3, about 8 additional communities.

The initial stage of implementation focused upon: (a) strengthening PMU's and LGERDD's institutional capacity; (b) monitoring and building upon the experience of the community infrastructure schemes already underway in NWFP (two pilot schemes were completed, plus schemes in up to 6 sites started using retroactive finance); and (c) a gradual implementation of the remaining Phase 1 sites in a staged sequence of 6 to 8 sites each. Preparation of Phase 2 sites, in two batches, started in the second year of the project. The initial period of CI implementation included further training and orientation of project staff on project concepts and participatory approaches.

The modalities for implementing the component were documented in the following: (a) an Inter-agency Coordination Agreement, incorporating the responsibilities and obligations of each of GONWFP's departments concerned in the CI component, including arrangements for collaboration in planning, design and implementation, and the terms of reference of the CI Steering Committee; (b) a CAP, which each community prepared with assistance from PMU/PIUs, to provide the basis for scheme assessment and approval, and which included a statement of the CBO's status, a justification of the need for a scheme, preliminary design of the proposed infrastructure and community development, an environment assessment, investment and O&M costs, a financing plan, a description of arrangements for collection and safekeeping of community contributions, and an implementation plan; (c) a Memorandum of Understanding (MOU), detailing the responsibilities for scheme implementation, management, financing and O&M, and which, following CAP approval, was signed by the CBO, PMU and local council; and (d) a Community Financing Agreement, forming the contract between the PIU and the community for each specific scheme, detailing its cost, the amount of respective financial contributions, technical specifications, inspection, certification and payment terms.

Management of procurement was decentralized, according to responsibility for type of contract, and involved CBOs, local council representatives and consultant technical advisers directly in contract award and in contract management. Supervision of non-primary infrastructure contracts was undertaken jointly by the PIU consultant technical adviser, through contract sub-engineers, and by CBO representatives.

The Project's civil works were classified into three types. Type A works comprised the trunk infrastructure, which was bid at divisional level to attract the more experienced and financially sound local contractors. Type B works consisted of typical secondary infrastructure and more complex tertiary infrastructure and was contracted out in integrated annual packages for each community up to US\$ 50,000 in value. Local bidding procedures using simplified percentage rate bid documents were adopted. Very simple works

were called Type C works (max. US\$ 20,00 per contract) and were procured through direct contracting to communities.

#### 6.4.5 Lessons Learned

Experience from the CIP and evaluations of the CIP have identified the following major lessons learned.

1. Innovative, community-based projects must respond flexibly and adapt to the varying demands generated during the community mobilization process. Very few projects start out as truly demand responsive and adaptive. This often has to be learned. Process Monitoring is a useful tool to enable projects to learn from themselves by identifying, analysing and communicating problems arising from the complex interactions between projects and communities.

2. Clearly stated project rules and proper understanding of these rules (e.g. selection criteria, scheme identification and prioritisation) by both project staff and communities and the correct application of those rules are essential ingredients for project success.

- a. For example inflexible rules regarding ratios of primary, secondary and tertiary infrastructure, prevented the Project from responding to communities that were willing to contribute more than required for a different mix of infrastructure. A case in point is that a community might demand a greater amount of primary infrastructure and be willing to pay a greater percentage of the capital cost for corresponding community infrastructure. Thus an opportunity to introduce an element of competition between communities was lost because of rigid project rules.

3. Coordination and complementarity between social and technical assessments is critical for project success. The quality of social mobilization has important repercussions for scheme identification and selection, and community development units in the project need to be properly staffed and functional.

4. To prevent loss of credibility due to delays in physical implementation resulting from lengthy government procedures, these procedures have to be streamlined but the sensitisation of communities too early should also be avoided. Communities must be effectively and sufficiently motivated, well aware and clear about rules and terms of the partnership, obligations and reasons for possible delays.

5. Coordination and consistent policies and strategies between government (all levels) line departments and projects to prevent duplication and wastage of resources and inconsistent messages to communities.

6. A Monitoring and Evaluation system should include process indicators and mechanisms for timely feedback to project management and identify remedial action to allow problems to be addressed at the right time.

7. The Community Action Plan (CAP) is a systematic and thorough procedure for identifying and prioritizing community needs and an effective way to collect baseline information for later use in assessing impact. However the following weaknesses should be avoided:

- a. Unreliable data collection by inadequately trained community members, and CIP staff overburdened in the data compilation process leading to numerous "clerical" errors.
- b. Excessive time spent in data collection at the cost of a participatory planning process and dialogue with communities which could lead to a more accurate determination of community needs.
- c. Much and unnecessary information collected.
- d. Community need assessments not based on participatory approaches but on formal surveys at the individual household level.
- e. Too little time for actual community mobilization and awareness-building.
- f. Lack of meaningful involvement of women in the Project; women's participation is superficial, with no involvement at the time of subproject identification and planning.

8. Sufficient time (a minimum of 5-6 months) has to be spent on community mobilization and awareness building before entering into an agreement with the community for the community to participate as an equal partner with the Project.

9. There should be separate and effective measure (e.g. specific women's CBOs with linkages to the male CBO, a separate needs assessment focussed on the women's CBO etc.) for giving women "voice" and "choice", and involving them from the beginning of the planning process, particularly to engender ownership of the facilities provided and ensure their participation in the development process.

10. Particular attention should be given to ways to best capture community demand, as opposed to individual household demand; one way of doing this involves dialogues and mass meetings and the use of participatory tools.

11. Social mobilization staff's time, particularly in data collection, has to be rationally planned and adequate logistic support provided to maximize their effectiveness.

## **6.5 Ghana**

### 6.5.1 Overview of Initiatives

#### *Evolution of upgrading in Ghana until 1995*

In 1985, the World Bank began to support the Government of Ghana, through the Technical Services Centre of the Ministry of Works and Housing, with a pilot infrastructure upgrading project in the East Maamobi community of Accra, under the *Accra District Rehabilitation Project*. This first exercise to test the integrated multi-sector approach to infrastructure provision in Ghana's urban poor communities improved the lives of over 19,000 people living in an area of 30 hectares at a somewhat high cost of approximately US\$ 80 per capita or approximately US\$ 47,500 per hectare. Through the provision of basic infrastructure, such as roads, footpaths and drainage, the communities became accessible and the incidence of flooding was reduced. Additional water supply points and communal pit latrines improved the sanitation and contributed to a healthier environment in the communities. Government reaction following scheme completion was favourable, such that further schemes were planned.

These subsequent initiatives were carried out between 1988 and 1996 in single communities in Accra under the *Priority Works Project* (see 4.8) and the *Urban 2 Project* (see 4.8), namely in Ashaiman (70,000 people in 109 ha) Tema; West Nima (36,000 people in 54 ha), Accra; Ward E (32,000 in 59 ha), Tamale and Suame Magazine 70,000 people in 142 ha), Kumasi, which was different to other upgrading schemes in that it improved an informal commercial area occupied largely by motor fitters and mechanics. To implement the program, an integrated multi-sectoral approach was used. This approach achieves maximum impact in a short time with minimum disruption. The projects had an immediate visible and motivational impact.

#### *The Urban Environmental Sanitation Project (UESP)*

The UESP, which commenced in 1997, supported primary drainage, citywide sanitation and solid waste management components, also launched a new generation of community infrastructure upgrading initiatives in Ghana. The **Community Infrastructure Upgrading Project** (CIUP) component of the UESP, sought to learn some lessons from the earlier upgrading projects and included the concept of cost-per-hectare limits and functional standards to keep a check of costs whilst still providing an adequate level of upgrading. The project also embraced more current thinking with regard to community participation and sustainable maintenance arrangements focusing on a "bottom-up" approach involving the beneficiary communities. The Ministry of Local Government and Rural Development was the responsible parent ministry and, most importantly, for the first time in a World Bank supported project in Ghana it gave the respective local governments the responsibility for managing the implementation process. Another innovation was that it also required the local governments to contribute 10% of the

capital costs thereby promoting greater interest and ownership of the schemes by them as well as making them more concerned with costs.

Ghana has no stated upgrading policy but government, with World Bank support, has given tacit approval to the upgrading of predominantly low-income urban communities by including upgrading components in various urban development projects implemented since the first in the mid 1980s. Benefits of the upgrading approach have been recognized, by both central and local government, as the Government and the Bank are considering a Greater Accra Project for which the central focus would be the upgrading of infrastructure deficient low-income communities.

The objectives of the upgrading components in Ghana to date have been to increase the health, general well-being and productivity of low income communities by provision of priority basic infrastructure and municipal service improvements. The first generation of projects 1985-95 were very much “top down” initiatives designed and fully funded by central government. The most recent project which included upgrading (UESP), whilst ultimately providing similar improvements, adopted a much more participatory approach. The planning and design process (see Box 1) involved the respective communities and identified, through consultations with beneficiaries, works to be done within a broad “menu” of options. Facilities and Management Plans were prepared and signed off on by community Management committees

There are a number of approaches to upgrading unplanned, informal, infrastructure deficient, depressed settlements or slums as they are sometimes described. As state earlier (para.3.6.1) there is no right or wrong approach as the approach or model decided upon will vary according to the particular situation.

To date the approach to upgrading in Ghana has been to upgrade community-wide “engineering infrastructure” to improve efficiency to, and within the areas, thereby encouraging residents to help themselves and invest in the housing stock, and to stimulate local economic development. This, in turn, assists in the alleviation of poverty as well as improving the efficiency of the city generally. This has largely worked given the evidence of activities in the communities following the upgrading.

What upgrading projects have not addressed to date, apart from land and tenure issues, is the provision of social infrastructure facilities, security of tenure, direct cost recovery or micro-credit schemes. The upgrading efforts have been subsidised by central government with, in the case of UESP, contribution also from local government. The UESP however strived to involve communities throughout the identification, planning, design and implementation process much more so than in earlier projects.

In terms of selection of communities, priority is normally given to those settlements that have the most acute infrastructure, environmental and health problems. Other considerations are the willingness and commitment of the specific settlement dwellers to participate (and contribute) to upgrading proposals and the presence of some form of community structure(s). Under UESP the seven settlements selected in the three cities were obvious choices as they displayed all of the above characteristics. For the upgrading component in UESP all of the principles outlined above have been adopted and the integrated approach to planning, design and implementation has been followed.

What works in one situation may not necessarily work in another as this is dependent on the existing situation, history, development patterns, physical feature etc. What is important however is for programs to aim to ensure scarce resources are utilized to benefit as many of those in poor communities as quickly as possible with improvements that they deem to be a priority. Thus standards/service levels and implementation modalities are critical. Schemes should also engender a feeling of belonging and thus security of tenure is a key aspect. However this need not necessarily involve the issuing of land titles or some right of occupancy. Often investment in the community by government has proven to be enough to give residents a feeling of security and for them to subsequently invest in their houses and small businesses. This appears to have been so in Ghana. Experience has also shown that improvements that include sub-components that are very visible is important.

The situation with regard to land and legal aspects in Ghana is outlined earlier. Because of the complexities a decision was taken to move forward with infrastructure upgrading acknowledging that land administration and management issues needed to be resolved at the national level and that this would take a long time.

Upgrading schemes did not involve any direct intervention in housing either physically nor through credit for improvements or building materials or mortgage financing. Under another component of the Urban 2 project the World Bank did however assist government in establishing the Housing Finance Company.

#### 6.5.2 Technical Aspects

Early upgrading projects attempted to provide infrastructure to appropriate standards in order to keep costs down. They also took a multi-sectoral approach with regard to carrying out of the works, bundling all public works into one major contract for the predominantly network infrastructure. This approach also has the advantage of reducing costs and avoiding coordination problems as it places this in the hands of the contractors. However the new generation of upgrading projects, launched with the UESP, sought to extend and improve on earlier upgrading efforts. While keeping to appropriate functional standards, it introduced the concept of cost-per-hectare limits to keep check on costs while still providing an adequate level of service (see section 5.0). It also embraced more current practice with regard to community participation as outlined below. Third, for the first time in a World Bank supported project in Ghana, the local governments managed the upgrading component and contributed 10% of the capital costs

#### 6.5.3 Financial Aspects

The costs and coverage for the first generation of upgrading schemes compared with the most recent (UESP) are shown in the following Table 3. The UESP included cost per hectare limits as a design parameter and this is reflected in the costs and the area able to be upgraded within a given budget.

Table 3 - Ghana Urban Upgrading Projects – Salient Data

<u>Project</u>	<u>Population</u>	<u>Hectares</u>	<u>Total Cost (US\$)</u>	<u>Cost/capita (US\$)</u>	<u>Cost/hectare (US\$)</u>
ADRP	19,200	30	1,580,000	82	53,000
PWP	70,480	104	4,508,000	64	43,500
Urban II	88,960	160	8,865,000	100	55,400
UESP	264,600	527.5	13,960,000	52	26,500

#### 6.5.4 Community Participation

Early upgrading projects were largely top-down” projects and did not actively involve the community in the planning and implementation process albeit that initiatives came out of concerns voiced by the people about their living conditions (particularly sanitation) and thus priorities were fairly evident.

In 1996 the UESP acknowledged more current thinking with regard to community participation and project communities have been involved at key stages in deciding their priorities, within project limits, and they were parties to the Facilities and Management Plans produced for each community in conjunction with the planning and design consultants.

Minimal resettlement was a design objective but where some house required removal, to enable infrastructure to be provided, resettlement and compensation arrangements were discussed with and approved by the communities.

#### 6.5.5 Institutional and Implementation Arrangements

Early projects were essentially, central government projects and were planned, designed and managed by the Technical Services Centre of the Ministry of Works and Housing with consulting assistance. The City and Municipal Councils of the time were not involved. Introduction of the decentralization policy and the strengthening of the Ministry of Local Government and Rural Development and the establishment of

its Local Government Project Support Unit changed this. Overall project management for upgrading under UESP was vested in the MLGRD but with day to day management carried out by the respective Assembly through its small project units established for the task. Under UESP each Assembly was responsible for procurement and management of the upgrading works, supported by local consultants (see Figure 1).

In all projects, works have been packaged together for efficiency gains (multi-sectoral approach). Local contractors have been engaged to carry out the works. This has been an important factor as local contractors have a better understanding of a community's needs and its circumstances. One large contract has usually been packaged for the network infrastructure although minor stand-alone works have been tendered separately and small contractors encouraged to participate.

#### 6.5.6 Operation and Maintenance

In the early projects little attention was given to the future operation and maintenance (O & M) requirements on the assumption that this would be taken care of by the responsible agencies. Reality is of course that little funding is available for operation and maintenance for trunk infrastructure let alone the secondary and tertiary infrastructure provided under the upgrading projects. Thus new initiatives to try to ensure better operation and maintenance in the future were agreed under the UESP.

The funding and execution of simple O&M activities (e.g. tertiary drain maintenance), could be carried out by communities themselves. Other, more technically difficult, O&M activities could be undertaken by private contractors. The Management Committees in each community were to ensure that necessary periodic maintenance was carried out by the responsible authorities and could directly organize routine and emergency maintenance of tertiary infrastructure.

Operation and maintenance costs were to be covered by the respective communities through user charges, property taxes and other contributions that might be raised from community efforts. For water supply and street lighting the responsible utility agencies (GWSC and ECG respectively) were to be responsible for operating and maintaining the systems, after taking them over following the end of their defects liability periods, with funding from existing tariff revenues. It was envisaged that the community standpipes would be franchised to private operators or community groups that would be responsible for standpipe operation, sale of water, and payment of the GWSC water bill. Street lighting was to be maintained by private contractors engaged by ECG as was now the norm. For roads and drainage, major periodic maintenance (i.e. resurfacing and major structural repairs) was to be carried out by the urban roads units in the respective Assemblies. However, routine maintenance of roads and drains could be organized within the communities and carried out by communities or small contractors organized by the respective sub-metropolitan structures with budget channelled through the respective Assemblies.

The respective Assemblies agreed to allocate such sums each year to the respective sub-metropolitan structures for routine maintenance of roads and drains for the beneficiary communities commencing in Year 3 of the project.

### **6.6 Case Study 3 - Ghana Urban Environmental Sanitation Project: Upgrading Component**

#### 6.6.1 Description

Following ten basic principles (see Box 1) adopted through the planning and design process (see Box 2), seven communities in three cities were upgraded. Approximately 265,000 people, residing in about 530 hectares, benefited. The program included the following improvements:

- Paved main roads (up to 6 m wide depending on function) and open channel lined storm drains
- Limited water supply reticulation system to serve standpipes at 1 per 5ha with some house connections on payment of standards fee to water authority.
- The rehabilitation of existing public toilet facilities.
- The provision of communal solid waste containers to suit citywide system and hard-standings for containers.
- Basic street lighting

- The preparation of a resettlement plan for involuntary resettlement and replacement of demolished structures and/or compensation to be paid before the works commence.

Details with costs are shown in Box 3.

## 6.6.2 Principles, Planning Process and Technical Aspects

### *Infrastructure Planning*

Infrastructure provided in upgrading schemes is predominantly “network” infrastructure and thus “area sensitive” rather than “population or density sensitive”. In this case experience has shown that planning to “per ha costs limits” is more meaningful than planning to “per capita limits” and this was adopted in the UESP. Based on preliminary studies, the overall guide figure for cost planning, developed for upgrading in the UESP, was US\$ 25,000 per hectare. It was found that this figure could achieve significant improvement in infrastructure for a typical package of sub-components. The project planned the upgrading of 37 km of road, 59 km of drains, 39 km of water pipe (50mm – 150mm) plus 400+standpipes, as well as the rehabilitation of 20 public toilet facilities, 3000 streetlights and 130 solid waste containers and hardstandings

## *Ten Basic Principles of the CIUP*

### Box 1

1. Communities to be selected on the basis of infrastructure deficiency.
2. Improvements to be to functional standards with maximum costs limits based on “per hectare” targets.
3. Improvements to be based on a “menu” of basic infrastructure and services.
4. Program to be balanced for impact and visibility reasons.
5. A commitment to fund operation and maintenance by assemblies/communities is required.
6. An “environmental infrastructure fund” to be introduced for additional tertiary infrastructure, accessed only if the communities or groups within them matched the funds.
7. Program proposals, community management, maintenance arrangements etc to be set out in a Facilities and Management Plan to which the community has to agree.
8. The respective Assemblies (local authorities) to contribute 10% of capital costs.
9. A complementary citywide sanitation program, which includes rehabilitation of communal latrine facilities, and matching grant program for individual facilities, is to support the CIUP.
10. Essential trunk infrastructure should exist or be provided in complementary programs.

## *The Planning and Design Process*

### Box 2

1. The **Initial Survey Stage** involved the identification of focus groups in each community, household surveys, preparation of a data base, and group/stakeholder discussions leading to agreement on general principles and scope of the program.
2. The **Planning and Preliminary Engineering Design Stage** included base mapping, the development and costing of functional standards, an assessment of trunk infrastructure needs, extrapolation of unit costs to arrive at an approximate cost estimation, as well as the assessment of the potential for community involvement during the implementation process.
3. During this stage preliminary proposals and cost estimates for operation and maintenance were developed. Government and parastatal authorities that would be responsible for taking over responsibility for operation and maintenance of the infrastructure provided were brought into the discussions and their agreement to standards and layouts obtained. Community infrastructure proposals, costs and operation and maintenance responsibilities were set out in a Facilities and Management Plan which was agreed between and signed by the various stakeholders.
4. The **Detailed Engineering Stage** included discussing and seeking the agreement of communities and stakeholders to the program content, and the implementation modalities incorporating reasonable modifications to preliminary proposals. Detailed engineering plan, bid documents and final cost estimates were also prepared.

## *Summary Data and Costs – Plan*

### Box 3

Communities	Area (Ha)	Popn.	Dwellings	Density	Cost/ha (US\$)	Cost/Cap (US\$)	Total Cost (US\$)
<b><u>Accra</u></b>							
Sukura	52.5	22,700	631	432	22,918	53	1,203,177
Old Teshie	101.5	38,500	1068	379	14,918	40	1,521,300
West Maamobi	88	34,200	814	389	18,083	47	1,591,344
<b><u>Kumasi</u></b>							
Aboabo	73	52,300	716	716	27,608	39	2,015,367
Anloga	75	45,800	611	611	25,215	41	1,891,124
<b><u>Sekondi-Takoradi</u></b>							
Effia Zongo	57	33,900	595	424	17,240	29	982,690
Kwesimintsim	80.5	37,200	462	600	17,497	38	1,408,515
TOTALS	527.5	264,600	4,726	Av.502	Av.22,132		11,674,869

### 6.6.3 Financial Aspects

#### *Costs and Financing*

Following household, topographic and soil surveys, development of cost/ha guide figures, and detailed engineering the agencies design costs ranged from US\$ 16,400 (in Sekondi-Takoradi) to US\$ 27,600 per ha (in Kumasi) or US\$ 34 per capita (Sekondi-Takoradi) to US\$ 45 per capita (Kumasi) with densities varying from 380 to 715 persons per ha. The final costs proved similar to the estimated costs. In total, the project cost were estimated at US\$ 11.6 million. Details are set out in Table 1. The Assemblies contributed 10% of the total costs, the GOG with 13% and the IDA covers 77%.

### 6.6.4 Community Participation

The community infrastructure component aimed to (a) promote the use of demand-driven, participatory planning and design procedures and functional, affordable standards and levels of service for infrastructure; (b) strengthen the ability of Metropolitan and Municipal Assemblies to collaborate with community residents in the planning, design, implementation of infrastructure upgrading schemes so as to foster a sense of ownership by the communities; and (c) establish sustainable arrangements for operation and maintenance. Details of the facilities to be upgraded, their implementation, capital costs, estimated annual O&M cost requirements, and O&M modalities were set out in a "Facilities and Management Plan" to which each community (via a community based organization agreed upon with local leaders) and relevant public agencies formally agreed. Each of the Assemblies agreed to contribute 10 per cent of the capital costs of the upgrading component from its own funds. (the Common Fund).

Local leaders and residents were actively involved at all stages of planning and design. Meetings were held with focus groups including Assembly members, local unit committee members, and representatives of non-governmental organizations including women's groups. A household survey was carried out to determine the coverage and quality of existing services and willingness to pay for improved services. A series of workshops was conducted with community leaders and residents to discuss their priorities, standards and service levels, the community's role in O&M, and trade-offs in allocating the limited resources to be provided through the project.

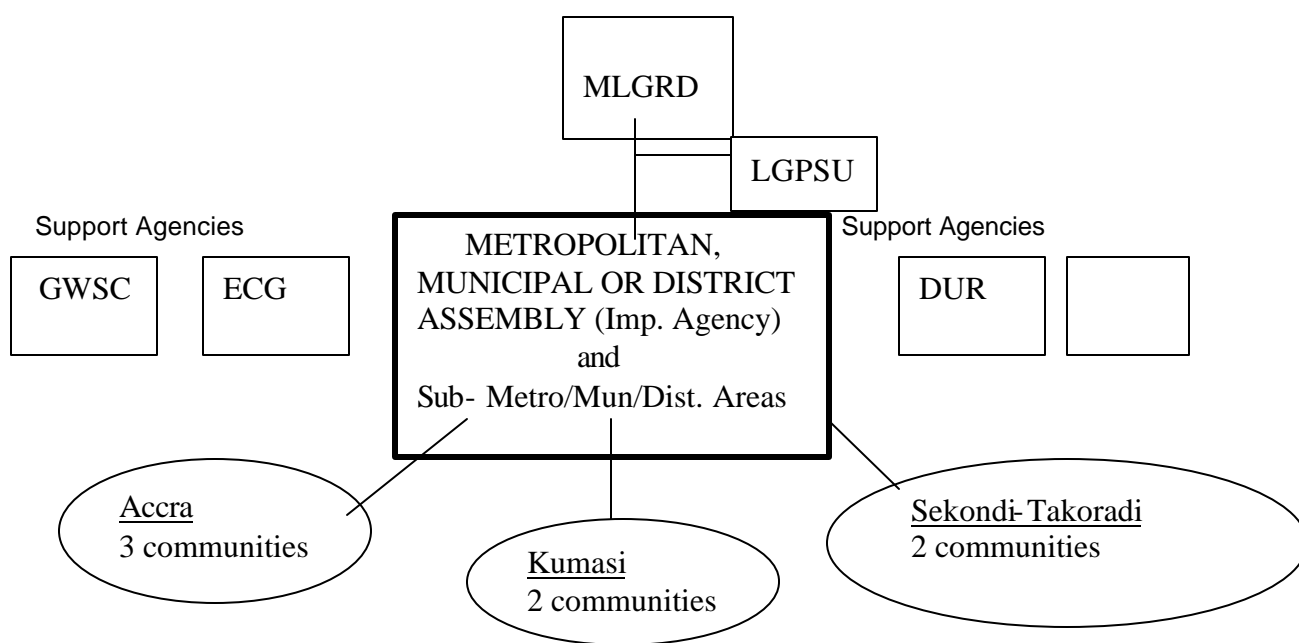
### 6.6.4 Institutional and Implementation Arrangements

Under the auspices of the sub-metropolitan structure, Joint Management Committees were formed. They included representatives of formal government departments, as well as community groups (e.g. youth groups, women groups and religious associations). Following design by consultants, the three local

governments of Accra, Kumasi and Sekondi-Takoradi (Metropolitan Assemblies) became responsible for the project implementation including procurement and supervision. In each participating city a Project Support Team, consisting of a Coordinator, a Sanitary Engineer and an Accounting Officer, helped to coordinate and manage the different sites. Support was also made available from the Local Government Project Support Unit in the MLGRD. Figure 1 outlines the institutional linkages.

Contractors were engaged to carry out the main works. One large contract package for the “network” infrastructure in each community was decided upon for efficiency and works management reasons. For minor “stand alone” works (e.g. bin hard standings) other small local contracts were bid for and awarded. Each Assembly was responsible for procurement and management of the component, supported by local consultants. Generally the performance was encouraging from Assembly Project Support Teams, consultants and contractors alike. Assemblies made their contributions and works were completed to a good standard and close to schedule and cost.

Figure 1 – Institutional Linkages for Upgrading Schemes (UESP)



### 6.6.5 Lessons Learned

Improving the living conditions of under-serviced communities (upgrading) in Ghana’s cities has involved the provision and/or improvement of basic municipal infrastructure and services that are:

- i) planned and designed by local consultants to functional least cost standards;
- ii) constructed by local contractors;
- iii) funded by central government with some assistance from the respective local governments.

Lessons learned from this approach include:

1. Efficiency gains in the management of the construction process by the use of local consultants and established local contractors who become an important interface with the communities during implementation and who often sub-contract small-scale contractors or community groups. Once completed, the upgraded infrastructure was been taken over by the responsible authorities for operations and maintenance.

2. Keeping it simple was of paramount importance. The UESP was kept as simple as possible for ease of design and implementation. Consequently, it was completed close to planned time schedules, within estimated costs, and to good standards of workmanship. Investment in housing stock and small business by the people themselves soon began occurring in the upgraded communities demonstrating a positive effect of upgrading.

3. Although the UESP (and earlier upgrading schemes) may be considered successful, certainly by most beneficiaries, government officials, donor officials and the public at large, there are, however, two major issues that need to be addressed in the future in subsequent upgrading projects and other parallel, complementary, initiatives.

g. i) Cost recovery. The UESP and earlier schemes have been subsidised by central government with, in the UESP, some contribution from local government (through their Common Funds). Thus sustainability questions are raised. Can government afford to adopt a similar approach with regard to infrastructure provision across all of Ghana's urban poor communities? If the answer to this question is no, then in future consideration needs to be given to devising a sustainable but at the same time equitable arrangement for recouping at least some of the capital outlay.

h. ii) Land and Tenure. The first issue above could be achieved by addressing the second issue and that is with regard to tenure and therefore land. To date tenure issues have not been addressed because of land administration complexities and also because the need for more formal security of tenure (i.e. some form of formal land title) is not always seen as the most critical need by the urban poor in Ghana. Investment in infrastructure by government has proved to be enough to encourage residents to invest in improving their dwellings and small businesses. Areas upgraded, and requiring to be upgraded, are generally established communities within cities albeit there may be pockets of informal development within them. However where land issues are clearer and the issue of formal title, as part of an upgrading scheme, is a possibility, then this also provides and opportunity to recover costs for the upgraded infrastructure through the sale of the plots. If this is not possible then recouping some costs in other ways, for example through betterment levies or through the property tax system should also be considered.

4. More specific lessons learned from upgrading schemes carried out in Ghana to date are summarized below.

i) A "first wave" approach of providing minimum basic infrastructure allows a program to quickly reach large numbers of the population. In this, the community can experience the benefits and can better organize to participate in subsequent stages. With, incremental follow-up, other infrastructure and social services, such as health and education facilities and income generation activities, can be built on this foundation. This staged process calls for advanced planning in the design of infrastructure to ensure easy "add-on" of expanded services.

ii) The lowest cost options should be actively sought to allow greater coverage with limited resources. This can be achieved through utilizing appropriate functional standards for infrastructure; developing reasonable resettlement packages (not overgenerous ones that can stimulate people's desire to be resettled); and not compromising on cost targets.

iii) Large scale programs cannot be carried out without the active involvement and fiscal commitment of local authorities. Greater efforts to increase local government revenues and recover the costs of upgrading should be built into the program.

iv) Enhanced cost recovery efforts should include, in the medium term, a plan to address land security/ownership (including registration and titling), as this would allow the government to recoup at least part of the cost of upgrading. Property valuation rolls should be kept up to date and property tax collection efficiency improved, possibly by use of the private sector. Betterment taxes could also be considered, but within a context of equity and ability-to-pay of residents.

v) Realistic programs for improving city-wide operations and maintenance by local governments need to be developed. Ad-hoc maintenance programs, driven and funded by the communities themselves cannot support a scaled-up program. In the long term, the bodies legally charged with the task should be responsible for O&M. Financing of the start up costs of a revitalized O&M program could be considered as a component of the program.

vi) A large scale upgrading program invariably puts great pressures on the city-wide primary infrastructure and services networks. Planning for the expansion of the primary networks in conjunction with the upgrading of smaller communities is critical to ensure a functioning infrastructure delivery system.

vii) Any large scale program should establish a robust mechanism for monitoring progress and measuring the impact of its interventions. Greater efforts to (a) determine baseline data on access to services (both infrastructure and social services such as health and education), on employment, on incomes, etc.; and (b) establish schemes to monitor the impact of upgrading schemes, particularly the social impact, would give a clearer picture of the true value of upgrading.

## **6.7 Swaziland**

### **6.7.1 Overview of Initiatives**

Building consensus on mechanisms to secure land for urban development has been a delicate and protracted process in Swaziland. In 1992, MHUD obtained the agreement and support of the King for allocation of SNL for urban development. This was an important first step enabling the SUDP to commence. Securing the agreement of community leaders, and chiefs to proposals for transfer and allocation of land is equally critical. Within the cities it was agreed that the land, on which the projects residential settlements to be improved are situated, could be transferred to the IA (on a 99 year leasehold basis) such that it could be on-sold to the project beneficiaries (for the most-part the existing occupiers) on the same basis, after upgrading and payment of an agreed purchase price.

The 99 year lease was introduced to provide a uniform instrument to facilitate the transfer of various forms of tenure from government to individuals and to reduce plot costs for the beneficiaries by removing the charge of land and concentrating on the infrastructure development costs.

Thus with the sensitive land issue resolved for the SUDP sites and the new housing policy, including an acceptable policy with regard to resettlement and compensation, and the concept of upgrading and formalising of the informal settlements accepted, necessary policies and strategies and agreements were in place to proceed with the SUDP and more particularly its upgrading component

Transfer of SNL for development of the Mhobodleni “green-field” site for a sites and services scheme was also agreed and maybe significant because, unlike the other sites, the Mhobodleni site is outside and existing urban area (city council jurisdiction). Thus there is a precedent for transferring peri-urban SNL for urban development. After implementing the upgrading schemes in SUDP the major problems remaining, with regard to upgrading existing low income “informal “ communities is to upgrade those situated **outside** of city council jurisdictions (i.e. the “peri-urban areas”). The securing of SNL to enable this to happen and for the areas to be managed in the future is the urban development challenge now facing Swaziland.

In Swaziland the only major upgrading effort that has taken place to date has been under the SUDP. The SUDP is to upgrade the main informal areas in Mbabane (Mzunduzza and Nkwalini) and one such area in Manzini (Moneni) (see Box 1). The project also proposed that at the “greenfield” site at Mhobodleni, a low cost housing scheme would be supported by provision of the municipal infrastructure for the scheme (not

the housing itself). Given that this site is adjacent to the informal peri-urban settlement of Mhobodleni (outside but contiguous with the Manzini City Council boundary) this plan has been reviewed and all stakeholders agree that the area should be considered holistically and both upgrading of the existing settlement as well as development of a sites and services scheme for the greenfield site should take place. A plan for the whole area is now to be prepared. The lessons learned from this holistic approach will serve to help guide the planning and development of future programs to address the rapidly growing peri-urban settlements and housing needs round Swaziland's two cities and possibly other urban areas in the country.

Apart from the upgrading of secondary and tertiary infrastructure (i.e. access, drainage, water supply, sewerage/sanitation, streetlighting) and formalizing of the informal settlements of Msunduzi and Nkwalini and of Moneni, supporting trunk or city-wide, infrastructure is also being provided in the SUDP. The provision of trunk infrastructure to support local infrastructure and service provision is critical to the success of upgrading schemes. This latter infrastructure includes expansion of water treatment facilities, pumping and storage capacity, new sewage treatment facilities, all the responsibility of the Swaziland Water Services Corporation (SWSC) and a new landfill site and major road improvements, both City Council responsibilities.

Some 4200 existing plots on the sites are planned to be upgraded and 800 new plots created at the Moneni site and also at the "greenfield" site at Mhobodleni. The funding for this "Residential Housing Sites" or "Upgrading" component of the SUDP was designed such that following initial seed funds (US\$2 million) to the Implementing Agency to carry out the first scheme, (Msunduzi), then subsequent schemes were to be financed from funds generated from plot sales at Msunduzi (i.e. from a "revolving fund"). It was also envisaged that all of the components of the SUDP would be completed within a five year time frame.

*Box 1– Upgrading Program Data*

Msunduzi-1350 existing plots; 430 in-fill plots (i.e. plots arranged in open spaces between existing plots); 80 non-residential plots  
Nkwalini-730 existing plots; 1050 in-fill residential plots; 50 non-residential plots  
Moneni-160 existing plots; 310 in-fill residential plots; 30 non-residential plots

The objective of the upgrading component in SUDP is to increase the delivery and effectiveness of urban management services and living conditions through pilot land reform and participatory development and housing solutions for low-income urban households. The approach is to upgrade on-site infrastructure consisting of roads, footpaths, drainage, water supply, sanitation (including sewers) street-lighting and landscaping to standards that are affordable, that minimize relocation and achieve cost recovery by enabling existing occupiers to purchase title to their plots for the cost of the infrastructure provided.

In terms of selection of communities, priority is normally given to those settlements that have the most acute infrastructure, environmental and health problems. Other considerations are the willingness and commitment of the specific settlement dwellers to participate (and contribute) to upgrading proposals and the presence of some form of community structure(s). Under SUDP the settlements selected were obvious choices as they displayed all of the above characteristics and were the largest and longest established within the existing boundaries of the cities. For the upgrading component in SUDP all of the principles outlined above have been adopted and the integrated approach to planning, design and implementation has been followed.

The Swaziland upgrading example may be described as the "classic" example or model for upgrading informal settlements" in that the plots (land already settled and developed by the original squatters) are being formally sold to the existing occupiers, following upgrading of infrastructure and services, for the cost of provision of the infrastructure, For comparison other typologies often include only infrastructure that is provided either sectorally or multi-sectorally and with or without any cost recovery. In the "classic" example adopted in Swaziland the total cost of infrastructure plus other "software" costs (e.g. survey,

township registration, IA management) is divided by the saleable square meters to give a cost per square meter from which costs of respective plots are determined. Because not all plots have a road frontage, nor access to a sewer, then a system of differential plot pricing has been adopted to ensure that the level of service provided is reflected in the plot price. It may be argued that major elements of infrastructure that have a city-wide benefit should be funded from general revenues (of central or local government). This argument was used, quite legitimately, in the SUDP (e.g. Msunduza for the spine road where government agreed to grant funds for this element). Therefore the costs were not included in the plot price calculations which contributed to plot affordability. In addition in upgrading schemes which involve "informal" settlement upgrading, issue of plot titles and cost recovery (i.e. classic model), land may or may not be valued and included in the plot price. In the SUDP, for affordability reasons government took a decision that the land not be valued and included in the plot price but would be treated as a government subsidy to the scheme beneficiaries.

Informal settlements are mostly situated on Swazi Nation Land (SNL). All SNL is held in trust in perpetuity for the Swazi Nation by His Majesty the King, as has been the tradition in Swaziland since the formation of the Swazi Nation. Under the authority of the King, a chief may allocate a plot of land to a Swazi for his use (i.e., to live on, farm, etc.), but no actual transfer of land ownership occurs. Under this system, no individual Swazi may own, transfer, pledge or hypothecate SNL.

The sensitive nature of SNL has its roots in the unintended permanent transfer of SNL to European settlers in the late 19<sup>th</sup> Century. At the time, the King allocated land to these settlers, signing documents that provided, and was subsequently upheld as the equivalent of, freehold tenure. Nearly 85% of SNL was transferred in such a manner before the King and his traditional advisors realized that the land was not being "allocated for use" as per tradition. Since the time of Independence, the King on behalf of the Swazi Nation (with financial assistance from the UK) embarked on a repurchase program that returned much of this land back to the Swazi Nation. Thus, any discussion of returning SNL to freehold tenure was problematic. Yet, without some form of tenure to enable hypothecation, the residents in the informal settlements would not have access to the formal finance sector. This major issue placed the success of the SUDP upgrading scheme at risk.

Secondly, the areas identified for development were characterized by various forms of tenure, namely SNL, Crown Land and Freehold title. To follow the existing tenure systems would have been strenuous and tedious. Thus, a need to introduce a uniform instrument to facilitate the various forms of tenure from Government to individuals was realised during the preparation of the SUDP.

In order to overcome this constraint, the MHUD approached the King who agreed to consider options provided that the interests of the Nation would be preserved. A special committee was established which also considered the difficulties, under existing Swazi traditional and civil law, of issuing plot titles to women, who head almost 40% of the households in the SUDP informal settlements.

Two important compromises were reached. First, the King agreed to a form of a 99-year lease with the important provision that the land would retain its status as "held in Trust for the Nation by the King" and would revert back to the Nation at the end of the lease period. This form of lease was also acceptable to the lenders as it allowed the leaseholder to pledge his interests in the lease. Second, an important compromise was reached that allowed the issuance of plot titles in the SUDP areas through the Crown Lands Disposal Act (rather than the more constraining Marriages Act and Deeds Registry Act) to enable plots to be sold to women.

As a result, the land in the upgrading areas was transferred to government, MHUD, (to become Crown – or Government - land) for a 99-year lease period with the important provision that individual plots would be sold to the beneficiaries (i.e. the existing occupiers) on a similar basis.

A Land and Housing Market study undertaken in 1993 provided guidance on the likely affordability levels of the residents of the various project areas and this was used to guide the project design process. A plot pricing mechanism incorporating infrastructure development and financing costs was then developed. Government fostered the creation of a non-conventional mortgage facility by a private mortgage institution, the Swaziland Building Society making mortgage finance available to individuals in the informal sector and those who have irregular sources of income, who would normally be regarded 'non-bankable', through underwriting the loans to these income groups. The facility poses a low level of risk to the Government, as it is not a cash guarantee but a guarantee of loss that would be incurred on resale on any

foreclosed property. The involvement of a private mortgagor was preferred over the alternative of the Swaziland National Housing Board acting as a mortgagor, to minimise financing charges that would have to be passed on to the beneficiary. An analysis of the affordability levels and mortgage costs demonstrated that the proposed facility would be affordable to the target beneficiaries.

An analysis of savings mobilisation and proposed mechanisms for financing future improvements was done as part of the Land and Housing Market study to determine households willingness to raise finance for and expenditure on housing. Although this does not confirm individuals willingness to pay for the project, it is indicative of their willingness to spend on housing.

#### 6.7.2 Technical Aspects

Earlier the objectives and approach adopted to upgrading in Swaziland thusfar were outlined. The key principles for upgrading projects, which are in line with the government's housing and resettlement policies, were that schemes were to; i) aim for cost recovery; ii) ensure there was a minimum of involuntary resettlement and, where there was resettlement, carry it out according to a resettlement plan approved by interested parties, and; iii) involve the respective communities in the whole process from scheme formulation through to implementation.

Also, as mentioned earlier, an integrated approach to upgrading specific settlements was to be followed (rather than a sectoral approach) to avoid continual disruption in a particular settlement and to achieve significant impact. Such an approach, although more complex, also places less burden on managing the construction process for the different sectoral interventions on the Implementing Agency and more on the contractor.

Because of differences in terrain and patterns of existing settlements, plot sizes in the various communities vary considerably, usually from about 200 to 750 square meters. To address this fact a further key principle in scheme development was the adjustment of service standards to ensure serviced, "re-blocked" plots were affordable to the existing householders who were to purchase. For example road access was not provided to houses where this would have proved very expensive – in this case footpath access was planned. Also plots more remote from roads, and without a nearby sewer to which to connect, were to receive only an on-plot sanitation option not a sewer connection. Geometric and design standards for roads and footpaths were also modified to fit the terrain and soil conditions where this would not seriously hamper traffic movement and safety.

Most importantly, the design concept was that, wherever possible, occupiers should remain in their existing shelters but plot configurations would be adjusted (re-blocked), where necessary, to adjust their size and shape to create additional plots and to permit infrastructure, to appropriate, affordable standards, to be constructed. Where resettlement was unavoidable and where land was lost due to plot "re-blocking" this was to be done in accordance with a resettlement plan, prepared in accordance with the new resettlement policy, and appropriate compensation paid.

#### 6.7.3 Financial Aspects

The SUDP envisaged that the upgrading component would, after injection of seed capital to fund the first scheme (Msunduzi), generate sufficient funds from plot sales such that the subsequent schemes could be embarked upon. The project budgeted for seed capital of up to US\$ 2 million (funding for Msunduzi contracts). As explained in the overview, plot costs were to be determined based on an agreed plot pricing structure which included construction costs, supervision costs and some SNHB overhead costs (see Box 5). Whereas the "revolving fund" principle was a correct approach, its application has proven to be overly optimistic with respect to time (5 year project period insufficient for the "series" rather than "parallel" approach to implementation of the whole upgrading component). This is discussed in more detail in Project Outcomes and Evaluation. Consideration is now being given to further SUDP funds being used to fund the remaining upgrading schemes thus allowing them to commence while revenue from plot sales gradually accumulates. This revenue could be used to fund future upgrading initiatives.

As mentioned earlier, with regard to what was to be included in the plot pricing structure and calculations it was eventually agreed that major infrastructure through the sites that could be deemed to have a city-benefit could be funded centrally on a case by case basis and that the land would not be priced and thus was, in fact, a subsidy. In the case of Msunduzi, apart from the land, the spine road (E2 million) was funded by government, and excluded from the plot pricing exercise.

#### 6.7.4 Community Participation

In parallel with policy development a Project Concept Plan was prepared, under the auspices of the MHUD. Through the community liaison personnel and community leadership and, latterly, Project Outreach Facilitators, communities were engaged and through consultation, each community scheme was developed and community commitment and acceptance of the plan was gained. Socio-economic information about the beneficiaries was obtained through a Land and Housing Market Study. This was used to structure the participation process to ensure equitable representation of all groups. A Community Development Committee was established and was chaired by the Community Liaison Officer in the PCU whose task was to promote beneficiary involvement in the project. A series of meetings, convened by community leaders were held prior to, and during preliminary engineering design to engage residents in discussions on service options and costs, location of roads and services. The participating communities appointed Project Steering Committees to work with the IA and design engineers during the detailed design phase.

In Msunduzi throughout the long lead time up to tendering of works, awarding of contracts, finalizing of the plot pricing structure, the fixing of final plot prices and construction, the community has continued to be kept informed and consensus gained through the POFs. The detailed arrangements for community involvement followed in Msunduzi are discussed later. For information dissemination various media such as radio, print and publication of information brochures addressing specific questions raised by the community were engaged.

In framing the project there has always been recognition of the need to give special attention to vulnerable groups such as women headed households, single-person households, the disabled, the elderly and the destitute. These groups were identified during the plot application and sales process. Where residents fell into this category various assistance was, and continues to be, given.

With regard to resettlement the additional assistance over and above that included in the resettlement and compensation policy included:

- priority in the selection of new plots to permit early planning of their move;
- assistance for acquiring a temporary building permit by the City Council;
- assistance for moving - dismantling present structures, moving furniture and other priority and re-establishing it at the new site organized by the POFs using community volunteers;
- assistance for the self-employed- compensation for disturbance to their business in order to permit them to cater for recurrent household expenditures and effectively re-establish their business in the new location.

#### 6.7.5 Institutional and Implementation Arrangements

Implementation responsibility for the upgrading schemes being carried out under the SUDP rests with the SNHB with support of the Project Coordination Unit. The PCU has engaged a Community Liaison Officer who oversees local Project Outreach Facilitators. The concept for program implementation was that, based on consultation between all stakeholders and broad consensus, consultants would be engaged to finalize designs and manage construction on behalf of SNHB. It was agreed that construction would follow two approaches. The major network infrastructure, (e.g. water supply, sewerage, roads, drains and streetlighting), would be carried out as an integrated package by one main contractor. This would ease construction management headaches for the Implementing Agency (SNHB) as well as create visible impact as soon as possible. However to provide some economic stimulus to the beneficiary communities, small works (e.g. footpaths) and on-plot works (e.g. pit latrines) would be carried out under small labor-based works contracts by small contractors formed within the respective communities. Procurement,

contract management, and construction supervision, would be carried out by local consultants, employed by SNHB. This model is being adopted for the first scheme (Msunduzi) and appears to be working satisfactorily. Apart from the respective City Councils which have a strong interest in the upgrading schemes, and are providing local support, central support agencies are the Surveyor General's Office for survey and preparation of township plans; the Deeds Registry Office for issue and registration of leasehold titles; and, the Swaziland Building Society, available to provide finance for plot purchase. Detailed implementation arrangements are discussed later in the Msunduzi Case Study.

#### 6.7.6 Operation and Maintenance

The design of the upgrading schemes and standards adopted were discussed and agreed with the respective agencies responsible for the delivery of infrastructure and services being provided under the upgrading component of SUDP. The standards/service levels might be considered high when compared with upgrading schemes elsewhere but were the result of consultation and agreement with all stakeholders and were based on both the willingness and ability of the beneficiaries to pay for infrastructure to be provided. Another important consideration was the future operation and maintenance of the infrastructure. It was decided that as the informal settlements were now to be brought legally into the cities they should be treated similarly to the already legal settlements. Thus it was planned that infrastructure provided would be taken over by the responsible authority for subsequent operation and maintenance. To ensure this, the standards and service levels were agreed by the agencies at the design stage and the construction is being monitored throughout by the agencies to ensure it is being constructed to the agreed specifications so that take over at the end of contractors defects liability periods will be a formality. For the network infrastructure provided it was not deemed appropriate by agencies or communities that the communities themselves should be responsible for managing, operating (where required) and maintaining the network facilities being provided. However on pilot schemes for water supply carried out in Nkwalini by SWSC, where a borehole and water vending kiosk have been constructed, the community is managing the arrangement. This is not a comprehensive upgrading scheme however but a specific sectoral initiative.

### **6.8 Case Study 4 - Msunduzi Community Upgrading Scheme**

#### 6.8.1 Description

In Msunduzi it has taken time (over 4 years since SUDP actually commenced) to complete the land purchase, peg the plots according to the new agreed layout, obtain approval to the township plan, finalize and agree with the community the plot pricing structure, agree on measures to strengthen the Deeds Registry Office (DRO) in order that it is in a position to process the land titles, procure contracts and commence works. Following receipt of tenders and award of a contract for the major infrastructure contract the final "per square meter" costs were determined in accordance with the agreed plot pricing structure and the final price of the various plots calculated.

The contract for the major network infrastructure at Msunduzi is substantially complete. Of the 1800 approximately plots in the scheme "Offers to Lease" letters had been sent to about 1300 to date; some 450 had paid the required commitment fee of E400 (US\$ 50 approximately) and 250 had already paid the full price to SNHB and were awaiting their leasehold title deeds. All of these had paid the full price in cash and thus the SBS has not yet been called upon to provide finance for plot purchase.

Because of the terrain and soils of Msunduzi reducing the amount of land that can reasonably be built upon, plot sizes are large and often include steep slopes, trees and significant rock outcrops. The choice of standards has thus been more critical than normal given the need to adequately service a relatively low number of plots per hectare while, at the same time, making provision affordable.

The objectives and approach to the Msunduzi scheme are as for the complete upgrading program as outlined in Section 4. In summary the objective is to change the status of the land to Crown land (a condition of the SUDP and already done) thus permitting its sale, to legalize the settlement (surveyed and gazetted as a township), upgrade its infrastructure and general environment and to encourage and enable

existing occupiers to purchase the plots that they already occupy (in some cases re-blocked) on a 99 year leasehold basis. The purchase price of the plots is based on the actual construction costs plus survey and registration costs and contribution to SNHB costs for administering the schemes. This is described as the “classic” model or typology for upgrading in that it is largely sustainable from a financial viewpoint and addresses security of tenure. With plot titles available for collateral the housing finance institution (SBS) is able to offer loans for plot purchase.

## 6.8.2 Process, Principles and Technical Aspects

To achieve affordability, particularly with relatively low densities, usual infrastructure standards have been scrutinized and modified, where appropriate, such as to provide functional but affordable planning, design and construction standards. In Msunduzi, given the terrain, soils, level of rainfall and intensity of storms it was however important to retain good design and construction standards while relaxing normal space and geometric standards. Unless this was done savings in capital expenditure would be offset by increased maintenance costs.

### *Box 2– Msunduzi Upgrading Scheme Data*

Msunduzi-1350 existing plots; 430 in-fill plots (i.e.plots arranged in open spaces between existing plots); 80 non-residential plots

Msunduzi area approximately 1 sq.km (100 ha)  
Msunduzi population approximately 10,000  
Msunduzi density approximately 100 persons/ha

#### Msunduzi Infrastructure (Main Contract Package)

- 3.5 km of bitumenized, or tarred, surface roads up to 6 m wide
- 5.0 km of concrete surfaced footpaths 0.8 m wide
- concrete lined drains to main roads
- water reticulation to serve 1800 plots via standposts or individual connections
- waterborne sewerage to serve 500 plots – others provided on-plot solutions
- streetlights
- 2 play areas

Msunduzi Small Works (Labour Based contracts – as opposed to normal civil works contracts) for footpaths and pit latrines.

*Sales process.* As explained above the SBS, the primary source of conventional housing finance in the country, expressed interest, and committed itself, during project preparation to providing mortgage financing for project beneficiaries although it had little experience with processing high volume, low value mortgages.

In anticipation of the project it increased its mortgage handling capacity by introducing a computerized system, streamlining application procedures, increasing staff and expanding its premises. At the time of project appraisal SBS approved mortgage loans only if in excess of E50,000. The average mortgage debt at the time was E70,000 but it agreed to approve loans below E50,000 on a no objection basis which was expected to reduce loan processing time significantly. Thus with these planned changes and its strong financial position, SBS was expected to be able to provide the conventional mortgaging required.

Funding required by all project beneficiaries was then expected to range from E2,500 to E22,000 and SBS indicated that it would be prepared to lower mortgage size to E5,000 on normal terms with 20% deposit.

However whereas this would help the less poor and means to purchase sites and services plots (i.e. other component of SUDP), studies indicated that, “non-Conventional financing was also required. It was found that while 75% of low-income households had bank accounts only about 20% had ever secured formal credit. Some 40% of the households on plots to be upgraded would not qualify for conventional mortgages due mainly to the informal nature of their employment. SBS determined that they could profitably lend to this potential market, given 99 years leaseholds as collateral and a commitment from Government to guarantee 20% of any losses that might occur on resale of foreclosed properties. SBS provided a letter of commitment to provide SUDP E38 million (then US\$ 11.9 million) of conventional financing and E5 million (then 1.6 million) of non-conventional financing.

In September 1998 a workshop was held, with all stakeholders present including Project Outreach Facilitators, on the “UDP Sales Process. Issues raised by all stakeholders from government (MHUD), implementing agency (SNHB), financing institution (SBS), City Councils, POFs and beneficiaries were discussed. A series of recommendations were made and action plans to implement them agreed. The “one-stop shop” concept was agreed where beneficiaries/applicants, with POF assistance, could complete/supply all necessary paperwork with regard to application, registration, financing, payment etc. Processes to resolve disputes, problems of destitutes, resettlement and, compensation were also agreed

### 6.8.3 Financial Aspects

The following boxes (3, 4 and 5) summarize the main infrastructure costs for Msunduzu, the plot pricing structure agreed and the actual calculated plot prices. These were deemed affordable by all but the beneficiaries determined to be “destitute”, during the community participation process. To address the concerns of the destitute, a policy statement detailing various options was adopted to assist such residents. These included allowing for plot swaps, joint purchases, direct intervention by NGOs to assist individuals, relaxing repayment conditions, establishment of community trusts and, off-setting of plot costs through premiums earned from the sale of commercial plots. At all stages of planning and engineering design, cost estimates have been made and their affordability and acceptability tested on the communities. This has been done through the community structure established for, and modified during the project (e.g. appointment of POFs). This followed a survey prior to completion of final design that determined affordability of actual plots for existing residents and feasible plot size adjustments to better achieve affordability.

As outlined earlier, in determining what costs were to be included in the pricing of the plots, those infrastructure elements (e.g. main access road through the site) that were considered to have a more city-wide benefit, from health, environmental, efficiency and equitability viewpoints, were not included for plot pricing. Also land for the plots was not priced in the plot pricing exercise so as to enhance the affordability of the plots to the residents. Government agreed to fund such discrete elements and their exclusion from the pricing exercise helped to keep plot sale prices affordable and within the ability of the existing occupiers to pay. The analysis done as part of the Resettlement Action Plan did not indicate a significant change in the affordability estimates.

The introduction of the 99-year lease agreement is expected to stimulate the low-income housing market as it allows for the transfer of leases from one occupant to another and for succession of title. There are no conditions in the leases with regard to future trading of houses and preliminary indications suggest that plots might trade for up to 4 times these prices but as yet there is no market in these plots and thus concrete evidence of this. Possible financing for plots and the sales process has been discussed earlier. It is planned that once the informal settlements are brought into the city legally, future property taxes may be levied to contribute to the maintenance of the infrastructure provided.

<i>Box 3 - Msunduzu Main Infrastructure Contract Costs (Contractor costs under contract to SNHB)(Figures rounded)</i>	
General Items.....	E 1.35 million (US\$ 225,000) [18%]
Roads and Stormwater Drainage	E 2.6 million (US\$ 338,000) [27%]
Water Reticulation.....	E 1.2 million (US\$ 200,000) [16%]
Sewer Reticulation .....	E 1.2 million (US\$ 200,000) [16%]
Streetlighting.....	E 0.45 million (US\$ 80,000) [6%]
Contingencies .....	E 1.2 million (US\$ 200,000) [16%]
Total Cost.....	= E 6.80 million (US\$1,240,000) [100%]
Note 1: 1 Lilangeni = 1 Rand & 2: Approx. E6 = US\$ 1 at time of contract	



<b>Box 4 – Plot Pricing Structure (Emalangen)</b>	
Construction Cost Main Contract.....	6,776,025
- Roads, Water Supply, Sewer, Streetlighting	
Construction Cost Small Works Labor-Based Contracts.....	3,500,000
- Footpaths, Comm. Structures, Pit Latrines, Landscaping	
Price and Physical Contingency (17.5%).....	1,185,804
<b>Total Base Cost (A).....</b>	<b>11,146,829</b>
add Extra costs due to design review changes.....	740,275
add Extra cost due to delay in contract award.....	286,692
<b>Total Infrastructure Cost (B).....</b>	<b>12,488,796</b>
deduct City-wide infrastructure subsidy.....	2,000,000
deduct Foreign exchange rate gain on Credit.....	1,700,000
<b>Sub-total (C).....</b>	<b>8,788,796</b>
add IA Overhead Cost at 7.5% (C+ prof/eng fees).....	659,159
<b>Sub-total (D).....</b>	<b>9,447,955</b>
Add Registration Cost.....	107,640
Add Project Outreach Facilitation Cost.....	120,000
Add Marketing Costs.....	285,000
Add Project Costs.....	191,800
Add Community Representative Cost.....	129,000
<u>Sub-total (E).....</u>	<u>10,281,397</u>
Add Finance Charges at 12% of E.....	1,233,767
<u>Total Costs to be recouped from plot sales.....</u>	<u>11,515,165</u>
<b>Total Saleable Area in square metres.....</b>	<b>969,134</b>
<b>Thus Square meter cost.....</b>	<b>11.88</b>
Adjusted according to service level as follows:	
- Sewered with Road Frontage	
- Sewered with No Road Frontage	
- Unsewered with Road Frontage	
- Unsewered with No Road Frontage	
Per Square Meter Cost for Each Option Determined and applied to area of each plot with such service level.	

Notes to Box 4:

1. The budget for Msunduzu main works at the time of appraisal was equivalent to approximately E5.03 million and at the time of contract approximately E9.4 million).
2. Msunduzu main works (Package 13 through ICB was US\$1,572,000) which at the time of appraisal was equivalent to approximately E5.03 million and at the time of contract approximately E9.4 million).
3. The budget for Msunduzu Small works (Package 21 – but various contracts through LCB) which at the time of appraisal was equivalent to approximately E2 million and at the time of the first contracts approximately E 3.7 million).

*Box 5 – Msunduzi Plots Sizes and Costs*

Per square meter costs range from E9 to E23 (US\$ 1.3 to US\$ 3)

Majority of plots sizes range from 300 sq.m. to 900 sq.m

Plot prices range from E2000 to E33400 (US\$ 260 to US\$ 4,340)

80% of plots in range E2000 to E12000 (US\$ 260 to US\$ 1,550)

Average size of plots is 534 sq.m.

Average cost of plots is E11.88 per sq.m or E6400 (US\$ 830)

Approx. area is 100 ha

Approx. population is 10,000

Approx. density is 100 persons/ha

Approx. cost/capita is US\$ 120

Approx. cost/ha is US\$ 12,000

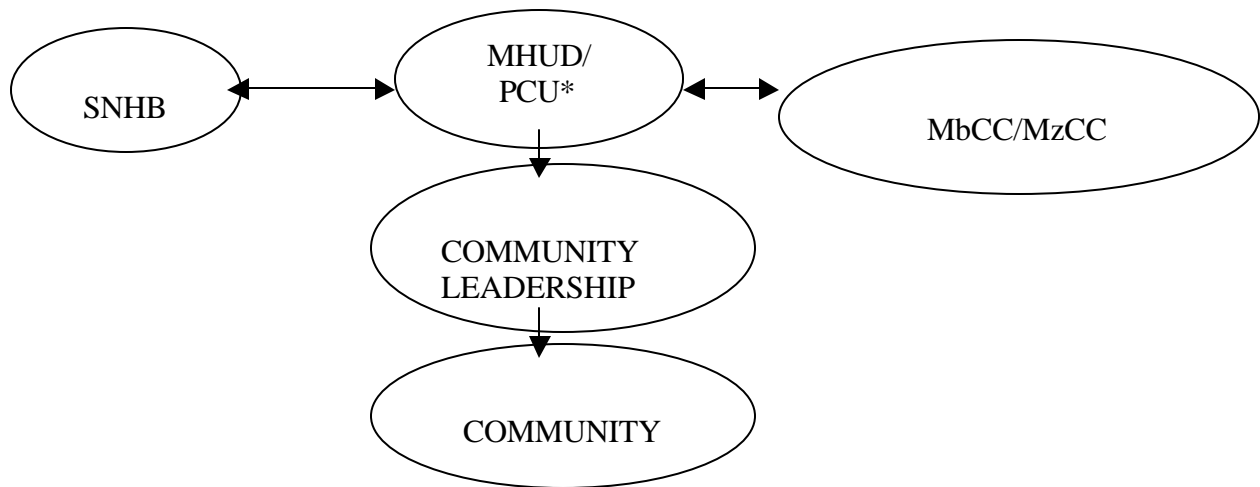
#### 6.8.4 Implementation Arrangements

The close collaboration of SNHB with key stakeholders and support agencies, working in partnership, has been a key feature in the planning and implementation of this first sub-project. The Mbabane City Council (MbCC) has an active interest in the informal settlements within its jurisdiction and works with the community liaison volunteers or Project Outreach Facilitators (POFs) together with SNHB staff. The POFs were only appointed in 1998 after the need for “non-political” access to the community for community consultation was recognized. The POFs have assisted the Msunduzi community in identifying, for example, destitute households that cannot afford to purchase their plots. Also apart from advising the community on simple technical matters they have assisted in helping with monitoring of the resettlement process. A detailed Resettlement Action Plan was prepared and resettlement undertaken prior to construction. They have also explained the role of the Swaziland Building Society (SBS) as a means for financing the purchase of plots (see below). Overall co-ordination and program support is provided by the MHUD and its SUDP Project Coordination Unit (PCU). The office of the Surveyor General (SGO) has been involved in the approval of the township plan for Msunduzi and the land acquisition process. The Deeds Registry Office (DRO) is being strengthened under the SUDP to deal with the anticipated increase in the issue of leasehold titles requiring to be processed.

To enable the existing occupiers to afford the purchase their upgraded plots it was envisaged that many would need to secure finance. During project preparation, the local private housing finance institution, the Swaziland Building Society (SBS) expressed interest and committed itself to providing mortgage financing for project beneficiaries (see section 5.5). Although other financing institutions were reluctant to participate in providing mortgage finance to the lowest income group, the SBS viewed this as a potential untapped market worth penetrating. It has been kept abreast of progress throughout the formulation of the upgrading component and its implementation although at November 2000 no loans had yet been sought from SBS by Msunduzi beneficiaries as the plot allocation process is still in its initial stages.

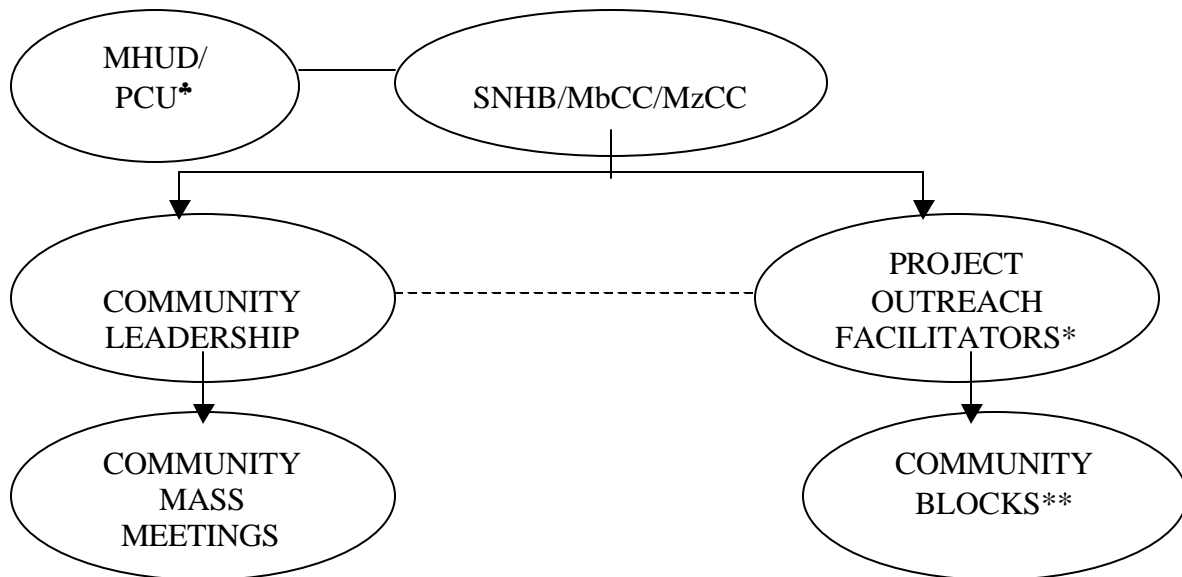
Pre-project and project implementation responsibilities and linkages for the Msunduzi scheme are shown in Figures 2 and 3.

Figure 2. Pre-project Implementation Consultation Process



\*The PCU served as the focal point for community consultation prior to project implementation. Capacity for community liaison has been developed in the agencies as part of the institutional strengthening component of the project.

Figure 3. Project Implementation Consultation Process



\* The concept of using Project Outreach Facilitator (POFs) provides for individual consultation with residents

\*\* Each POF is responsible for a block of 50 plots

\* The PCU provides support in community liaison as required. The main responsibility during implementation rests with the IAs.

A detailed feasibility was carried out by international consultants and this looked at standards, costs, affordability, plot pricing, plot re-blocking (reconfiguration of boundaries and reduction in size), cost recovery, allocation criteria and resettlement implications following the resettlement guidelines.

The consultants, surveyed the chosen communities and prepared the physical and cadastral planning, engineering and costing of the sub-projects in concert with the various stakeholders. The works are arranged and planned such that the major “network” infrastructure (i.e. road, drainage, water supply and sewer networks) is included in one major contract and carried out by an experienced civil works contractor. The tertiary infrastructure (e.g. pit latrines and small footpaths) has been arranged in various small labour-based packages to be carried out by small contractors formed from members of the community. Consultants are assisting the SNHB in various aspects of the schemes such as financial management and construction supervision. To ensure that secondary (i.e. major on-site) and tertiary (i.e. minor on-site) infrastructure provided in the community is able to operate effectively critical “city-wide” infrastructure has also been provided, in parallel, through the SUDP by other SUDP Implementing Agencies such as the Swaziland Water Services Corporation (SWSC) and the Mbabane City Council.

The detailed feasibility study was based on a strategic planning framework established during project preparation. This was to ensure that the project delivers the desired number of plots at appropriate standards, with respect to beneficiary needs and ability to pay, and at the required phasing in the appropriate geographic locations. The strategic planning framework set out the institutional and policy framework, spatial and investment strategies and consultative process to be adopted in project preparation. Adhering to this strategic planning framework resulted in engineering and technical solutions that provide a viable and sustainable urban foundation with acceptable quality and quantity of services based on a rigorous consultative process with the project beneficiaries.

Following the detailed feasibility and planning, detailed engineering design of the various infrastructure packages was carried out by engineering consultants, an international competitive bidding process was followed, which led to a contract, and implementation commenced. The major “network” infrastructure (i.e. the road system, the water supply reticulation and the sewerage system), is being carried out by an international civil works contractor (cost is E 6.8 million) and smaller works (e.g. footpaths, pit latrines) (cost is E3.5 million), in a number of contracts, by local contractors from the community following labour-based methods. A local engineering consultant carried out a design review and is assisting the SNHB in supervising construction.

#### 6.8.5 Outcomes and Lessons Learned

The Msunduzi scheme is not yet finished due to abnormally wet weather during the 2001/2001 rainy season. The main network infrastructure contract is about 60% complete and a number of the small labour based contracts are in a similar state of completion. Nevertheless outcomes to date are encouraging. Environmental conditions, access and the general quality of the area has been uplifted by the upgrading works. Activity by householders in works to their shelter structures is beginning to occur. As yet it is too early to measure property values for plots upgraded in Msunduzi or the level of room rental increases although anecdotal evidence suggests plot re-sale costs are likely to increase by up to 4 times the original sales price.

The cost of infrastructure provision is considered reasonable, given the relatively high service level (e.g. accessible areas have been provided with sewers), the difficult terrain and soils conditions and relatively low plot/population density. The cost per hectare of the, largely, “network” infrastructure provided, at about US\$ 12,000, compares well with urban upgrading schemes implemented in other countries. The cost per capita or household may be considered somewhat high for an upgrading scheme for low – income beneficiaries (approx. US\$ 120 per capita) but, given the low plot/population density, and medium to high service levels, it is considered reasonable. It has been over 5 years since the project concept and details were formulated during which time inflation, construction costs and interest rates have increased and unemployment has risen. The current construction cost for Msunduzi is within the original overall dollar estimate for the scheme. Nevertheless this has impacted on projected affordability levels reducing them by between 10% and 20%. The above factors, exacerbated by implementation delay (time from appraisal to construction commencement), have effectively reduced the amount agreed to at the outset by SBS to finance purchaser’s serviced plots Thus the number of plots able to be financed is fewer than originally anticipated. Early indications are that this may not be a problem as, thusfar, the initial plots

purchased have been purchased with cash! In addition SBS consider that, now, probably only about 30% of potential buyers would be able to satisfy their financial criteria.

A number of very positive outcomes are already evident. The fact that the government has agreed to sell the land and the informal settlers have agreed to purchase their plots for the cost of the infrastructure provided and that this is now happening demonstrates that the “classic” typology can work. The fact that plots thusfar purchased have been purchased with cash is interesting but also the fact that the premier housing finance institution stands ready to lend for the plot purchase, should people apply, is very positive. In addition beneficiary communities agreeing to assist the destitutes within their communities (e.g. through provision of small plots created through re-blocking) and government officials seeking ways, within existing legislation, for women to own plots are other very positive outcomes. On the technical side the acceptance of the multi-sectoral approach for infrastructure provision by the various concerned agencies and the adoption of appropriate functional standards to keep costs down have also contributed to the success of the scheme thusfar.

There are however two overarching less positive outcomes which implementation of the Msunduzi scheme has already highlighted which have been touched upon earlier. These relate to *time (and hence affordability)* and the *implementing agency*.

*Time.* It has taken a considerable time to complete the land purchase, peg the plots according to the new agreed layout, obtain approval to the township plan and finalize and agree with the community the plot pricing structure, likely affordability, and to agree on measures to strengthen the Deeds Registry Office (DRO) in order that it is in a position to process the land titles. It needs to be better understood by central government and, more particularly donor agencies, where they are involved, that interaction with, and participation of, communities, is very time consuming and costly in “software” terms and places scheme affordability in jeopardy. The financing of schemes through revolving funds, as envisaged under the SUDP, which necessitate sequential implementation, are therefore unrealistic unless considerable time is given and funding extends beyond just the first scheme. To design, plan, implement, issue titles and achieve a level of cost recovery such that the subsequent scheme may be embarked upon was, with hindsight, always and overly optimistic scenario. A 5-year project period was never likely to be sufficient and this has proved to be the case. Counter to the need to allow sufficient time is, of course, that more time means increased costs. Thus it is imperative to keep standards at no more than a functional level to keep costs in check and not to sensitize a community too early and have to return later saying costs have increased. Given that there have been major policy changes and that the approach is a new approach for Swaziland it could be argued that progress has been very satisfactory and much as might have been expected. However upgrading schemes and the project as a whole risks being labelled unsatisfactory because of the unreasonable project time expectancy placed upon it at the outset. ***Thus if upgrading schemes are to be embarked upon which are to fully involve communities and are to adopt the “classic” model of providing land titles for the cost of infrastructure etc. then realism with regard to time required must be a fundamental consideration in project planning. Patience is a key attribute required by all involved in implementation.***

*Implementing Agency.* The selection of the Implementing Agency (SNHB) has created much debate in Swaziland which has centred around the question of whether a housing parastatal with a mandate based on the need to achieve financial self-sufficiency is the appropriate organization to address social housing issues (e.g. upgrading). Many consider that upgrading schemes, which involve infrastructure and servicing, the need for consultation with and participation of communities, the need to involve the elected local representatives of the area (i.e. Ward councillors), the need to address tenure issues, and the general embracing of informal settlers into the fabric of cities and towns, rather than provision of housing itself (i.e. actual shelter), is more the domain of the respective local councils in which jurisdictions the specific settlements are located. Certainly in many other countries the usual “formal” interface with communities is the local council. Throughout the planning, design and implementation process, and in agreeing the plot pricing structure, a major, and understandable, concern of SNHB was that the upgrading schemes should not be a financial burden to the Board. When the final plot pricing structure was discussed, prior to SNHB having to send out Letters of Offer to beneficiaries, a number of “soft” items were added by SNHB, in addition to its overhead figure, which had not been included in the earlier plot price iterations, such that the declaration of plot prices was delayed until a final structure acceptable to government (and the Bank) was reached. ***Therefore, for the reasons outlined above, careful consideration needs to be given in future as to the appropriate implementing agency to deal with***

***schemes to upgrade the lives of the urban poor living in unplanned and often informal settlements which aim to “legalize” such communities and bring them into the mainstream of the cities in which they are situated.***

Throughout the planning and design of the three main upgrading schemes of SUDP, and the beginning of implementation of the first scheme, specific lessons learned include:

- Relevant policies and legislation should be in place (approved or amended) (e.g. Marriages Act, Deeds Registry Act, National Land Policy, Urban and Peri-urban Land Management Policy) to address specific project issues (e.g. gender and land ownership) prior to implementation. These were already in place or amended or have been proposed.
- Mechanisms for coordination between various stakeholders are important for effective implementation (e.g. Project Steering Committee, Project Coordination Unit, Community Development Committee)
- Project ownership by the beneficiary community is an essential pre-requisite which can only be achieved by effective community empowerment –
  - Politically, through participatory decision making on matters affecting them
  - Economically, through small works contracts and granting secure land tenure
  - Socially, through community meetings and interaction with government through appropriate facilitators recruited from the community and trained
- Housing finance has to be made available through sympathetic financial institutions willing to participate and lend relatively small amounts with simplified application and processing procedures
- IAs need access to soft loans and/or subsidies, for some elements of upgrading from government, to undertake upgrading schemes for the poorest urban dwellers
- IAs technical and managerial capacity should be strengthened for implementation and to ensure sustainability through effective operations and maintenance
- Arrangements (e.g. enhancing affordability) to deal with marginal/destitute group need to be identified to avoid flight from the community and squatting elsewhere (e.g. peri-urban areas)
- Schemes involving interaction with, and participation of communities, are time consuming and their financing through revolving funds, which necessitate sequential implementation, may not be workable in acceptable time frames
- Given that upgrading schemes by their nature are time consuming which means ever-increasing costs it is important not to sensitize communities as to costs and affordability requirements too early and risk having to inform them at a later date that costs have increased and they are required to pay more. This emphasizes the need for rigorous adherence to, cost conscious, affordable standards
- Schemes where “network” infrastructure is provided in difficult conditions require careful planning and management. Experienced civil works contractors and experienced supervision consultants with local knowledge should thus be engaged
- The choice of Implementing Agency is critical. The constitution of the SNHB requires it to remain profitable. Also SNHB is not directly answerable to city residents unlike local authorities. Thus City Councils may be the more appropriate IAs for such schemes.

## **7.0 COMPARISON OF UPGRADING TYPOLOGIES AND COSTS**

### 7.1 Typologies

There is no right or wrong approach as the approach or “model” or typology decided upon will vary according to the particular situation. However there are some basic principles that generally apply to all schemes and which centre around sustainability. These include such aspects as the use of functional, appropriate and affordable standards/service levels, the need to ensure arrangements for adequate operation and maintenance and the need to ensure that there is adequate trunk infrastructure to ensure that any local infrastructure provided under an upgrading schemes is able to function properly. Although programmes should be designed to focus on the poor, the provision of infrastructure and basic services to help them cannot usually be provided efficiently by considering only small groupings of poor households which are often dispersed over many areas. Thus in any upgrading scheme, in planning tertiary infrastructure provision then drainage catchment areas, water supply zones etc, must also be considered to achieve sensible, efficient infrastructure improvements. Most importantly, schemes should be planned, designed and implemented in concert with the beneficiary communities to foster ownership and commitment. Implementation may follow an integrated approach or a sectoral approach. Whereas a sectoral approach is often less complicated, for impact and reduced disruption considerations, experience has shown that an “integrated” approach is generally more appropriate. The “integrated” approach is a multi-sectoral approach with balanced investment across the basic infrastructure sectors and with the “network” elements implemented together, usually in one “area-based” package for construction management efficiencies and impact. However it has to be acknowledged and addressed in project design that such an approach is more complex and administratively more difficult.

Table 5 compares some of the different upgrading models or typologies that have been used internationally. It is not, of course, exhaustive but attempts to compare simply various upgrading options that have been adopted in various countries.

### 7.2 Costs

Upgrading costs for the various projects focussed upon in this report, on both a per capita basis and a per hectare basis, are set out in Table 6. All projects where costs are presented are for “multi-sectoral” upgrading projects (i.e. all basic infrastructure services such as water supply, sanitation, drainage, access and streetlighting as a minimum). Service levels/standards of the projects might be considered to be generally to an overall “intermediate” standard for the “international” projects listed. The THLG pilot project in HCMC provided marginally higher standards, certainly with regard to the combined drainage provided, but nevertheless the costs are in the same range to most current multi-sectoral upgrading costs for both Asian and African cases studied.

Table 5

Comparison of Upgrading Typologies

	<b>Typology</b>	<b>Description of Typology/Method/Approach</b>	<b>Advantages/Disadvantages</b>	<b>Examples in following countries in SSA</b>
1	Classic – plots sold (CS)	Comprehensive, multi-sectoral, integrated with land title/plot title given and based on cost recovery with plots priced to cover capital cost of	<u>Advantage</u> Sustainable (covers capital costs) and “legalizes” beneficiaries, bringing them into	Swaziland Namibia

		infrastructure provision calculate on a “saleable square meter basis and plots priced according to size. Plots become “legal” and ultimately contribute to costs for maintenance through formal local taxation system (e.g. property rates)	the city and into payment for O&M <u>Disadvantage</u> Complex and time-consuming and expensive for low income and thus protection for “destitutes” required.	
2	Classic-plots rented (CR)	Comprehensive, multi-sectoral, integrated with no land title/plot title given but a rental agreement and rentals based on partial capital cost recovery over time through rent	<u>Advantages</u> Legalizes beneficiaries and gives them some security. Provides a formal housing option for those unable to afford. <u>Disadvantages</u> Long term financing required and housing management by LA of Housing Authority needed.	Namibia
3	Integrated Infrastructure with cost recovery (full or partial) (ICRNT)	Comprehensive, multi-sectoral, integrated but with tenure issues not addressed and with capital cost recovery via a betterment levy or similar payment for infrastructure provided.	<u>Advantages</u> Sustainable. <u>Disadvantages</u> Loses opportunity to give beneficiaries secure tenure.	(Swaziland – see 1 above)

(continued on next page)

4	Integrated Infrastructure without cost recovery (INCRT)	Comprehensive, multi-sectoral, integrated but with tenure issues not addressed and without capital cost recovery thus a government-subsidized approach.	<u>Advantages</u> Comparatively quick and easy to implement. <u>Disadvantages</u> Subsidized.	Ghana Tanzania
5	Sectoral with cost recovery (full or partial) (SCRNT)	Single sector (usually) but with tenure issues not addressed but capital costs recovered from beneficiaries direct.	<u>Advantages</u> Comparatively quick and easy to implement <u>Disadvantages</u> Loses opportunity to give secure title, to create a visible impact thus encouraging people to maintain infrastructure provided. Can create and imbalance in infrastructure provision and create inefficiencies in future with piecemeal provision and disruption and waste.	Vietnam
6	Sectoral without cost recovery (SNCR)	Single sector (usually) but with tenure issues not addressed and without capital cost recovery thus a government/utility subsidized approach	<u>Advantages</u> An improvement in service level in sector(s) upgraded  <u>Disadvantages</u> As for above plus relies on subsidy.	Zambia (formal upgrading cannot take place without area being declared)

Table 6

## Comparison of Upgrading Costs

<u>Project</u>	<u>Years</u>	<u>Popn.</u>	<u>Area (ha)</u>	<u>Av. Density (persons/ha)</u>	<u>Cost/ha (US\$)</u>	<u>Cost/ cap. (US\$)</u>
<u>Vietnam</u>						
THLG, HCMC	2000/01	870	0.89	978	57,000	58
<u>Indonesia</u>						
Urban 1 (Jakarta)	1974-76	900,000	2,000	450	5,700-6,000	13
Urban 2 (Jkt&Sby)	1976-79	1,500,000	3,374	445	20,000-26,000	40-59
Urban 3 (5 cities)	1980-84	1,251,000	2,185	572	10,150-19,400	35-69
Urban 4 (6 cities)	1982-87	500,000	1,910	262	6,280*-14,570	35-75
<u>Pakistan</u>						
Punjab-NE, Lahore	1985-90	150,000	415	361	14,000	40
NWFP, CIP	1995-00	421,000	3,480	121	4,500-6,100	43-52
<u>Ghana</u>						
ADRP	1986-92	19,200	30	640	53,000	82
PWP	1988-91	70,480	104	678	43,500	64
Urban 2	1991-96	88,960	160	556	55,400	100
UESP	1997-01	264,600	528	501	26,500	52
<u>Swaziland</u>						
SUDP -Msunduzi	1996-01	10,000	100	100	12,000	120

\* Limited sectoral interventions in 1 city with very low density areas

# ANNEXES

## **ANNEX A**

### **VIETNAM**

#### **THE CITIES ALLIANCE**

#### **ENHANCING ACCESS OF THE URBAN POOR AND VULNERABLE GROUPS IN VIETNAM TO BASIC INFRASTRUCTURE AND HOUSING**

##### **Terms of Reference for Task 2: Review of recent and on-going urban upgrading programs.**

#### **Background**

1. The Cities Alliance has agreed to fund studies to determine constraints and recent initiatives in providing basic infrastructure service and housing to the urban poor in Vietnam's cities and towns. In addition, from these studies, it will fund the development of a national policy statement on the provision of shelter and access to basic infrastructure services for the urban poor. Finally it will support capacity building by disseminating and inviting comments on the results of the studies and the draft policy statement through a series of regional and national workshops. This work will be important in informing government and donors in the preparation over the next year of a national Urban Upgrading Program. The World Bank has already started preparing a proposed Urban Upgrading Project for Ho Chi Minh City, Haiphong and one or more Provincial cities and the Asian Development Bank have similarly started preparation of a project covering the Central Region. As part of ADB's preparation they are also carrying out a study to identify means of financing affordable housing for the urban poor.
2. Following a Government/Donor/NGO workshop held in October 2000 to discuss strategies for alleviating urban poverty a decision was taken to establish a partnership to be called the Urban Forum. The objectives of the forum will be to prepare, using a participatory approach, possible strategies for alleviating different aspects of urban poverty and to present options to Government policy makers on means of addressing the problem. The outputs of the work described in these TOR will also be reviewed by the Forum.
3. The work to be carried out consists of 5 inter-related tasks as follows:
  - Task 1: Assessment of constraints faced by the urban poor in housing and infrastructure;
  - Task 2: Review of recent and on-going urban upgrading programs and comparison with international best practices;
  - Task 3: Development of a national policy statement on the provision of shelter and access to basic infrastructure services for the urban poor;
  - Task 4: Development of a detailed action plan for a selected city based on the policy developed in Task 4;
  - Task 5: Dissemination and capacity building.
4. These tasks will be carried out in parallel with, and closely coordinated to, the above mentioned ADB supported study on housing finance. It is intended that the findings of that work will be integrated into Tasks 3 and 4.
5. The Cities Alliance supported tasks will be carried out through four contracts undertaken by international and local specialists. They will be jointly managed by the World Bank, UNDP/UNCHS and the Ministry of Construction.
6. The following sections relate to Task 2.

#### **Objectives**

7. The objectives if this study are to evaluate past and current upgrading interventions, both national and local, which have targeted the urban poor and make a comparison with world-wide best practice, all to serve as a guide to future initiatives for the urban poor.

## Scope of Work

8. The scope of work shall include:

- i) Prepare, with central government agencies and others, as may be necessary, a full list of all past and current urban upgrading initiatives and other community directed development projects undertaken in the country over the past 10 years
- ii) Collect and study reports and other existing relevant data (e.g. from central and local government, donors, consultants, project evaluations, newspaper and magazine articles etc.) and summarize such initiatives (or a representative sample of them, if numerous);
- iii) Collect and document world-wide best practice of urban upgrading and community directed development.
- iv) Carry out an analysis of a sample of national and local initiatives (*case studies*) and compare with world-wide best practice.
- v) From data collected and analyzed prepare an Assessment report, based on documents studied and the analysis of the sample of case studies. This will summarise the current situation, highlighting successful initiatives and identifying any problems that come to light. It will look at, inter alia, past and current policies affecting such settlements, policy and institutional frameworks, land and tenure, technical aspects, community involvement and financial aspects and give an overview of upgrading projects carried out, underway and proposed. A sample of projects will be analyzed in more detail and compared with initiatives carried out successfully elsewhere to address similar problems. Finally it will set out lessons learned, identify the challenges and suggest next steps and areas of intervention.

## Outputs and Deliverables

9. An Assessment Report to be structured as indicated below. The main text shall be brief and Annexes used to include supporting background data and materials:
  - a) Overview of Problems and history of government responses;
  - b) Current situation of informal, low-income and/or infrastructure deficient urban settlements
  - c) Overview of Upgrading Projects and Programs including Policies, Institutional Frameworks; Land and Tenure; Technical aspects; Community Involvement; and Financial aspects
  - d) Analysis of a sample of projects (case studies)
  - e) Comparison of local projects with International Best Practice
  - f) Lessons Learned
  - g) Recommendations and Next Steps
10. Related reports/presentations suitable for key decision makers and communities/NGOs. The formats should be tailored to suit the capacity, interests and time that the different groups have available for reviewing such documents, e.g. the presentation to key-decision-makers (Executive Summary) should be brief and direct and that for community groups/NGOs should use simple, non-technical language.
11. The reports shall be produced in English and Vietnamese (electronic and hard copy) and present findings and recommendations. Annexes will not be translated. The report shall be submitted initially as a draft and circulated for comment to Government and members of the urban forum. A period of 4 weeks will be allowed for comment after which a final report will be prepared within 2 further weeks.

ANNEX B

Table 1

A TYPICAL EXAMPLE OF A SIMPLE SERVICE LEVEL OPTIONS MATRIX  
FOR PLANNING A COMMUNITY INFRASTRUCTURE UPGRADING PROGRAM

**Levels of Service Options**

Service Level	Service	Description
1. Minimum (Existing)	Water Sanitation Roads Drainage Refuse Collection Streetlighting	Vendor/Well Pan Latrine/Open Space/Informal Shared Privy Unsurfaced and Ungraded No Formal Drainage No Formal Collection System No Lighting
2. Basic	Water Sanitation Roads Drainage Refuse Collection Streetlighting	Communal Standpipes conn. to dist. system Formal Public Latrines Gravelled and Graded Designed Unlined Ditches Communal fixed collection points > 250m Lighting on Main Roads
3. Intermediate	Water Sanitation Roads Drainage Refuse Collection Streetlighting	Yard Tap Household Pit Latrines Bus/Taxi Routes Paved, Others Gravelled Secondary & tertiary drains Lined Communal Skip or Roro containers 100m Lighting on Main & Secondary Roads
4. Full	Water Sanitation Roads Drainage Refuse Collection Streetlighting	Metered In-house Supply from dist. system Waterborne Sewerage System All Roads Paved All Drains Lined Bins for Regular Door to Door Collection Lighting on All Roads

Note: This should be developed to take account of the particular circumstances of the Vietnamese city for which an upgrading sub-project is being prepared.

Annex B (contd)

Table 2

**A TYPICAL PLANNING STANDARDS AND COSTING ASSUMPTIONS MATRIX  
FOR A COMMUNITY INFRASTRUCTURE UPGRADING PROGRAM**

**Planning Standards and Costing Assumptions  
(Preliminary)**

Service	Basic	Intermediate	Full
Water	Standpipes to provide 25 l/c/d located within approx. 100m of every house say 1 per 4 ha	Yard taps. Say 1 per 30/50 households say 1 per ha	House connections to every compound and/or plot. i.e. comprehensive supply network
Sanitation	Public Latrine of 10 holes to serve +- 1500 people i.e. 1 per 4 to 10 ha US\$20,000 per latrine	Pit Latrines 1 per approx. 20 people or approx. 4 families. i.e. 10 to 20 per ha US\$ 500 per latrine	Sewer connection per compound or plot plus sewerage network
Roads	Grade and gravel vehicular roads to flexible ROW and road widths avoiding demolition of structures approx. 150m to 250 m per ha and US\$ 20/m.	Grade and gravel roads and pave major access route i.e. for public transport/emergency service vehicles. Say 25m per ha paved US\$ 250 per m + key footpaths paved	All roads paved and most major footways Say US\$ 150 per m overall and 100m paving per ha + say 20% cost increments for footpaths for increasing density
Drainage	Drainage ditches excavated to line and level but unlined. Between 300m and 500m per ha US\$5/m.	All drainage ditches excavated to line and level and secondary drains lined. Say 50m/ha to 100m/ha US\$50/m	All drains lined. Say 400m/ha to 600 m/ha average US\$ 25/m
Refuse Collection	Communal containers at 250m walking distance or 1 per 10 ha US\$2000	Communal containers at 100m walking distance or 1 per 4 ha US\$2000	Door to door collection with household bins US\$40 each.
Streetlighting	Lighting on existing poles on main roads at 5 to 7 lights per ha US\$ 300 each.	Lighting on all vehicular roads at 10 to 15 per ha US\$ 300 each	Lighting on all roads and paths at 15 to 20 per ha US\$ 300 each.

Note: This should be developed to take account of the particular circumstances of the Vietnamese city for which an upgrading sub-project is being prepared.

Table 3

A TYPICAL EXAMPLE OF A COSTED SERVICE LEVELS MATRIX FOR A  
COMMUNITY INFRASTRUCTURE UPGRADING PROGRAM

**Service Levels Costs Matrix  
(US\$/Ha)**

Service/Av. Density	Min. to Basic	Min. to Intermediate	Min. to Full
<b>Water</b>			
a) 150 pers/ha	3200	5000	8000
b) 250 pers/ha	3200	5800	9500
c) 350+ pers/ha	3200	6500	11000
<b>Sanitation</b>			
a) 150 pers/ha	2000	4000	11250
b) 250 pers/ha	3300	6500	16250
c) 350+ pers/ha	4700	8750	19250
<b>Roads</b>			
a) 150 pers/ha	3000	7500	22500
b) 250 pers/ha	4000	8250	27500
c) 350+pers/ha	5000	9100	32500
<b>Drainage</b>			
a) 150 pers/ha	1500	4000	10000
b) 250 pers/ha	2000	5750	12500
c) 350+ pers/ha	2500	7500	15000
<b>Refuse Collection</b>			
a) 150 pers/ha	200	500	1000
b) 250 pers/ha	200	500	1600
c) 350+ pers/ha	200	500	2400
<b>Streetlighting</b>			
a) 150 pers/ha	1500	3000	4500
b) 250 pers/ha	1800	3600	5100
c) 350+ pers/ha	2100	4500	6000
<b>TOTAL</b>			
a) 150 pers/ha	11400	24000	57250
b) 250 pers/ha	14500	30400	72450
c) 350+ pers/ha	17700	36850	86150
<b>COST PER CAPITA</b>			
a) 150 pers/ha	76	160	382
b) 250 pers/ha	58	122	290
c)350+ pers/ha	50	105	246

Note. 1. Above costs include on-site secondary and tertiary infrastructure. Off-site primary or trunk infrastructure is NOT included. This is site-specific.

2. Costs are base costs (excl. all contingencies, design and supervision) at (date).

3. This should be developed to take account of the particular circumstances of the Vietnamese city for which an upgrading sub-project is being prepared.