IIED Report

Lessons from Karachi: The Role of Demonstration, Documentation, Mapping and Relationship Building in Advocacy for Improved Urban Municipal Services

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GLOSSARY

ADB	Asian Development Bank
CBOs	Community Based Organisations
CDN	Community Development Network – a network of OPP partner organizations
CDGK	City District Government Karachi
CREED	Collaboration in Reforms for Efficient and Equitable Development, Karachi-based advocacy NGO
DG	Director General
District	Top tier of local government system
GKSP	Greater Karachi Sewerage Plan
IFI	International Finance Institutions
Katchi Abadis	Low-income settlements
KMC	Karachi Metropolitan Corporation – defunct body whose functions were taken over by the KWSB
KUDP	Karachi Urban Development Programme
KWSB	Karachi Water and Sewage Board
KWWMP	Korangi Waster Water Management Programme
MDG	Millennium Development Goals
MoE	Ministry of Environment
Nala	Natural Drain
Nazim	Mayor
NIPA	National Institute of Public Policy
NGOs	Non-Governmental Organisations
OPP	Orangi Pilot Project

OPP-RTI	Orangi Pilot Project – Research and Training Institute
PILER	Pakistan Institute for Labour Education and Research
S-III	Sanitation-III, comprehensive plan of KWSB for sewage and drainage in Karachi
SHEHRI	Karachi based advocacy NGO
SKAA	Sindh Katchi Abadis Authority
Tehsils	Second tier of local government
Thallas	Construction yard
TTRC	Technical Training Resource Centre
UC	Union Council, lowest tier of local government
WSS	Water Supply and Sanitation
YTP	Youth Training Programme
zila	District – the largest administrative unit within a province

Preface

This study was conducted on behalf of the International Institute of Environment and Development (IIED) UK, under its project, **"Improving Urban Water and Sanitation Provision Globally, through Information and Action Driven Locally".** Funding support for the project was provided by SIDA, Danida, and DFID.

The aim of this study report is to highlight the importance of mapping & documentation and demonstration of work in relationship-building for effective advocacy. The report discusses how demonstration of solutions and the documentation and mapping, which are the heart of OPP's work, established the grounds on which relations with both government and communities were built. The report identifies formal and informal processes underscoring how these relationships have been nurtured over time. As such, this report dwells deeper into the process and strategy for advocacy which has been covered in brief by the myriad other publications on the OPP.

The methodology adopted for this study report entailed detailed and extensive discussions and interviews with government department staff in CDGK and KWSB who are familiar with the work of the OPP-RTI staff Directors', and Chairman of OPP-RTI. Extensive use was made of secondary material by and on the OPP, including news clippings, and publications by other organizations.

Summary[1]

Karachi

Karachi is Pakistan's only port city. It contains 10 per cent of the total population of Pakistan and 25 per cent of its urban population. Nearly 20 percent of the country's GDP, 45 percent of value added, 40 per cent of employment in large scale manufacturing, 50 per cent bank deposits, 20 per cent of federal and 40 per cent of provincial revenues and 62 per cent of income tax is contributed by Karachi.

Sewerage and Sanitation

While underground sewage systems exist, their maintenance and expansion have not kept pace with the urban physical and population increase since the 1970s. As the old systems began to collapse, ad-hoc arrangements were made to connect them to the nearest natural drains or water bodies. New urban settlements, housing colonies and *katchi abadis* also developed their underground sewers or open drains and in the absence of a planned disposal, disposed them into the natural drainage system. As a result, in almost all cases sewage disposes into the natural drainage system and water bodies or in depressions. According to official estimates, the sewage system serves only 40 per cent of the city's population. Only 20 to 40 MGD (i.e., less than 15 percent) of the 295 to 350 MGD of waste water and sewage produced by the city is treated. The rest goes directly into the sea. As a result of untreated sewage reaching the sea and because of an absence of separation between industrial and domestic sewage, sea life has been polluted near the Karachi shore line with toxic metals and is becoming increasingly dangerous to consume.

The Orangi Pilot Project (OPP)

The Orangi Pilot Project (OPP), an NGO, began work in the Orangi katchi abadi in 1980. Started by the renowned development theorist and practitioner, Dr Akhtar Hameed Khan, the OPP is based on his concept of research and extension. After an initial period of action-research and extension education, sanitation was identified as the first point of intervention. Subsequently, a model of low-cost sanitation evolved, which was rapidly adopted by the communities and changed the on-the-ground-environment dramatically. The 'component-sharing model' as it came to be known, placed the responsibility of building household and lane-level sanitation infrastructure (which is referred to as 'internal development') on the residents, while the government (municipal authorities) were responsible for building and maintaining secondary infrastructure including mains, disposal and treatment (which is known as 'external development') Direct assistance to communities by the OPP and the demonstration effect of its work have benefited over 108,000 households (over 865,000 people) in nearly 7,600 lanes, representing almost 90% of the entire settlement of Orangi. Collectively, communities invested nearly USD 1.7 million of their own money in their sewerage system, in addition to investments made by the government mainly on external development.

[1] Figures used in the report are government figures unless stated otherwise. OPP-RTI has shown through its work and research that government figures for the most part are inaccurate.

Besides other social and economic benefits attendant to improvements in sewerage and drainage systems, the infant mortality rate fell from 128 per thousand live births in 1982 to 37 per thousand in 1991. This rate of decrease was considerably faster as compared to the rest of Karachi and Pakistan. The Programme also presented a challenge to dominant development paradigms, which tend to take a prescriptive approach to development, are usually too technical, too reliant on government and donor support, and generally treat poor communities as objects of, rather than as drivers, of development. Over time, the OPP expanded beyond sanitation provision to cover programmes for health, credit, low-cost housing, rural programme and education managed by four autonomous institutions, with the OPP-Research and Training Institute OPP-RTI responsible for the low cost sanitation, housing, and the education programmes.

Principles and Processes

The OPP model is a simple and austere one. Dr. Khan emphasized that in order for the project to be successful, and reflective of the context it was operating in, it had to necessarily be a low-cost and austere. The project overheads had to be low, and the salary structure of the organisation had to be linked to its programme content, which revolved primarily around self-help and technical assistance. On the face of it, OPP has not accomplished anything remarkable in terms of implementation, intervention or invention. What it did do was to evolve a low-cost and contextually appropriate system of management and implementation of local-level development. This low-cost system is built upon the articulation and strengthening of what the people have done (in terms of addressing their development needs) through documentation and technical assistance.

Demonstration, Development of model, and Documentation and Mapping as Tools for Advocacy

OPP-RTI's sanitation mapping is part of a wider process of scaling up people's initiatives. The purpose of mapping is twofold. First, to document what already exists on the ground (in terms of sanitation infrastructure); and second, to influence the government to align its investments with what already exists rather than to ignore it – which it has done thus far. The extensive documentation of sanitation infrastructure throughout Karachi, reinforced by statistics and maps has had positive repercussions for planning efforts in Karachi and beyond, and increased OPP-RTI's standing and credibility. Today OPP-RTI guidance on sewerage, drainage, and *katchi abadi* upgrading is sought at the national, provincial, city and community level. It has thus far completed survey and documentation in 334 *katchi abadis* (covering around 224,299 houses) out of a total of 539 in Karachi.

Advocacy: Evolution and Milestones

During the period 1980-90, OPP facilitated communities self help work, thru which evolved the component-sharing model, while also carrying out the related advocacy in the area of Orangi. Based on this ten year experience, from 1990-97, OPP-RTI began to work outside of Orangi and increased its level of engagement with concerned

government departments and agencies like KMC and SKAA and Karachi CBOs while also documenting and mapping settlements and infrastructures and drainage system all over Karachi.

During the period 1997-99, OPP-RTI made a series of presentations of its proposals before the KWSB, government of Sindh departments, the Planning Commission in Islamabad, the President of Pakistan, the Governor of Sindh and the ADB on the proposed Karachi Waste Water Management Project (KWWMP) arguing that the expensive project was flawed and would not solve the problems it was designed to address.

After a protracted struggle by OPP-RTI and various partners, the government decided to cancel the ADB loan of US$ 70 million in April, 1999. An alternative plan to the KWWMP was prepared by OPP-RTI but was not taken up at the time. However, the whole process unleashed a wider debate on citywide sewerage, drainage and wastewater treatment infrastructure, which eventually led to the adoption of principles and practices espoused by OPP-RTI in government policies and projects for sewerage, drainage and wastewater treatment in Karachi. Moreover, the learning from the experience, and contacts made during it, opened up new and related avenues for OPP-RTI advocacy work in the area of housing rights, water management, and governance.

Since 1999 to date, OPP-RTI has been working with government and communities for improvement in large-scale project implementation; continuing its efforts to inform government policy and practice through demonstration and research work, which in recent time led to adoption of OPP-RTI's plans by government as part of the latter's Sanitation III project. This and the partners work has influenced the National Sanitation Policy which was approved in Nov 2006, and has adopted the component sharing model.

Main Elements of OPP-RTI's Advocacy Strategy

Identification of Issue
In carrying out advocacy, **OPP-RTI** does not work according to a predetermined agenda or strategy. Advocacy issues emerge as understanding of an issue develops, and after careful analysis of experiences and learning. The knowledge and experience gained, through relationships and the process of documentation opens up the possibilities of work in other areas and on other issues.

Field Experience
The **OPP-RTI's** influence on government policy, related to city sewerage and drainage, came about because of its work in Orangi. Focused attention to the problem of sanitation there and the knowledge gained positioned the **OPP-RTI** as an important and credible voice on City issues related to sewerage, drainage and sanitation. The lesson from **OPP-RTI's** experience is to work on a single or few issues comprehensively before taking on attendant and related issues.

Linkages and Partnerships with Government

The **OPP-RTI** recognizes that without the involvement of government departments it is not possible to improve sanitation or delivery of any other municipal service. To be able to influence the government, it is necessary to work patiently over a period of time with department staff and build a relationship based on mutual trust and credibility. Government officials believe that the OPP's main strength lies in its openness (easy accessibility to its staff and information, i.e., maps and documentation), and the rapport it has with communities with whom they work. On their part, the **OPP-RTI** has always adopted a "softly-softly" approach to advocacy based on the understanding that government officials also function under certain compulsions and constraints, which are not easy to ignore or overcome.

Research and Extension

In addition to focused and consistent work, the OPP understands that access to robust research which produces accurate, useable evidence, is as important to affirm credibility with government as it is for aiding sound decision-making, "Meticulous homework of documenting findings, observations and processes, leading to preparation of alternatives is critical to being taken seriously by decision-makers". Presentation of alternative polices and plans, was cited by government officials as one outstanding characteristic of **OPP-RTI** as a civil society organisation.

Civil Society Partnerships and Networks – Partnerships in advocacy

Within Karachi, local activist from low-income settlements belong to a network of community groups and activist organizations like the URC, PILER and others, with whom OPP staff interact regularly and who monitor city-wide development and associated issues. Regular meetings and informal interaction with activist allows for learning about problems being faced by low-income communities, and thinking about these in terms of city-wide development issues and plans. These meetings also provide an opportunity for interaction between the activists themselves. Beyond government and communities, networks with other civil society organisations, researchers, local communities, and general stakeholders are also necessary. These networks are more effective than individuals at producing, sharing, and strengthening evidence.

Ownership of Process and Outcome

Who owns the process and its outcomes is critical. Regardless of who drives it, the process of advocacy and its outcomes must be owned by the main stakeholders, not just one organisation or individual, even if some may have played a key role in it, "…each stage is arrived at on the backs of the work and experience of many others – it would, therefore, be wrong for anyone to claim it for themselves only because they were present at the time of fruition of efforts". It is well understood by the OPP decision-makers that if it is seen to be claiming credit, however rightfully, it would undermine the credibility and intent of the Organisation. Discretion in such matters by the advocacy organisation often compels the targeted organisation to acknowledge the contribution of others without being prompted to do so.

“Media for information, not publicity”

OPP uses a variety of communication channels in order to promote its messages. Apart from using different networks as platforms for its messages and upholding direct contacts with government officers, it also makes effective use of the local and national media. **OPP-RTI** also receives large delegations of government representatives, NGOs, academia and donors from all over and beyond Pakistan. Through its ties with NGOs and academia abroad, OPP’s approach has become well-known internationally. As a rule, **OPP-RTI** eschews confrontation with government officials in the public sphere. Confrontation for the sake of it can destroy carefully nurtured relationship for no ostensible benefit. For wider dissemination of issues and solutions, the **OPP-RTI** encourages the electronic and print media to visit office and sites and observe for themselves, understand and report accordingly.

1. CONTEXT

1.1 Country Profile

The Islamic Republic of Pakistan is located in a strategic position at the cross-roads of South Asia, Central Asia and the Middle East. It shares an eastern border with India and a north- eastern with China. Iran makes up the country's south-west border and Afghanistan runs along its western and northern edge.

Map – 1
Map of Pakistan showing provinces and neighbouring countries

Pakistan has a land area of 796,095 square kilometres and according to the 1998 census, a population of 131.51 million. Its population in 2005 is estimated at 153.45 million with a population growth rate of 1.9 per cent per year and an average total fertility rate of 5.1[2]. At the current growth rate Pakistan's population will double in the next 37 years.

Pakistan is a federation of four provinces Sindh, Punjab, North-West Frontier Province (NWFP) and Balochistan. In addition, there are three federally administrated territories. These are the Federally Administered Northern and Tribal Areas, the Islamabad Territory and the State of the Azad Jammu and Kashmir. Each province has an elected provincial assembly and at the centre there is a national assembly in which every province is represented in proportion to its population. In addition, there is a senate at the centre where each province is represented equally.

Every province is divided into *zilas* or districts and districts are divided into *tehsils* or sub-districts. The *tehsils* are further divided into union councils (UCs) which are the lowest administrative tier. The average population of a UC is between 20,000 and 70,000. The larger cities, which include the provincial capitals, are run as city districts and are sub-divided into towns and the towns into UCs. The *zilas*, *tehsils*, towns and the UCs are headed by *nazims* and *naib nazims* (mayors and deputy mayors) elected indirectly by elected councillors. Thirty-three per cent of seats of elected representatives are reserved for women and five per cent for workers and peasants. There are 103 *zila* governments in Pakistan, 335 *tehsil* administrations and 6,022 UCs.

Pakistan can be divided into four broad geographical areas. These are the northern mountains, the western highlands, the Indus plains and the eastern desert. Seventy seven per cent of Pakistan's population lives in the Indus plains, most of which are located in the Punjab and Sindh provinces. There are also major differences in demography and densities of the provinces. For example, Balochistan has the largest land area (43.6 per cent of Pakistan) but contains only 4 per cent of Pakistan's population; with a density of 18.8 people per square kilometre. The Punjab province contains 25.8 per cent of Pakistan's surface area and 55.58 per cent of population. Its

2. Pakistan Population Census Organization, 1998 and Discussion Paper on National Strategy and Action Plan, Water Supply and Sanitation, Ministry of Environment, Government of Pakistan, 2005.

density is 353.5 people per square kilometre. The other two provinces fall in between Balochistan and the Punjab.

Over 75 per cent of Pakistan receives less than 250 mm rainfall annually and 20 per cent of it less than 125 mm. The country has a warm temperate climate except in the mountain regions where temperatures can drop down to below freezing during winter months – which are also longer in duration.

The Country's social indicators are poor compared to comparator economies. Its Human Development Index (HDI) ranking is 134 out of 177 countries in the UNDP's Human Development Report 2006. Its overall literacy rate is low at 50 per cent, 36 for females. Literacy for rural women is only 20 per cent. In this too, there are considerable provincial variations with rural female literacy in Balochistan being as low as 8 per cent. Pakistan's gender related development index is minus 4, one of the lowest in the world. Public spending in the social sectors is also low: 2.6 per cent of the GDP on education and 0.7 per cent of the GDP on health. Total debt servicing is 4.5 per cent of the GDP[3].

1.2 Karachi

Karachi is Pakistan's only port city. It contains 10 per cent of the total population of Pakistan and 25 per cent of its urban population, and as capital of Sindh province, it contains 30 per cent of the province's total population and 63 per cent of the province's urban population. Nearly 20 percent of the country's GDP, 45 percent of value added, 40 per cent of employment in large scale manufacturing, 50 per cent bank deposits, 20 per cent of federal and 40 per cent of provincial revenues and 62 per cent of income tax is contributed by Karachi[4].

Map – 2
Map of Karachi showing town boundaries

As a result of the enactment of the Devolution Plan 2001, the Local (City) Government Ordinance (LCGO) 2001, Karachi is now a city district, headed by a *nazim* and *naib nazim* – both elected. The various departments of the City District Government are coordinated by the DCO, who is a career bureaucrat. Karachi has been divided up into 18 Towns, which in turn are further divided into 178 UCs. Each town and UC has its own *nazims* and *naib nazims*.

In spite of the LCGO 2001, there is a strong presence of federal government institutions in Karachi who plan independently of the district government although in theory they should not. The Nazim of Karachi regularly laments the fact that his administration controls just one-third of the city, and which is why planning and governance of the city is problematic. Large parts of the city are under the control of institutions like the Karachi Port Trust, Military Land and Cantonment Boards, Pakistan Railways, Pakistan

3 UNDP, Human Development Report, 2006

4 Beg, M.A., Urbanization and Its Environmental Repercussions, unpublished paper prepared for under-preparation IUCN Sindh Environmental Profile, 2003.

Steel Mills, Port Qasim Authority and the Civil Aviation Authority. These institutions have the right to make decisions about all forms of development in these areas. They often have their own building by-laws and zoning regulations, which differ from those of the City District Government Karachi; and while they are meant to coordinate their work with relevant city government departments, this is observed more in breach than in compliance.

1.2.1 Planned Areas and Katchi Abadis

Karachi requires 80,000 housing units per year to house its growing population. However, according to 1999 estimates, building permits were issued at an average of about 26,700 units per year. The resulting demand-supply gap has been met through (1) densification of existing settlements in the city centre and, (2) the creation of *katchi abadis* ('poor peoples housing units') on government land.

Photo – 1
A squatter settlement in Karachi

Densification is most pronounced in the working class areas of the inner city. Here even the middle class areas have become dense to an extent that the middle classes have moved out and been replaced by lower income groups. One major reason for this is that the wholesale markets which were located in the old city have expanded to cater to a city of nearly 15 million people, compared to 1940 when they served a population of 400,000.

These inner city areas, due to their proximity to the sea port, have also become a major warehousing and storage centre for which many old buildings have been torn down to make way for storage facilities and accommodation for labourers. In recent times sweat shops have also started operating in these localities. Many residents from these localities have moved to peri-urban *katchi abadis* where living conditions are better even if there is no *de jure* security of tenure. As a result, in many of these inner city areas, social capital has eroded and given way to prostitution, drug peddling, and gambling dens, all of which are supported by a corrupt police force. In sociological terms, these areas have become slums, unlike the *katchi abadis* in the peri urban areas.

Photo – 2
Inner city densification

Around sixty-one percent of Karachi's population lives in informal settlements or "katchi abadis", as they are known, created out of unofficial sub-division of state lands[5] and include parts of around 1200 villages which use to exist around and within city limits and have since become part of the urban sprawl. *Katchi abadis* are created through a process where an informal developer occupies state land with the support and connivance of corrupt government officials who in many cases are informal partners in such development scheme. Low-income families buy and move into these un-serviced

5 City District Government, Karachi Strategic Development Plan 2020 (Draft). 2007.

plots and the developer makes arrangements for water through tankers. In other areas, water is acquired by hand pumps where subsoil water is potable, and from irrigation canals and tankers where it is brackish.

Map – 3
An informal set6tlement (Pathan Colony) in Karachi

Houses are built incrementally over time with the assistance of *Thallas*[6] which provide technical assistance, materials (blocks), labour, and sometimes credit, at reasonable rates – which explains how most of the Katchi Abadis developed as fast as they did. The local police, in connivance with the developer and corrupt government servants provide protection to house-owners from eviction. Over time, communities form organisations to lobby with government agencies and politicians and manage to acquire water, roads and electricity through them or through self-help. Sewage and wastewater disposal remain the major problem which people cannot solve and which governments fail to solve due to an absence of proper disposal systems. As a result, the environment in general, and water bodies in particular, are heavily polluted.

Photo – 3
A typical block manufacturing yard

K*atchi abadis* are increasingly being built far away from the city centres and the place where their residents work. This is creating transport problems and extra expenditure for the commuting poor. It is also distancing them from better health and education facilities[7]. In percentage terms, *katchi abadis* are gradually decreasing as very little government land is left to be encroached upon. There are said to be 539 *katchi abadis* in Karachi (some unofficial estimates put the figure at 702). Of these, 72 percent have been notified (i.e., accepted by government and for which process of provision of land title has been approved, so the settlement cannot be evicted)[8].

Important to note are the social, economic, political and demographic differences, between the formal and informal settlements, which have resulted in different developmental outcomes for these areas. Formal settlements tend to have older rooted communities, and a 'mass' of people, which attracts interest and patronage of political forces hoping to cultivate a constituency – this in turn has the effect of killing off attempts at local initiatives and creates a dependency syndrome amongst the residents. In spite of the relatively large development allocations for these areas, corresponding development has not taken place because most of the funds are either used up for patronage, eaten up by corruption, and/or wasted through duplicate or unnecessary schemes. Conversely, people in newer informal settlements tend to acquire considerably greater degree of development within a short period of time. Communities

6 Privately owned construction yards.

7. Hasan, A and Sadiq A., Mapping City Inequality: A Case Study of Karachi, unpublished report prepared for the IIED (UK), 1994.

8 SKAA Progress Report, June 2003.

here tend to be newer arrivals in the city, pragmatic, less drawn to political ideologies and affiliations, and more oriented towards self-help.

1.2.2 Water Supply and Sanitation

According to official estimates, Karachi receives around 650 million gallons per day (MGD) of water, which is supplied into the system. Water losses, as a result of siphoning from the bulk supply, are estimated at more than 40 per cent of the total quantity supplied[9]. Subsoil water is brackish and the only reliable source is from the Indus, which is more than 130 kilometres away. Water does not reach the extremity of the city, and these areas, along with many settled areas, are supplied through water tankers (see section 4.3 details).

Photo – 4
Water tanker – means of water supply

While underground sewage systems exist, their maintenance and expansion have not kept pace with the urban physical and population increase since the 1970s. As the old systems began to collapse, ad-hoc arrangements were made to connect them to the nearest natural drains or water bodies. New urban settlements, housing colonies and *katchi abadis* also developed their underground sewers or open drains and in the absence of a planned disposal, disposed them into the natural drainage system. As a result, in almost all cases sewage disposes into the natural drainage system and water bodies or in depressions.

Photo – 5
Overflowing sewage in a lane of a squatter settlement

Photo – 6
Nalas/drainage channels a source of sewage disposal

According to official estimates, the sewage system serves only 40 per cent of the city's population. In reality, almost 90 percent of the city's population is serviced by a sewage system, of which 50 percent has been built by communities on self help basis, 20 percent by KW&SB and 30 percent by other government agencies (see box 3 for details).

Only 20 to 40 MGD (i.e., less than 15 percent) of the 295 to 350 MGD of waste water and sewage produced by the city is treated. The rest goes into the sea through natural drains or as they are called. This is in spite of the fact that the treatment plants of the Karachi Water and Sewage Board (KW&SB) have an installed capacity of 151.50 MGD. The main reason why wastewater is released untreated into the sea is that the treatment plants are unable to pick up the sewage which has been designed to flow into the natural drainage system[10], and not the sewerage system to which the treatment

9. JICA Study for KWSB, 2007.
10. Ibid.

plants are connected. As a result of untreated sewage reaching the sea and because of an absence of separation between industrial and domestic sewage, sea life has been polluted near the Karachi shore line with toxic metals and is becoming increasingly dangerous to consume[11].

According to official information, many of the peri-urban *katchi abadis* and informal settlements which fall outside the metropolitan limits of the city, are not linked to the infrastructure laid by government. In reality, most of these areas are connected to nearby main lines/drains laid by government, but this is not reflected in government reports and maps.

Map – 4
A peripheral settlement (Sherpao Colony) internal sewerage is connected to the city's sewer

1.2.3 Informal Settlements and Macro Level Issues

The problems of the low income settlements are closely related to wider level city planning and management issues. Low income settlements are not integrated into a larger city plan, and are treated as separate entities in official records and reports. In reality, they are (see box 3 for details). Government plans for sewage disposal and housing and urban structural plans are grandiose in nature, rely heavily on foreign loans, and do not serve the needs of low income settlements.

Concerned citizens, CBOs, NGOs working in low income areas, and professionals and academic institutions have traditionally had little or no input in these plans – since a mechanism for their involvement does not exist. The trend in recent times has, however, been towards greater attempts at involvement of wider range of stakeholders. The OPP tends to respond cautiously to such requests, recognizing that not all engagements and involvement in government processes are productive and result-oriented. The decision to get involved in or becoming part of official processes is made after carefully assessing the potential outcome. The organization excuses itself in case it is felt that they cannot add value to the process or that the process itself is unlikely to have desired outcomes.

1.2.4 Civil Society Organisations

Karachi has an active civil society. Many CBOs and NGOs work on development and maintenance needs of their neighbourhoods, and at the policy level to try and interact with and influence government agencies for making policies and plans more realistic and people friendly. They hold forums regarding the problems of the city and its residents, invite interest groups to these forums, and get their point of view published in the press - certain sections of the press are very supportive. On occasions, newspapers also hold public forums on planning and development issues in the cities. The

11. Hayat S., Coastal and Marine Ecosystems, unpublished paper prepared for the IUCN Sindh Environmental Profile, 2003.

government usually does not pay much heed to advice of NGOs or such forums, but in recent years has taken to providing space for airing of alternative viewpoints.

Photo – 7
Participants at the URC Forum

1.2.5 Main Actors in Water Supply and Sanitation Provision

Officially, responsibilities for sewerage and drainage are distributed amongst different departments and tiers of City District Government of Karachi (CDGK), and the Karachi Water and Sewerage Board (KWSB) (see Table 1 below for relevant organizations, their function, and main issues). Storm drains and natural channels are taken care of by the city, town and UC governments, while the sewerage system has been outsourced to the semiautonomous Karachi Water and Sewerage Board (KWSB). The CDGK, the highest tier of local government, is responsible for "planning, development and maintenance of storm drains, special development programmes and any other function which the Government may assign". These responsibilities are carried out by the Department of Works and Services, the administrative unit responsible – *inter alia* – for storm drains at city-district level.

The CDGK generates between 60 and 70% of its budget from a matching grant of the federal government and from a number of different taxes and levies. Besides, there is also a budget for special development projects. The intermediate level of local government – in the case of Karachi, the town councils – has the same responsibilities as the CDGK within their respective jurisdictions. The town councils are assigned to deal with drainage systems that cut across different Union Councils under their jurisdictions and are supposed to be assisted by the town municipal administration, including a representative from the Department of Works and Services, to carry out their work. In reality, the on-the-ground scenario is confused and chaotic. There is very little coordination between the different tiers, and most of the activities undertaken are ad-hoc and tend to duplicate the work already done by others.

At the lowest level of local government, the Union Council, the mayors are responsible for the identification and oversight of drainage project executions within their jurisdictions. They also receive a budget from CDGK, but pass on those projects that go beyond their scope to the town and city district governments. The capacity at UC is often very limited with scarce financial resources and no qualified technical staff to support the political representatives.

The disposal of sewage in Karachi has been outsourced to the KWSB, a semi-autonomous body under CDGK. The KWSB is responsible for the construction, improvement, maintenance and operation of sewage works and industrial waste disposal systems in Karachi. The agency is divided into a sewerage maintenance wing and a sewerage development wing. The maintenance wing's budget is generated through service delivery charges and a subsidy from CDGK. Until 2000, the

development wing financed its operations mainly through IFI-funded projects. Now it is mainly funded through grants from the provincial and federal government.

The KWSB has been facing major financial problems for some time. It has 1.17 million households linked to its water and/or sanitation system, however, only 758,500 are on the billing roll and only 163,000 (14% of the total households) are regular payers. There is no sewage charge and the KW&SB owes Rs. 42 billion (US$ 0.7 billion) to the federal government against loans borrowed from multilateral agencies for water supply, sanitation and drainage projects. The KWSB has only recently begun to service its debt.

Table 1: Responsibilities for Drainage and Sewerage by Agency

Department	Area of Responsibilities	Budget Sources	Inconsistencies and Problems
City District Government Karachi (CDGK)	- development of storm drains - any other functions that the government may assign	- taxes and levies - budget for sewerage passed on to KWSB	- dispute with KWSB on who is responsible for drains used for sewage disposal (until 2000)
Towns	- the same responsibilities as CDGK, within their geographical boundaries	- CDGK	- lack of coordination with UCs and CDGK
Union Councils (UC)	- identification of infra-structure development and maintenance within their jurisdictions, including sewerage and drainage	- CDGK, towns	- lack of technical capacity, human and financial resources and of information - weak coordination with higher tiers of local government
Karachi Water & Sewerage Board (KW&SB)	- water and sewerage infrastructure development and maintenance across Karachi (including maintenance of nalas and drains)	- CDGK, service charges, special funds from provincial and national governments, foreign loans (until 2000)	- insufficient revenues - dispute with CDGK (see above) - dependence on federal/ provincial government grants
Sindh Katchi Abadis Authority	- training and support to town staff on infrastructure services in *katchi abadis*	own resources	- still implementing rather than supporting infrastructure development in *katchi abadis*
Source: Welle.K, WaterAid; Water and Sanitation Mapping in Pakistan. June, 2006.			

1.2.6 Main Issues in Infrastructure development

There are a number of issues impeding integrated planning, development and maintenance of sewerage and drainage infrastructure in Karachi. The main problems can be summarized under the following three:

Encroachment by other agencies: There is a tendency of agencies and individuals to Intrude into the CDGK's and KWSB's responsibilities leading to overpriced, ineffective infrastructure development and to inefficiencies in management. For example, higher levels of government, i.e. military and provincial government representatives, tend to interfere with the responsibilities of the CDGK, thereby creating confusion and inefficiencies in service delivery. Concerning the development of infrastructure, there is also substantial pressure from IFIs and bilateral donors who are keen to support major infrastructure development projects. In previous cases, such projects have proven, according to OPP's assessment, to be based on unnecessary expensive designs and overpriced contracts leading to substantial increases in foreign debt[12].

Information on sanitation infrastructure: Compared to the past, when maps were either not available or were outdated, the trend now with CDGK is towards developing and maintaining up-to-date maps for towns. The quality and accuracy of some of these maps, however, is still an issue. In spite of discernable progress in recent years, Karachi still does not have a comprehensive mapping base usually required for all kinds of planning and development exercises. This is going to change, according to the City Nazim, who recently stated that KWSB's GIS Map 2025 of utility services would be included in the Karachi's Master Plan[13]. Problems associated with non-availability or inaccuracy of maps is compounded by the fact that data gathered by the defence institutions and semi-autonomous organizations like KPT, SSGC, etc., are not accessible to the public. Also, informal settlements are generally neglected when it comes to infrastructure planning, and are not coherently captured in maps produced by government agencies.

Map – 5
Documentation of sewerage infrastructure at town level, digitized by OPP-RTI

Lack of accountability: In the absence of information, clear responsibilities and funding, sewerage and drainage infrastructure development and maintenance in Karachi has been ad-hoc and piecemeal. The lack of information about existing infrastructure, in particular, has opened the doors for corruption and a waste of resources in large sewerage and drainage infrastructure projects. Collusion between government officials, engineers and contractors leads to substandard, yet expensive work. Proposals are regularly over-designed and over-priced, whereas implementation is generally of poor quality, time consuming, and without proper technical supervision. The absence of coordination between different tiers of local government (UCs, Towns and CDGK) in sewerage development and maintenance further encourages these practices. A non-participatory decision-making process means that there are no institutional ways for challenging government priorities and decision-making. Observers are of the view that under the new devolution plan, too much power has been concentrated in the position of the City Nazim, and the role of the bureaucracy has been

12 Conversations with Arif Hasan and Tasneem Siddiqui
13 The Daily Times, August 4, 2007.

marginalized. Under the old local government system, the bureaucracy provided a balance against unchecked powers of elected representatives[14].

2. THE ORANGI PILOT PROJECT (OPP)

The Orangi Pilot Project (OPP) as an NGO began work in Orangi in 1980. The Katchi Abadi of Orangi, situated in the periphery of Karachi, has a population of 1.2 million. Started by the renowned development theorist and practitioner, Dr Akhtar Hameed Khan, the OPP is based on his concept of research and extension (See Annexure I for details on OPP Methodology). Established with the objective of overcoming constraints faced by government in regularizing and improving *katchi abadis*, the Project set out to:

- Understand the problems of Orangi and their causes;
- Through action research, develop solutions which people can manage, finance and implement;
- Provide communities with technical guidance and managerial support to implement the solutions; and
- In the process, overcome constraints which government service providers face in attempts to upgrade informal and low-income settlements.

Photo – 8
Bird-eye view of Orangi

After an initial period of action-research and extension education, sanitation was identified as the area of intervention. Subsequently, a model of low-cost sanitation evolved in Orangi. The 'component-sharing model' as it came to be known, placed the responsibility of building household and lane-level sanitation infrastructure on the residents, while the government (municipal authorities) were responsible for building and maintaining secondary infrastructure including mains, disposal and treatment.

This model was adopted rapidly by the communities and changed the on-the-ground-environment dramatically (See Annex II for Social Mobilisation Process of OPP). In a short period of time, the murky, stinking, open sewers that crisscrossed the settlement and which posed considerable hazards to the health and property of residents were gone. Direct assistance to communities by the OPP and the demonstration effect of its work have benefited over 108,000 households (over 865,000 people) in nearly 7,600 lanes, representing almost 90% of the entire settlement of Orangi. Collectively, communities invested nearly USD 1.7 million of their own money in their sewerage system[15].

Photo – 9
A self-financed lane sewer in Orangi

14 Interview with Arif Hasan, Chairman, OPP-RTI.
15 OPP Institutions and programms 109th Quarterly Report, Jan-Mar, 2007.

Besides other social and economic benefits attendant to improvements in sewerage and drainage systems, the infant mortality rate fell from 128 per thousand live births in 1982 to 37 per thousand in 1991. This rate of decrease was considerably faster as compared to the rest of Karachi and Pakistan[16]. The Programme also presented a challenge to dominant development paradigms, which tend to take a prescriptive approach to development, are usually too technical, too reliant on government and donor support, and which generally treat poor communities as objects of, rather than as drivers, of development (See Annex III for exchange between founder of OPP, Akthar Hameed Khan and the Chief Technical Adviser, UNCHS on the two approaches to development).

Over time, the OPP expanded beyond sanitation provision to cover programmes for health, credit, low-cost housing and education. By 1988, OPP had evolved into four autonomous institutions to manage its expanding concerns. At present, OPP-Research and Training Institute OPP-RTI is responsible for the low cost sanitation, housing, and the education programmes[17]. The Orangi Charitable Trust (OCT) runs a credit programme in urban areas, the Karachi Health and Social Development Association (KHASDA) implements the health programme, and the OPP Rural Development Trust manages the rural credit programme.

INSERT TABLE OF BENEFICIARIES

2.1 Principles and Processes

The founder of the OPP, Dr. Akthar Hameed Khan, both preached and practiced austerity. His experience had taught him of the many pitfalls which awaited projects dependent on large-scale (foreign) funding. Managers of such projects, he argued, spent a disproportionate amount of time chasing, worrying about and securing future funding, rather than focusing on managing the organisation's programme. Dr. Khan emphasized that in order for the project to be successful, and reflective of the context it was operating in, it had to necessarily a low-cost and austere operation. Dr. Khan drove home the point that salary structure of the organisation had to be linked to programme content, which revolved primarily around self-help and technical assistance. Salaries at OPP have always been kept low and much below those of comparable organizations. The staff at OPP, as a result, have tended to be those driven by ideals rather than market compensation. Interestingly, many of the staff who joined the organization in its early days are still around, in contrast to highly paid NGO staff who move from one organization to the rest every couple of years.

This vision and understanding was effectively conveyed throughout the organization during meetings and in discussions. Soon, the staff understood and accepted that large amount of funds in reality meant dependence on others and loss of freedom. Dr. Khan also encouraged partnerships with donors for small amounts. He also stressed that openness and transparency in accounts was extremely important for building effective

16 Hasan, A. Working with Communities. City Press. 2001.

relationships with the community, government, and donors. This has remained a cornerstone of OPPs policy and explains why there have been no serious questions raised about its financial propriety.

This philosophy informed the basic working of the OPP which aimed for maximum output from minimal input – i.e., identifying barriers and constraints and seek to remove them through strategic interventions, rather than set-up a large organizational infrastructure, which implies high-overhead costs. The OPP model did not require a large number of staff as it sought to train members from the community, and encouraged them to self-monitor their work and performance. By relying on activist from within the community, OPP was able to avoid having a large number of staff on its pay roll. OPP may not give money to activist but it does give them respect and encouragement to take initiative and additional responsibilities. Activist are never policed, but supported and encouraged through various means including sharing of information, providing training opportunities, and linking up with other government and non governmental developmental actors. The promotion of the above-mentioned philosophy and culture provides the basis for the success of the programme and informs its structure, strategy, and methodology.

Photo – 10
Maps, leaflets, posters – means of education and training

On the face of it, OPP did not accomplish anything remarkable in terms of implementation, intervention or invention. What it did do was evolve a low-cost and contextually appropriate system of management and implementation of local-level development. This low-cost system is built upon the articulation and strengthening of what the people have been doing (in terms of addressing their development needs) through documentation and technical assistance. Overall, the OPP-RTI success lies in consistent adherence to the philosophy and principles underpinning its work.

An important part of OPPs principles is the idea of ‘social preparation’ – that before development work and physical infrastructure can be initiated in poor communities, there needs to be a phase of ‘social infrastructure building.’ This idea is guided by a general strategy to promote community organisation and self-management through provision of social and technical guidance that encourages the mobilisation of local managerial and financial resources and the practice of cooperative self-action. Applying these principles in Orangi was, in many ways, facilitated by the community’s own self-preparation – many were building sewers long before advent of OPP. The general principles of OPP-RTI’s social preparation, which is a continuous on-going process, are as follows:

Photo – 11
Meeting with a community group

i) Survey and document what exists on the ground. Projects should rely and build upon what already exists. Communities have some of the needed resources for development but support is needed to optimize these resources. A survey and documentation of physical conditions, social actors and their relationships, economic conditions, and the technologies in use, is very useful. How the communities tackle priority problems needs to be identified and studied. A study is not needed to identify projects, but to understand the people, their processes and relationships, and to identify their choices. Decisions can then be made on whether existing systems could be either improved or whether a new and different approach is necessary. Once an approach is devised, and if it is successful, there is high likelihood of a demonstration effect where people on their own initiative undertake improvements in their area by learning from others and without asking for assistance.

ii) Role of a support organisation (such as the OPP-RTI) is critical. A team of technicians and social organizers is needed to support the community. Technicians develop the package of advice and social organizers extend it. Social organizers need to be from the community as this resolves any issues related to travel, language, culture, and rapport with the community which might arise. Technicians, however, can be from outside the community. Use of conventionally trained professionals such as engineers and architects for field implementation and interaction with communities is not advisable unless they subscribe to and/or have been initiated into a development approach which views communities as teachers and partners rather than passive recipients of funds, ideas and technologies.

Photo – 12
OPP-RTI's technician providing training support

iii) Supporting local activists. There are some people in the community who are aware of the problems, think about them, try to solve them, and are open to suggestions of others. There is a need to identify such people in the earliest stage of scoping work possibilities in a community. These early adopters are key to extension of the programme and in fostering community ownership and identification with the programme.

iv) The conceptual plan is a necessary tool in the process. The development of a conceptual plan should be based on the following principles:

- Division of work into internal and external infrastructure components[18] between communities and government service providers ensuring that there is no cost sharing (See Box 1 below for discussion on 'pitfalls of subsidies');

- Decentralisation of functions and technology – instead of viewing the project as a whole, break it down into components which allows communities to better

[18] The OPP-RTI uses the term *internal* to refer to any form of development work that the people and communities are supposed to do. For example, internal for sanitation means sanitary latrine in the house, underground sewer in the lane and neighbourhood collector sewer. External means trunks and treatment plants.

manage and build systems. Communities often do not possess the capacity to manage centralised systems; and

Photo – 13
Meeting with area activists on sewerage plan

- Establishment of an optimum relationship between needs, resources and standards, and understanding that all three are dynamic and can change over time.

v) Manageable local social organizational unit. In the initial stages, demonstration work requires much concentration, time and effort. Keeping the project's community organizational (CO) unit small makes it manageable and lessens chances of conflict and disputes between members, and if such do arise, they can be resolved relatively easily. In the case of Orangi and replication projects, it is the lane which is the unit of organization and contains between 20-30 households.

vi) Local communities are repositories of knowledge about existing conditions and circumstances in their area - gained from their everyday experiences. They can therefore become 'experts' in improvisation and innovation. Training should be provided to develop necessary skills within the community, especially those involving local para-professionals and community technicians.

vii) Documentation and dissemination of experiences and programme. Involving consultants, academic institutions, and other development actors; building public support for the project and encouraging contributions from academics and consultants are necessary. However, aggressive marketing and public relations events should be avoided.

viii) Monitoring of communication, constant feedback and transparency are essential. Weekly meetings, informed discussions between staff and community members, keeping minutes and documentation and regular follow-up are important. This process and its minutes are both the documentation of the project and its on-going self-assessment. All accounts of the organisation, including and most especially the salary of staff, are published regularly and made public. It is also important to have frequent and wide consultations leading to broad-based understanding.

Photo – 14
Weekly staff meeting at OPP-RTI

ix) Relate local issues and realities to wider urban realities by ensuring concerns are properly transmitted through dialogue to the relevant government agencies and politicians. Emphasis should be placed on the necessity of government and community working together to address development issues, as neither can do so entirely on their own. The OPP-RTI maintains close contact with government agencies and departments

and keeps abreast of their plans, whilst doing advocacy based on its own work and findings.

x) Avoid aiming for quick results. The rush for quick results can derail the project. Working with communities and government requires focused attention and the exercise of patience.

Box 1: Pitfalls of Subsidies

The OPP-RTI believes community self-financing for internal development is the only way to create a sense of ownership, a factor that is important in the construction phase and critically important during problem-solving and maintenance. It also ensures that the sanitation system will be used and be functional. OPP-RTI is not opposed to donor funding per se. Rather, their position advocates taking donor assistance when it is needed, for the right activities – i.e., those determined by the organization itself and not by the donors. It is on this basis, for example, that funding from WaterAid and other donors has been managed.

OPP-RTI's experience from Orangi and other replication projects shows that when subsidy is used, it most often opens the possibility of collapse of the project. It creates dependence, which spirals into a point where the community expects others to take responsibility for paying for the services, and when started in one community, this quickly spreads to other areas. It ends up with a whole population just waiting to be helped and simply not doing anything themselves. But perhaps most importantly, community self-funding is the principal instrument that brings down the costs of projects.

Subsidies tend also to raise costs and give rise to wastage. When the community pays for a project on a purely self-help basis where they provide or pay for the labour and supervise the work, costs are immediately cut – designs are simplified, methods of construction become extremely cost-efficient, profiteering and kickbacks, as well as professional fees for contractors, engineers and supervisors are eliminated. The process is self-reinforcing – without the drastic reduction in costs, it would be impossible to persuade low-income families to undertake the responsibilities of self-financing. Finally, with the principle of component rather than cost sharing, the NGO or government can spend scarce funding over a wider area.

3. DOCUMENTATION AND MAPPING AS TOOLS FOR ADVOCACY

OPP-RTI's sanitation mapping is part of a wider process of scaling up people's initiatives. The purpose of mapping is twofold. First, to document what already exists on the ground (in terms of sanitation infrastructure); second, to influence the government to align its investments with what already exists rather than to replicate or ignore it~~,~~ and third, inform communities of the importance of their self-help work, so as to strengthen their efforts and advocacy for others works

The extensive documentation of sanitation infrastructure throughout Karachi, reinforced by statistics and maps has had positive repercussions for planning efforts in Karachi and beyond, and increased OPP-RTI's standing and credibility. Today OPP-RTI's guidance on sewerage, drainage, and *katchi abadi* upgrading is sought at the national, provincial, city and community level by government agencies

Photo – 15
Documentation of physical condition is underway

Documenting *katchi abadis* has highlighted and made visible people's involvement and investment in sanitation development. As a result, planning agencies and local government are forced to respond to the need to support people's efforts rather than duplicating them. This helps reduce costs (of laying pipelines) by developing low-cost designs that link up with peoples' own work at the lane and neighbourhood level. The mapping process has also allowed community members to acquire skills and knowledge which allows them to engage in a more informed manner with government agencies.

Map – 6
Documentation of infrastructure in katchi abadis undertaken at OPP-RTI

Importantly, documentation of infrastructure has provided the foundations for bringing into question government and IFI planning policies and development projects, and for promoting viable alternatives based on a sound knowledge of ground realities.

3.1 Process of Mapping

Mapping at OPP-RTI is an ongoing process, a service provided to *katchi abadis* and to the wider city for the development of a Karachi-wide sewerage system. The mapping department at OPP-RTI is at the heart of the organisation. OPP-RTI's sanitation mapping is a low-cost activity because the development of maps also serves as a training activity for young people in *Katchi abadis*, and salaries at OPP are modest[19]. The OPP finances its core expenses through a yearly grant provided by international charities on an open-ended basis.

Photo – 16
Team of youth carrying out mapping/documentation in katchi abadis

The technical inputs for OPP-RTI's sanitation mapping reflect capabilities and conditions in low-income settlements. In producing a settlement map, all work is done by hand and only requires a drawing board, scales, paper and pencil. For more sophisticated maps of drains or larger proposals, plain tables and level machines are also used. This equipment is very low-cost: a plain table and measuring stick costs around Rs. 2,000 and a level machine around Rs. 25,000. Since 2004, hand-sketched maps have been digitized[20] using AutoCAD, which can be downloaded free of charge. Increasingly, use is also being made of satellite images available for free from Google

19 After 25 years of service to OPP, the two senior most Directors receive a gross salary of around Rs. 24,000 per month (USD 400) – and which includes no other benefits such as health insurance, pension, or gratutity. In fact, on many occasions, senior staff have been requested by organizations and agencies to be consultants, the fees for which has mostly been foregone and in some instances passed onto OPP.

20 . Digitization is the scanning of analog sources such as hand-drawn maps, printed photos or taped videos into computers using software such as AutoCad to make them editable

Earth[21]. Because of the low resolution of some of these maps, OPP-RTI is now considering purchase of clearer and more up-to-date maps.

Photo – 17
Plan table survey of a settlement

The low technical inputs required for OPP-RTI's mapping methodology mean that the human resources required during the process are high. OPP-RTI's mapping department employs 10 persons. Of these, six to eight map makers are supported through a Youth Training Programme (YTP) of one to two years and the remaining persons are employed on a permanent basis. The whole process of producing a map, which indicates the basic services of a settlement of around 500 houses, takes six to eight weeks. With the use of satellite images, the duration of this process can be reduced. Producing a Union Council Plan Book[22], covering a population of ~75,000 people and providing maps displaying different types of services, costs around Rs. 25,000-30,000 – inclusive of staff time, and materials - and takes around three months to make.

Map – 7
A sample page from UC plan book showing existing solid waste disposal System (UC – 6, Orangi Town)

3.2 Mapping and Community Capacity Building

As news about OPP's work in Orangi spread, between 1985 and 1988, a number of Karachi communities from outside Orangi applied for assistance for replicating the sanitation programme. Attempts to do this were made in three settlements, but they proved unsuccessful because the OPP attempted to replicate the role it had played in Orangi, but did not have adequate capacity to do so. It was at this stage that the presence of a strong local community organisation (or activists who can create it) was recognised as a pre-requisite for successful replication. It was recognised that the community would require skills in mapping, surveying, documentation and monitoring, and training of local activists and technicians would also be necessary.

3.2.1 Youth Training Programme (YTP)

The process of mapping and documentation, which started in 1982, evolved into a separate programme in 1992[23]. Soon after OPP-RTI shifted to its present office in Qasba Colony, next to Orangi, it was observed that people had done a lot of work on sanitation in their localities on a self financed basis. Thereafter began the process of mapping and documenting of the Qasba settlement. Eager local high school students and educated young people were recruited to work on the documentation. The young men were trained by the OPP-RTI technical team, with whom they worked both in the

21 http://earth.google.com
22 A UC Plan Book consists of a map of the Union Council showing roads, water supply lines, sanitation system, solid waste dumps, hospital, dispensaries, schools, and parks.
23 Help from a European NGO, Selavip, with whom OPP-RTI enjoyed a relation of trust and respect, was important for this process.

office and in the field. Around 50 *katchi abadis* with a population in excess of 250,000 were documented as a result and in the process a number of young men from these settlements later became associated with the OPP programmes. A number of them independently promoted the sanitation and other programmes in their settlements.

Photo – 18
Training of youths from Qasba (Islamia) Colony

After the documentation of 50 *katchi abadis*, and beginning of work with SKAA, the OPP-RTI realised that there was a need to document work done by people in other areas, for which it started the process of documenting *katchi abadis* all over the city. The OPP-RTI felt that this would also help establish contacts with activists and CBOs outside Orangi, giving a wider base to its community and advocacy work. Importantly, it would train people in informal settlements to help in the replication of the ~~OPP~~ OPP-RTI programme.

Photo – 19
Meeting with a prospective CBO for replication of sanitation programme

Around this time, the OPP-RTI linked up formally with the Sindh Katchi Abadi Authority (SKAA), a government institution responsible for regularising and improving *katchi abadis* in the province (see 3.4.1 for more on the evolution of OPP-RTI and SKAA's relationship). The OPP-RTI agreed to become a consultant to SKAA because it saw its own work on mapping and documentation as being closely aligned with and complimentary to the work of SKAA. In 1994, a Youth Training Programme (YTP) was initiated to formalise training of young community members for carrying out mapping and documentation work. Many of the students had completed 10-12 years of schooling – while others were still studying in schools and colleges. Training for students focussed on surveying, and levelling through plane table surveys settlements, drafting through traditional means or computers what they had surveyed and in designing a system, documentation of all existing utility services, working out quantities and estimates for construction of underground sanitation systems, and in mobilisation of communities for supervision of work and subsequent maintenance.

Photo – 20
Lease camp of SKAA located at Welfare Colony

Photo – 21
Trained youth at work

The YTP has evolved over time. Initially, whoever applied for training was given a three-month probation period during which he was given a daily stipend and not a regular salary. Due to this method of identification, there was a high drop-out rate. Now the Technical Training Resource Centre (TTRC), which was set up and fostered by OPP-RTI, runs a 26-day training programme for applicants and those who are successful in the training programme become students at the YTP. The training for housing has also

been devolved over by the Technical Training Resource Centre (TTRC). Almost all of those who are training say that they have been able to continue with studies because the income earned helps them to do so. (See Box 2 below for details on evolution and work of TTRC).

Photo – 22
Partner TTRC providing training to youth

Box 2: Teacher Training Resource Centre (TTRC)

YTP was started by the OPP-RTI in 1994. Towards the end of 1995, a 21 year old young man, Mohammad Sirajuddin, enrolled in and completed the 90-day housing course on theory, on-the-job training in surveying, designing, estimation, and site supervision. After completion of the course he stayed on with the OPP-RTI to polish his skills. In mid-1997 Sirajuddin motivated a diploma engineer, Shahid Malik, to join the OPP-RTI as a trainee. On the completion of Shahid's training, the OPP-RTI encouraged and supported the two to set up a consultancy in Orangi for architectural design and surveying so as to serve low income communities and in the process earn a living also. In late 1997, they set up a firm which operated from the OPP-RTI offices. In the beginning clients were not willing to pay for the services being offered by Siraj and his partner. They expected free service as was being provided by the OPP-RTI housing programme. However, slowly the firm they started receiving requests for designing of houses, mosques, shops and schools and started receiving fees as well. At the same time Sirajuddin started to train young Orangi residents to assist in his work.

In 1999, Sirajuddin enrolled in a diploma course in a polytechnic. While there he realised that students studying with him would be unable to do practical work once they graduated. He felt that they needed a practical training course. After facing some resistance from faculty and students, Siraj linked up with Ashraf Sagar who had also been trained at the OPP-RTI and Abdul Hakeem, one of his teachers, and formalised their programme by setting up, with OPP-RTI help and guidance, the Technical Training Resource Centre in 2000. Thereafter, TTRC started to organise a three-month training course on drafting, quantity surveying, level and plan-table survey, construction and supervision. The fee for the course was set at Rs 1,500 (US$ 25).

TTRC, in conjunction with OPP-RTI, conducts a 26-day training course on mapping and documentation surveys. Students who are successful in the course then receive training at the ~~OPP~~ OPP-RTI. So far TTRC has conducted 46 such training courses in which a total of 119 students participated. The OPP-RTI channelled funding from Homeless International, a UK based charity, for setting up an endowment of Rs 500,000 (US$ 8,340) for TTRC. An additional Rs. 220,000 (US$ 3,660) has been provided by Homeless International for replicating the TTRC by setting up the Housing Resource Centre in Karachi. This one-time endowment, and the income from it, helps to meet some of TTRCs salary requirements. TTRC also provides training and refresher courses to staff of OPP-RTI partner organisations who are replicating the low-cost sanitation model in different towns and cities of the Punjab and Sindh provinces. Since 2001, the masons training programme is being managed by TTRC. Since then, TTRC has developed information leaflets on better designs and techniques, and employs informal means like visiting chai khanas (tea stalls), where masons gather, to talk to them in an informal setting about the benefits of the programme. Another programme of the TTRC entails a mobile team which visits under-construction houses in Orangi to offer free advice of improved building techniques. In the process, the team documents the process and gathers information on expenses incurred and home owner preferences, which TTRC hopes to compile and use in the future for designing a housing loan programme.

Most recently, TTRC has been involved by the OPP-RTI to provide assistance with development of sanitation infrastructure in Hala and Sinjhoro, two medium-size towns in Sindh. The mapping of both towns is near completion. Once completed, OPP-RTI will initiate planning for improvement in sanitation in the two cities. TTRC is also engaged with OPP-RTI as part of its schools upgrading programme, where it assesses school applications for physical improvements, and offers advice and assistance with

upgrading. The TTRC can be said to be a successful example of OPP-RTI's aim to promote development of community-based support organisations. OPP-RTI continues to support TTRC by providing fellowship to its staff and by paying fees for work done for it. Efforts are constantly being made to provide TTRC technical and institutional guidance.

Source: ~~OPP~~ OPP-RTI literature and interview of Muhammad Sirajuddin.

3.3 Documentation and Mapping of *Katchi Abadis*

Survey and documentation of katchi abadis has been on-going activity since 1994. Documentation of sanitation, water supply, clinics, schools and *thalla*s (building component manufacturing yards) has been completed in 334 *katchi abadis* (covering around 224,299 houses) out of a total of 539. The documentation of 200 *katchi abadis* has been digitised and results along with detail maps have been published. The documentation of additional *katchi abadis* is in the press and will be out soon. The digitisation has been done by OPP-RTI technical staff members who had some knowledge of computer graphic programmes. They were encouraged to use this knowledge for digitisation and in the process they have become efficient in computer graphics and digitisation. As a result, a computerised mapping unit is now functioning and two trained persons from the YTP are part of the unit. An additional resource is the digitized sewerage/drainage mapping that has almost been completed (16 out of 18 towns of Karachi have been covered). These and also the Karachi water supply maps are on the website.

The survey of these *katchi abadis* has shown the extent of people's work. Sixty-two per cent of these lanes have sewage disposal facilities and 50 per cent have water lines, both laid on a self-help basis. Approximately Rs 334.48 million (US$ 5.0 million) has been invested by the people in this work. Government investment has also been made for sanitation and water supply but most of their work is on main sewers, drains and water mains. The survey results show that the "internal-external" concept of the OPP-RTI has been unwittingly followed by the government and the communities. Furthermore, 1,041 clinics and 773 schools have been set up by entrepreneurs and/or charities in these settlements as compared to 12 government clinics and 143 government schools [24].

3.4 Mapping Outside of Karachi

OPP-RTI partner CBOs and NGOs outside of Karachi have also developed expertise in mapping. This expertise is the result of the OPP-RTI strategy for supporting NGOs and CBOs wishing to replicate its programmes. Once trained, the CBO-NGO invariably come into contact with local government departments as their work expands. Interested and dynamic local government representatives from these partner organisations are then encouraged and facilitated to visit OPP-RTI for orientation. If convinced, they send their staff for training. Neighbourhood settlements and sometimes even villages and local government of neighbourhood towns contact the CBO-NGO for replicating their programme (See Annex IV for Experiences and lessons from early replication efforts).

Photo – 23
A partner NGO mapping their settlement

24. Perween Rahman, *Katchi Abadis of Karachi: A Survey of 334 Katchi Abadis*; OPP-RTI, 2004.

4.0 ADVOCACY: EVOLUTION AND MILESTONES

This section presents a narrative of the process and evolution of OPP-RTI's advocacy efforts which are grounded primarily in (i) research and extension, (ii) demonstration of work on the ground, (iii) mapping and documentation and, (iv) relationship-building through working with government, communities, and civic groups.

4.1 Karachi Waste Water Management Project (KWWP)

In 1992, KWSB proposed a major project to build main trunk sewers in Orangi, the sprawling township of 1.2 million people, as part of it's massive umbrella project, **Greater Karachi Sewerage Plan** (GKSP). When OPP documented a pilot project in one settlement of Orangi, it showed that existing work in lanes was being overlooked and duplicated, while the open drain, which needed to be replaced, was going to be left untouched. The KMC, ADB consultants and KWSB had planned for the area as if this work didn't exist. Instead of laying trunk sewers along the natural drains, their plans called for pumping sewage *uphill*, over great distance, to large treatment plants. As a result, the whole settlement would have had to be dug up to link with the proposed system. A report on this was sent to the Board of Directors of the ADB, and simultaneously, lobbying was done with the Americans, through the council general in Karachi, as the American government was represented on the ADB BoD.

Map – 8
KWSB Greater Karachi Sewerage Plan – A failure

Map – 9
KWSB's sewerage plan for Orangi based on pumping negating the natural gradient

The then mayor of KMC was known to a relative of a senior OPP-RTI staff member, who helped arrange a meeting between the two (OPP-RTI and the Mayor). A dialogue with the Project body and the Mayor of Karachi was thus initiated. With the help of maps, OPP-RTI explained ground realities, which showed that a lot of work had already been done by the people in the project areas. This work, OPP-RTI argued, should be integrated in the project design, and cautioned that if the project financed the lane sewers as well, then the carefully nurtured "internal-external" model would fall apart and communities investment would go to waste.

Photo – 24
Work of OPP-RTI being briefed to the then Mayor of Karachi

The Mayor took keen interest in what the OPP-RTI had to say about the Project and after visiting the site to observe on-the-ground situation, instructed that OPP-RTI be officially appointed consultant to KMC on the Project - even though OPP did not covet the role, and worked informally for some months with government engineers to see if they could cooperate productively, before agreeing to the role. OPP-RTI's role as a low

cost consultant was greatly assisted by the then Project Director of the ADB-KMC project who had been very supportive of OPP-RTI's work in the past. The Project Director insured that provisions of the agreement between KMC and OPP-RTI were followed by government engineers and contractors. As a result of the OPP's involvement, the cost of the ADB funded project decreased from Rs 1,300 million (US$ 21.6 million) to a modest Rs 36.2 million (US$ 0.60 million)[25]. An ADB report cited this project as the only successful sanitation project it has funded in Karachi under KUDP.[26] The experience of working with and alongside government field staff and officials helped to build rapport and helped create lasting partnerships which proved crucial at later stages.

Photo – 25
OPP-RTI staff supervising ADB main sewer

After sometime when KWSB announced yet another major sewage project , the Korangi Waste Water Management Project (KWWMP – a sub-project under GKSP) in Korangi the OPP-RTI immediately recognized all the elements of past mistakes: the Project didn't follow the natural drains, it ignored sewer systems which already exist in 80% of the area and unless all the sewers were re-laid (costing additional billions of rupees) to link to the new KWSB trunks, effluent from the area would never reach the proposed treatment plant. The project was to cost US$100 million - $70 million loaned from ADB and $30 million raised locally.

Map – 10
Existing sewerage and drainage system of Korangi

OPP-RTI knew the layout of the area as it had been working with communities and SKAA in Katchi Abadis of Korangi prior to announcement of the KWWMP. Based on surveys and documentation, the OPP-RTI proposed that the existing sewerage systems, laid by Govt. agencies and by the people, should be documented and accepted and that the natural drains, into which most of the sewage disposed, should be converted into box trunks and a treatment plant should be placed at the locations where they meet the sea or backwater.

Photo – 26
Existing sewerage/drainage system of Korangi

The KWSB planners and engineers objected to this proposal because they felt that sewage and rain water flowing together was against good engineering practice. However, the OPP-RTI was able to get information which showed that the practice was followed even in some developed countries like Japan.

25 Hasan, A. Working with Government. City Press. 1997.
26.ADB: PAA-PAK 19076 – Project Performance Audit Report on the Karachi Urban Development Project in Pakistan; December 1999.

The OPP-RTI made a series of presentations of its proposals before the KWSB, government of Sindh departments, the Planning Commission in Islamabad, the President of Pakistan, the Governor of Sindh and the ADB. On the basis of OPP-RTI documentation of what existed on-the-ground, the government agreed that 70 percent of what the project sought to build already existed, and hence, just upgrading of the /drains and building of a treatment plant would be sufficient and cost a fraction of the original cost of the ADB funded project.

After a protracted struggle by OPP-RTI and various partners, in April 1999, the Governor of Sindh decided to cancel the ADB loan of US$ 70 million for the KWWMP). It was also decided that the project would instead be built through local resources and local expertise. A committee was formed by the Governor to develop a conceptual plan for the project. The committee requested the OPP-RTI to prepare such a plan which it did (see Table 3 Below). The Plan was not taken up at the time, but the whole process leading to cancellation of the project, unleashed a wider debate on citywide sewerage, drainage and wastewater treatment infrastructure. This, in recent years, has lead to incorporation of principles and practices espoused by the OPP-RTI in government plans and projects.

Table 2: OPP Proposed Plan for KWWMP

	KWSB's Korangi Plan	**OPP's Alternative Plan**
Plan	Superimposes an entirely new sewage system, ignoring existing sewer and natural drainage systems	Upgrades and expands the existing functional sewage systems after carefully documenting these systems.
Cost	**US$ 100 million**	**US$ 20 million**
Financing	ADB Loan for US $70 million, $30 million raised locally	Can be done in 6 years using local funds available with the KMC. No loan required.
Extra costs	All existing lane and secondary sewers will have to be dug up and replaced to link with new system, incurring millions of dollars in costs over and above the project costs.	None. By picking up flow from existing sewers, the plan utilizes billions of rupees investment in sewage infrastructure already made by communities and the local councillors
Technology	Foreign, expensive, inappropriate for Karachi's fiscal and technological realities, with high maintenance costs.	Low-cost, easy-to-maintain indigenous technology uses gravity flow, natural drainage and shallow sewers.
Design	By foreign consultants	By local engineers and sewage specialists with deep understanding of local realities, resources and limitations.
Drainage	Calls for heavy pumping stations to pump sewage uphill, across long distances to centralized treatment plants, and faulty and un-maintainable deep sewers.	Upgrades existing natural drainage *nalas* by converting them into box trunks or flash cover drains, so no realignments are needed to pick up existing flows.
	Centralized in one large, expensive	Centralized to one, inexpensive treatment

	KWSB's Korangi Plan	OPP's Alternative Plan
Treatment	treatment plant which was not connected to the natural drainage *nalas*.	plant, built at the end of natural drainage *nalas*; also explores eco-friendly alternative treatment systems such as marine outfalls and lagoons.
Contracting	Built by foreign contractors, to "international" specifications, at international rates (5 - 15 times local rates) with imported materials (even if manufactured cheaper locally).	Built by local contractors, municipal staff and local communities, at local rates, making full use of local materials, local workers, local expertise and indigenous innovations.

Source: Asian Coalition for Housing Rights website.

4.1.1 Collective Action

It took a great deal more than meetings with officials and a good alternative plan to get the KWWMP loan cancelled. A large network of civil groups brought their separate expertise and collective clout to battle against the big guns of external-loan-driven development. To raise awareness about the problems with the KWWMP, over 20 public forums were organized by the *Urban Resource Centre*[27] (URC) between 1998 and 2000, in which activists, NGOs, researchers, journalists, government officials and community organizations from Korangi and other areas learned about the implications of the ADB-funded project and the alternative plan. Press reports of these forums helped initiate wider debate on the Korangi loan, and the city's sewage problems. The Collaboration in Reforms for Efficient and Equitable Development (CREED), a large alliance of prominent NGOs, community groups and development organizations, played a central role in lobbying against the ADB loan.

Map – 11
Section of drain for a realistic sewage disposal system for Korangi

CREED and SHEHRI [another Karachi NGO which deals with environment related issues] opposed the project from the point of its non-compliance with ADBs environmental guidelines and safeguards and sought to invoke ADB action on their concerns. Whereas, the URC raised awareness amongst the local population, and worked to organize forums for debate and discussion to which the media was also invited. The OPP-RTI on its part lobbied with the government through different channels one being the Governor's Task Force on Municipal Services by using maps and other information showing how the project would not solve the problems it was ostensibly designed to solve. An important platform for advocacy and communication for OPP-RTI was the Task Force of which OPP-RTI and some key allies in government were members. The membership allowed OPP-RTI to infuse the Task Force with energy and influence its direction[28].

27 A partner organization doing research and awareness raising work in Karachi.
28 It is worth noting that of the six task force on various matters created by the governor – the Task Force on Sewerage Drainage and Treatment Plants was the only one which succeeded in fulfilling its mandate.

Jointly, the NGOs sent a petition to the ADB Inspection Committee, signed by hundreds of residents of Korangi, upholding the rejection of the loan and requesting an independent review of the Project. During the struggle, allies turned up in some unexpected quarters.

The provincial Department of Finance became a staunch supporter of the OPP-RTI alternative plan and opposed the taking of new loans by an over burdened KWSB[29]. It helped matters that some of the partner civil society groups (like CREED) had adopted an aggressive posture, which made OPP-RTI position and recommendations appear more acceptable to government.

4.2 Wider Consequences Of The KWWMP Experience

Even though OPP's alternative plan for KWWMP was not taken up then, as a result of all the publicity and discussions surrounding the Project, the issue of alternatives to the larger GKSP came up for debate and discussion, eventually leading to improvements in infrastructure and planning by the Government.

At the end of the cancellation of KWWMP, the KWSB's attitude towards OPP-RTI had become hostile. OPP-RTI had learnt that KWSB served only 20 percent of the City, while KMC (later, CDGK) managed the rest. In 1999, OPP-RTI started to focus on working and strengthening relations with concerned CDGK staff and officials (works and services department) in order to promote nala development all over the City. At the same time, it maintained contacts with KWSB by periodically visiting, discussing, and keeping in touch with senior officials and by interacting and exchanging information with field staff.

Photo – 27
Meeting with KWSB officials

In 2000, the Task Force agreeing to OPP-RTI's suggestion, requested it (OPP-RTI) to undertake a study on institutional issues related to the sewerage sector for the whole city. Thereafter, a report, "Sewage, Drainage and Treatment Plants: Responsibilities, Finances, Issues and Policy Changes Needed" was prepared (main conclusions of the Report are given in Box 3 below). This report is of considerable importance because it further strengthened the need to develop nalas into box trunks and/or have box trucks laid on the sides of nalas, with the sewage treatment plant placed at junction where nalas enter the sea.

29 Newsline, pp. 54, July 1999

Box 3: Drainage and Treatment Plants – Responsibilities, Finances, Issues and Policy Changes

- *At present KWSB is servicing only about 20 per cent area in Karachi with its sewerage disposal. Servicing means maintenance and renovation of existing system. In these areas most sewage is diverted to storm drains and natural.*

- *KWSB's role in developing a sewage disposal system has been negligible. The only known development project undertaken by KWSB has been upgrading of Treatment Plant (TP)-I, TP-II, construction of Baldia sewerage project, Lyari trunks and T.P III, which are all components of the KWSB's Greater Karachi Sewerage Plan. The functioning of these projects, costing about Rs 42 billion (US$ 700 million) in foreign loans, is questionable as already shown in the case of TP-I, II and Baldia project. In the remaining 80 per cent Karachi area, not serviced by KWSB, development has been undertaken by KDA, other development authorities, Cantonment Board, KMC, co-operative housing societies, builders and the people themselves.*

- *Natural and storm drains serve as disposal channels for 90 per cent sewage generated in Karachi. In the areas under KWSB jurisdiction (which is 20 per cent of Karachi's area), and drains are also being used for sewage disposal. In the 80 per cent remaining Karachi area (including katchi abadis) not under KWSB jurisdiction, the sewage disposal points are the storm drains and natural.*

- *Neither KWSB nor KMC (now the city and town governments) accept responsibility for maintenance / development of these natural and storm drains. The result is the consequent overflows and breakdown of the sewerage system all over the city. The KWSB Managing Director and Foreign Projects Office rejects this reality and persists on imposing a master plan (the Greater Karachi Sewerage Plan) which has no relation to the existing system in place. KMC's opinion is that these storm drains and natural are sewage disposal channels and that it is therefore KWSB's responsibility to maintain them.*

- *The KMC and KWSB's sewerage wing (responsible for O&M) are responsive to accepting the ground reality. KMC has already allocated budgets for /drain trunk development as per Governor Sindh's directive of 3rd March 1999. The KWSB sewerage wing accepts the ground reality but is helpless due to the KWSB policy.*

- *For financing the sewerage wing, KWSB is dependent on KMC subsidy. For sewerage maintenance and repair KWSB's revenue receipt 1998-99 is Rs 120 million (US$ 2 million) (50 per cent share in conservancy charge) while its expenditure budget is Rs 483.4 million (US$ 8 million). The deficit is covered by subsidy from KMC of Rs 275 million (US$ 4.6 million). This subsidy covers establishment, maintenance and repair cost.*

- *KWSB sewerage wing budget on maintenance and repair is mostly wasted, which means that KMC subsidy is wasted. KWSB persists on revitalising a collapsed system, while at the same time it negates the functional drain/ disposal system. It spends huge sums on renovating and maintaining lane sewers, secondary sewers, and trunk while the actual disposal is neglected.*

- *KWSB's dependence on foreign loans for development projects is disastrous for the institution. Presently KWSB has a loan liability of Rs 42 billion (US$ 700 million), which it has not been able to service.*

- *Inability of KWSB to service the loans has a negative implication on the budget of Sindh Government and its allied organisations. The KMC's (now the City Government) budget allocation due from Sindh Government have been deducted at source on account of KWSB loans and their servicing.*

- *Responsibility needs to be redefined. KMC is a viable organisation to take responsibility for sewage disposal in Karachi. KMC (now the city and town governments) is responsive to accepting the ground*

reality as specified in Governor Sindh's directive of 3rd March 1999. KMC is financially viable. It has the technical and administrative capacity to take the responsibility for developing and maintaining sewage disposal systems. The maintenance and repair wing at KWSB can function under KMC (now the city and town governments). KWSB is better suited to function as a Water Board.

For the above suggestions to be implemented, no changes are needed in the SLGO (Sindh Local Government Ordinance). However, a government directive is needed as per SLGO clause, which states that "KMC to take up any other role assigned by government."

For KWSB to be converted into a water board the KWSB Act needs to be amended.

Source: Rahman. P. Sewerage, Drainage, Treatment Plants, Responsibilities, Finances, Issues and Policy Changes needed - 2000

In June 2000 the Government of Sindh and the World Bank announced a workshop entitled *"Water and Sewerage in Karachi: The way forward",* to which some of the NGOs were conspicuously not invited. Thanks to an extremely effective grapevine, they showed up anyway, having drafted in a preparatory consultation with 59 other groups a policy paper on water and sanitation in the city (See box 4 below for details).

Box – 4: Citizen's Position Paper on Water and Sanitation Policy for Karachi

On June 28, 2000, a meeting was arranged between Government of Sindh and various Karachi NGOs, CBOs and citizens on the issue of water supply and sanitation for the city. The workshop was organised by the Government of Sindh: Local Government; PHED; Rural Development & Katchi Abadis Department in collaboration with World Bank and was facilitated by World Bank consultants. The NGOs, CBOs and Citizens handed over a paper and walked out of the meeting for the following reasons:

- *The government of Sindh and KWSB were not represented by decision makers at this meeting. Additional Chief Secretary, Department of Planning and Development, Government of Sindh, was supposed to chair the meeting. The citizens felt that their dialogue had to be with their government representatives and not with the Bank officials.*
- *The NGOs and Citizens had informed the organisers that they had reservations regarding the manner in which the workshop was being conducted in which individuals were making comments on behalf of various interest groups. The NGOs and Citizens had requested a panel discussion on the subject. However, the organisers did not change the format of the workshop.*

- *When community members objected to the fact that the decision makers were not there, the facilitators asked them to stay quiet and behave in a civilised manner.*

However, there is a background to this conflict. In the water and sanitation sector, the KWSB has borrowed over Rs 46 billion for development purposes since 1983. It has not even begun to service the loan. As a result, this servicing is done by deducting Sindh government revenues at source, thus, increasingly depriving the province of funds for development. In addition, none of the projects carried out through these loans has been successful, except the sewage disposal project in Orangi, based on the ~~OPP~~ OPP-RTI model. This fact has been confirmed by the Asian Development Bank (PAA; PAK). 19076-Project Performance Audit Report on the Karachi Urban Development Project (Loan 793-PAK [SF]) in Pakistan, December 1999.

~~OPP~~ OPP-RTI has developed low cost realistic solutions to the problems of sewage disposal in Karachi. However, these have been rejected by the KWSB, without seriously considering them or even visiting the

~~OPP~~ OPP-RTI sites to see how they work. It is important to note that these very solutions have been applied to similar situations in Japan, Switzerland and some other first world countries. These solutions do not require large foreign loans for implementation.

The citizens and NGOs are extremely concerned about this state of affairs and are adamant it should not continue. They insist that a review of KWSB's and the international loan giving agencies role in this disaster should take place. However, this is something the international agencies are not even willing to consider.

There are a number of changes that the NGOs, CBOs and citizens feel are required to make the loan giving process more transparent and to make it cost effective. These are:

- *Projects identified for a loan should be part of a larger program and not isolated ad hoc interventions as they are today.*
- *Foreign consultants should not be employed since highly qualified local expertise is available and can work at a fraction of the cost. These foreign consultants now often receive over 20 per cent of the loan amount as fees and overheads (in some cases more).*
- *International tendering, which is part of the loan conditions, raises the cost of implementation by anything between 200 to 300 per cent of the local costs. This should be done away with and local contractors be employed for implementation.*
- *Recovery of loans should be guaranteed from the benefits produced by the project itself rather than from other sources.*
- *A steering committee of interest groups should review the project at the conceptual stage through public hearings, as to the social, physical and economic viability and need before a request for a loan is made.*
- *And, above everything else, the loan should only be taken if it is impossible to mobilise local resources for the project.*

The Government of Sindh and Pakistan must protect the interests of the people of the province and country, and should dictate loan taking procedures and conditional ties in the larger interest of the people of Pakistan. It has to be realised that the debt trap is the biggest cause of poverty in this country and the only way out of it is to live within our means and rely upon the ingenuity and frugality of our people who have managed to survive in an extremely hostile economic environment which has been forced upon us by self seeking governments and the ruthless international market.

Source: OPP-RTI's 84th Progress Report Year?

4.3 Working with CDGK and Development of S-III

In 2004 OPP-RTI was invited by the CDGK to become part of the Focal Group on Nalas and Drains of Karachi (See Box 5 below for composition, functions, and evolution of the Focal Group). The Group used OPP-RTI documentation and designs for development and lobbying with the Governor of Sindh for regular budget and process for desilting nalas, acceptance of nalas as main disposals for sewerage, and improving and upgrading capacity of treatment plants.

Photo – 28
Meeting with CDGK officials

As a result of the conversion of natural drainage channels into box trunks, large areas of low-income settlements located along drainage channels, have benefited due to improved local environment and a three to four fold rise in the value of their property[30]. OPP-RTI's documentation of nalas and drains provided important evidence leading to a policy decision regarding maintenance (regular desilting and repairs) of natural nalas and drainage channels in June 2006[31].

Photo – 29
A natural nala converted to box drain

This entire process leading to the decision by the government was informed by OPP-RTI's recommendations and designs for nala development in the City. Key elements of OPP-RTI's recommendations (contained in box 3 and 4) and encapsulated in the "proposal for sewage disposal of Karachi" provided the basis on which KWSB prepared its S-III project for sewerage, drainage, and treatment in Karachi.

The S-III, which is going to cost around USD 100 million, is being financed entirely by KWSB using government resources. The Project is currently in early stages of implementation and is considered a major breakthrough for OPP-RTI's advocacy efforts spread over a decade. Acknowledging OPP-RTI's role in development of the plan and its expertise, KW&SB has requested OPP-RTI to review the detail designs and to monitor implementation of S-III.

Map – 12
KWSB's S-III Plan for Karachi's sewerage development

Box 5: Focal Group

In the course of its dealings with government officials regarding on-the-ground work, and discussions and debate on GKSP, OPP-RTI came across a number of like-minded individuals from within government with whom it shared an understanding and a development vision for Karachi. The contact with officials in KWSB and CDGK continued both formally and informally eventually culminating in the establishment of a "Focal Group on Nalas and Drains of Karachi". The objective of the Focal Group was to exchange information and ideas, and facilitate coordination between different actors for improvement in the drains. Since then, the composition and function of the Group has changed and now includes formal and informal information sharing and coordination on other related citywide issues such as provision of drinking water and evictions of communities from goths [old rural settlements which have now become part of the urban sprawl] and katchi abadis. As such, the Group has morphed beyond its original mandate into a Group of like-minded officials from within CDGK, KW&SB, and civil society representatives who meet at regularly to discuss and develop consensus on key issues surrounding W&S and housing, and strategise to influence CDGK. Members of the Group who were transferred to other departments have maintained links with the Group and continue to be supporters and important sources of information.

Source: Interview with Director, OPP-RTI Perween Rahman

30 OPP-RTI Sources.
31 The regular maintenance of nalas/drains had always been a problem and cause of conflict between the two City Government departments, Works and Services (W&S) and KWSB. As Sewerage flowed in nalas/drains, KWSB was expected to take responsibility of their maintenance. However, KWSB contended that the drains and Nalas (and all that flowed in them) were the responsibility of the W&S department, whereas, it was responsible for sewerage pipes.

4.4 The National Sanitation Policy

An important demonstration of OPP-RTI's subtle influence on sanitation policies in Pakistan was the formulation of the national sanitation policy. The Government of Pakistan appointed Arif Hasan (Principle Adviser of OPP-RTI) as the national consultant to draft the document. The Policy, which was approved by the Federal Cabinet around the time of the 2nd South Asia Conference on Sanitation (SACOSAN), in September 2006, relies heavily on OPP-RTI model for implementing low-cost sanitation through a **'component-sharing'** model. This includes mapping as a fundamental step before any intervention, and the sharing of internal and external infrastructure development between citizens and the government. While this does not mean that the OPP model will automatically be adhered to in the future, this is an important step to further strengthen the influence of OPP-RTI's approach to sustainable sanitation development.

The need for having a national policy arose as a result of Pakistan's participation in the 1st South Asian Conference on Sanitation, which took place in Dhaka, Bangladesh in 2003. The Ministry of Environment was designated the official body responsible for development of the Policy. Since OPP-RTI was widely recognized as having the greatest experience with sanitation work, the Ministry of Environment (MoE) asked it to lead the process of developing the draft policy. The OPP-RTI team requested its Principal Adviser, Arif Hasan, to lead the exercise. Provincial consultants were hired by MoE to conduct provincial level discussions with a broad range of stakeholders. The findings from these provincial workshops were later presented at a national workshop organized in Islamabad. Thereafter, the lead national consultant (i.e., the Principal Adviser to OPP-RTI) was tasked with developing a background paper based on provincial consultations, secondary sources, and personal experience. This paper was later presented to a select committee of government and non-government stakeholders, including national and international NGOs, for discussion and feedback. After feedback from this committee, a draft national policy was prepared which was then laid before a broad-based audience of informed participants in a national seminar. After a few rounds of feedback and its incorporation in the draft, the policy was presented before the federal cabinet chaired by the prime Minister, and approved in September 2006.

The policy lays down a set of principles and guidelines based on which provinces are meant to formulate a strategy spelling out rules, regulations and procedures. The Government of Punjab has taken the necessary steps, with the assistance of the water and sanitation programme – World Bank, to formulate a provincial strategy, and the government of Sindh has prepared a draft document. In the meanwhile, a partner organization of OPP-RTI, the Akthar Hameed Khan Memorial Trust, Rawalpindi, has taken the initiative to translate the national policy document into Urdu for distribution amongst tehsils/towns around the country.

4.5 Expanded and New Areas of Work

A long period of engagement with the issue of nalas and drains revealed the political economy of nala development and desilting, and opened up further areas of related advocacy work which is discussed below.

'Encroachments by the powerful and displacement of the poor'
During Monsoon rains in the middle of 2006, large parts of some high-income localities in the City were badly affected by flooding. Many of these areas remained submerged in

putrid water for several days and weeks. Low-income areas, on the other hand, areas did not experience the same level and extent of flooding. The City Government was at a loss as to the causes of the severe flooding. The OPP-RTI surveys and documentation showed that the outfalls of three main city drains, that passed through the affected high-income localities, before entering the sea, had been illegally encroached upon by various government agencies and private individuals and groups.

The increasing value of land, infrequent rains, governance issues, and influence of military related agencies were identified by OPP-RTI as the main reasons for the situation. The OPP-RTI immediately got into the act and shared results of surveys and photographs with KWSB, partner NGOs/CBOs, and the media to raise awareness about the ground reality and key issues related to flooding during rains. The Survey and photographs showed that instead of the commonly held view, it were large private homes, business establishments and government agencies, instead of the poor localities, which had encroached upon the precious land. This information was widely produced in the media and led to a public pressure resulting in demolition of portions of large bungalows, and commercial establishments in the weeks following the flash floods.

The OPP-RTI has since then voiced its concern about plans to build roads alongside the nalas, which CDGK says are needed for maintenance and cleaning purposes. The OPP-RTI is of the opinion that such a step will require demolition of low-income houses alongside the three major nalas in the city, and is not needed as cleaning can be carried out without building roads or evicting residents. In order to advance its views, OPP-RTI is continuing its dialogue with government while preparing and presenting them with alternative plans, and at the same time is mobilising local communities for advocacy for the same.

As an outcome of its involvement in the above-mentioned issue, OPP-RTI realised that most cases of drainage development, besides being costly, involved displacement and dislocation of people. OPP-RTI was of the view that eviction and displacement of people would not be necessary if the designs for the infrastructure did not warrant it. The OPP-RTI made extensive use of map and alternative designs to counter government plans, with a view to minimizing the need for evictions. The underlying premise to the OPP approach is that the sociology of the community is as important as the engineering and technical aspects of the project, and a good project must necessarily balance the need for both. Communities are encouraged to document history of the settlements, ownership patterns, and existing infrastructure for purposes of lobbying with government in order to demonstrate viability of designs and plans which avoid evictions.

The issue of housing rights at OPP-RTI came to the forefront from the experience and knowledge gained about government planning and development for sanitation and drainage infrastructure. Moving this understanding forward, the OPP-RTI has teamed up with the URC to pursue a “Secure Housing Initiative”. This initiative or programme has three aspects to it:

Photo – 30
Strengthening people's efforts for securing their Goths

(1) documentations of citywide settlements under threat of evictions, and building case studies supporting people's resistance and showing that land occupied is essentially 'peoples housing' and not land grabbing by mafia, as is widely perceived.

(2) provide necessary information to would-be affected communities and encouraging them to organise themselves to resist government plans for their eviction or for demanding appropriate and market-based compensation; and

(3) Procuring government plans for evictions, so that efforts can be made to have them altered or changed, as well as pass on the information to would-be affecteed people, so that they can mobilise themselves and resist.

Water Supply and Distribution

Slowly, the OPP-RTI has also begun to look at the wider water distribution problems facing Karachi. According to its research, just completed[32], the 665 MGD of water which is allocated to the city is sufficient, if bulk siphoning is controlled. OPP-RTI research shows that around 272 MGD are being siphoned off from the bulk main, and then sold through 10,000-12,000 water tankers of different carrying capacities making a cumulative of 1,00,000-1,20,000 tanker trips a day. It is estimated that the business of siphoning water and selling it through water tankers fetches close to Rs. ~~42~~ 49.6 Billion (USD 820 million, @ USD 1 = Rs. 60.5) per annum. The report is available on the OPP-RTI website.

Photo – 31
A private hydrant

The OPP-RTI has a good working relationship with both the W&S Department of CDGK and KWSB; and is currently assisting with coordinating development of branch nalas/drains and their link up with KWSB's work. Starting with work on a single issue (of sanitation) in a part of one of Karachi's katchi abadi more than 20 years ago, OPP-RTI has progressed to tackling larger and related issues of housing rights (land use), water, and governance, whilst maintaining an effective and mutually beneficial relationship with government agencies.

Box 6: ADB Funding for WSS in Karachi

As of December 31, 2004, ADBs total loan commitment to Pakistan, since its operation began in 1968, comprised 239 public sector loans amounting to USD 14.3 billion. Of this, 21.5% was for the energy sector, 20.9% for agriculture and natural resources, 13.2 percent for the finance sector, 11.3 % for transport and communications, 9.4 for multi sector projects, 9.0% for industry and trade, 6.9 % for law,

[32] Rahman. P. Water supply in Karachi – Situation, Issues, Priority issues and Solutions (unpublished) February 2008.

economic management and public policy, 3.5% for education, 2.7 percent for water supply and sanitation and waste management, and 1.6% for health, nutrition, and social protection.[1]

In recent years, ADB has provided the most significant levels of funding for urban development programmes, including for water and sanitation in Karachi. The most recent loan, which is going to be provided under the proposed Mega Cities Development Project, is to the tune of USD 800 million, making it the largest ever development project in Pakistan. It is worthwhile to have a brief look at what the ADB evaluation[33] *says about outcomes of previous urban development loan projects.*

The evaluation states that urban projects failed as a result of much delayed and doubtful quality outputs, and a failure to produce positive development outcomes. Weakness in the financial management capacity of urban authorities, and the failure of institutional strengthening components to deliver the intended results, are said to be contributing factors. Urban water supply and sanitation projects are said to have suffered from "missing links", an acknowledgement that project designs were mostly flawed. It identifies below optimum operation of treatment plants due to "low inflow". It acknowledges also that low willingness to pay does not provide a satisfactory explanation to underperformance of water supply projects. The blame is pointed in the direction of inadequate "incentives" for staff of government departments to increase connections, "as this would lead to more transparent billing for water use and reduced corruption". It concludes by stating that, "significant governance issues in the sector remain unaddressed, most notably corruption, which affects performance. The opportunity for rent-seeking activities in the distribution of an essential good such as water is high".

Other factors influencing performance include weak justification for projects, limited or no ownership by executing agencies of project design; lack of consideration for exploring alternative options to for resolving identified problems; and insufficient learning from other project design problems. It goes on to state cryptically: "where lessons did influence design choices, the response tended to be the elimination of previously problematic areas (such as sewerage treatment plants or landfill sites)". Low cost-efficiency is also cited as a factor informing project outcomes.

Box 7: Karachi Urban Development Project

The ADB's first loan to the urban sector in Pakistan was the 1986, Karachi Urban Development Project, which was intended to support the government's Karachi Special Development Programme. ADB made available funds of more than USD 60 million. The Project was completed more than five years behind schedule. It suffered from design flaws as it duplicated or ignored existing systems, and dumped untreated sewage into open estuaries, and then into the Lyari river, and eventually into the sea. According to the ADB auditors, the main reasons contributing to failure of the project to achieve its stated objectives were: lack of consultation with communities, failure to implement a beneficiary monitoring system, and neglect by ADB supervisors. The evaluation cited solid waste management as the only 'successful' component of the Project. However, even this was deemed unsustainable because population growth in the city and no new planned investments in the sector meant that large quantities of solid waste would be disposed improperly and would eventually become a health hazard[1]*.*

Source: www.adb.org/prm; and, the ADB Project Performance Audit Report on the Karachi Urban Development Project (Loan 793-PAK [SF]), December 1999

Box8: IFI FUNDED PROJECTS: Civil Society Perspective

Many of the urban projects proposed by IFIs are opposed by civil society organizations on the grounds that: 1) the re-orientation of urban local bodies weakens their regulatory roles; 2) the insistence on user fees increases disparities amongst the rich and poor; and 3) the emphasis on private sector participation diminishes state accountability and stresses profit over universal access to key services. Many believe that by reorganizing urban local bodies on the principles of neo-liberal theories of development, these

33 ADB. Country Assistance Programme Evaluation. 2007

reforms change the way local bodies function and, lead to increased disparities in living standards. The result: traditional public sector domain is being taken over by the private sector, leading to increased levels of inequality[34].

The Asian Development Bank and the World Bank have provided loans for water supply and sanitation and upgradation of katchi abadis in Karachi amounting to more than USD 961.0 million over the last 24 years (See Annex V for project titles, project objectives, and loan amounts). Loan amounts for urban development, including those for water and sanitation and katchi abadi settlements upgradation, have been steadily increasing over the years. The multi-component ADB funded mega-cities project under preparation, with an allocation of more than USD 800 million is only the latest.

It is argued by critics of IFI loans that they are concerned primarily with achieving quantifiable targets and disbursing loans. This makes it difficult for these organizations to support social development, which requires patiently undertaking a process of exploration, without which innovation and its institutionalisation is difficult, if not altogether impossible. Most donor funded social and community development projects are based on incorrect assumptions. It is assumed that government departments can fulfil the roles assigned to them under the project, and all that is needed is some training for staff and policies spelling out what needs to be done. The issue of capability and capacity, culture of state institutions, and processes of accountability and transparency are generally overlooked[35].

At the time of formulating the project, junior staff who are expected to implement it are never consulted. Key decisions about the project are taken at the highest level by senior officials who not only have a limited role in actual administration and implementation of the project but also possess limited knowledge of ground realities.

The culture and workings of foreign funded projects – which is reflected in the series of seminars and workshops held, and a display of affluence in the form of plush offices, expensive 4X4 vehicles, and hi-tech office equipment -is entirely at variance with that of government departments. This image tends to alienate people and makes the initiative appear 'non-serious'. Moreover, when the project ends, the new offices, additional staff, and other perks disappear, leaving the parent department back to where it stood before start of the project[36].

In terms of costs, government delivery mechanism for infrastructure development is 4-5 times more expensive (and sometimes even higher) than the market cost of labour and materials. If the project is IFI funded, the project cost can be up to 50% more, which is due mainly to project administration overheads including office set-up and running, staff salaries, perks for government officials, and cost of consultants. If the project includes international tendering, the cost can exceed by 100 -200 percent. Archaic form of tendering, mandatory provisions for hiring of foreign consultants, high administrative overheads, contractor profiteering facilitated by corrupt officials, and outdated materials procurement schedule also contribute to high financial costs of IFI funded projects[37]. Moreover, capacity building components of the project are usually seen as perks and an opportunity to get away from office and/or visit a foreign country.

IFI funded projects in the social sector have a very poor track record. New loans continue to be taken due to the never ending thirst of the federal government for foreign exchange, budgetary support, and the need for additional money to pay off old loans. At the level of project planners and implementers, loans are favoured as they provide opportunities for graft and patronage. Not to be ignored in this 'game' is the pressure exerted by lending banks like the ADB and the World Bank on the government to accept loans.

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34 World Bank and Asian Development Bank - Urban Sector Lending in South Asia, India and Pakistan. **Draft Paper** Prepared by Guneet Kaur, Virginia Polytechnic Institute and State University for Bank Information Center (BIC), 1100 'H' Street NW, Suite 650 Washington DC.

35 Hasan, A. Working with Government.

36 Ibid.

37 Conversation with Arif Hasan

Ultimately, lending agencies are interested almost exclusively in disbursement and utilization of loan, and completion schemes, paying little or no regard for whether the investment was even needed[38].

5. ELEMENTS OF AN EFFECTIVE ADVOCACY STRATGEY

5.1 Identification of Issue

In carrying out advocacy, OPP-RTI does not work according to a predetermined agenda or strategy. Advocacy issues emerge as understanding of an issue develops, and after careful analysis of experiences and learning, "The knowledge and experience gained, through relationships and the process of documentation opened up the possibilities of work in other areas and on other issues[39]".

For instance, experience with the ADB Orangi project (and earlier in Manzoor Colony, a settlement in the centre of the City) showed that lanes and secondary sewers were not connected to the main sewers, and the natural drain (ostensibly for rain or flood water) was being used for sewerage disposal. The OPP-RTI extrapolated that this situation might well be true for the rest of the city, and would explain a major flaw in the system. Thereafter, the OPP-RTI set about documenting the sewage and drains system network for the city in stages and found that's its assessment was correct. Only after this was the issue of citywide drainage taken up with KWSB and the City Government. In the words of its Director, "Meticulous documentation of processes and experiences, weekly and quarterly meetings, and preparation of reports and monographs are key to understanding the relevance and context of work being done, and guide the organization in what to do next".

5.2 Field Experience

The importance of focusing in on a single issue in a comprehensive manner cannot be over emphasized. The OPP-RTI's influence on government policy, related to city sewerage and drainage, came about because of its work in Orangi. Focused attention to the problem of sanitation there and the knowledge gained positioned OPP-RTI as an important and credible voice in the areas of its work. Getting involved in too many issues without fully comprehending the reality of any one issue can be distracting and counterproductive. For instance, community, officials and field staff of the City Government had been requesting the OPP to study and document the City water supply problems for the last 4-5 years. The OPP-RTI, until recently, was unable to oblige because it felt that involvement in new issues would take the focus away from its immediate task of working on matters related to city-wide sewerage and drainage. Only after its suggestions and plans for sewerage and drainage in the City were accepted and large parts of it implemented by the City Government, did the OPP-RTI undertake to conduct research and development of a plan which includes management of the water distribution system. The lesson, therefore, is to work on a single or few issues comprehensively before taking on attendant and related issues.

38 Conversation with Tasneem Siddiqui, former DG, SKAA.
39 Perween Rehman, Director, OPP-RTI

5.3 Linkages and Partnerships with Government

A strong partnership with government departments, backed up by proper 'home work' is extremely important for an effective advocacy strategy. Changing the mindset and attitudes of policy makers is not easy to achieve. It can come about only as a result of sustained engagement with government structures and processes. The OPP-RTI recognizes that without the involvement of government departments it is not possible to improve sanitation or delivery of any other municipal service. To be able to influence the government, it is necessary to work patiently over a period of time with department staff and build a relationship based on mutual trust and credibility.

Advocacy efforts by the OPP started in the 1980s, when senior staff regularly visited the offices of concerned municipal departments to share their observations and recommendations about their work in Orangi. What they mostly received in return was a patient hearing and an unspecified pledge to look into matter. The elected local government councillors, on the other hand, were receptive to and supportive of the programme from the very beginning – mainly because they saw in OPPs approach a means for improving access to basic services at a lower cost, and in the process earning political mileage for themselves. Since local government councillors have access to limited resources, their overall role has been limited, with notable exceptions.

In subsequent engagements with other government departments, senior government officials and supporters like the DG, SKAA advocated for and on behalf of OPP-RTI at appropriate forums[40]. Equally important were the relationships built over time with various junior and middle ranking staff of KMC and KWSB. Cultivating only senior staff was thought to be an ineffective strategy because most of them were transferred or replaced after short stints. The OPP-RTI staff continuously interacted with government department staff in the field for gathering and sharing information, both formally and informally. Over time, many of these government department staff members became supporters and friends to OPP-RTI. Some of them went on to occupy senior positions, and proved to be important backers of the OPP-RTI, both overtly and discretely, on key policy matters.

Photo – 32
Discussion with government officials

A process of continuous engagement with senior officials, field staff, and government service trainees contributed to building of a relationship with government officials at different tiers and in different departments. An important route to influencing senior government servants was the founder, Dr. Akthar Hameed Khan's network in government circles. A former officer of the Indian Civil Service, Dr. Khan was widely known and respected in and outside bureaucracy circles. The first ever office of the OPP-RTI was set up within the premises of the National Institute for Public Administration (NIPA), where Dr. Khan delivered several lectures. This provided him an opportunity to share OPP's learning and experiences with current and future policy makers and implementers.

40 OPP-RTI was included in the Governor's Task Force on Sewerage, Drainage, and Treatment Plants as a result of the efforts by these individuals. It is also worth noting that of the six sub committees of the Task Force created to deal with a wide range of municipal matters such as traffic, billboards, solid waste, etc, the one which accomplished the most was the Task Force on Sewerage, Drainage, and Treatment Plants, and this was due largely because of the energy and commitment of the OPP senior staff who were members of it.

Later, the current Director of OPP was also invited to speak at NIPA which she continues to do. She has also served as board member of NIPA for one term. The OPP-RTI Principal Adviser, also lectures at NIPA and has been part of many government policy formulation initiatives related to housing, poverty reduction, and development of five-year plans – where he was able to advocate inclusion of learning and alternative approaches based on OPPs work. In recent times, elected Nazims and Deputy Nazims from across the country who attend courses at NIPA have shown great interest in OPP-RTI's low-cost sanitation programme and have asked OPP-RTI for assistance with mapping and planning[41]. The Director and Principal Advisor to OPP also teach courses at technical Universities, which has helped incorporate lessons from the field into university curriculum.

Photo – 33
Orientation of government officials through NIPA

Openness and transparency are critical to building and sustaining relations. Government officials interviewed for this report believe that the OPP-RTI's main strength lies in its openness (easy accessibility to its staff and information, i.e., maps and documentation), and the rapport it has with communities with whom they work. On their part, the OPP-RTI has always adopted a "softly-softly" approach to advocacy based on the understanding that government officials also function under certain compulsions and constraints, which are not easy to ignore or overcome. In a few instances, OPP-RTI has defended government department field staff in public forums and official meetings, when it was felt that the criticism was unwarranted or misdirected.

Over the years, OPP-RTI has developed a focal group within government departments composed of people who are familiar with and supportive of its work in. It is a measure of its credibility amongst government staff that in a number of instances, officials have provided the OPP-RTI with valuable information which was later used by them for advocacy purposes. In the early days, key officials helped out by advising OPP-RTI staff on how to negotiate and lobby with government departments. In short, the relationship has been sustained and carried forward as a result of open communication, free flow of information, building credibility through work on the ground, repeated formal and informal interactions with staff of various tiers in different departments over time.

OPP-RTI has never directly confronted the issue of corruption rather it has sought to inform communities about the actual cost of work planned by government – leaving the question of why government estimates are higher to their imagination! Communities have used ~~OPP~~ OPP-RTI estimates as a way of lobbying with contractors and government officials for more realistic design and estimates. Another method of challenging institutionalized corruption happens through the efforts of like minded government officials using alternative plans for their lobbying within the government apparatus, as was done in the case of the KWWMP. The ~~OPP~~ OPP-RTI believes that it is far more effective to focus on identifying, and building effective relations with those officials and staff who are interested and motivated to push for development work (See Annex VI for names and designations of key government staff who supported initiatives aimed at improvements in sewerage and drainage infrastructure and overall governance).

41 Upon the request of local government, OPP-RTI and TTRC are helping the towns of Hala and Sinjoro in Sindh with mapping and planning for development of a low cost sanitation system.

5.4 Research and Extension

In addition to focused and consistent work, the OPP-RTI understands that access to robust research which produces accurate, useable evidence, is as important to affirm credibility with government as it is for aiding sound decision-making, "Meticulous homework of documenting findings, observations and processes, leading to preparation of alternatives is critical to being taken seriously by decision-makers"[42]. Presentation of alternative polices and plans, was cited by government officials as one outstanding characteristic of OPP-RTI as a civil society organisation[43]. Officials in KWSB acknowledged and were highly appreciate of advice and resources (maps) made available by the OPP-RTI in the development of its Sanitation or S-III plan[44]. It is important that information generated should be explained and communicated in a way which makes clear the problems, solutions, and expected benefits. In 2006 through mutual mobilisation, the CDGK and OPP-RTI worked together to identify the problem behind rain related flooding in the affluent south of the city. After an extensive survey, the OPP-RTI produced and made available easily readable maps showing exactly what the problem was - main drains had been encroached upon by the well-off, who had illegally expanded the boundaries of their houses, as well as by commercial buildings like office blocks and bank offices. In its recent and on-going work on water distribution problems in the city, the OPP-RTI is trying to reduce the complexity of the situation into two digestible priority issues to be documented and studied:

Map – 13
Flooding of Clifton and old city

1) How to secure bulk supply of water (including issues of metering, reducing use of water tankers, leaks, losses, theft); and

2) ensuring independent electricity supply (many of the water distribution problems are linked to frequent and irregular power outages).

5.5 Civil Society Partnerships and Networks

Over the years, the OPP-RTI has also established an impressive network of community activists from all over Karachi and beyond in other parts of the country where it has partners organizations implementing the low-cost sanitation programme and the credit programme. These partner organizations are part of a network, the Community Development Network (CDN), which meets once every quarter. The meeting venue rotates between the member organizations, which eventually allows for all member organizations to observe and question the work of their fellow member organizations. Overall, the meetings are a mix of discussion and debate on local issues and experiences and their links to wider national and international processes.

Photo – 34
CDN meeting being organised by partner SCWS, Sanghar

42 Perween Rahman, Director, OPP-RTI.
43 Interviews with CDGK – Works and Services Department Staff.
44 KWSB's nationally funded plan for improving sanitation and drainage in Karachi, known as S-III, is based largely on OPP-RTI's Proposal for a Sewage Disposal System for Karachi. City Press. 1998

Local activist from low-income settlements in Karachi belong to a network of community groups and activist organizations with whom OPP-RTI staff interact regularly and who monitor city-wide development and associated issues. Regular meetings and informal interaction with activist allows for learning about problems being faced by low-income communities, and thinking about these in terms of city-wide development issues and plans. These meetings also provide an opportunity for interaction between the activists themselves. Beyond government and communities, networks with other civil society organizations, researchers, local communities, and general stakeholders are also necessary. These networks are more effective than individuals at producing, sharing, and strengthening evidence. For instance, civil society organisations like CREED, SHEHRI, and URC played important and differentiated roles in the KWWMP issue as already mentioned in the case study above. It is important to note that different networks require different structures for optimizing their effectiveness, while specific networks need to decide as to which functions they might be able to perform successfully.

5.6 Ownership of Process and Outcome

Who owns the process and its outcomes is critical. Regardless of who drives it, the process of advocacy and its outcomes must be owned by the main stakeholders, not just one organisation or individual, even if some may have played a key role in it, "…each stage is arrived at on the backs of the work and experience of many others – it would, therefore, be wrong for anyone to claim it for themselves only because they were present at the time of fruition of efforts". For instance, the alternative to the Greater Karachi Sewerage Plan was prepared almost exclusively by the OPP-RTI, but it sought to claim no credit nor have its name appear in print, when the plan was picked up by KWSB, which made it its own under the title S-III, "The important thing to note is whether concerned people are saying what you would like them to – if they are, that's a sign of the acceptance of your view"[45] It is well understood by the OPP-RTI decision-makers that if it is seen to be claiming credit, however rightfully, it would undermine the credibility and intent of the Organisation. Discretion in such matters by the advocacy organisation often compels the other party to acknowledge contribution of others without being prompted – as happened with S - III.

5.7 "Media for information, not publicity"

OPP-RTI uses a variety of communication channels in order to promote its messages. Apart from using different networks as platforms for its messages and upholding direct contacts with government officers, OPP-RTI also makes effective use of the local and national media. OPP-RTI's chairman and befriended journalists regularly publish opinion pieces revealing shortcomings of infrastructure projects in major national newspapers. OPP-RTI also receives delegations of government representatives, NGOs, academia and donors from all over and beyond Pakistan. Through its ties with NGOs and academia abroad, OPP-RTI's approach has become well-known internationally.

The explosive growth of private TV channels over the last five years has been accompanied by a steady rise in programming on social and development issues in urban and rural areas. The OPP-RTI senior staff is often invited to participate in talk shows and discussion panels by the TV channels. Aware that OPP-RTI has the knowledge and experience to challenge government claims about issues of sanitation and drainage, they often ask OPP-RTI staff to

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'take on' government officials and spokespersons – the need to have sparks flying during a programme is an important element in gaining viewership in an otherwise saturated and competitive market. As a rule, OPP-RTI eschews confrontation in the public sphere. Confrontation for the sake of it can destroy carefully nurtured relationship for no ostensible benefit. That is not to say that government officials or positions are not challenged, they are but not under public glare. Instead, appropriate forums are used to make measured critique of government plans and positions (not persons), if it is so required. For wider dissemination of issues and solutions, the OPP-RTI encourages the electronic and print media to visit office and sites and observe for themselves, understand and report accordingly. The media are also linked up with other key individuals for purposes of gathering information and reporting. Key here is to avoid publicity of self and instead focus attention on project issues.

Photo – 35
Briefing/site visit of media person

OPP-RTI is very conscious of the importance of presenting evidence effectively in order to make it understandable and accessible for different audiences. In the case of the campaign against the Karachi Circular Railway, for example, the OPP-RTI advised and guided the Urban Resource Centre (URC) in its work to document encroachments along the Karachi Circular Railway track. A pamphlet was designed, which combined pictures and information with a map and figures depicting the various distances to the railway tracks. A short video was also produced, with additional background information. In order to communicate with community activists, OPP-RTI produces a large amount of information in the form of leaflets, posters, newsletters, how-to-do guides, as well as organizing regular meetings. Through various publications like maps, videos, pamphlets, newspaper articles, and books reflecting OPP's approach, the wider public is engaged.

8. LIST OF-KEY DOCUMENTS ON OPP

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2) Alimuddin, S. Improving Cooperation and Coordination in Community and Government Sewerage Network Construction Projects for the Katchi Abadis in Sindh. Thesis Submitted in partial fulfilment of the requirements for the degree of Masters of Science, Asian Institute of Technology, Bangkok, Thailand. December, 1992.

3) Reed, R., and Vines, M. Reduced Cost Sewerage in Orangi, Karachi, Pakistan. Water Engineering and Development Centre (WEDC), Loughborough University of Technology, for Overseas Development Administration (UK).

4) Welle. K - WaterAid. Water and Sanitation Mapping in Pakistan. Pakistan. June, 2006.
Documents water and sanitation mapping examples from Pakistan, based on field visits to OPP-RTI , Karachi and ASB, Faisalabad. The purpose of the study is to create a better understanding of the processes, methodologies, outputs and impact of mapping carried out by OPP-RTI and partner organizations like ASB.

5) Zaidi, A. Transforming Urban Settlements – The Orangi Pilot Project's Low-Cost Sanitation Model. City Press. 2000.
Report conducted on behalf of WaterAid argues that the main reasons for the considerable success of the OPP and its model lie in the nature, philosophy, and methodology of the organization. Takes the position that simplicity of the OPP model ought to have made it easy for replication, but given the nature, values, and organizational culture of the NGO sector in Pakistan, this has proved very difficult.

6) Zaidi, A. From the Lane to the City: The Impact of the Orangi Pilot Project's Low Cost Sanitation Model. WaterAid Report. 2001.
One of a series of reports published by WaterAid which analyse the OPP programme – its principles and practice, problems with replication of the low-cost sanitation model; and wider impact of the programme.

7) UNDP-HDR, 2006

8) Jan Verheijen A.M.J. A practical field work at the Orangi Pilot Project Karachi, Pakistan. 1990 Totterdom.

9) Ferrandes K. How communities o0rganise themselves – Stories from the field. 1997.

10) Zaidi A. From the lane to the city: the impact of the Orangi Pilot Project's low cost sanitation model. June 2001.

OPP Reports and Publications

1) Alimuddin, S., Hasan, A., and Sadiq, A. The Work of the Anjuman Samaji Behbood and the Larger Faisalabad Context. Paper written for IIED. 1999.
   Looks at the growth patterns and service provision in the third largest city of Pakistan, Faisalabad, from the point of view of communities and other interest groups, and relates findings to the replication of the OPP low cost sanitation model.

2) Aleemuddin, S. Case Study of Community Initiatives in Manzoor Colony, Karachi. Prepared for SDC Funded IIED Action Research Programme on Supporting Community Level Initiatives to Address Environmental Problems in Third World Cities. February, 1996.

3) Alimuddin S. Manual of Sanitation Programme. Nov,89.

4) Hasan, A. The Orangi Pilot Project-Research and Training Institute's Mapping Process and its Repercussions. Paper written for the IIED. 2005
   This monograph deals with the process of development of expertise in the OPP for mapping informal settlements and urban infrastructure, and its repercussions on planning and operation and maintenance of infrastructure, community-NGO-local government partnerships, state policies regarding IFI funding, and on informal settlement upgrading programmes.

5) Hasan, A. Working with Communities. City Press. 2001.
   This book deals with the work of the OPP with CBOs and NGOs in replicating its low-cost sanitation programme.

6) Hasan, A. Akthar Hameed Khan and the OPP. City Press. 1999.
   This book looks at the close relationship between the organizational culture of the Orangi Pilot Project and Dr. Akthar Hameed Khan's personality, upbringing, and lifelong search for truth; and attempts to explain the thinking behind the methodology of the project, the influence the project has had on CBOs and NGOs in Pakistan and abroad, and on multilateral and bilateral agencies.

7) Hasan, A. Community Initiatives – Four Case Studies from Karachi. City Press. 1998.
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8) Hasan, A. Lessons Learnt: Increasing Coverage and Quality of Sanitation Provision. Lecture delivered at, "National Seminar on Urban Environmental Sanitation", National Centre for Rural Development, Islamabad, March, 1998.
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   Uses four case studies to describe OPP's collaboration with international agencies and government departments for replication of its low-cost sanitation programme in *Katchi Abadis* of three Pakistani cities.

10) Hasan, A. Scaling up of the Orangi Pilot Project Programmes: Success, Failures, and Potential. OPP Publication.
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14) Hussain A. and Alimuddin S. Technical training manual on sanitation. August 1996.

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29) OPP-RTI, Low Cost Sanitation Programme of the Orangi Pilot Project – Research and Training Institute. Statistical Data Survey. November, 1989.
Monograph containing statistical data on the low cost sanitation programme of OPP, the extent of sewerage work undertaken in Orangi, people's investment and the OPP's expenditure on research and extension.

30) OPP. Case Studies: Gradual Development of Sectoral Sewerage Plan. OPP Publication. 1986.
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38) Rahman P. and Rashid A. Maintenance and rectification: Evaluation of lane sanitation. June 1992.

39) Rahman, P. Katchi Abadis of Karachi : A survey of 334 Katchi Abadis - . Exisiting situation, problems and solutions related to sewage disposal, water supply, health and education. 2004.

40) Rahman, P. Case Study of Community Initiatives in Welfare Colony, Karachi. Prepared for SDC Funded IIED Action Research Programme on Supporting Community Level Initiatives to Address Environmental Problems in Third World Cities. February, 1996.

41) Rahman, P., and Rashid, A. Working with Community – Some Principles & Methods. OPP-RTI Publication. 1992. Updated and reprinted 2006.
A brief note outlining the process of mobilizing local communities for self-action.

42) Rahman, P., Rashid, A. Low Cost Sanitation Programme – Maintenance and Rectification – Evaluation of OPP Supervised Lanes covering the period: 1981-83, 1984-86, 1987-90. 1992.
Survey of technical quality of sewerage lines, and nature and extent of maintenance and rectification undertaken by the people.

43) Rahman P. Sewerage, drainage and treatment plants – responsibilities, finances, issues and policy changes needed. May 1999.
This study illustrates ground realities vis-à-vis sewage disposal system in Karachi, and suggests ways to improve the existing scenario.

44) Rahman P. Orangi Pilot Project – Institutions and programs: A profile – September 2006. Prepared for the Nihon Fukushi University – Nagoya Japan to be used for their Academic course.
45) Rahman P and Rashid A. Some Lessons Learnt while Working with community, Government, NGOs/CBOs and some Axioms. – Sept'2006

Minutes of Meetings:

46) KWSB and OPP-RTI Meeting minutes leading to acceptance of OPP-RTI's suggestions on sewerage, drainage, and treatment plants leading to adoption of programme by KWSB under its S-III project. October, 2005.

47) KWSB and OPP-RTI joint meeting. 7th October, 2005.

Note: Beside these publications there are many more, also there are hundreds of case studies, profiles, leaflets, pamphlets, poster and instruction sheets which have been published and continue to be widely distributed facilitating the extension of work.

Annexure – I

OPP[46] Methodology

The approach at the OPP is to encourage and strengthen community initiatives (with social, technical guidance) and to evolve partnerships with the government for development based on local resource. The methodology is action research and extension, which entails: analyzing outstanding problems of the area, peoples initiatives, bottlenecks in the initiatives, and then through a process of action research and extension, offering advice and guiding community organizations towards initiating self help and partnering with service providers. Given below is step-wise detail of the methodology adopted by the OPP in development of the low-cost sanitation model.

Development of the Low Cost Sanitation Program

Sanitation was the major problem identified by the Orangi residents[47]. OPP held meetings in the lanes of Orangi and informed the people that if they formed a lane organization, and elected, selected or nominated a lane manager, then the OPP would provide them technical assistance in building their underground sewerage system. Financial and health-related advantages of the system were also explained. Residents themselves recognized that the sewerage flowing in the lanes was chiefly responsible for damaging the foundations of their houses. Once a lane organization was formed, the OPP technical staff surveyed the lane, established benchmarks with the help of the lane manager. Later, in the OPP office, a map and estimate of the work was prepared and handed over to the lane manager. The lane manager collected money from the people and organized work, with OPP providing supervision. At no time did the OPP involve itself in money matters of the lane organizations. Since a lane consisted of only 20-40 houses, the organization was cohesive and no major problems of mistrust or disagreement. One of the reasons why the OPP's sanitation programme was accepted and was successful was the small size of the community organization.

Initially, only those lanes which were near a natural drainage channel applied for assistance. Later, when lanes far away from the disposals applied, the OPP identified the location of collector drains. It was hoped that the local government would fund these drains, but it refused to do so. Subsequently, confederations of lanes which made use of collector drains were formed to finance and build the collectors with OPP's technical advice. In surveying Orangi for the purposes of identifying secondary sewers, the OPP made use of students and staff of technical and professional academic institutions. As a result of this, students and staff developed close links with the OPP. These links have contributed in large measure towards to changes in curriculum of these institutions, and it is hoped that as these individuals join the work force, in particular government departments, they will contribute to reforming attitudes and functions.

The reason for the success of the OPP sanitation model is that the cost per household of Rs. 900 (US$ 15 @ 2007 rates) was affordable for the beneficiaries. The cost was made affordable

46 OPP Institutions Website: www.oppinstitutions.org and Hasan, A. Working with Communities. City Press, Karachi. 2001.

47 Who, it must be mentioned, were already making efforts to address the problem. What OPP was able to do was to provide the communities with the necessary advice and technical expertise to improve the process and outcome of their efforts.

by carrying out technical research, modifying engineering standards, and making procedures and methods of work compatible with the concept of community management of construction and self-finance. In addition, OPP identified four barriers that communities have to adoption of its low-cost sanitation model. These are:

The Psychological Barrier: Communities feel that infrastructure development is the work of government agencies. This barrier is overcome once communities accept that the lane in front of their house also belongs to them

The Social Barrier: Communities often feel they don't possess the wherewithal to undertake development work. This is overcome once a lane organization is formed and is able to clearly identify its immediate objective

The Economic Barrier: Communities are usually of the view that developing infrastructure is a costly proposition and beyond their financial means. This is overcome once the cost of development is made affordable.

The Technical Barrier: Communities also feel they do not possess the technical know-how needed to undertake development work. This is overcome by making available design, estimates, tools, and training for implementation and subsequent oversight.

All sewage of the OPP built systems disposes into the natural drainage channels of the city. This has been a major criticism of OPP's work. However, the sewage of almost all planned areas of the city also disposes – in a planned fashion- into the natural drainage channels. It became obvious to the OPP in the early stages that these channels would have to be turned into box trunks with treatment plants at the point where they meet the sea, if Karachi's sewerage problems were to be solved. Unlike government plans for sewage disposal, the OPP did not seek a separate solution for sewage disposal for Orangi Township, but integrated it with solutions for the city as a whole.

Based on its work, the OPP developed what it referrers to as the "internal-external" concept for sanitation. In this concept, there are four levels of sanitation:

1 – Sanitary latrine in the house
2 – Underground sewer in the lane
3 – Neighborhood collector sewer
4 – Trunk sewers and treatment plants

The first three constitute "internal" development and the OPP has demonstrated that low-income can finance, manage, build, and maintain these components when technical support and managerial guidance based on participatory research is provided to them. The fourth item constitutes "external" development which can only be carried out by government agencies or NGOs if they are rich or have access to donor or government funding. The OPP sanitation model is being replicated in 336 Karachi settlements, and 13 cities and 47 villages across the country. The Principles of the programme are being applied to projects in Nepal, Central Asia, South Africa, and Sri Lanka.

Annexure – II

Process of Community Mobilisation at OPP

Through social organisers, an initial dialogue with the community/lane is made. The OPP identifies and then contacts an influential/active individual with good reputation, who in turn contacts the lane residents.

At this stage, the OPP staff arranges a slide how/public meeting explaining the salient features of the low-cost sanitation programme. If the people show willingness and submit a written request to the OPP, the OPP surveys the lane and prepares a map and cost estimates of the sewer line. These documents are handed over to the representative of the lane who is confirmed by the lane residents as their representative/lane manager. The lane manager collects money from each household as per prescribed contribution and requests the OPP to provide technical guidance. The OPP establishes physical levels in the lane and demarcates the position of the sewer line.

Materials are then purchased by the lane manager and labour is hired. The work begins. The OPP provides tools and shuttering and supervises the entire execution. The lane manager expects technical cooperation and supervision from the OPP while the OPP expects the lane manager would generally manage the overall process as well as facilitate the maintenance of accounts. The lane manager is not accountable to OPP and vice versa. With time, much of the inputs of the OPP in projects are taken over by local masons and contractors who have been trained over the years, and by the community itself, who have learnt by doing and observing.

The Orangi experience is more than just a case study on the issues and principles around the social preparation of a community for development. It also informs on key technical details on the particular practice of NGOs and external agents in grassroots community development. The OPP considers itself to be primarily a research organisation whose objective is to analyse problems and then through prolonged action research and extension education, discover viable solutions. What differentiates it from other similarly-situated NGOs is the strict observance of the following operational principles:

- It does not itself lay the sewers or physically undertake the projects. Whilst it provides technical advice and support social organisation, OPP makes sure that those living in the lanes be responsible for managing finances and constructing lane sanitation. All decisions and responsibilities on individual lane sewers rest with lane people, while the household connection from the latrine to the lane sewer is the responsibility of the household owner. The community is the client, responsible for supervising any contractor. The OPP role is limited to providing motivation, technical inputs (surveys, plans and cost estimates), and the loan of construction equipment. The OPP consciously avoid creating any notion of dependence on them by the community.

- The OPP supports the building of smaller and functional, rather than large-scale, social organisations. It makes the lane, with around 20-40 households, the informal unit of organisation, rather than following the conventional practice of most NGOs of setting up large, formal organisations on the basis of neighbourhood or area committees. The lane made more sense as well given the sanitation technology used. For secondary sewers linking lanes to the main trunk sewers, a ‘confederations of lanes’ were created to address the needs of a collection of lanes.

- Component-sharing but not cost-sharing. As noted earlier, the OPP philosophy clearly differentiates between internal and external components of development. The internal component is defined as the tertiary level sewer lines, at the lane level, while the external component is the trunk sewers, removing the effluent from the settlement. Funding for the internal component, the OPP maintains, is solely the responsibility of the community. It should be emphasised that the OPP rejects matching grants or subsidies as well – wherein, for example, a donor provides 50% of the cost and the community shoulders the rest.

ANNEXURE-III
UNCHS CTA's Appraisal of the OPP

To: Mr.Agha Hasan Abedi
President, BCCI
From: Nicholas Houghton

Subject: Status of BCCI-Orangi Pilot Project Second Phase,
Pak/82/FO 1

Please find attached for your review the following documents:

(a) An appraisal of the Orangi Pilot Project and the approved project document BCC-OPP Second Phase, P AK/82/FO I.

This document assesses the methodologies at variance over the implementation of the second phase of OPP four months after the arrival of the UNCHS Chief Technical Advisor.

(b) Scheduled implementation and actual implementation -

September - December 1982 dollar component. A comparative chart showing actual expenditures on international inputs against those estimated in the approved project document, accompanied by a chart showing what should have been achieved during the first four months and what was actually carried out.

(c) Scheduled implementation and actual implementation- September- December 1982 rupees component.

A comparative chart of actual rupee expenditures and those estimated in the approved project document. An appraisal of the Orangi Pilot Project and the approved project document BCC-OPP Second Phase, P AK/82/FOI.

I. The Organi Pilot Project is a highly personal research and extension initiative into low-cost urban technology and social services for lowincome communities. It is subject totally to the perceptions, intellectual speculations and will of its originator and director Dr. Akhter Hameed Khan, a very able man with a well established reputation as a dedicated social educator.

2. Whatever plan or overall scheme exists is in the project director's mind, and he does not share his mental perambulations and reflections until his ideas have coalesced. He arrives at decisions in an evolutionary and exploratory manner and steers the project accordingly. It is, therefore, very much a personal journey into the dynamics of low income settlements.

3. The project, consequently, does not s-t itself quantifiable targets within measurable target areas that respond to an overall plan. The methodology adopted is fundamentally exploratory and does not draw on other experiences in the urban field. The project is seen as a process of contact and response with the community. It doe snot aim to cover ground or achieve quantitative targets. it unfolds as "it were, by way of ad-hoc actions. Its purpose is to serve. its inspiration a belief in the sense and energy of the common people which can be kindled into a process of communal self-reliance and so break free from the incompetence and corruption of local government and the narrow, specialized and insensitive assertions of the professionals. Thus the project seeks to identify how people perceive their needs, what their capabilities and priorities are, and then assist and advise in attaining solutions. If a project initiative does not take root it is abandoned, little time is taken up in recriminations and evaluation. By the same token the project only works with those groups that respond to the project. Thus there can be no fixed target areas. In the end, through this process, the project hopes to discover a harmonious whole of need, viability and self propagated reliability. The right information and technical improvements will be those that are incorporated into the shared culture of the community. This assimilation, its assumed, will lead to further development and self-reliance.

4. While one might dispute the premises on which it is founded, the methodology just described is perfectly valid for a research project. Moreover, much of the extension work is extremely interesting and is

giving positive returns and could be adopted to great advantage by the official urban authorities. In short, Dr. A.H. Khan's activities are most stimulating and should continue to receive all the support they require according to the terms of reference he lays down.

5. It must be stated, however, that as matters stand, four months after the arrival of the UNCHS Chief Technical Advisor, that the expectations for an integrated urban rehabilitation demonstration project in Orangi, as described in the project document which has engaged the commitment of the Government of Pakistan, the BCCI and UNCHS, are far from being realized.

6. The expectations of UNCHS, described in the project document as the Executing Agency, do not so far carry any weight. The arrival of the CT A, who under other circumstances would be a management and technical executive officer concerned with assisting and advising the Project Director in the implementation of the approved project document, has no authority or status in the project. AT best he is an exploratory liaison man with the urban authorities and occasional technical participant in the project, but more often he is in the position of interested observer. In any event he is not privy to the decision making process of the project. This situation has rendered every agreement between the CT A and the Project Director as provisional and every action open to revision. it must be emphasized that there is no hostility or personal antipathy involved. Relations are most cordial and civilized all round. But, under the circumstances, it is practically impossible to draw up a schedule of requirements and inputs or to programme the recruitment of high level consultants and experts. To all intents and purposes the approved project document is a dead letter.

7. The implementation of the approved project document hinges on the following:
*Deployment of a core of full-time national professional staff with their support services under the direction of the Project Director, to be responsible for all the technical inputs and recording and training activities envisaged by the project. They will, in addition, organize, direct and assist the national and international expert who will be called upon for specific specialized tasks.
* Structuring of the project to perform four basic functions:

(i) Direct social and technical basis.
(ii) Special studies and field experiments.
(iii) Training.
(iv) Analysis and documentation.

*Formulation of a draft outline Integrated Urban Development Programme.
*Identification of beneficiaries and target areas.

The scope and time and constraints are clearly stated, and. while subject to modification constitute the basic framework for project activity as approved by all parties. With the notable exception of the continuation of the social and technical assistance activities evolved since its inceptions, OPP has not incorporated or otherwise adopted any of the above.

8. Clearly there are two apparently irreconcilable approaches to project execution. One, open ended, exploratory and evolutionary with emphasis on sociological particularities, unconstrained by time and cost. The other, target oriented, systematic, with a professional and technical focus, constrained by time and costs.

9 The project still has the potential that motivated the formulation of the project document. it may be that Dr. A.H. Khan will eventually conclude that OPP is ready to adopt a more structured and planned approach. it may be that such an approach is intrinsically incompatible with his methodology. But for the present, the project is still feeling its way and keeping its options open, with no indication as to what it expects from a UNCHS CT A or from UNCHS participation in general. 10 There should be no doubt at all that UNCHS is uniquely equipped to provide specialized support for undertaking large-scale projects in low-income urban areas, and that it is extremely anxious to establish a sound and fruitful working relationship with the BCCI Foundation. Now that the BCCI Foundation Pakistan has finally been constituted perhaps all parties will be better placed to justify the most appropriate UNCHS support for

OPP and the most appropriate joint BCCI-UNCHS contribution to improving the condition of low-income communities in Pakistan.

Nicholas Houghton CT A,P AK/82/FOI.

Akhtar Hameed Khan's Response to the CTA's Appraisal of the OPP

Comments by Director OPP
January 2, 1983

1. Mr. N. Houghton has come to the conclusion that since his arrival in September 1982 he has been of no use to the OPP, and under the prevailing circumstances, he can be of no use. His reason for this sad conclusion is that the Director of OPP follows one approach ("open ended, exploratory and evolutionary with emphasis on sociological particularities," his words) while Mr. Houghton desires an opposite approach ("target-oriented, systematic, with a professional and technical focus"). Mr. Houghton thinks that these approaches are irreconcilable. Since the Director refuses to renounce his own approach and adopt Mr. Houghton's approach, Mr. Houghton has decided that he is redundant. if Mr. Houghton's assertion that the two so-called opposite approaches cannot be reconciled is correct and if he insists that 1 must follow his approach like and obedient pupil then indeed 1 fully agree with Mr. Houghton's sad conclusion.

2. In para 10 Mr. Houghton suggests that the BCer should make a new arrangement with UNCHS. While he charitably dose not recommend the dismissal of the director and the disbandment of OPP, but magnanimously allows them to continue along their haphazard and uncertain course, he is ready himself to organize a large scale project in a low income urban area on behalf of the UNCHS. I have no comments on this suggestion as it is a matter for decision by the President of BCCI.

3. But I have a few comments on the strange statements of Mr. Houghton regarding the project documents. I was closely associated with the writing of this document and my perception of the agreement with UNCHS is quite different.

4. The Orangi Pilot Project was sponsored by BCCI in April 1980. When the UNCHS mission arrived in December 1981 the project was 21 months old. Nine progress reports had been "'written, which repeatedly clarified the experimental (open ended, exploratory, evolutionary) approach. These reports pointed out again and again:

(a) That there was no blueprint, no masterplan to be imposed.
(b) That OPP was a non-government organization, not equipped or designed to snatch the planning regulating or servicing functions of official agencies like the KDA, KMC or the departments of education and health. A non-government organization could not be a parallel agency, as the Governor of Sindh rightly warned in the presentation meeting in February 1981:
(c) That OPP's main concern was to promote self-supporting people's organization; and
(d) That OPP's research was designed to discover technological, sociological and economic models which were based on popular participation, management and funding etc.

5. When the UNCHS, at its own initiative, agreed to collaborate with the OPP, we naturally believed that their mission having read the report and seen the filed work, approved the above approach. r cannot agree with Mr. Houghton's interpretation that when the "executive agency", that we renounced our old approach, and adopted a "target oriented" approach to be prescribed and "managed" by a Chief Technical Advisor, and that Phase II of the Orangi Pilot Project was no longer to be a non-government experimental project but, as Mr. Houghton puts it, it was to be "an integrated urban rehabilitation demonstration project in Orangi". In other words, according to him we really signed the death warrant of the old OPP and were transformed into a mini-KMC. How could we do that?

6. The "target-oriented, integrated, urban rehabilitation demonstration" approach may be suitable for an official agency like the KMC or KDA, although previous efforts in katchi abadis along these lines have shown poor results. Such plans involve huge investments (not 2 million dollars, but hundred of million) besides the exercise of regulatory powers which are beyond the reach of a non-government organization.

7. Mr. Houghton's claim that the UNCHS is the -'executive agency" of the Orangi Pilot Project and the CT A should be a "management and technical executive officer for the implementation of the approved project document" is exceedingly strange. Instead of being an advisor he claims to be a preceptor, a

super director. My perception of the agreement is that the OPP is a uniquely Pakistani project, guided by an old experienced Pakistani Director, financed by a Pakistani foundation. The UNCHS has been invited to provide such technical expertise as may be requested by and may be acceptable to the national project director. There is no question whatsoever of making the UNCHS the executive agency, or handing over the management to the Chief Technical Advisor.

8. Mr. Houghton has given a long list of items held in abeyance and works not done during the last four months. He complains that a project office was not set up, national experts were not recruited, work- plan was not prepared, target areas and beneficiaries were not identified etc. One would think that the chief occupation of the national project director was to put a spoke in the Chief Technical Advisor's wheel. As a matter of fact a three-storey office already e-exists, a little crowded but quite functional, conveniently accessible to Orangi residents and frequently visited by them for consultation, conferences and training. One room was even reserved for the CT A which he uses rather in frequently. Most of the required staff has been recruited and is getting intensive job training. National experts of high calibre have been engaged as consultants. There is a very definite plan of work which, of course, is continuously reviewed and revised. As pointed out in report nos. 10, 11 and 12, perceptible and measurable progress is being made both in social and physical engineering. F-r instance, within a year a clear pattern has evolved of low-cost lane sanitation, self-financed and self-managed by the lane residents with technical guidance from Or?~ This pattern has been accepted by more than 250 lanes and more requests are coming in every day Social cooperation is being promoted, awareness and skill is being increased, and contacts are being established in gradually. widening circles. An open minded and perceptive foreign should eagerly seize the opportunity of intimately associating him-self with these significant developments and thus acquire a first hand insight into the interlinked social and physical problems of Orangi. His usefulness would grow with his insight.

9. But the problem with Mr. Houghton is that he is enveloped in misconceptions rather common among quick-fire foreign experts. They think they possess ready-made solutions, that they have nothing to learn about local problems from local people, that the problems are quite simple, and all that is needed is a nice project office with a gang of highly paid native staff under their control. Soon after his arrival in Karachi Mr. Houghton nonchalantly told me that the Office in Orangi was no a "project office", that the OPP staff was no staff, (muscle men he called them), that our expert consultants were nonentities, our plan of work was no plan, our methodology was mere personal whimsicality. In short, unless we slavishly followed his instructions, we were lost.

10. If the experts sent by UNCHS are completely obsessed with hackneyed, narrow and generally unsuccessful conventional techniques, unintelligently obtuse to pragmatic and innovative research and extension, blindly insensitive to significant local developments, and at the same time compulsively desirous of executive control, I am afraid the people of Orangi will derive little benefit from them, and the BCCI will get a miserable return for one million dollars.

Akhter Hameed Khan Director OPP

Annexure IV

OPP Partner Organisations Outside of Karachi

Scale of Replications

The OPP low cost sanitation programme has been replicated in 257 locations outside of Orangi all over Pakistan. Local governments have invested Rs 145,658,000 (US$ 242,763) in developing external sanitation. Communities on the other hand have invested Rs 82,132,000 (US$ 1,368,866) in building internal sanitation. Of these 257 locations, 216 are out of Karachi and are located in one major city, three intermediate towns and eight small towns. A total of 43,618 households have benefited from this programme outside of Karachi.

A summary of what have been achieved in five medium and intermediate cities is given below.

Faisalabad:

Faisalabad is one of Pakistan's largest cities; by 1998, it had close to two million inhabitants. There has long been a wide gap between the growing population's need for land for housing with provision for piped water, sanitation and drainage and the capacity of government agencies responsible for such provision. Two-third of Faisalabad's population live in areas with little or no official provision for services, and most new housing and land development take place without official approval. Less than half the city's population have piped water and less than one-third are connected to the sewerage system.

The main government agency responsible for the provision of water and sewerage is Water and Sanitation Agency (WASA) which comes under Faisalabad Development Authority. WASA has a serious financial crisis and large deficits hence its investments are limited. Most new housing developments are undertaken informally (outside of any master plan) and each neighbourhood seeks to improve its water supply and sewerage system, which is often done independent of WASA.

Recently Faisalabad Municipal Corporation has been upgraded to the level of City District Government Faisalabad (CDGF). It has an educated council and a mayor heads its affairs. CDGF's revenue shortfall makes it increasingly dependent on provisional government funds, and/or ad-hoc development projects from Member of Provincial Assembly/Member of National Assembly (MPA/MNA) grants. These projects are politically motivated hence do not deal the real problems, especially of the low income people.

The Work of Anjuman Samaji Behbood (ASB), Faisalabad:

The ASB was formed in the late sixties in Dhuddiwala, which was then a suburb of Faisalabad and is now a part of the city. According to its president, Nazir Ahmed Wattoo, the ASB lobbied with various politicians and government officials for acquiring water and sanitation for his settlement but without success. In 1987, he came in contact with the OPP and in 1994 he began a credit programme with the line of credit from OPP's micro credit programme. In 1996, he began a water project and a sanitation programme in Dhuddiwala and the settlements around it. To carry out this work, ASB activists and technicians received training at the OPP in Orangi on-site in Faisalabad. Hasanpura, a neighbourhood without water, was chosen as pilot area. WaterAid provided core funding to the ASB for water and sanitation programme. Besides this WaterAid also provided funds of Rs 200,000 for laying a secondary water line to serve 1,000 houses, as the main water line was about 1,000 feet away from the settlement. In February 1996, laying of secondary water line was completed. ASB earlier organised a water committee in Hasanpura comprising of activists selected by the residents. The committee managed the finance and implementation of water mains and recovered installments from 365 houses. Since then 37 lanes have laid water lines in their lanes on self-help. In 12 more settlements, ASB supported laying of water lines in 43 lanes on a self-help basis.

Since February 1996 on self-help on the external-internal OPP model a total of 497 lane sewers, 4 large and 5 small secondary sewers of total length 161,128 feet have been laid. 8,350 houses have invested total Rs 26.73 million (US$ 0.44 million). The sanitation programme which began in Hasanpura and Dhuddiwala has been extended to 66 settlements in Faisalabad. For construction of large secondary sewers where needed, ASB was a revolving fund of Rs 50,000 provided by WaterAid. The cost of large secondary sewers is paid back by the residents as lane sewer connection charges.

Coordination with Government:

As needed ASB coordinates with local government and WASA for laying large secondary and main sewers. In four settlements this work is now complete and in one it is in progress. Coordination between ASB and CDGF has increased over time and they now support each other.

Replication in Jaranwala Town:

Since September 2002 on the request of the Nazim of nearby Jaranwala Town, ASB provided support for replication of the sanitation programme. UNDP/LIFE programme provided core fund support for this replication and facilitated partnership with the town office. Through this project, Jaranwala tehsil is the first to have a computerised map documentation of infrastructure. Meanwhile, mobilisation for lane sewers continues. Work has been completed on the external-internal self-financed OPP model on total 22 lanes and one secondary sewer. 321 houses have invested Rs 1,102,590 (US$ 18,376) on this work. Lately, ASB was successful in mobilising Punjab Municipal Development Fund for GIS mapping of medium size seven towns in the Punjab province. Requested by the Tehsil Management Authority (TMA) Bhalwal, ASB visited Bhalwal and undertook a preliminary survey of the town and its sewage disposal system. A partnership agreement is under process. Many government and donor officials, professionals, development activists, journalists, social organisations and community groups are visiting ASB. This gives them an opportunity to study the work on-site and develop an understanding of the dynamics of community work. ASB coordinator regularly presents the ASB work at various meetings, forums and workshops. Regular visits were made to partner LPP in Lodhran town to guide its work of expansion in 100 villages in the Punjab. ASB has developed a good record of its work in the form of videos and documentaries. Its staff and activists all belong to the low income settlements of Faisalabad or the cities where its programme is being replicated.

Uch Sharif:

A small city located near Punjnad in the southern Punjab, has a population of 35,000. Uch is a historical town and regarded as once of the oldest monuments of Islamic culture and learning in the country. During the thirteenth century here was the Firozi College accommodating 2,500 scholars at a time. Minhajuddin the famour Persian historian and the author of 'Tabqat-i-Nasiri' was at one time principal of this College. In the past, the city was an important riverine port on the Indus and was of significant political importance. The changing course of the river resulted in changes in the expanse of the city, and its political and economic importance declined. Today, Uch is made up of thee settlements – Uch Mughlan, Uch Bukhari and Uch Gilani. Administratively, Uch is a union council under Tehsil (Town Council) Ahmedpur East and District Bahawalpur. Municipal functions are administered through the union council. Due to scarcity of funds for development, Uch depends on MPA/MNA funds or on funds from the tehsil and district administration. Previously, Public Health Engineering Department (PHED) have invested in major sewerage schemes which have recently been rectified and extended through tehsil funds and on OPP advice. Two years later, PHED in another scheme laid main sewers 9" – 21" diameter, 9,516 feet providing disposal for 150 lanes, again on OPP advice.

The Work of Conservation & Rehabilitation Centre (CRC):

The CRC comprising of architects and engineers is involved in conservation of architectural heritage in Uch Sharif. Disposal of sewage is a severe problem in the settlements in the city. To initiate the programme, a group of Uch activists and CRC staff members visited OPP for training. In June 1999, UNDP/LIFE Programme provided a grant for core funding for the sanitation programme. Presently,

WaterAid support for core funding is available. CRC team trained six young members from the community in plan-table survey and computer mapping. These young persons now run the CRC water and sanitation programme. Through plan-table survey, the team prepared maps of the city with documentation of sewage infrastructure and level survey. The digitised map showed total 725 lanes. On CRC's request, OPP prepared a conceptual master plan for sewage disposal for Uch city. The master plan was presented to the district government by CRC in effort to mobilise government finances for external development (main sewers and sewage treatment plants). Government then approved three projects for main sewers estimated at Rs 1.18 million. One project is complete, two more are nearing completion.

CRC has now become advisor to the local government supervising and guiding their external development projects as well as guiding road construction and lane paving so that sewers are laid before road paving. Recently on request by the TMA, CRC provided the detail plan, design and estimates for total 11,000 running feet main sewers. It is observed that with this completed 80 per cent Uch will be provided with a sewage disposal system. Earlier CRC had supervised government laid main sewers, providing disposal for 150 lanes. Total work on internal sanitation funded and managed by the community has been completed. It consists of 194 lane sewers and eight secondary sewers. 1,646 houses have invested total Rs 3,943,498 (US$ 65,724) in this work. Recently, CRC held meetings with the Punjab Katchi Abadi and Urban Improvement Directorate (PKAUID) as well with the Nazim and town officers of the nearby town of Alipur. PKAUID project of Southern Punjab Basic Urban Services financed by the ADB is being initiated in Alipur. CRC has been made a member of the review committee to guide mapping, documentation and programme replication.

The CRC members working in Uch all belong to the Uch neighbourhoods. They have now successfully designed and promoted projects for the city with the local government. These projects include the creation of a park in the inner city; roofing the main street in the ancient bazaar; and the protection of the old monuments from inappropriate construction and conservation techniques.

Rawalpindi:

Rawalpindi (next to the capital city of Islamabad) has experienced a rapid increase in population due to rural-urban migration. Its current population figure is close to 1.5 million people with about four per cent annual growth rate. Unplanned growth has been rampant, particularly in areas where basic infrastructure is available. Inadequate urban services, especially sewerage, drainage and solid waste management have worsened quality of life and environmental conditions. About 60 per cent of the city's population is in the low income group and lives for the most part in informal settlements. The sewerage system laid out by WASA in early fifties and late seventies currently covers only 30 per cent area of the city. The system is now corroded and pipes and seals have deteriorated causing leakages and overflows.

Raw sewage discharges through piped or open channel systems into the nearest natural drains. No sewage treatment facility is available for Rawalpindi municipal or industrial waste water, which discharges into storm water drains. The urban drainage system, particularly to the east of the city, is in very poor condition, having been neglected for many years. In some areas, the system is under-sized, with open natural drains restricted by encroachments and road crossings and blocked with solid waste and other debris. Major flooding occurs along these drains in each monsoon season.

Rawalpindi Development Authority (RDA) is mandated to undertake major urban infrastructure related projects. Mega water and sanitation projects funded by IFI's are executed by establishing a Project Monitoring Unit (PMU) headed by the Project Director located at WASA. The PMU comprising professional staff and supported by a team of consultants' assist the TMA, RDA and WASA in providing policy guidance and implementing the project components. The PMU implements the project components. A project implementation review committee oversees it at the tehsil level, and a project steering committee at the provincial level. The PMU is responsible for overall coordination, planning, implementation and management of all project activities. Registered government contractors execute the work on-site. Upon completion of the project, the PMU is merged into WASA. WASA undertake the responsibility of its operation and maintenance.

Work of Akhtar Hameed Khan Memorial Trust (AHKMT):

Akhtar Hameed Khan Memorial Trust (AHKMT) is working in the katchi abadis of Rawalpindi since September 2001. Dhoke Hassu where AHKMT began its programme is a low income settlement situated along the Nala (natural drain) Lai. As a result of subdivision of agricultural land and of the availability of low lying areas along the Nala, Dhoke Hassu has developed. Water supply is through tube wells provided by the TMA. Sewage and rainwater is disposed through open drains. The Coordinator of AHKMT, being the Tehsil Councillor, has strengthened the lobbying capacity with the political representatives and official agencies.

AHKMT so far has assisted 82 lane sewers and three secondary sewers comprising 816 houses. People's investment has been Rs 2,732,163 (US$ 45,536) in three settlements for internal sanitation. Mobilisation of community and work on lane sewers is in progress. Effort is being made successfully by AHKMT to coordinate with the government the construction of external development projects. Meetings have been regularly held with WASA, town and UC nazims and councillors. Nazim of three UCs had agreed to pave lanes where self-help sewers have been built by the people. So far, government has paved 79 such lanes. An eight minute film on the work is being disseminated to a number of neighbourhoods.

ADB has provided a second loan for Rawalpindi Environmental Improvement Project. AHKMT has been made a member of the technical committee effort is being made so the existing sewerage system is mapped, upgraded (avoiding a repeat of the failed ADB financed sewerage projects in Karachi) and the component sharing model is adopted. In theory, WASA and the ADB consultants have accepted the AHKMT/OPP model.

The AHKMT's work is likely to expand in close collaboration with local government since its Coordinator is a councillor from an informal settlement. In addition, WASA is very respective to the OPP internal-external model and the nazims at both the town level and the UC level have shown considerable interest. This is because of effective lobbing by the coordinator through holding of forums in which all stakeholders are invited and in which the OPP model is presented.

Lahore: Muawin

Being the centre of cultural and literary activities it may rightly be called the cultural capital of Pakistan. Situated on the bank of river Ravi, since Independence in 1947, Lahore has expanded rapidly as the capital of Punjab province. It is the second largest city in the country and an important industrial centre. According to 1998 Census its population is 5 million.

The Local Government Plan 2000 and the Local Government Ordinance 2001 provide for the establishment of a city district government to respond to the specific needs of the mega city, such as Lahore. Here spatial planning municipal services are the exclusive function of the six town/TMA functions. They are managed centrally by the city district government, in addition to all the common district functions.

Water and sanitation function is carried out by WASA. WASA has been working in collaboration with Lahore Development Authority since 1976. WASA is serving the inhabitants through providing systems of drinking water and waste water disposal except the areas of Cantonment, Model Town, government officer's residence, railway colonies, PWD colonies and private housing schemes. WASA's main source of revenue is from service charges from its customers and share of property tax from provincial government. WASA claims that it serves 90 per cent population by providing water supply and 80 per cent through underground sewerage system. Currently WASA plans to invest Rs 970 million (US$ 16 million) for different low serviced areas as well as walled city of Lahore. Planning measures of city district government under the head of water, sanitation and solid waste is to the tune of Rs 350 million (US$ 5.83 million).

PKAUID with an overall aim of regularisation and development of katchi abadis in Punjab has been working since 1987. It has undertaken various development projects for the improvement of katchi abadis and low income areas. The directorate has adopted the policy of component sharing on the OPP model in principle for the development of katchi abadis in Punjab. Directorate has undertaken the development of katchi abadis with the assistance of Mauwin)an NGO supported by the OPP) for internal development.

In 2001-2003, the UNDP supported a programme called Program for the Improvement of Livelihoods in Urban Settlements (PLUS). This was the replication of the OPP model in four towns of the Punjab province with the collaboration of PKAUID. PLUS staff was trained at the OPP for replication of the project. In 2003, UNDP withdrew support from the project and so it was wound up. The trained staff formed an NGO called Mauwin which because of past association is closely linked to PKAUID. Meanwhile, PKAUID has also adopted the OPP model of development for informal settlements in the Punjab and Mauwin has become its partner. Due to the lobbying by PKAUID and Mauwin, the Southern Punjab Basic Urban Services and National Urban Poverty Alleviation Programmes, both funded by the ADB, have adopted the OPP model for water supply and sanitation. Mauwin is helping in the development of both these projects.

Meanwhile, Mauwin is also replicating the OPP model in the Punjab. Mapping of many areas has been completed and designs of three neighbourhoods have been developed. Estimates for 13 lane sewers have been provided to lane residents. Mauwin has been requested by TMA of Ferozwala, a small town in the Punjab, for technical support in solving sewage disposal problems, Mauwin has initiated making a map of the whole town.

In Khan Colony in Lahore, the made has been demonstrated. Communities have laid 17 lane sewers have been completed at a cost of Rs 501,500 (US$ 8,359). Mauwin is also providing training and advisory support to NGOs who wish to replicate the OPP model in their neighbourhoods and small towns.

A new direction is the replication of the Urban Resource Centre of Karachi in the Punjab. This is known as the Punjab Urban Resource Centre (PURC) and this strengthens advocacy and citywide networks. Mauwin and the PURC work closely together.

Shahpur Chakar:

Shahpur Chakar is located at a distance of 30 kilometres east of Nawabshah town in Sindh province. It is a 300 year old small town comprising of 20,000 inhabitants. Town consists of 12 neighbourhoods or mohallas. Administratively Shahpur Chakar is a UC of tehsil Shahdadpur under district Sanghar. PHED laid main sewer exists in the city which is connected to a disposal station. This existing system is silted up and does not function properly. Disposal of sewage from pumping station depends on the presence of electricity (which is erratic) and the presence of the pump operator (who is often absent) and as one of the two are always missing, a major problem is created for the city's sewage disposal. Over time number of neighbourhoods have disconnected their sewage from the PHED main and resort to disposing sewage in a nearby ditch or low lying vacant lands. As a result, the city is facing acute environmental problems. For the refurbishing of the existing system and for developing a new system UC is on the mercy of either tehsil or district administration or alternatively on grant-in-aid from MPA or MNA funds.

Work of Shahpur Chakar Welfare Society (SCWS):

SCWS started working in Kamil Shah Colony after receiving training from OPP. For the settlement Kamil Shah Colony with about 250 houses, plans and estimates were finalised for a secondary sewer, 19 lane sewers and a sewage treatment unit. Area activists received training at the OPP and at site by OPP staff. In December 2003, work on site began. OPP member spent 10 days on site providing supervision and training to the SCWS members. Work on two lane sewers and two secondary sewers of 589 feet serving 20 houses was completed. People's investment on sewers and 34 latrines have been Rs 89,174 (US$ 1,403). In New Colony, work on total five lane sewers of 661 running feet was completed. 35 houses have invested Rs 98,124 (US$ 1,366) on lane sewers and 48 latrines. On request plan/estimates have been provided to community activists for 32 more lane sewers.

SCWS together with partner NGO SRSP have held regular meetings with the Nazim and councillors. The Nazim directed people to lay lane sewers on self-help while agreeing to make effort for lane paving and laying secondary sewers for those settlements or lanes who developed their own sewage systems. Two such lanes have been paved recently. Lately, work on a government main sewer funded by local government (12" dia and 4,500 running feet) is in progress. This external development project was identified and conceptual design was given by SCWS. Cost of the project is Rs 800,000 (US$ 1,333). SCWS is monitoring the quality of work.

SCWS members have surveyed and prepared a map of the UC with documentation of the existing sewage disposal system. The map shows that the UC comprises of eight settlements, 192 lanes and 1,072 houses. Level survey is in progress for preparing the sewerage plan of the UC and creating a disposal system that functions on gravity.

Lodhran Pilot Project (LPP)
In 1999, LPP was set up by an industrialist and member of the parliament in the city of Lodhran, which has a population of around 70,000, to address the growing problem of sewerage disposal in the area. LPP works closely with the local municipal authorities and enjoys a good working relationship with them. Since April 2000, LPP has assisted in completion of 148 lane sewers of approx. 27,000 rft. The local communities have invested Rs. 2.8 million on lane sewers and latrines, while government complemented this work by laying 16,650 rft. of main sewers, repairing faulty disposals and paving lanes. In recent times, LPP has extended its work to adjacent towns and villages – the latter being more of a focus now than towns. For this extension, LPP has received support and funding from the World Bank. Work is currently going on in 58 villages.

OPE and Al-Watan Forum
OPE and Al-Watan started working on replication of the component-sharing model in the mid 1990s. Core funding for both organisations comes from WaterAid, a UK NGO. Total work completed has been 253 lane sewers of 63,000 rft. and 39 secondary sewers of 17,710 rft. covering over 4500 houses. People's investment in lane sewers, latrines and secondary sewers has been around Rs. 15.5 million. The government has paved 36 of these lanes.

Unsuccessful Attempts at Replication

The UNICEF's Urban Basic Services Programme in Sukkur (an intermediate size city 450 kms. North of Karachi) and the World Bank –Swiss Development Cooperation (SDC) programme in Hyderabad also adopted the OPP sanitation model in1990-94. OPP was party to a tri-partite agreement involving donor agencies, governmental departments, and OPP. Community project offices with local social organizers and technicians were set up to motivate and provide technical support to communities to build their "internal" development. These projects offices were autonomous. The government department was supposed to build the "external" component. The role of OPP was to offer advice, train and monitor both government department staff and community members. In both cases, the community was mobilized, collected money, and in the case of Sukkur, laid sanitation pipes in 14 lanes covering 155 households. However, the government department in the case of Sukkur only built part of the "external" component, and could not maintain its pumping station due to which work could not proceed and the community lost interest

Reasons for failure of the project were analysed in great detail by OPP in order to provide learning for the future – the key points are given below:

1. local government departments who were responsible for designing and managing the projects were not consulted in the initial stages of decision-making and as such had no sense of

ownership of project methodology or process. The “internal-external” model was forced upon them.

2. Training of local government staff and community activists did not take place collectively, which…..????
3. In the case of Sukkur, a number of existing informal arrangements for O&M were not accounted for during the project design stage.
4. In designing the institutional arrangements for the projects, internal politics, organizational culture, technical capacity, and financial problems were not duly accounted for. It was assumed that all the concerned actors would and could play the role assigned to them.
5. In the case of Hyderabad, the World Bank and SDC office that managed the project was located in Karachi – which proved problematic for purposes of effective oversight and monitoring.
6. Constant transfers and postings of project staff greatly hampered progress and consistency.

The Hyderabad and Sukkur communities have kept in touch with OPP. In Sukkur, they attempted to take over the pumping station and run it themselves – they did not succeed. In Hyderabad, the communities managed to complete the “external” component. It is interesting to note that the Sukkur Project was identified as one with “best practices” for the 1996 UN Habitat Conference in Istanbul.

Annexure V

External Assistance Projects for Water and Sanitation in Karachi, 1989-2007

	Name of Project	Cost (Million USD)	Sector	Objectives	Start	End	Executing Agencies
	World Bank						
1.	Karachi Water Supply Project	25.00	Water Sanitation and Flood Protection – Urban Water Supply	Designed to assist in the expansion of the water supply systems in Karachi, the improvement of service to consumers and the strengthening of KWSB. The project includes (a) expansion of the water supply conveyance system, pumping and treatment capacity (b) rehabilitation of trunk mains (c) provision of metering, workshops, vehicles and equipment; and (d) technical assistance, training and studies.	May, 1983	Oct, 1991	N/A
2.	Karachi Special Development Program Project	70.00	Urban Development-Urban Management	(a) strengthen the financial capacity of local agencies to deliver urban services; (b) improve resource mobilization and cost recovery; (c) demonstrate the feasibility of new approaches to providing services to the urban poor; and (d) directly improve basic urban services.	Jan, 1986	Sep, 1994	GoS, KDA, KMC, KW&SB

	Name of Project	Cost (Million USD)	Sector	Objectives	Start	End	Executing Agencies
3.	Karachi Water Supply and Sanitation Project (02)	331.7	Water Supply (32%) Sanitation (32%) Sewerage (31%) Public Administration (5%)	Improve potable water supply, improve operation, management and financial viability of the KWSB , and improve sanitation in the City. Specific project components include: (a) canal and square conduit to bring water from the Indus river, four pumping stations, two direct filtration treatment works, storage reservoirs, and the expansion/rehabilitation of the distribution network; (ii) three new sewerage…	Feb, 1989	Jun, 1999	KWSB
4.	2nd Karachi Water Supply	91.9	Water Supply (32%) Sanitation (32%) Sewerage (31%) Public Administration (5%)	Improve potable water supply, improve operation, management and financial viability of the KWSB , and improve sanitation in the City. Specific project components include: (a) canal and square conduit to bring water from the Indus river, four pumping stations, two direct filtration treatment works, storage reservoirs, and the expansion/rehabilitation of the distribution network; (ii) three new sewerage…	Feb, 1993	N/A	KWSB/KMC

	Name of Project	Cost (Million USD)	Sector	Objectives	Start	End	Executing Agencies
5.	Sindh Special Development Project	58.6	Roads/Highways (40%) Public Administration (32%) Water/Sanitation/ Flood Protection (23%) General Transport (5%)	Support GoS's Policy Reform Program for the sector by: (a) financing and immediate action program to begin to deal with some of the most urgent environmental and infrastructure problems in Karachi and three interior cities.	Dec, 1993	Jun, 1999	GOS
	Asian Development Bank						
1.	Loan No. 793-PAK: Karachi Urban Development	55.20	WS&S		Oct, 1986		
2.	**Loan No. 1001-PAK: Karachi Sewerage**	**85.00**	**WS&S**		**Dec, 1989**		
3.	**Loan 1004-PAK: Second Urban Development**	**66.00**	**WS&S**		**Dec, 1989**		
4.	Loan 1260-PAK: Urban Water Supply and Sanitation	72.00	WS&S				
	Japan						
1.	Rehabilitation of Water Treatment Systems, Karachi-Phase I.	10.78	WS		1989		
2.	Karachi water Supply Improvement Project	95.41	WS		1995		
3.	Metropolitan Water Supply Project	53.26	WS		1996		

Annex VI - List of Officials and Civil society members Who Contributed to Working with OPP-RTI for Improvements in Planning, Implementation and Management of Sewerage, Drainage, and Wastewater Treatment in Karachi.

S.No.	Name	Designation/Department
1	Shahid Saleem	Deputy Managing Director Planning Karachi Water and Sewerage Board (KWSB)
2	Sulaiman Memon	Project Director –Directorate of Katchi Abadis - KMC)
3	Irfan Ali	Director Directorate of Katchi Abadis - KMC.
4	Mr. Jawaid Sultan	Field Officer - Sindh Katchi Abadi Authority (SKAA).
5	Islamuddin Siddiqui	Deputy Director - Sindh Katchi Abadis Authority (SKAA).
6	Mashkoor-ul-Hasan	Chief Engineer - Karachi Water and Sewerage Board (KWSB).
7	M.M. Mehdi	Chief Engineer - Karachi Water and Sewerage Board (KWSB).
8	Asoodomal Chandvani	Chief Engineer - Karachi Water and Sewerage Board (KWSB).
9	Brig. Iftikhar	Managing Director - Karachi Water and Sewerage Board (KWSB).
10	Tasneem Siddiqui	Director General - Sindh Katchi Abadis Authority (SKAA).
11	Salim Khan	Special Secretary to Governor of Sindh
12	Rukhsana Salim	Secretary Finance, G.O.S.
13	Farooq Sattar	Mayor – Karachi Metropolitan Corporation (KMC)/Minister Local Govt & Katchi Abadis (K.A). Sindh
14	Shoaib Bukhari	Minister, Planning & Development (P&D) Sindh.
15	Rehana Memon	Additional Chief Secretary – Planning & Development (P&D) Sindh.
16	Khalid Javaid	Deputy Additional Secretary - Planning & Development (P&D) Sindh.
17	Nisar Sario	Executive District Officer – Works and Services (W&S) City District Government Karachi (CDGK).
18	Rashid Mughal	District Officer - City District Government Karachi (CDGK).
19	Shoaib Siddiqui	Executive District Officer – Works and Services (W&S) and Secretary Finance, G.O.S.

20	A.S. Palejo	District Officer - City District Government Karachi (CDGK).
21	S. Bhatti	Additional District Officer - City District Government Karachi (CDGK).
22	Salam	Secretary to District Officer - City District Government Karachi (CDGK).
23	Israr Zaidi	Chief Engineer - Karachi Water and Sewerage Board (KWSB).
24	Shahid Hussain	Executive Engineer - City District Government Karachi (CDGK).
25	Abrar Siddiqui	Chief Engineer – Karachi Eletric Supply Corporation (KESC)/Advisor to Minister Local Government and Katachi Abadis (K.A) Sindh.
26	Aquila Ismail	Professor - NED University.
27	Nazeer Kidwai	District Officer - City District Government Karachi (CDGK).
28	S.M. Taha	District Officer - City District Government Karachi (CDGK).
29	Asif Mughal	Deputy District Officer - City District Government Karachi (CDGK).
30	Seema Parvin	Deputy District Officer - City District Government Karachi (CDGK).
31	Shamim	Executive Engineer – Karachi Water and Sewerage Board (KWSB).
32	Manzar Abbas	Sindh Katchi Abadi Authority (SKAA).
33	Abdul Khaliq	Sindh Katchi Abadi Authority (SKAA).
34	Md. Nazeer	Sindh Katchi Abadi Authority (SKAA).
35	Md. Naseem	City District Government Karachi (CDGK).
36	Shahood Hashmi	Assistant District Officer, City District Government Karachi (CDGK).
37	Shakaib Siddiqui	District Officer - City District Government Karachi (CDGK).
38	Amanullah Chachar	Chief Engineer - City District Government Karachi (CDGK).
39	Shabie-ul-Hasan	District Officer - City District Government Karachi (CDGK).
40	Brig. Nasir	Chief Engineer – Karachi Metropolitan Corporation (KMC).
41	Zia-ul-Islam	Seceretary Local Govt.
42	Masood-ul-Hasan	Chief Engineer – Karachi Metropolitan Corporation (KMC).
43	Qazi Allauddin	Chief Engineer – Karachi Metropolitan Corporation (KMC).
44	Mubarak Zaidi	District Officer/Executive District Officer

		- City District Government Karachi (CDGK).
45	Mir Hasan Ali	District Coordinator Officer - City District Government Karachi (CDGK).
46	Iftikhar Arif	Chief Engineer – Karachi Water Sewerage Board (KWSB).
47	Md. Shahid	Karachi Water Sewerage Board (KWSB).
48	Jameel Akhter	Chief Engineer – Karachi Water Sewerage Board (KWSB).
49	Aftabuddin	Assisstant Superintendent Engineer - Karachi Water Sewerage Board (KWSB).
50	Fatima Hasan	Sindh Katchi Abadi Authority (SKAA).
51	Naheed Haider	Director General - Sindh Katchi Abadi Authority (SKAA).
52	Matanat Ali Khan	Deputy Commissioner West/City District Government Karachi (CDGK).
53	Ms. Javaria	Director Finance – Karachi Metropolitan Corporation (KMC).
54	Zubedi	Director Finance – Karachi Metropolitan Corporation (KMC).
55	Fazl-urRahman	District Coordinator Officer - City District Government Karachi (CDGK).
56	Naziha Ghazali	Media – Newsline Magazine.
57	Azhar Abbas	Media – The Herald Magazine
58	Zubeida Mustafa	Media – Dawn News paper
59	Rizwan Ahmed	Media – Daily Jung
60	Mustafa	Media – Geo News

In addition to the individuals as listed above major contributions have also been made by the NGOs/CBOs, comprising the water/sanitation group based at partner Urban Resource Center. As listed below.

Water and Sanitation Group – Karachi – based at URC

List of Member NGO's/CBO's.

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3. CATHOLIC SOCIAL SERVICES (CSS)
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16. SHAFIQ AHMED
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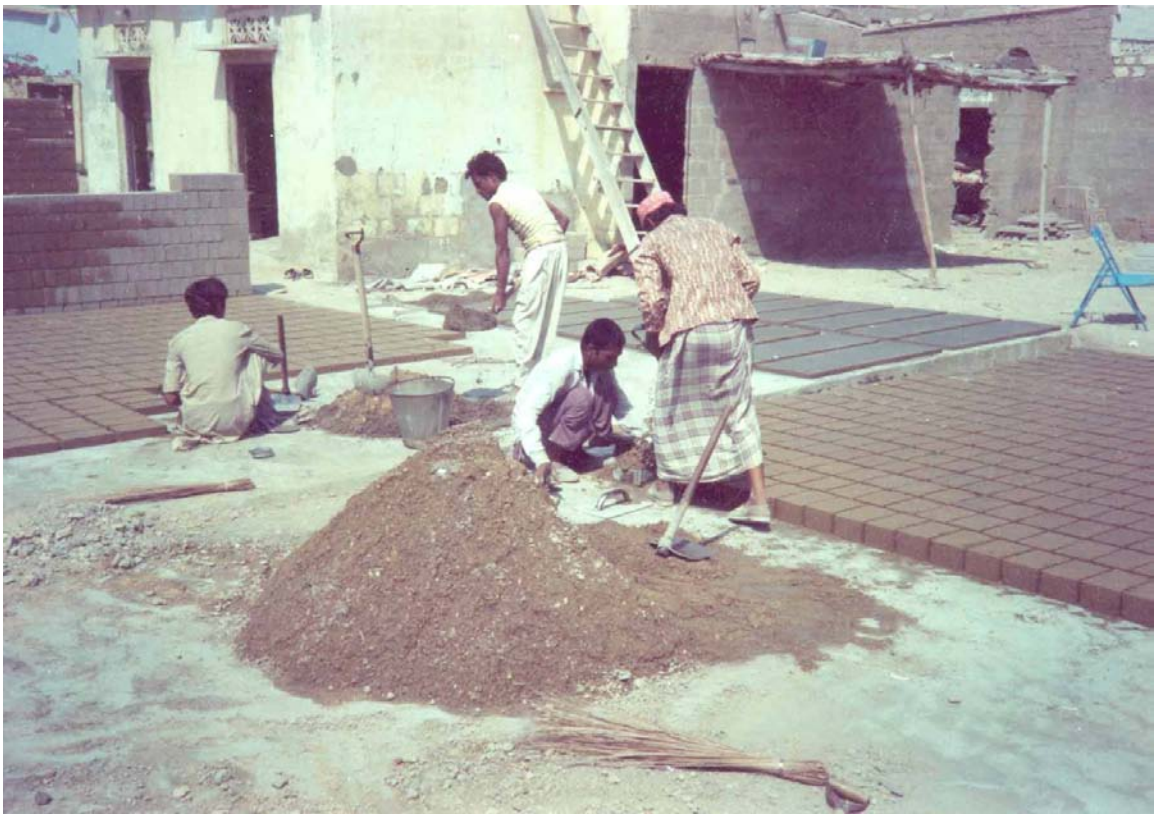
KARACHI
TEL: 0300-2139113

31. YOUNUS BALOCH/ZAHID FAROOQ
URBAN RESOURCE CENTRE.

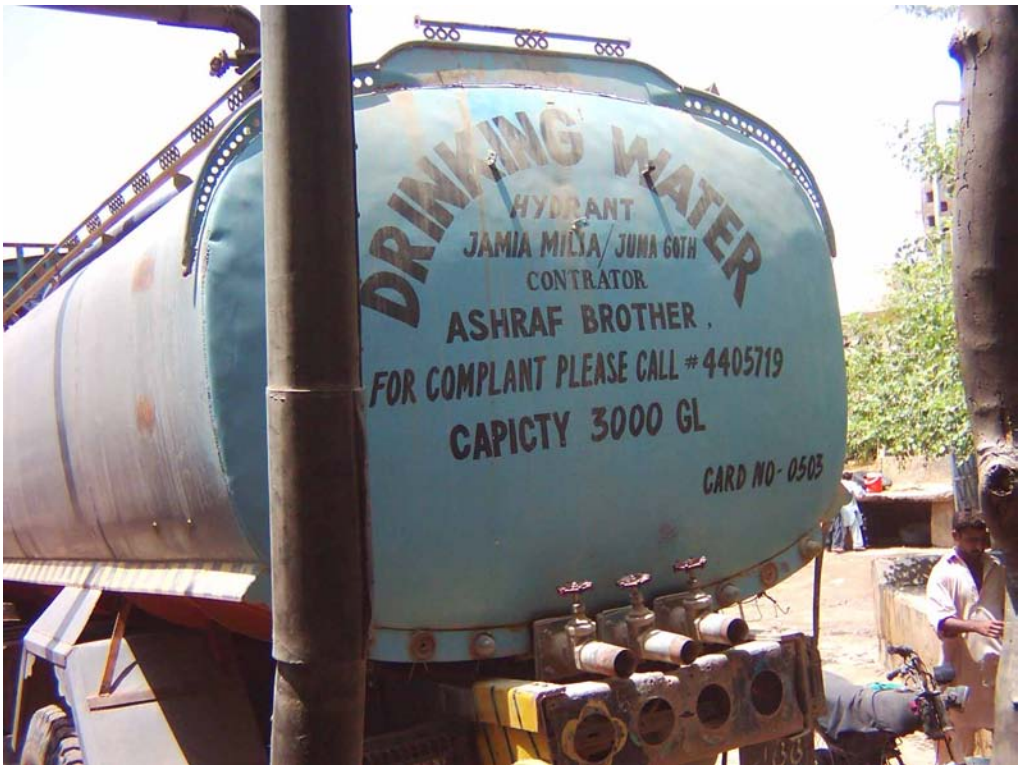
P-1

P-2



P-3

P-4


DRINKING WATER
HYDRANT
JAMIA MILIA/ JUNA GOTH
CONTRATOR
ASHRAF BROTHER .
FOR COMPLANT PLEASE CALL # 4405719
CAPICTY 3000 GL
CARD NO- 0503

P-5

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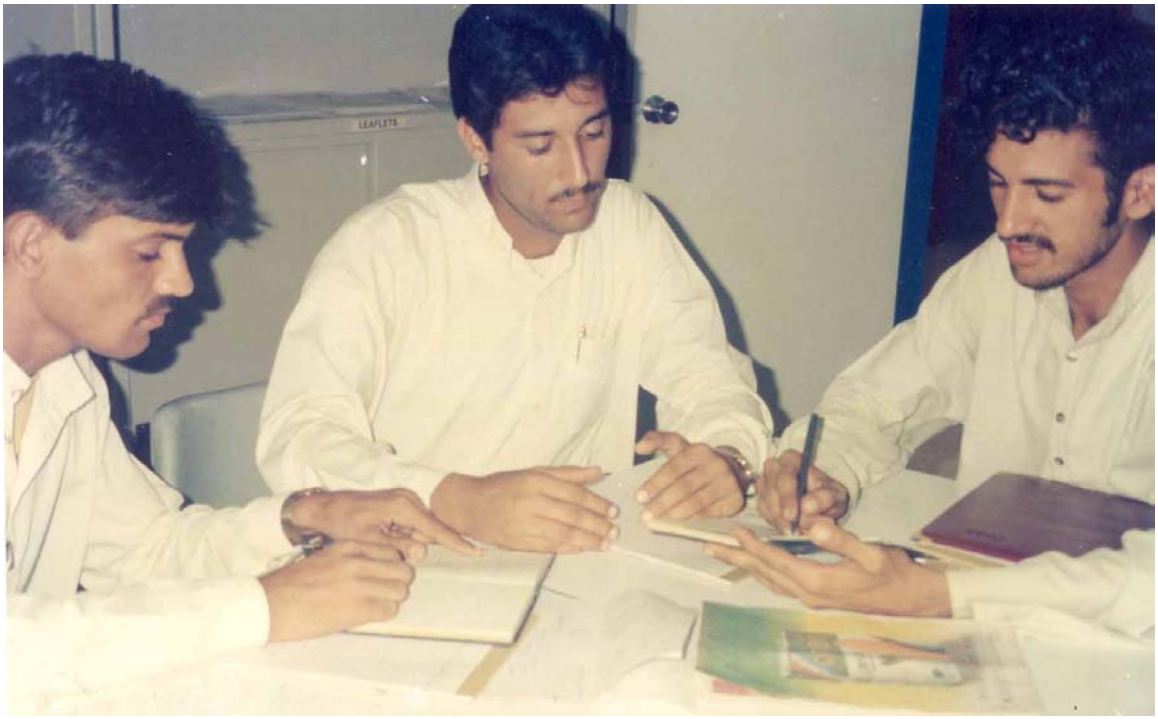

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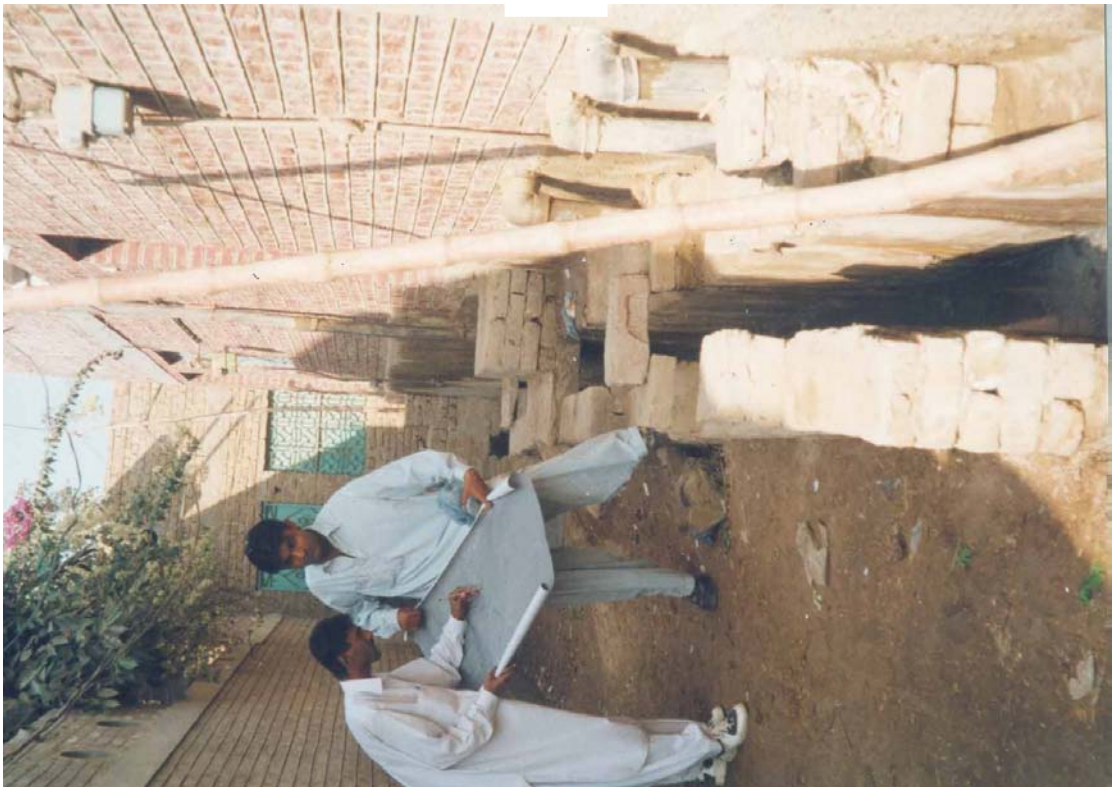

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P-27


WEL COME
ALL THE MEMBERS OF CDN
SHAHPUR CHAKAR WELFARE SOCIETY
WEL COME ALL GUESTS
CDN
SINDH RURAL SUPPORT PROGRAM.

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P-29

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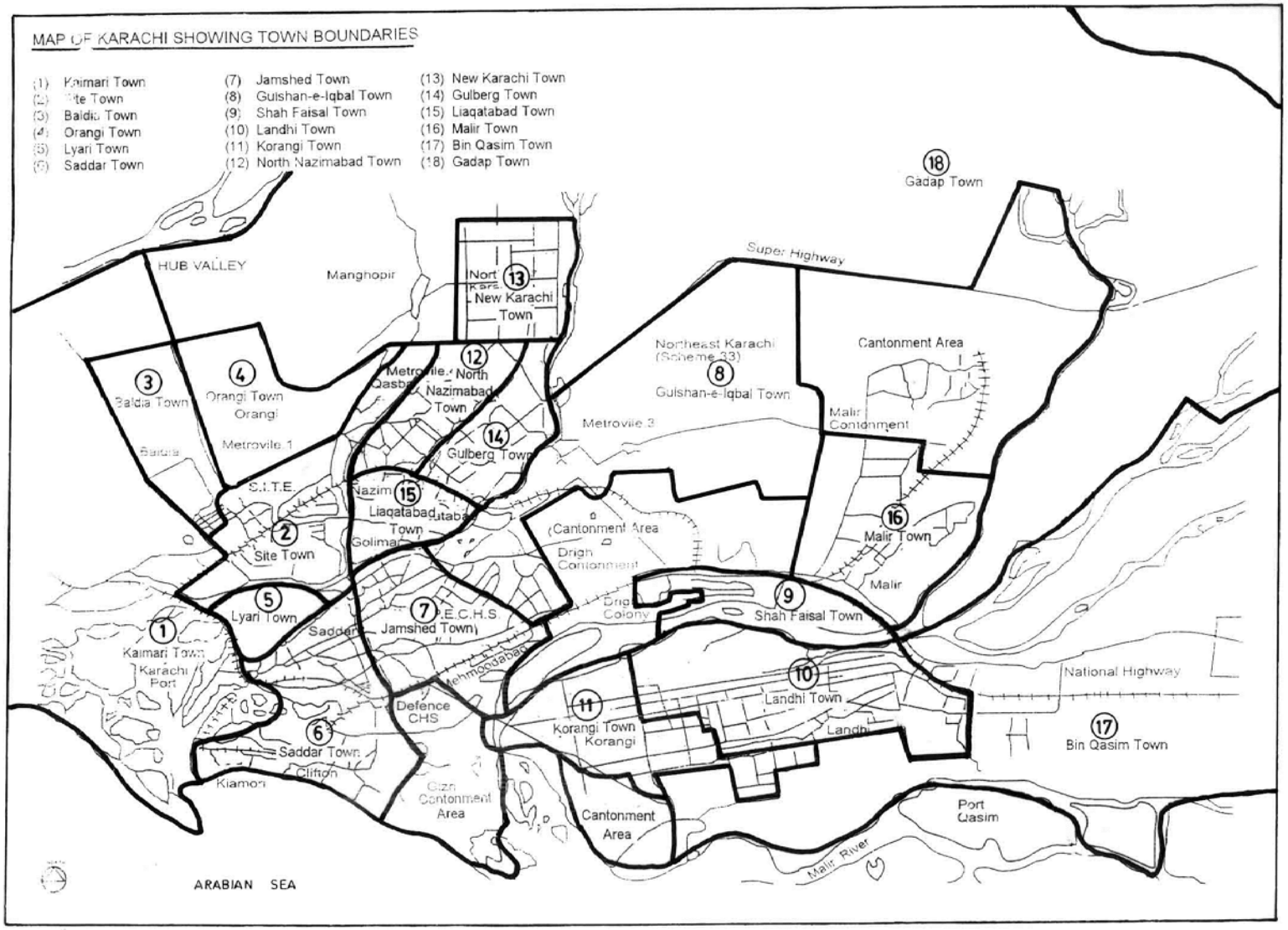
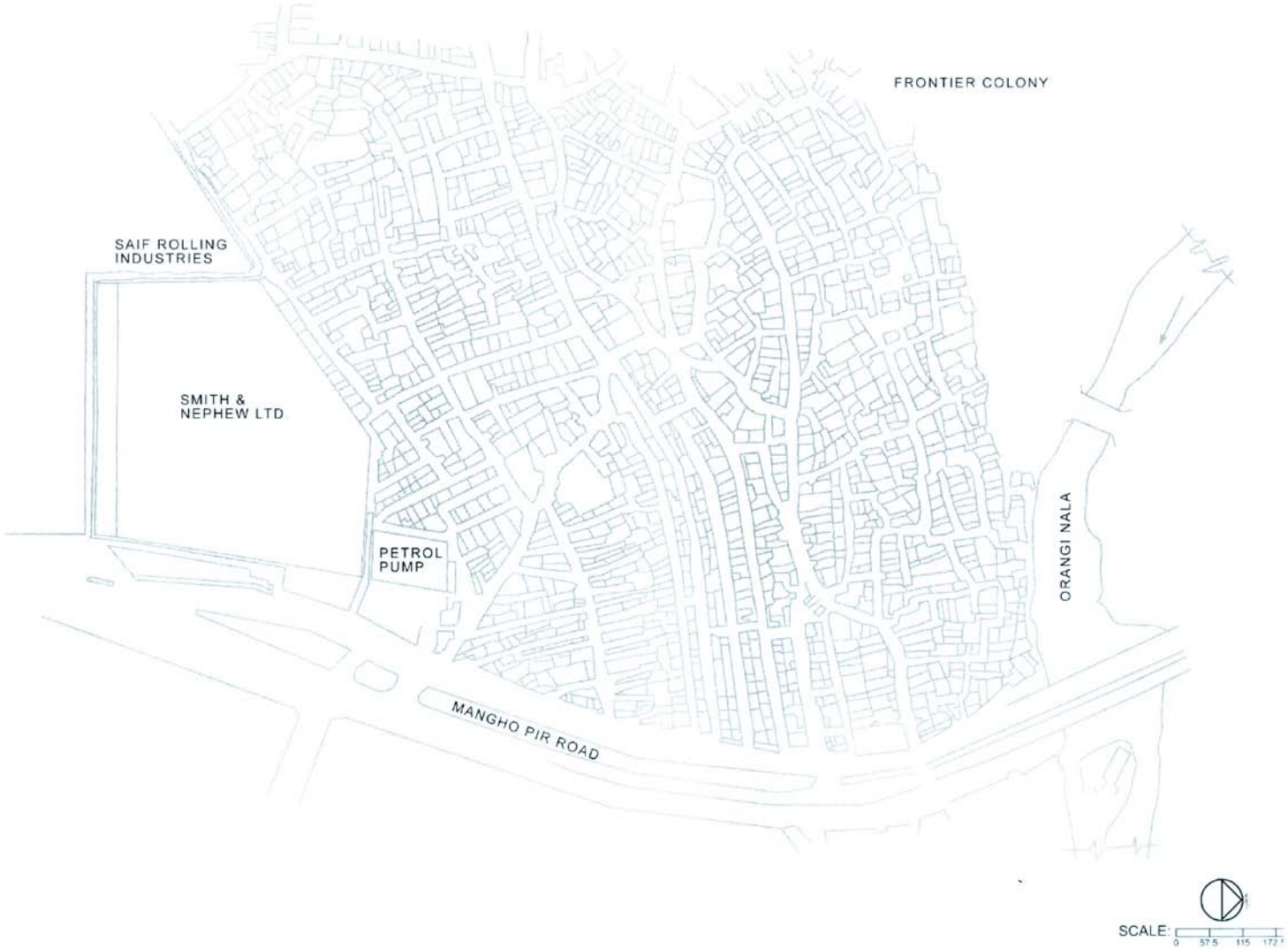
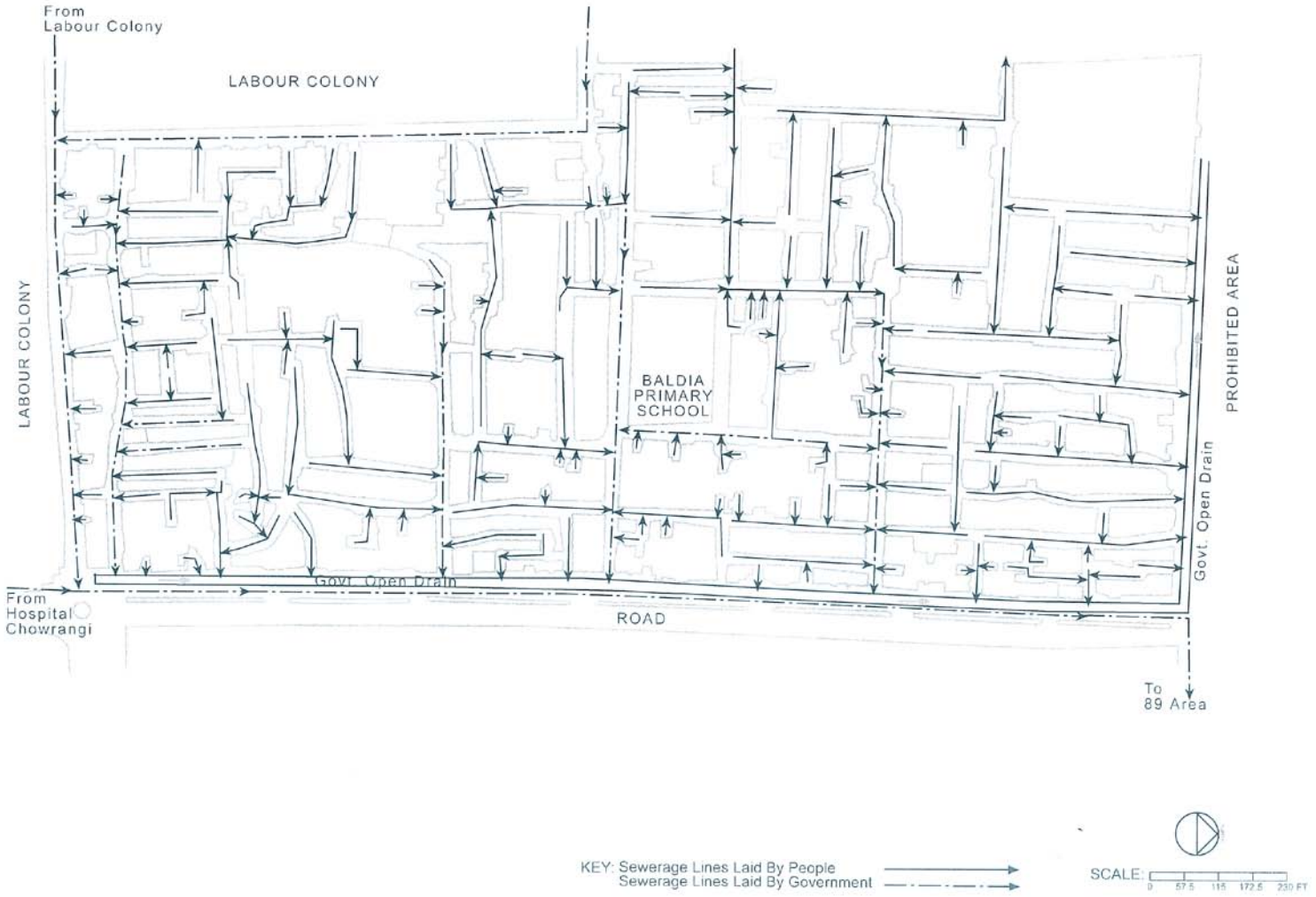
MAP-1 MAP OF PAKISTAN, SHOWING PROVINCES & NEIGHBOURING COUNTRIES

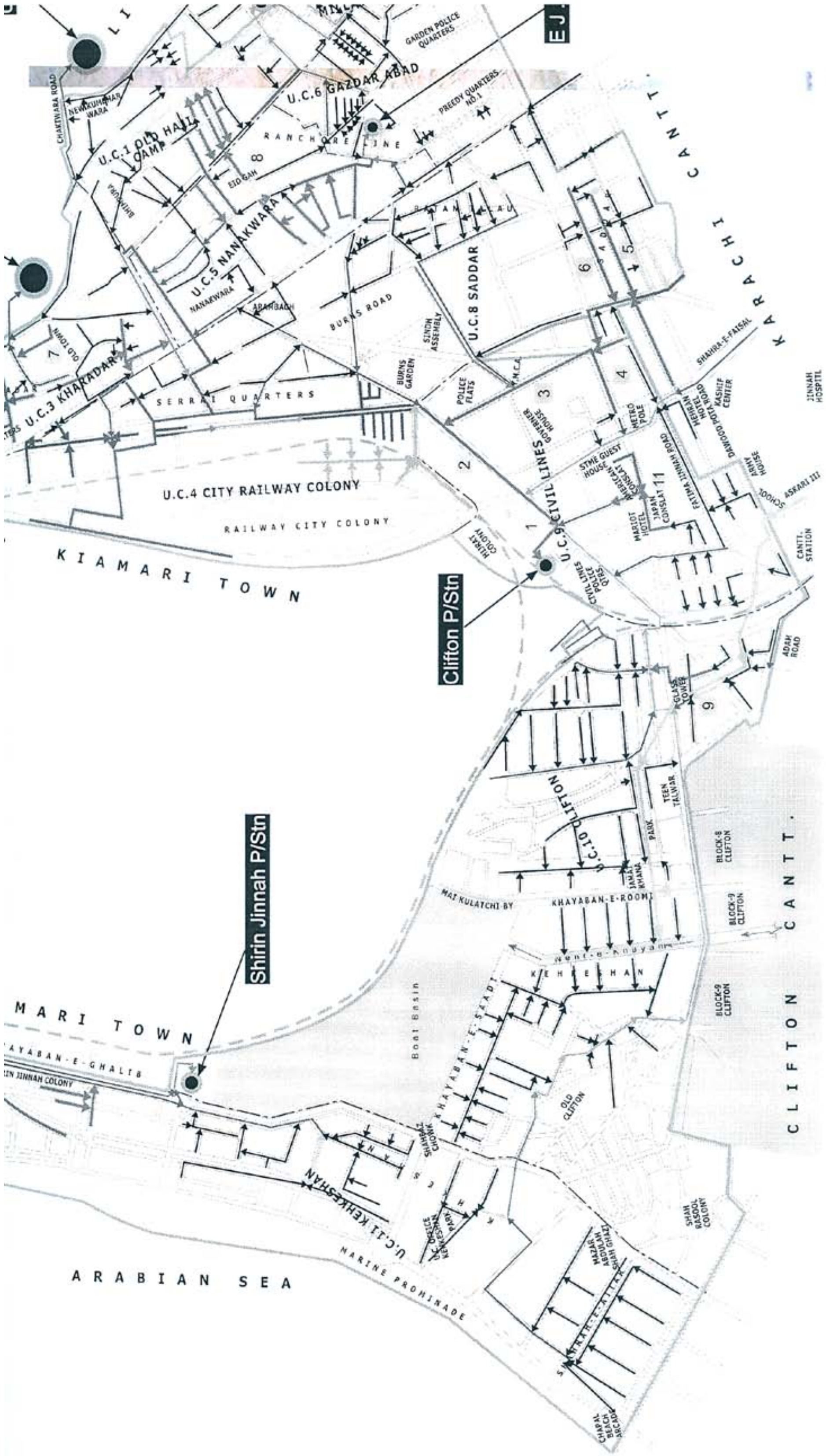

MAP OF KARACHI SHOWING TOWN BOUNDARIES
(1) Kaimari Town
(2) Site Town
(3) Baldia Town
(4) Orangi Town
(5) Lyari Town
(6) Saddar Town
(7) Jamshed Town
(8) Gulshan-e-Iqbal Town
(9) Shah Faisal Town
(10) Landhi Town
(11) Korangi Town
(12) North Nazimabad Town
(13) New Karachi Town
(14) Gulberg Town
(15) Liaqatabad Town
(16) Malir Town
(17) Bin Qasim Town
(18) Gadap Town
HUB VALLEY
Manghopir
Super Highway
Gadap Town
New Karachi Town
Northeast Karachi (Scheme 33)
Gulshan-e-Iqbal Town
Cantonment Area
Malir Cantonment
Metroville 3
Metroville 1
Orangi Town
Orangi
Baldia Town
Baldia
North Nazimabad Town
Gulberg Town
S.I.T.E.
Site Town
Liaqatabad Town
Golimar
Cantonment Area
Drigh Cantonment
Malir Town
Malir
Drigh Colony
Shah Faisal Town
Lyari Town
Saddar
Jamshed Town
P.E.C.H.S.
Kaimari Town
Karachi Port
Mehmoodabad
Defence CHS
Landhi Town
Landhi
National Highway
Korangi Town
Korangi
Bin Qasim Town
Saddar Town
Clifton
Kiamori
Qizri Cantonment Area
Cantonment Area
Port Qasim
Malir River
ARABIAN SEA

MAP-3 AN INFORMAL SETTLEMENT (PATHAN COLONY) IN KARACHI

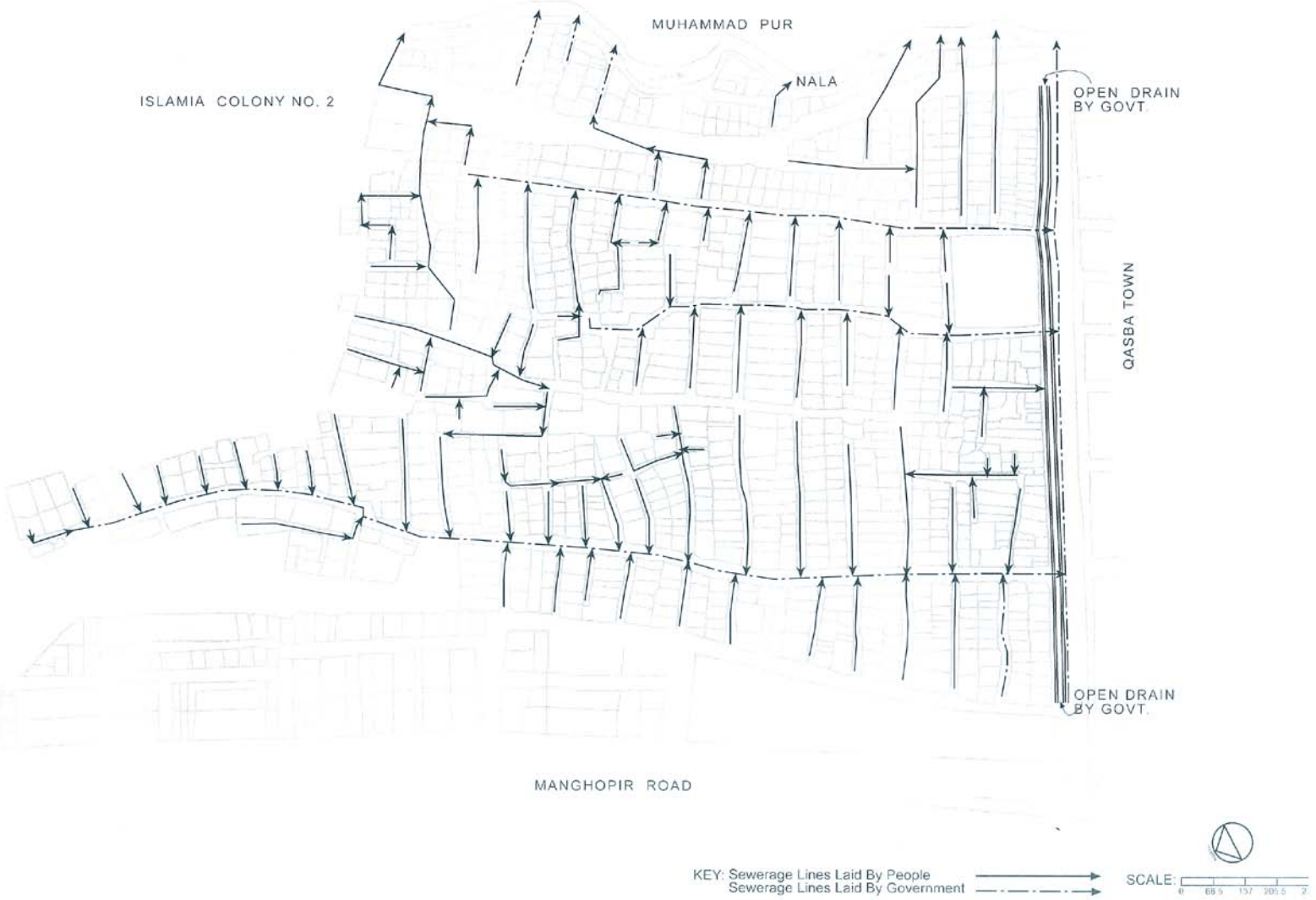


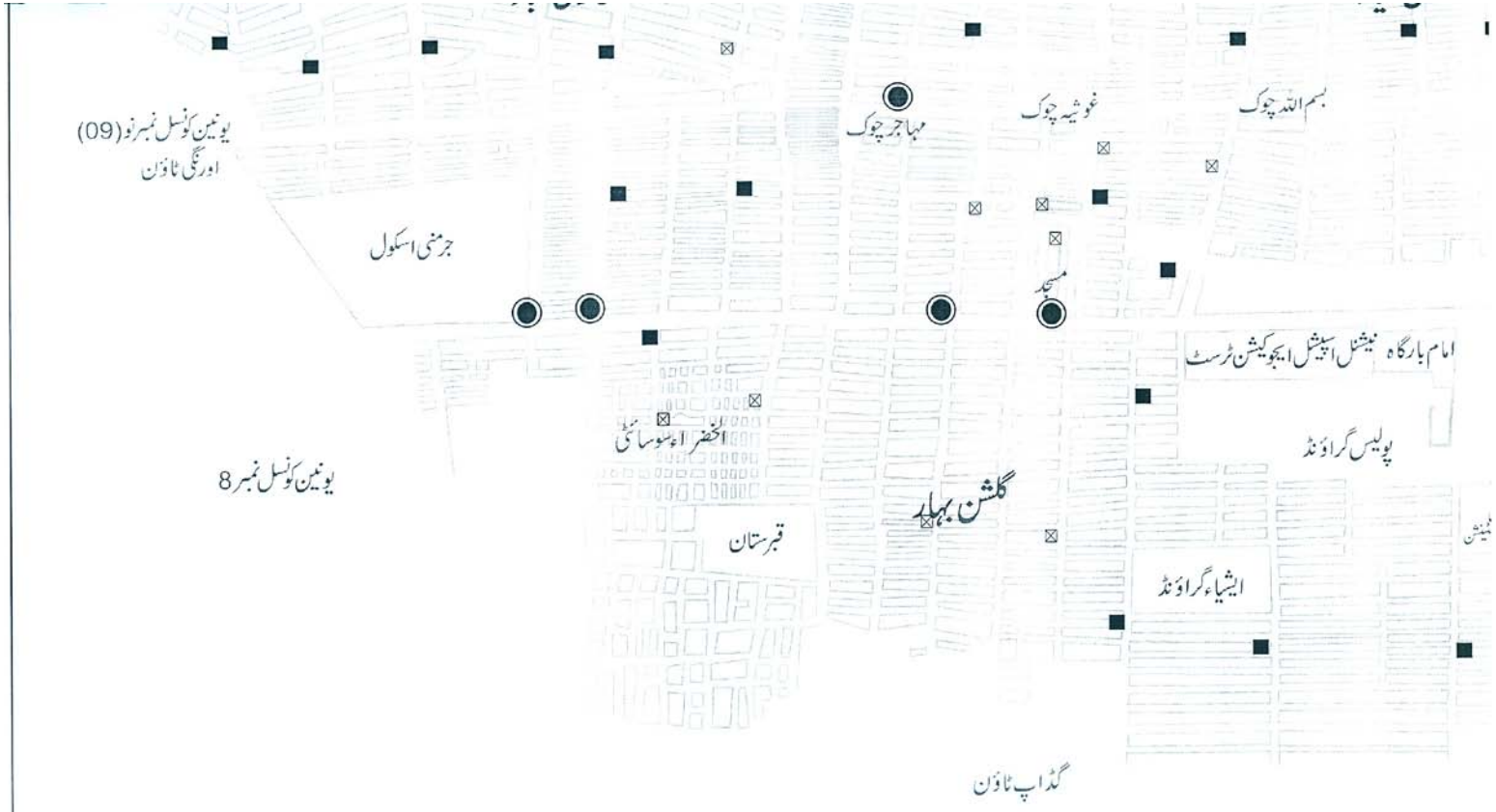
MAP-4 A PERIPHERAL SETTLEMENT (SHERPAO COLONY) INTERNAL SEWERAGE IS CONNECTIED TO THE CITY'S SEW




Clifton P/Stn
Shirin Jinnah P/Stn
U.C.1 OLD HAJI CAMP
U.C.3 KHARADAR
U.C.4 CITY RAILWAY COLONY
U.C.5 NANAKWARA
U.C.6 GAZDAR ABAD
U.C.8 SADDAR
U.C.9 CIVIL LINES
U.C.10 CLIFTON
U.C.11 KEHKESHAN
RAILWAY CITY COLONY
SERRAI QUARTERS
BURNS ROAD
KIAMARI TOWN
KARACHI CANTT.
CLIFTON CANTT.
KHAYABAN-E-ROOMI
Boat Basin
MARINE PROMINADE
ARABIAN SEA

MAP-6 DOCUMENTATION OF INFRASTRUCTURE IN KATCHI ABADIS UNDERTAKEN AT OPP-RTI.

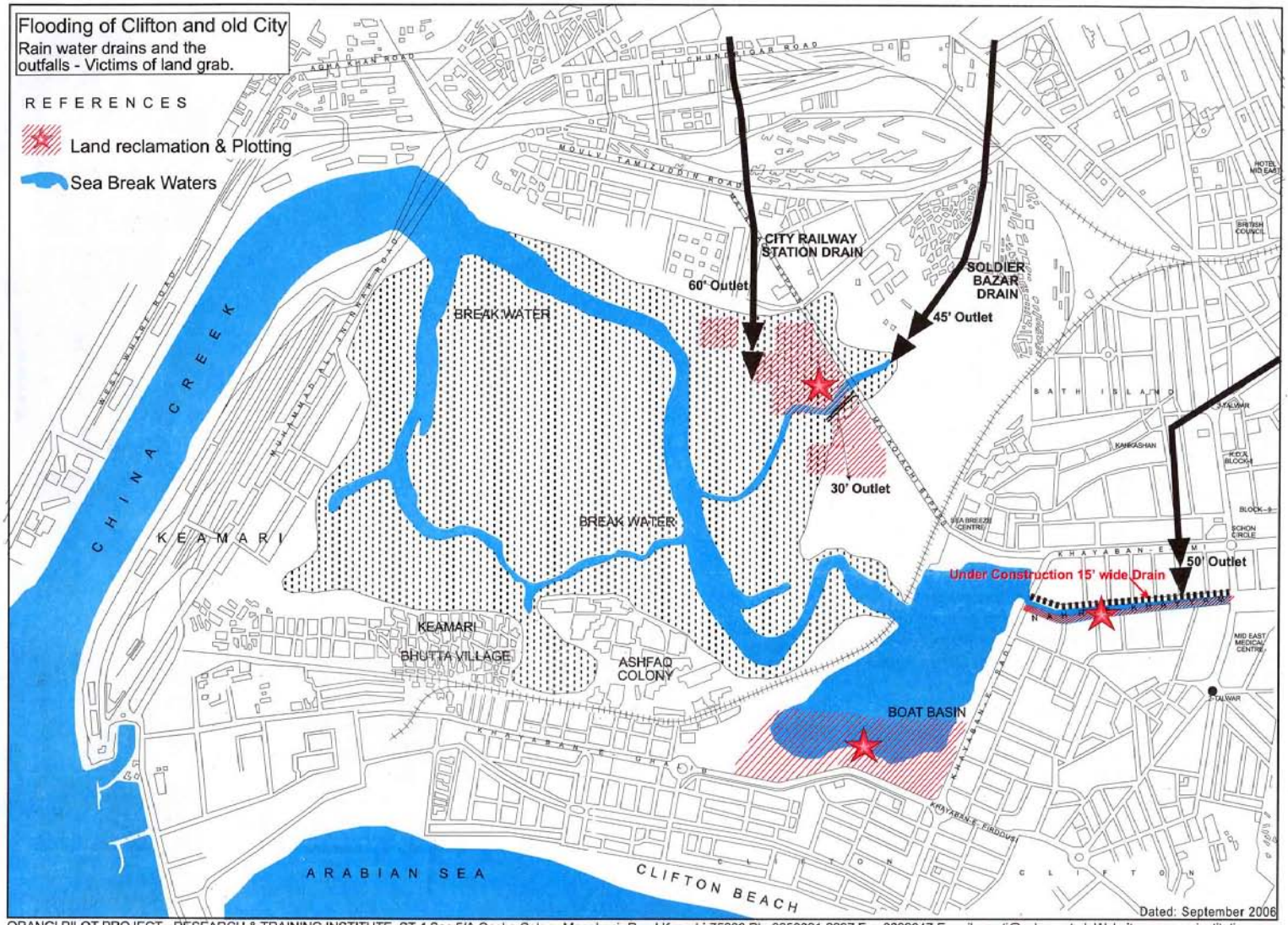




	اعداد و شمار	
محلے کے مین کوڑے کی جگہ (مین)	محلے کے مین کوڑے کی جگہ (مین)	06
محلے کے کوڑے کی جگہ (پلاٹ)	محلے کے کوڑے کی جگہ (پلاٹ)	12
محلے کے کوڑے کی جگہ (کھلی جگہ)	محلے کے کوڑے کی جگہ (کھلی جگہ)	20

نوٹ

- کوڑے کو ٹھکانے لگانے میں دو سطح کے کام ہیں 1) گھر اور گلی سے کوڑے کو نکال کر محلے کے مین کوڑے دان میں ڈالنا یہ لوگوں کی ذمہ داری ہے۔ 2) محلے کے کوڑے دان سے کوڑا اٹھا کر شہر کے ڈسپوزل سائیٹ تک لے جانا یہ حکومت کی ذمہ داری ہے۔
- یونین کونسل کی ذمہ داری ہے 1) محلے کے کوڑے دان کی نشاندہی اور تحفظ 2) محلے کے مین کوڑے دان سے کوڑا اٹھا کر ٹھکانے لگانا۔
- لوگ گلی اور محلے کو صاف رکھتے ہیں۔ جہاں بھی مین کوڑے دان سے کوڑا اٹھنا شروع ہو جاتا ہے لوگوں میں صفائی کا جذبہ اور مضبوط ہو جاتا ہے۔



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