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Urban Development in Pakistan

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Dedication

This chapter is dedicated to the memory of Mr. Hafeez Arain, an unsung hero of community development in Pakistan. He worked tirelessly in mobilizing communities across Pakistan, while spreading the vision of Dr. Akhtar Hameed Khan.

Introduction

Pakistan is located at the crossroads of several civilizations. It inherits the riches of the Gandhara civilization, which flourished along the banks of river Indus. The landmarks of the Gandhara civilization can still be witnessed in the historic towns of Peshawar and Taxila. Historically, Pakistan has been under the influence of cultures that took pride in creating planned cities. For instance, the sewerage system in the ruins of Taxila demonstrates the engineering genius of the past civilizations.

The current dilapidated state of large and small towns in Pakistan is at complete odds with the rich heritage of town planning that flourished in the Subcontinent for more than a millennium. Dumps of waste scattered all over the cities, open sewers carrying human and other waste, insufficient supply of potable water, haphazard development patterns that produce chronic traffic congestion and noise, lack of public spaces, and most important of all, persistent poverty, characterize today's urban Pakistan. Cities once known for their manicured gardens and exquisite fountains today reek of unmanaged solid waste and sewerage. Given the resource constraints, sanitation and water supply have not been given top priority for the

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disenfranchised urban poor in Pakistan, who struggle to stay afloat while battling poverty, disease, and the lack of opportunity.

Country Context

The population of Pakistan was estimated to be 34 million in 1951. In 2006, Pakistan's population is estimated at 160 million. The urban population increased from 17% in 1951 to 35% in 2005. Since its inception, changes in Pakistan's economy and demographics have been drastic. The demographic makeup of Pakistan in the early fifties was primarily rural with only a handful of small to mid-sized cities. The agricultural sector, which contributed over 53% of the GDP in 1949/50, reduced to 24% of the GDP in 2004 (Zaidi 2005). Over the same period, manufacturing increased from 8% to 26%, whereas services and trade increased from 25% to 51%. While the share of agriculture in the national GDP was halved over the past five decades, labor force composition has not changed as much. The percentage of the labor force employed in the agriculture sector has declined from 65% in 1951 to 48% in 2003 (Zaidi 2005). The rate for rural to urban migration would have been even greater had the share of rural-based agricultural labor decreased as much as the share of the agricultural sector in the national GDP.

Urbanization Issues

Pakistan has experienced a large increase in population over the past five decades. The population growth rate averaged around 2.5% per year for rural areas and around 3.5% per year for urban areas. From 2005 onwards, the urban population in Pakistan is expected to increase exponentially. By the year 2030, the urban population will become 50% of the total population of 260 million. Over the next 25 years, Pakistan is expected to add another 80 million inhabitants to its urban centers.

The population growth rate between urban and rural areas differs considerably. In recent decades, the population of rural areas has been increasing on average by 2.3%, whereas the population of urban areas has been increasing at a faster rate of around 3.5%. On average, the population growth rate of urban areas is 1.5 times faster than that of rural areas (Table 1). The urban population in Baluchistan province has been increasing at a rate of 5.1%, which is much higher than that of other provinces. However, the population base of the Baluchistan province is very small and it does not make much difference in the national growth rate of urban populations.

Underestimating urban population in Pakistan

Defining what is urban has been a source of controversy in Pakistan. The definition carries huge ramifications for the political balance in the country. It has been argued in the past that there has been a systematic underestimating of urban population in Pakistan. The argument goes that the true representation of urban

population will shift the electoral balance away from the rural electorates to urban centers. Pakistan has traditionally been governed by the rural elite, which has drawn its economic and political power from the large workforce that also serves as a captive electorate. The shift of the political center of gravity to urban centers could diminish the influence of rural politicians.

Behind the controversy of what can be considered urban is an ad hoc classification system that has been used in the past to designate areas as urban or rural. Until 1972, an area was designated as urban by the census if it had a population of at least 5,000 inhabitants or if an area, regardless of its population, enjoyed the administrative designation of a municipal corporation, municipal committee, town committee, or a cantonment board (Ali 2003). The local census commissioner also had the discretion of declaring an area urban if it displayed certain “urban characteristics”. The non-farming labor force characteristics of an area were also considered in declaring a place as urban³. The definition of urban changed in the 1981 census and only those areas that enjoyed the designation of municipal corporations, municipal committees, or cantonment boards were considered urban areas. This seriously underestimated urban population in the 1981 census. At least 1462 communities with population exceeding 5,000 were classified as rural under the new classification system (Ali 2003). Because administrative boundaries were used to define urban areas, the population of Lahore, the second largest city with a population exceeding 5 million, was underestimated almost by at least a million. If the population of small towns, which are congruent to the administrative boundaries of Lahore and enjoy strong economic linkages with Lahore, is also added to the population of Lahore, the estimated population of the City would swell to 7 million.

High-density areas that show urban characteristics have been emerging in the ‘peri-urban’ parts of cities in South Asia. This phenomenon has been termed as ‘ruralopolis’ (Qadeer 2000). These areas exhibit characteristics that are similar to those of urban areas. Indicators of housing quality, labor force characteristics, education attainment, travel behavior of the inhabitants of these ‘rural’ areas, which are often contiguous to the urban areas, are similar to low- to middle-income communities in the urban areas. Characterizing such areas a rural only serves to maintain the political status quo.

³ Interview with Mr. M. Saeed, Census Commissioner at the Population Census Organization. December 2005.

Figure 1 Changes in Urban/Rrual Population: Pakistan

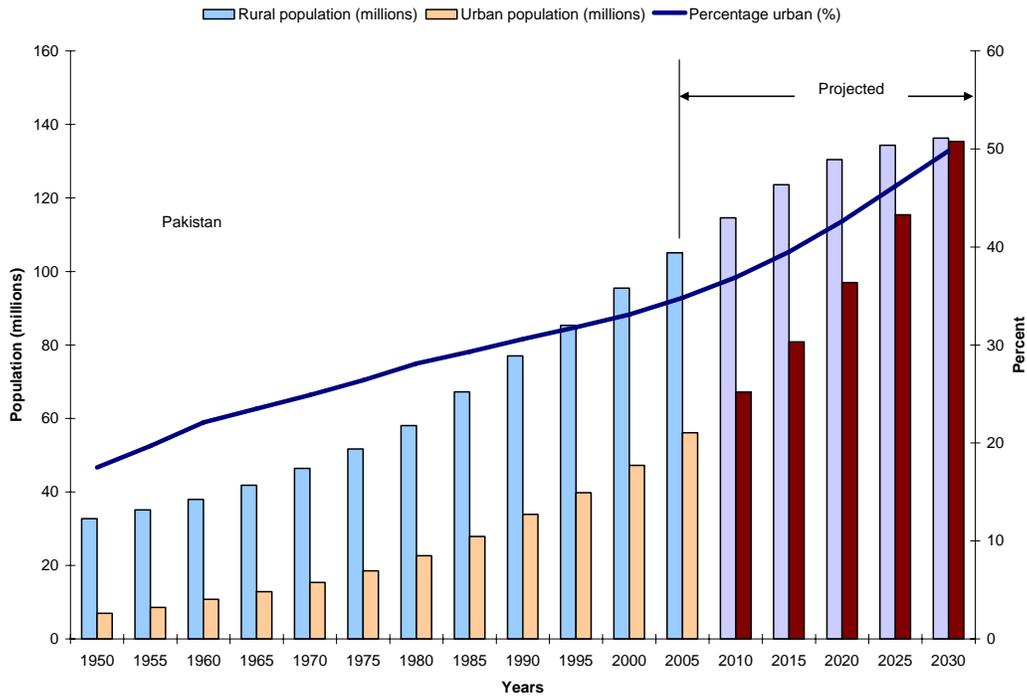


Table 1 Heterogeneity in the rate of urbanization throughout Pakistan

Area	1981	1998	Growth Rate	
	% urban	% urban	Rural	Urban
PAKISTAN	29.1%	33.3%	2.34	3.52
NWFP	15.1%	16.9%	2.69	3.51
PUNJAB	27.6%	31.3%	2.32	3.40
SINDH	43.4%	48.8%	2.20	3.51
BALUCHISTAN	15.5%	23.9%	1.85	5.12
ISLAMABAD	60.1%	65.7%	4.26	5.76

Source: Population Census Organization, Government of Pakistan

Housing and land policies

Pakistan faces an acute shortage of housing units. The 1998 decennial census revealed that there were 19.3 million housing units available for a population of 130 million. This represented a housing backlog of almost 4.3 million units. The current estimate of the housing backlog is around 6.0 million (Government of Pakistan 2005). The annual construction of housing units is around 300,000 units, whereas the requirement is around 570,000 units.

The housing backlog presents only a partial view of the housing crisis in Pakistan. The other aspects include the housing affordability crisis for the low-income households. The poor in Pakistan do not have access to financial institutions to borrow funds to build homes. The very poor segments of society occupy abandoned land alongside large open sewers and railway/highway corridors. These informal settlements lack adequate housing amenities, such as latrines and potable water. In addition, the municipalities seldom extend municipal services to squatter settlements. In fact, many low-income, non-squatter settlements remain deprived of water supply and sanitation facilities.

In the absence of a financing mechanism that targets the very poor in the society, the housing crisis continues to loom in Pakistan. In the past few decades, a land mafia has also developed in Pakistan that has been devouring public land under varying guises. The development authorities in urban Pakistan have been transferring the state-owned land at nominal prices to housing schemes, which are often managed by the military or civil elite. Such housing schemes develop the land and transfer parcels to their members, which in turn sell the developed land in open markets where land prices are very high.

In the absence of a land speculation tax and proper fiscal cadastre, money made in land market speculation generates little tax revenue for the state. The land development industry has systematically transferred wealth to a privileged few who have benefited from an exclusive access to the state-owned land. Government policies have encouraged such schemes in the name of promoting housing industry (Jacobsen, Khan, & Alexander 2002). The fact remains that housing needs of low- and middle-income households, who constitute the bottom of the pyramid, have remained largely unmet, resulting in huge housing backlogs.

Infrastructure deficit

Municipal infrastructure in Pakistan is largely in peril. Chronic under funding of municipal governments over decades has weakened the municipal governments. In the absence of capital grants, new infrastructure required to cope with the needs of rapidly growing populations was not built. Furthermore, the state of existing infrastructure deteriorated due to the lack of maintenance and repairs. The financial and institutional shortcomings of the municipal and local governments have caused the decline of coverage and quality of municipal infrastructure in Pakistan (Zaidi 2005).

These factors paint a dismal picture of municipal service delivery in Pakistan. Only 63% of the population has ready access to water (Shah 2003). The situation is more acute in rural areas where only 53% of population has ready access to water compared to 83% in urban areas. Access to sanitation facilities is even worse where 39% of the population has access to proper sanitation facilities. In rural areas, only 27% of the population has access to proper sanitation, compared to 59%

of the urban population (Shah 2003). Furthermore, less than 1% of wastewater is treated in Pakistan and only 40% of the solid waste is disposed of.

The quality of municipal services is not uniform throughout the country. A true picture of municipal service delivery emerges only when quality indicators are added to the coverage information. The quality of water supply, after it is characterized by the ease of access and type of water supply, presents the huge disparities that exist between provinces and regions. The 1998 census revealed that only 28% of the population had in-house access to tap water (Table 2). Another 42% relied on hand pumps, and almost another 5% obtained their drinking water from wells. A comparison of water supply across provinces reveals huge disparities in the coverage. For instance, only 42% of the population in Baluchistan had source of drinking water located inside the house. Another 35% households in Baluchistan relied on ponds and other sources for drinking water. The situation in the Punjab province was relatively better where 87% of the population had source of drinking water located inside the house.

Table 2 Source of drinking water in Pakistan

Area	Source of Drinking Water							
	Outside House					Inside House		
	Tap water (%)	H/Pump (%)	Well (%)	Pond (%)	Other (%)	Tap water (%)	H/Pump (%)	Well (%)
PAKISTAN	4.18	5.06	5.08	2.85	7.79	28.08	42.07	4.89
NWFP	12.27	1.24	8.39	4.04	18.81	27.19	9.68	18.38
PUNJAB	2.18	5.30	2.24	1.08	2.52	24.34	60.35	1.99
SINDH	4.53	7.23	6.14	3.15	10.09	37.17	29.29	2.41
BALUCHISTAN	4.33	2.05	16.09	16.72	18.99	25.31	2.44	14.07
ISLAMABAD	6.05	1.91	18.34	0.49	3.13	57.28	4.95	7.85

Source: Population Census 1998

National Regional Development and Decentralization Policies

Pakistan started to implement a major devolution plan in 2000, which has produced a new breed of local leadership under the protection of the military-led government of General Pervez Musharraf, who also holds the civilian office of the President of Pakistan. A number of studies by the international donor agencies and other monitoring groups have reviewed the current devolution exercise in Pakistan. Some have termed it a success; others have seen it as the military's attempt to prolong its proxy rule in Pakistan.

Since its independence in 1947, Pakistan has largely been governed by civil or military dictatorships. Military rule has been interrupted by a few stints of civilian rule where the military governed by proxy. After dismantling the elected political bodies at the national and provincial levels, the military regimes have always felt

the need to create a new breed of politicians who would owe their allegiance to the armed forces rather than to the political establishment. In this regard, the first military rule under General Ayub Khan in 1959 introduced the Basic Democracies System of local governments (Government of Sindh 2004). This system disappeared with the fall of that military regime, as it did not enjoy grass root support.

The civilian government that followed the military one also embarked on a devolution program and promulgated the People's Local Government Ordinance of 1975. However, the civilian government did not hold local government elections, which were mandated by the constitution. The next military regime of General Zia-ul-Haq, which took power in 1977, stayed in office for eight years before it held non-party basis local government elections. With the demise of General Zia-ul-Haq in 1988, the local government system he introduced also fizzled away.

It is interesting to note that the civilian governments have often tried to undermine the local government systems that existed during their rule. This was done by diverting funds for local development from the local governments to the members of national and provincial assemblies. The government of Prime Minister Muhammad Khan Junejo in 1986 and Prime Minister Benazir Bhutto in 1989 allocated development funds to the elected members of national and provincial assemblies and in the process weakened the local government institutions.

The current setup

The current military regime replaced the civilian government in October 1999. Within a year of its control of the government, the regime took on a devolution program, which has proven to be the most ambitious of all devolution programs. Unlike the previous devolution programs, the new devolution plan enjoys the protection of the constitution.

Under the new system, local governments have been setup in urban and rural areas. A new generation of over 126,000 municipal councilors were elected to the office in the first elections held in August 2001 (Manning et al. 2005). The devolution plan involves "devolution of political power, decentralization of administrative authority, decentralization of management functions, diffusion of power authority nexus and distribution of resources at different levels" (Government of Sindh 2004). The injection of the new blood into the political establishment in Pakistan has resulted in some changes. For starters, the new setup has reserved 33% seats for women. Nearly 25% of the new councilors elected in 2001 were women. Though this number is less than the constitutionally mandated target, the new arrangement has certainly given a voice to women, who have for the most part remained disenfranchised in the Pakistani political setup.

Review of devolution program in Pakistan

An early review of the **devolution plan** has returned mixed results. Some reviewers of the devolution plan have declared it as a successful exercise. The devolution plan has been successful in bringing women in the political process and at the same time creating a higher degree of awareness of local issues in the political setup. International and bilateral donors have run training schools for women councilors to prepare them for municipal governance. The impact of women's involvement in policymaking at the grass root level will be felt in time. There is no precedence of women's involvement at this scale in decision-making in Pakistan.

The detractors of the plan view the devolution plan as an other attempt by the Pakistan's armed forces to discredit political institutions and to create a new breed of political cronies (International Crisis Group 2005). The International Crisis Group (ICG) documented gross electoral irregularities, which facilitated the government-backed candidates to win local government elections.

The devolution plan also provides for community involvement. The plan mandates constituting **Citizen Community Boards** (CCB) to work in parallel with the elected representatives. In fact, CCBs can recommend projects to be financed by the development budget on an 80-20 principle where the community bears 20% of the proposed budget. Some communities have taken advantage of the opportunity by proposing projects to improve water supply and sanitation. Other communities have spent funds on projects that were not urgent in nature. For instance, one community in Lodhran District used the funds to build a wall around a graveyard⁴.

Detractors of the devolution plan further point out its financial shortcomings. For instance, the plan has transferred responsibility of municipal service delivery such as water supply, sanitation, primary education, and basic health, to the local governments. However, the devolution plan falls short of building institutional, financial, and technical capacity of local governments. Thus, the local governments have assumed the mandate without acquiring the resources required to deliver on their authority. The lack of technical expertise at the Union Council and Tehsil level governments limits their ability to plan and deliver municipal services. The lack of own source revenue makes the local governments financially dependent upon provincial and federal governments, which subjects the local governments to potential exploitation by the higher tiers of government.

A review of the municipal finances in Pakistan exposes the financial conundrum that they face. Firstly, there is lack of own source revenue. A DFID study found that their source of revenue in municipal governments varied between 0 to 8%. The ad hoc transfer of funds from the higher levels of government to the local

⁴ Qureshi, Najeeb Aslam (2005). A success story of Citizen Community Boards at Tehsil Dunyapur. Mr. Qureshi is the Tehsil municipal Officer in Dunyapur.

governments restricted the local governments' capacity to plan and deliver municipal services. The devolution plan tried to maintain the status quo by upholding the "revenue adequacy" to keep municipal service delivery at the pre-devolution level (Manning, Porter, Charlton, Cyan, & Hasnain 2005). As such, the plan did not innovate when it came to municipal finances and it did not provide for formula-based and stable sources of funding (Kardar 2003). In fact, some stable local sources of revenue, such as the import duty on out of district goods (Octroi), were withdrawn from the local governments. That the local governments cannot levy new taxes, which eliminates direct revenues, does not bode well for local governments. In addition, a significant portion of the budget is spent on recurring expenditures. The local government in Peshawar spent 86% of the budget on salaries, and utility bills (Zaidi 2005). This leaves insufficient funds either to maintain the existing level of services or to expand services to areas not yet covered.

The role of international aid in supporting regional development

Development banks and bi-lateral donors have been involved in supporting regional development in Pakistan. The Asian Development Bank (ADB) has supported the regional and urban development projects in the past. In the water supply and sanitation sector, ADB had invested a total of \$600 million up to 2003 while another \$620 million were undergoing approval (Shah 2003). A recently completed project worth \$72 million in Rawalpindi District focused on improving water supply and sanitation. ADB has also invested funds in support of the devolution plan in Pakistan. During 2003-2007, ADB is providing \$23 million to be spent on local government performance enhancement (Shah 2003). Numerous bilateral donors, such as DFID and CIDA are also supporting the devolution plan. CIDA, for instance, is operating a Devolution Support Program (CDSP), which is operating in districts in Punjab. Details of CIDA supported projects are listed on the site <http://www.pakdevolution.com>.

Best Practice Case Studies

In the following section, three case studies are presented, which highlight projects dealing with water supply, sanitation, and solid waste management. These case studies underscore the role of community-based organizations that have stepped in to provide the basic municipal services where the municipal authorities failed to serve. The case studies also highlight the role of international donors who have provided the seed funding to initiate the projects. These best practice case studies serve as successful examples for community mobilization, partnership with local authorities, and use of donor assistance to provide municipal services.

The selection of the best practice case studies was influenced by the deplorable state of water supply and sanitation in Pakistan and the communities' response to take lead in addressing their needs. Most communities do not have access to

proper sanitation facilities. Only 13.5% rural communities have access to any sanitation facilities in Pakistan (Bajwa 2005). The situation is marginally better in urban areas. Research has suggested that accessibility to municipal services and infrastructure does not perfectly correlate with income (Brook & Irwin 2003). The case of poor water supply in relatively high-income areas in Pakistan suggests that access to basic infrastructure faces certain structural constraints, which add to the complexity of these issues.

The three case studies highlight the need for the government and the **Community-based Organizations** (CBOs) to work together. The three projects succeeded because they did not try to eliminate or replace the role of the state (municipal governments), but instead collaborated with the state. The very recognition that the state has the mandate and the capacity to deliver region-wide solutions has helped the community-based initiatives in the three best practice case studies presented here.

The demographic makeup of the communities being discussed in the following sections is presented in Table 3. The case studies are based in Faisalabad, Lahore, and Lodhran Districts.

Lodhran Pilot Project

Lodhran Pilot Project (LPP) is a community-based sanitation program, which started in the urban areas in Lodhran District. LPP is a local NGO, which is headed by Mr. Jahangeer Khan Tareen, who is a local philanthropist and a politician. LPP was influenced by the self-help philosophy pioneered in Pakistan by Dr. Akhtar Hameed Khan in Orangi, Karachi. Orangi Pilot Project (OPP) was the first large-scale self-help based sanitation project that was financed and developed by the community in Orangi, which is a low-income neighborhood in Karachi.

BEST PRACTICE	
Good Governance	
Urban Management	✓
Infrastructure/Service Provision	✓
Financing and Cost Recovery	✓
Sustainability	
Innovation and Change	
Leveraging ODA	✓

Lodhran is a growing district in the province of Punjab. The provision of sanitation facilities is largely poor throughout the district. LPP followed the OPP approach where the sanitation project was divided between internal and external works. The internal procedures, which were self-financed by the community, paid for the construction of in-house latrines and the laying of drains in the lanes. The external works, which were financed and developed by the local government, linked the neighborhood drains with the trunk sewers. LPP in its first phase completed 18 projects in Lodhran district worth 8.6 million rupees (US\$143,000) of which the community contributed 2.7 million rupees (US\$45,000). Within Lodhran City, which is the urban part of Lodhran Tehsil and has an estimated population of 75,000, 22,000 running feet of sewer lines were laid by LPP.

LPP serves as an excellent example of the synergies resulting from the combined efforts of the community and the local governments. The donors supported LPP by investing in developing the organizational and technical capacity of LPP. LPP's successful approach did not go unnoticed by the multilateral donors. Recently, the World Bank invested \$1.1 million to expand LPP's work in 100 additional communities.

Characteristics of the region

Lodhran district is located in the province of Punjab. The district is comprised of three tehsils: Lodhran, Dunyapur, and Karor Pacca (Figure 1). The district has a population of 1.17 million with an area of 1,790 square km. The gross population density is around 422 persons per square km. The district is composed of 11 urban and 62 rural Union Councils. The economy of the district is primarily agrarian. Lodhran District represents 0.2% of the total area of Pakistan. The District population represents 0.8% of the national total.

A sewerage system was laid many years ago. Over the years, lack of maintenance and repair has caused choking, silting, and overflowing in the system. Eventually sewage lines stopped functioning. The result was that rubbish and sewage filled the streets, which increased the incidence of disease among women and children. By and large, children play in streets during the day where they contact germs, which they end up bringing home to their mothers. The local governments did not have the resources to serve the communities in which these conditions existed, or the wherewithal to extend the sewerage system to newer communities. These conditions were the same for both urban and rural areas.

The local government in Lodhran does not have a master plan for the district.⁵ The Population Health and Engineering Department (PHED), which is a provincial institution, provided some informal drawings of the infrastructure to TMA. The plans for housing and physical planning were not implemented.

Lodhran TMA has a total budget of 70 million rupees (US\$1.2 million). TMA spends 73% of its budget on development of roads and solings⁶, water supply and sewerage, and drainage projects. The non-development budget includes salaries, utility bills, and the operation and maintenance costs related with sanitation. The main sources of revenue are (Urban Immovable Property Tax (UIPT), tax on the sale and purchase of livestock, grants in lieu of the abolished octroi, and from the province or multilateral donors.

⁵ Interview with Mr. Ashraf Gill, Assistant Tehsil Officer (Infrastructure and Services) in TMA Lodhran.

⁶ Solings are brick masonry street pavements generally laid with cement and sand mortar both in rural and peri-urban settlements.

Table 3 Demographic makeup and infrastructure provision in select districts

Area	Average Annual G.R.	Population Density	Urban %	Av. H/H Size	Literacy Rate	Rooms Per H/Unit	Housing Structure		
							Formal (%)	Semi-formal (%)	Informal (%)
Faisalabad District	2.51	927	42.7	7.2	51.94	2.3	69.8	14.0	16.1
Lahore District	3.46	3566	82.4	7.1	64.66	2.4	92.3	3.4	4.3
Lodhran District	2.74	422	14.5	7.2	29.90	2.1	33.7	10.7	55.6
Rural									
Faisalabad District	1.75			7.1	42.53	2.3	60.5	14.1	25.4
Lahore District	4.14			7.3	41.70	2.0	84.6	5.7	9.7
Lodhran District	2.43			7.2	26.83	2.1	30.2	11.3	58.5
Urban									
Faisalabad District	3.72			7.3	64.18	2.4	82.8	14.0	3.3
Lahore District	3.32			7.1	69.15	2.4	93.9	2.9	3.2
Lodhran District	5.04			7.5	47.66	2.4	55.1	6.8	38.1

Area	Kitchen			Bath Room			Lavatory		
	Private (%)	Shared (%)	None (%)	Private (%)	Shared (%)	None (%)	Private (%)	Shared (%)	None (%)
Faisalabad District	27.4	12.9	59.6	38.2	26.3	35.5	33.5	24.4	42.1
Lahore District	44.2	19.9	35.9	47.8	36.7	15.5	48.8	38.2	13.0
Lodhran District	22.5	7.4	70.2	19.4	9.0	71.6	15.7	7.5	76.9
Rural									
Faisalabad District	23.3	9.9	66.8	31.3	16.9	51.8	21.6	12.3	66.2
Lahore District	28.0	12.9	59.2	31.3	23.4	45.3	29.0	22.2	48.8
Lodhran District	20.9	6.6	72.5	15.3	6.5	78.3	10.1	4.5	85.4
Urban									
Faisalabad District	33.2	17.2	49.7	47.7	39.3	13.0	50.0	41.3	8.7
Lahore District	47.5	21.4	31.1	51.2	39.5	9.4	52.9	41.5	5.6
Lodhran District	32.0	12.2	55.9	45.3	24.7	30.0	50.1	25.9	23.9

Area	Source of Drinking Water							
	Outside House					Inside House		
	Tap Water (%)	Hand Pump (%)	Well (%)	Pond (%)	Other (%)	Tap Water (%)	Hand Pump (%)	Well (%)
Faisalabad District	2.4	3.5	0.1	0.2	1.8	28.1	63.6	0.3
Lahore District	2.2	1.3	0.1	0.0	0.7	75.2	20.4	0.3
Lodhran District	1.5	9.4	0.2	1.7	4.0	13.3	69.7	0.2
Rural								
Faisalabad District	1.1	5.1	0.2	0.4	2.3	15.3	75.7	0.2
Lahore District	1.1	4.9	0.2	0.0	1.2	26.1	65.8	0.6
Lodhran District	1.4	10.5	0.2	2.0	4.4	10.8	70.6	0.2
Urban								
Faisalabad District	4.1	1.3	0.0	0.0	1.2	45.9	46.9	0.5
Lahore District	2.4	0.5	0.0	0.0	0.6	85.2	11.0	0.2
Lodhran District	2.3	2.8	0.0	0.0	1.7	28.9	64.1	0.1

Source: Population and housing census, 1998

Description of the project

In March 1999, a local community leader, Mr. Tareen, invited Dr. Akhtar Hameed Khan to visit Lodhran and analyze the region's potential for a community-based sanitation project. Mr. Tareen hails from a well-off family and also holds an MBA. He was aware of the potential of community-based developments, as he had heard of the success of OPP. Dr. Khan visited Lodhran in 1999 and discovered the

potential of the region. Dr. Khan encouraged Mr. Tareen to register an NGO and initiate the work. Dr. Khan also deputed the late Mr. Hafeez Arain to the project.

Mr. Arain was an expert in community mobilization. He relocated to Lodhran and initiated outreach efforts in the community. Mr. Arain's dedication to Dr. Khan and commitment to the down trodden was legendary. His devotion and sincerity were his biggest strengths that allowed him to influence communities in Lodhran, Faisalabad, and Karachi.

Leadership at the community level played an important role in LPP. The vision and initiative by Mr. Tareen was instrumental in making LPP a success. Mr. Tareen realized from the beginning that OPP had already developed a workable model for Pakistan that brought the community together with donors and the local governments in extending sanitation services to the poor neighborhoods. Later, UNDP, NRSP, and CIDA also supported the sanitation schemes launched by LPP.

LPP is also a good example of collaboration between the local government and the CBOs. The TMA has seconded a municipal engineer and a community 'mobilizer' to LPP. The seconded expert has formed the critical link between TMA and LPP. Because of this link, the community, CBO, and the TMA were always updated on the progress made by each stakeholder. In 2005, TMA in Dunyapur allocated 25% of its development budget for projects initiated by CBOs (referred to as Citizen Community Boards (CCBs)). This arrangement also eliminated the mistrust between the community and the local government. CCBs have extended LPP's work into Solid Waste Management (SWM) in Teshil Dunyapur where households pay 30 rupees (US\$0.5) per month for the service.

LPP operates on the OPP philosophy, which divides the project into two components:

Internal development:

This refers to building a sanitary latrine and a modified septic tank in the house and construction of primary and secondary sewer lines. The local community finances and develops the internal development. The operation and maintenance of the primary and secondary sewer lines remain the responsibility of the local community.

External development:

External development refers to constructing main sewer lines, linking the main lines with the trunk sewers, and final disposal and treatment of sewage (Figure 2). Tehsil Municipal Administration (TMA) finances and manages the external development.

The roles and responsibilities of stakeholders are presented in Figure 3. LPP mobilizes the community and helps it constitute a sanitation committee. In rural areas, these committees are called *Village Sanitation Committees* (VSC). LPP's experts survey the area, prepare cost estimates for the project, and develop technical details including surveying. LPP trains the local volunteers and monitors the project during execution. The community forms a sanitation committee, appoints lane managers, collects contributions, procures construction materials, manages internal development, and maintains the infrastructure over the long term. TMA connects the internal development with the municipal sewers, manages disposal and treatment plants, and paves the streets and lanes where sewer pipes have been laid.

LPP run projects have transcended the District boundaries of Lodhran. At present, LPP is operating in Lodhran, Khanpur (District Rahim Yar Khan), and Melsi (District Vehari). The **World Bank** took notice of LPP in 2003. By that time, LPP had successfully operated for four years and was carrying out sanitation projects in 30 communities. In 2005, the World Bank and Japan Social Development Fund (JSDF) injected \$1.1 million in LPP to extend the project to 100 additional villages. LPP is expanding the project using the same principle of internal and external development. The expansion will improve sanitation for 20,000 households at an average cost of 1500 rupees (US\$25) per household. The World Bank's support also includes funding for workshops to educate communities, curriculum development in community-based sanitation and the training of 150 associate engineers and 400 municipal councilors.

LPP has made certain technical innovations in the laying of sewer lines and connecting primary sewers with the outlets from houses. Community participation eliminates intermediaries, thus resulting in huge cost savings. LPP has also relied on the use of GIS to map and plan infrastructure development. The streamlining of activities between LPP and TMA resulted in synergies that would have not happened if the two worked in isolation, or worse, worked against each other.

The long-term success of donor-assisted projects in Pakistan depends on the sustained interest of international donors, whose priorities are dictated by the geopolitics of the region. The CBOs, and the local governments have to generate own source revenue to guarantee their long-term success. While LPP continues with successfully implementing sanitation projects in mostly rural and some urban areas of Punjab province, the longevity of LPP is not very certain. To sustain itself over the long run, LPP should generate sufficient non-donor funds to mobilize communities for internal development. Similarly, own source revenue is required for TMAs to fund the external developments.

LPP is considered a best practice model in rural/urban sanitation because it mobilizes communities, partners with local authorities and uses donor assistance to

provide municipal services. LPP exemplifies the demand responsive approach where the need for improved service is established, which is followed by an expression of interest and an assessment of the willingness-to-pay by the community. The projects are later implemented on a cost-sharing basis where the community is put in charge of operation and maintenance of internal the infrastructure, which includes latrines, septic tanks, and primary and secondary sewer lines.

Community-Based Water Supply and Sanitation Services in Faisalabad

Numerous low-income communities, which are home to blue-collar labor, lacked proper water supply and sanitation in Faisalabad. Local community leaders have been lobbying the politicians for years for improved municipal services. In return, they have only received empty promises. Meanwhile, the size and density of communities has increased over time and the lack of adequate municipal services has persisted.

BEST PRACTICE	
Good Governance	
Urban Management	✓
Infrastructure/Service Provision	✓
Financing and Cost Recovery	✓
Sustainability	
Innovation and Change	✓
Leveraging ODA	✓

The lack of sanitation resulted in streets filled with sewage and other waste. These unhygienic conditions were more than just an eye sore. Poor sanitary conditions resulted in higher incidence of disease. Women and children suffered the most because they spent the most time in the unhygienic environment. The community relied on donkey carts to supply water to the households.

A few local leaders in the community of Daddiwala, Faisalabad, had been trying to attract attention of politicians to their plight. Their NGO, *Anjuman Samaji Behbood* (ASB) had the agenda to promote social welfare in the localities it served. However, for years, ASB confined its role to lobbying politicians. Self-help had not been on their agenda.

After being merely a lobbying group for years, ASB transformed itself to become an agent of change. In the process, ASB helped launch a community-driven water supply and sanitation program, which has equipped 10,000 households in 85 communities. These households have spent 43 million rupees (US\$0.72 million) towards building better water supply and sanitation facilities.

Characteristics of the region

Faisalabad is a sprawling metropolis with a population of two million (1998 Census, Figure 4). The city evolved from a primarily agrarian fueled economy to a more diversified economy where manufacturing and textile production saw a huge increase. The emergence of the textile industry attracted job seekers from rural areas and other towns to Faisalabad. The city grew rapidly and became the third largest city in Pakistan.

The rural part of Faisalabad consists of numerous villages. The urbanization that followed industry was mostly in the form of unplanned development. Communities in the rural parts of Faisalabad lacked water supply and sanitation facilities. Because of the high water table, communities relied on hand pumps to draw water. The other effect of the high water table was that agricultural land suffered from water logging.

The population in Faisalabad has been growing at a rate of 2.5% annually (Table 3). The annual growth rate of urban areas at 3.7% is twice that of rural areas. According to the 1998 Census, 43% of Faisalabad district was categorized as urban. Three in four rural households obtained water from a hand pump located within the house. Whereas in urban areas, 46% housing units obtained water from a municipal tap located within the house, while another 47% drew water from a hand pump located within the house.

Description of the project

Mr. Nazeer Ahmad Wattoo leads ASB in Faisalabad. ASB is based in the Dhuddiwala neighborhood, which could be characterized as an urbanized village. ASB's community-based water supply and sanitation project in Faisalabad is another spin-off of OPP. Dr. Akhtar Hameed Khan inspired Mr. Wattoo and other volunteers and shared his philosophy of **community mobilization** and community-based development.

Before joining hands with OPP, ASB had been lobbying the political leadership for better municipal services, but in vain. OPP invited Mr. Wattoo for a visit in 1988. A paradigm shift was in order for ASB. Mr. Wattoo bought into the idea of self-help and community-based solutions. Over the next six years, ASB and OPP continued their collaboration, where OPP trained ASB in community mobilization.

Mr. Hafeez Arain played a critical role in the success of ASB's projects. He relocated to Faisalabad to take up the challenge of restoring ASB's trust. Years of association with political parties had tainted the reputation of ASB. Before the community was asked to embark on developing new projects, there was an uphill task of winning the community's trust.

OPP had started a micro-finance project in Karachi. Hafeez Arain used micro finance to invite the community to submit applications for five micro credit schemes for a total value of 100,000 rupees (US\$1670). Initially, three projects were chosen after due consideration. The success of these projects was instrumental in building community's trust in ASB. With the micro-credit up and running, the community took notice of ASB. It was only then that Mr. Wattoo and Hafeez Arain started to mobilize the community for a self-financed water supply scheme.

ASB's first project was based in Hasanpura, a neighborhood of about 1,000 households. Residents of Hasanpura used hand pumps to obtain water. Hasanpura also suffered from water logging. The local authorities used eight deep tube-wells to lower the water table that rendered hand pumps useless for most residents. The residents had to rely on private vendors who used donkey carts to supply water. The poor quality of the water was responsible for a higher incidence of disease in the community. ASB estimated the total cost of illness and loss of business due to poor water quality to be over nine million rupees (US\$150,000) per year.

ASB initiated work on the project in 1994 by conducting infrastructure surveys, GIS mapping, establishing linkages with Water and Sanitation Authority (WASA), Faisalabad Development Authority (FDA) and Faisalabad Municipal Corporation (FMC). ASB followed the OPP's philosophy of dividing the project into internal and external development, which has been described earlier under the LPP's sanitation program. FDA's main water pipe ran only 335 meters away from the community. The municipal authorities initially declined ASB's request to link the community water supply scheme with the municipal network. For community mobilization, ASB identified notables in the region and approached them with their plan (Figure 5). ASB held meetings with the community and formed lane committees to undertake the construction work. A lane supervisor was appointed to manage each lane committee.

A *Water Supply Committee* (WSC) was formed in November 1995. The lane committees collected funds from each lane, purchased construction materials, arranged for labor, and initiated laying down pipes in the lanes and connecting them with individual houses. OPP continued providing technical help. Once the network was completed within the community, it was linked with the FDA's water mains. Each lane paid for the installation of pipes within their respective lanes.

The collaboration between ASB and FDA is another example of public-community partnership (PCP). Such collaborations reduce the project costs significantly. According to ASB, the community-based projects could be 60% lower in costs because they eliminate the intermediaries and their mark-ups. On average, each household in Hasanpura paid 3200 (US\$53) to install the infrastructure. The other major benefit of the community-based projects is that the community volunteers its services for the operation and maintenance of the infrastructure, which further reduces the costs.

A drainage and sanitation scheme followed. This scheme was also based on the OPP's planning approach. The result was that sewage and garbage disappeared from the streets. As the streets became clean, a significant decline in the incidence of disease was observed. The Community's health improved and it became an attractive place for both residents and businesses. A value added of this scheme

was the relocation of small businesses into the community, which brought jobs and increased prosperity.

Challenges faced in project implementation

Unlike LPP, where the municipal authorities were on board from the beginning, ASB's first project in Hasanpura struggled with winning the trust of the municipal authorities. However, since December 1997, ASB and the local government have patched up their differences. In addition, not everyone in the community bought into the community-based development paradigm. Local politicians tried to dissuade the community from joining ASB's projects. A local provincial MP lied to the community about a fake government funded water supply project, which would provide free water connections to the community. However, the community leaders applied due diligence and discovered that the MP's claim was nothing more than a hoax. This added to the credibility of ASB and the work on the project commenced in 1995.

ASB was also successful in dispute resolution among the community members. In August 1996, some 65 households established unauthorized connections without reimbursing WSC for their connections. ASB challenged these households in the courts as well as complaining about their connections with the municipal authorities. The authorities decided in ASB's favor, and the households paid fines and other fees for their connections. By June 1999, 30% households in Hasanpura were connected to the network.

Role of donors

The role of donors has been very critical in the successful implementation of ASB's water supply and drainage schemes. The community was willing to finance internal development. However, it was not ready to bear the cost of linking the internal development with WASA's main line running at 335 meters from Hasanpura. **Water Aid**, a UK based development agency, stepped in to offer a revolving loan of 200,000 rupees (US\$3330) to the WSC. The equity plug by Water Aid made the project feasible. By June 1999, the community had already returned 30% of Water Aid's loan.

DFID had been instrumental in building capacity of local governments in Faisalabad. DFID launched four pilot initiatives under the Faisalabad Area Up gradation Project (FAUP) in 1994-95 to upgrade the quality of life of slum dwellers in Faisalabad. FAUP also offered WASA technical expertise in planning, design, and implementation of primary and secondary water/sewerage infrastructure. At present, an adequate research/operational unit is working in Faisalabad and is called the Strategic Policy Unit (SPU)⁷. FAUP also played an important role in

⁷ The SPU's URL is <http://www.spu.com.pk>. SPU operates out of the DCO's office in Faisalabad and is therefore assisting the devolution program. The unit is

convincing municipal authorities to allow the community’s water supply network to tap into the municipal water supply network.

The ASB water supply and sanitation schemes are best practices of infrastructure/service provision where the communities have mobilized themselves to generate funds, solicit loans from donors, liaise with planning authorities and build a municipal infrastructure. ASB’s success could be judged from the fact that it has received numerous requests for technical assistance from TMAs in neighboring areas who also want to adopt ASB’s model to empower communities. ASB introduced GIS to map the existing infrastructure and the spatial distribution of communities that required services. The innovative approach of GIS-based planning helped convince the local government to connect the community water supply infrastructure with the municipality’s water mains.

Solid Waste Management in Lahore

Solid waste in Pakistan is largely unmanaged. According to the national Conservation Strategy, Pakistan generates an estimated 48,000 tonnes of solid waste per day of which almost 20,000 tonnes is generated in urban areas⁸. In the worst-cases, solid waste is left to litter or decompose on streets and empty lots. Even when the municipal authorities collect solid waste, it is dumped and burnt in open areas. While solid waste directorates do exist in most large urban centers, the service offered by the directorates is irregular, inefficient, and inadequate. Moreover, the final disposal of waste involves either dumping in non-engineered landfills or the waste is burnt, which further pollutes the environment.

Waste Busters is a private company that started collecting solid waste in Lahore. The company operates in middle- to high-income neighborhoods in urban centers where it charges market price for collecting waste. Once the waste has been collected, Waste Busters sorts and recycles the waste. Waste Busters produces organic fertilizers from the waste and sells it to farmers.

BEST PRACTICE	
Good Governance	
Urban Management	✓
Infrastructure/Service Provision	✓
Financing and Cost Recovery	✓
Sustainability	✓
Innovation and Change	
Leveraging ODA	

This case study is different from the previous two case studies for the following reasons. Firstly, Waste Busters operates largely in urban centers where water supply and drainage facilities have been provided by the municipal authorities. Secondly, Waste Busters operates in communities that exhibit willingness-to-pay

headed by Mr. Khatib Alam. Mr. Kevin Tayler and Mr. Paul Dean are also engaged in field research for DFID in Faisalabad. DFID has taken the lead by undertaking pioneering research in the design of tertiary infrastructure in Pakistan.

⁸ Khan, Sadiq Ibrahim (2004). ISLAMABAD: Upgradation of solid waste management need of hour. February 06, 2004. <http://www.dawn.com/2004/02/06/local20.htm>.

for improved **solid waste management**. Because of its success, Waste Busters has been able to win long-term contracts from numerous local governments in Pakistan to collect, dispose of, and recycle solid waste. Waste Busters uses a differential fee structure, which charges fees according to the income level in the neighborhood.

This project highlights the need for entrepreneurial leadership. Waste Busters and other similar waste management companies occupy the waste management niche in Pakistan. While there exists the need for such services, in the absence of imaginative entrepreneurs, the demand for solid waste management services remain unmet in Pakistan. Entrepreneurs, such as Mr. Asif Farooki, who manages Waste Busters, have turned waste into profit while at the same time cleaned up the cities and helped curb the spread of disease.

Characteristics of the region

Lahore is the second largest city in Pakistan (Figure 6). The estimated population of Lahore is around seven million. Housing conditions in Lahore are far superior to the conditions in Lodhran and Faisalabad. The majority of housing, 92% housing units in Lahore, are categorized as formal housing, yet 36% housing units lacked a proper kitchen facility (Table 3). Only 15% housing units lacked a bathroom and 13% housing units lacked a lavatory. Most households (77.5%) obtained water from the municipal taps, while another 22% obtained water from hand pumps. These statistics revealed that Lahore enjoyed good water supply.

Description of the project

Averaging around 0.5 to 0.7 kg per capita per day, the rate of waste generation is significantly lower in Pakistan than the rate in developed countries. Even with the low waste generation rate, managing solid waste in Pakistan remains a formidable challenge for municipal authorities. Municipal authorities in Karachi, the largest city in Pakistan, recover only 50% of the 7,000 tonnes of solid waste generated every day.⁹

Despite huge resources dedicated to the solid waste management operations in the City of Lahore, solid waste remains a huge problem. The Lahore Municipal Corporation (LMC) and the two Cantonment Boards struggled with keeping the streets clean.¹⁰ According to the city government, Lahore generates 4,750 tonnes of solid waste per day. Almost 10% waste is estimated to be recyclable. Even in the areas where waste is collected by the municipal authorities, it is disposed in an ad hoc manner. The improper disposal of waste generated additional harmful

⁹ <http://www.tve.org/ho/doc.cfm?aid=640>. Reached on November 11, 2005.

¹⁰ Cantonment Boards are military garrisons. Though these areas remain under the control of the Director General of Military Land and Cantonments in the Ministry of Defense, Cantonments have essentially become residential areas. There are more than forty cantonments in Pakistan

pollutants in the region. Most solid waste (almost 60%) is merely vegetable and fruit residues along with dust, dirt, and residues from construction¹¹.

The LMC's budget for solid waste management is around 500 million rupees (US\$8 million). With the devolution plan, the City District Government of Lahore (CDGL) assumed responsibilities for waste management. Since devolution, the size of the new city grew by 1350 square km to almost 1,800 square km. The budget for solid waste management, however, remained the same¹².

At present, CDGL spends roughly 71 rupees (US\$1.10) per person annually on solid waste management. Even with these scarce funds, there have been accusations of mismanagement (Dogar 2001, *The Nation*).

Waste Busters started its operations in the cantonment areas of Lahore in 1996. Initially the garbage was collected on donkey carts. Later small sized pickups replaced donkey carts. More recently, Waste Busters employed large trucks for managing waste logistics. Waste Busters works in collaboration with the municipal authorities. The city has leased land to Waste Busters for its operations. Waste Busters generates revenue by charging households for the service. In addition, it composts waste into organic fertilizer, which it sells to the farmers for additional revenue.

CDGL contracted out waste management to Waste Busters for three union councils for 4.3 million rupees (US\$72,000) per month. As part of the decentralization plan, CDGL would continue with privatizing these services, which have proven to be run more efficiently by the private sector.

Waste Busters installed a **composting** and a biogas (Methane) generation plant in **Lahore** at a cost of 30 million rupees¹³. The plant has a capacity of processing 500 tonnes (10% of the waste generated in Lahore) per day. It can also generate 150 tonnes of organic fertilizer and 1000 cubic meters of methane. The organic fertilizer is sold at three rupees (US\$0.05) per kilogram to farmers. Waste Busters has planned a similar plant for the federal capital, Islamabad, which generates 563 tonnes of solid waste per day.

Waste Buster's model involves collecting waste directly from the household (Figure 7). Waste Busters distributes large bags to households to store their waste. The bags are collected every day from the households. The waste is then

¹¹ Hammad Naqi Khan, Director, Freshwater and Toxics Programme WWF-Pakistan

¹² Dogar, Babar (2001). Solid waste disposal a great challenge. *The Nation*. 24/11/2001.
<http://www.nation.com.pk/daily/241101/national/lhr1.htm>

¹³ Anonymous (2003). Pakistan's first biogas plant opens tomorrow. *Daily Dawn*. 4/22/2003.
<http://www.dawn.com/2003/04/22/local60.htm>

transported to the waste management sites (Figure 8) where it is sorted, composted, or dumped in a landfill.

Waste Buster has received numerous international awards for its approach to solid waste management. UNDP awarded the TUGI award to Waste Busters in 2003 for practicing sustainable development. Waste Buster's project in Gujarat was selected by the UNHABITAT as best practice in solid waste management. Its work is being replicated in many cities in Pakistan and in other countries. Within Pakistan, Waste Busters has franchised its operations to local entrepreneurs in different cities. Commercial enterprises have approached Waste Busters to sponsor waste management programs. For instance, Tetrapak, who specializes in dairy products and packages milk in small cartons, engaged Waste Busters to collect used Tetrapak's packaging for recycling. Similarly, other corporations initiated promotional campaign for environmentally sustainable solid waste management with Waste Busters. Waste Buster's successful approach provides evidence in support of public-private partnerships.

The donor community also has a role in solid waste management. Setting up of recycling plants, purchasing of vehicles and the hiring of a large number of sanitary workers, requires huge capital investments. Waste Busters and other similar establishments were unable to convince commercial banks to invest in waste management. The donors could provide the initial start-up capital, or the equity plug, as a loan to set up new waste management companies.

Key Lessons Learned

In this section, we briefly summarize the key lessons learnt from the three best practice case studies.

Community-based solutions are preferred

The three case studies are successful examples of community involvement in municipal service delivery. The local governments were unable to offer vital municipal services. The community realized the need, formed a leadership structure, either self financed or obtained loans from a donor, developed the infrastructure, and started delivering the services. The merits of community-based initiatives have been recognized globally. The **Copenhagen Convention**, a project involving the world's leading economist offering solutions for the most pressing challenges, also endorses the community-based solutions (2004). CBOs check corruption and excessive pricing by eliminating the intermediary and by encouraging the community to invest labor, time, and expertise in the project.

It is important that note that three case studies highlight the need for the government and the CBOs to work together. The three projects succeeded because they did not try to eliminate or replace the state (municipal governments), but instead they worked with the state. The very recognition that the state has the

mandate and the capacity to deliver region-wide solutions has helped the community-based initiatives. In case of neighborhood level sanitation, the local government offered assistance to connect local sewer lines to the trunk sewers. In the case of water supply, the community laid out the internal network, which the local government linked with the municipal water supply network. The formula of neighborhood level development by the CBO and the external development by the local government was partially behind the success of these projects. In addition, since the community took responsibility of maintaining the neighborhood level infrastructures, these projects enjoyed the longevity that eluded numerous other pilot projects.

The role of leadership in CBO-led initiatives

The three case studies highlight the important role-played by the community leaders in the success of these projects. The pioneering role of intellectual leadership of **Dr. Akhtar Hameed Khan** of the **Orangi Pilot Project** (OPP) is evident in Faisalabad water supply project and the Lodhran's sanitation project. Even after his death, Dr. Khan through his writings continues to inspire a new generation of community workers. Mr. Wattoo, the force behind the Faisalabad project, was influenced by Dr. Khan and so was Mr. Jahangeer Khan Tareen, who founded the **Lodhran Pilot Project** of community sanitation.

Along with the intellectual leadership is the crucial role of beachheads whose job is to win the trust of the community and afterwards mobilizing the community towards a common goal. In this regard, the key role of late Hafeez Arain, who was a foot soldier of OPP, needs to be recognized. Mr. Arain worked tirelessly within the communities across Pakistan. He earned their trust before he proposed any plans for infrastructure development. Mr. Arain laid the foundation of trust in Lodhran and in Faisalabad that allowed the local leaders, such as Mr. Wattoo and Mr. Tareen, to proceed with the development.

In the case of Solid Waste Management (SWM) in Lahore, the role of local entrepreneur, Mr. Asif Farooki, serves the leadership role in a slightly different capacity. The project was based in a middle-income community, which demonstrated the willingness to pay for an improved service. Mr. Farooki provided the entrepreneurial leadership to offer a service that the municipal authorities failed to provide.

CBOs need technical help

While CBOs have undertaken municipal infrastructure projects with little or no training, there is a need for technical training of these CBOs. Technically sound designs will further reduce operating costs and will prevent communities from erecting infrastructure that fails to deliver. In case of Lodhran, the engineering staff on deputation from the municipal government provided technical expertise to

the community resulting in a public-community partnership that drove projects to success.

Comprehensiveness

The community-based initiatives are inherently local in nature. They often focus on one type of municipal service, such as water supply or sanitation. Healthy, prosperous, and dynamic communities have varying needs for *all* types of infrastructure. Communities with poor sanitation may also need an improved water supply. Similarly, a community with proper drainage will also require a sound SWM program. Otherwise, the solid waste may end up choking municipal drains. This has happened in Lahore, where the newly built drainage system was not complemented by a SWM program. The result was that solid waste ended up in drains and the city was flooded in the very first shower of the monsoon season in 2004.

Role of donor agencies

There are two schools of thought prevalent in Pakistan concerning donors' assistance. Dr. Khan's vision precludes grants from donors to the poor for community-based development projects. He has argued that the community should finance its own development and not rely on any foreign assistance. The other school of thought argues that in very poor communities, the donors can provide the seed funding on a cost-sharing basis towards the capital costs of the projects. The role of Water Aid in Faisalabad in extending loans to the community is an example where the latter approach succeeded. In case of Lodhran, the World Bank joined the initiative after seeing the successful implementation of the sanitation project.

Since September 2001, the donors' interest in Pakistan has reached new heights. During the Afghan war in late seventies and mid-eighties, the international donor community showed a similar interest in financing development projects in Pakistan. However, the donors' interest in Pakistan was only temporary. Some bilateral donors, such as USAID, in fact shut down their offices in Pakistan as soon as the US interest in Afghanistan diminished in mid eighties. With the renewed interest in Afghanistan today, **USAID** and other donors have once again opened their shops in Pakistan. The multilateral donors, such as the World Bank, have extended loans on very favorable terms since September 2001. Once the dust settles on the "war on terror", the interest of donors and their investments in Pakistan may diminish yet again. This has serious repercussions for longevity of donor-assisted projects in Pakistan.

Linking community infrastructure with municipal networks

As mentioned earlier, the community-based initiatives are inherently local in nature. The infrastructure is developed for the neighborhood and the services are extended to the same community. However, the local initiatives have to be integrated with the regional networks of water supply and sewerage systems. The

network service operators, often the local governments, need to charge the marginal costs of extending the services to the community. This has caused confusion in Faisalabad where the local community did not realize that it also had to pay the network operator to provide water through the water mains. The communities should be educated about the local as well as regional operating costs associated with municipal service delivery.

Strategies to Enhance Sustainable Urban Region Development

When it comes to infrastructure development, the private banking sector in Pakistan is missing from the picture. There lies a great potential for commercial banks to make a meaningful contribution in alleviating poverty while creating a new client base. The **Grameen Bank** in **Bangladesh** has established the viability of **micro credit** in Bangladesh. The micro credit programs run by OPP have also concluded the same. With lower than average default rates, poor consumers have proven themselves to be creditworthy and bankable. Realizing the potential of micro credit, the government in Pakistan has initiated a micro credit facility: the Khushhali Bank. However, the bank's coverage is rather limited as it espouses to reach 600,000 households by 2006. With millions of households needing assistance, no one bank can service this demand. There is an opportunity for the commercial banks to participate in development finance in Pakistan.

The community based development culture in Pakistan was pioneered by Dr. Akhtar Hameed Khan's OPP in late seventies. What is not widely known is the role of private banking sector in the creation of OPP. Agha Hasan Abedi, who headed the Bank of Credit and Commerce International (BCCI), financed the creation of OPP and supported Dr. Khan's initial setup in Pakistan. Agha Hasan Abedi saw value in investing in the most downtrodden in Pakistan. What he envisioned in early eighties has been replicated globally. In fact, the latest in financial thought proposes targeting the largest market segment, which comprises of those who live on less than \$2 a day (Prahald 2006).

The poor purchase all services they consume, often paying more than the market price. Development finance in developing countries needs to become mainstream. The commercial banks should consider extending loans to self-organizing communities, who have been ready to invest in their own future. The scale of the development challenge is such that it cannot be left to already stretched multilateral and bilateral donors. The commercial banks have to step in and realize the potential of banking the poor.

There are no straight answers for the role of donors in offering financial assistance to communities. It could be argued that the donors' assistance should not take the sense of ownership and the responsibility off the shoulders of the community. Once the donors loose interest in the projects that they have financed, the

community seldom steps in to plug the financing gap. However, the likelihood of long-term survival is higher for projects where the donors have restricted their assistance to the capital costs and have encouraged the community to shoulder operating and maintenance costs.

Municipal finance in Pakistan, like many other developing countries, needs to be reengineered. Local governments rely on transfer of payments from higher tiers of government. They lack own source revenue and sources of buoyant taxes. This needs to be changed. While small communities may not have a sufficient tax base, large municipalities could generate funds from efficient pricing of services they deliver and by generating local revenue from direct taxation. Metropolitans, such as Lahore (population: over 5 million) and Karachi (population: 11 million) enjoy the critical mass to sustain their operations from local taxes.

The new devolution plan in Pakistan pre-empts local governments from raising funds in the capital markets. Municipal bonds are unheard of in Pakistan. There is an immediate need of financial restructuring in Pakistan so that the local governments can expand the revenue base by relying on direct taxation rather than on transfer of payments. In addition, large municipalities, which have high-value assets, should be permitted to float bonds and debentures in open markets to finance development.

There is a dire need of **capacity building** of local governments in Pakistan. Municipal governments lack technical expertise. Adequate number of trained engineers and planners are lacking in the municipal workforce. Without technical expertise at the local level, local governments will continue to struggle in delivering the mandate they have assumed under the devolution plan. Similarly, there is a need to extend technical assistance to the CBOs while they plan local infrastructure development. The government can create a national agency with the mandate to assist CBOs in developing local infrastructure. Given the lack of trained technical staff at the local government level, it may not be feasible to deputize the local governments' staff to CBOs.

These case studies have highlighted the strengths of the **public-community partnerships** (PCP), which are inherently different from public private partnerships (PPP). The traditional PPP involves a private, for profit, enterprise that builds the infrastructure and provides service at a cost that also includes the profits for the private enterprise, which is essentially acting as an intermediary between the community and the government. A PCP on the other hand eliminates the intermediary and puts the community in the driving seat. This approach reduced project costs by almost 60% in Faisalabad.

The success of the three case studies points to the synergies when stakeholders pool their resources. The 'holy trinity' of the NGO, community, and local government

has been behind the success of the three case studies. The important lesson learnt is that NGOs and CBOs do not eliminate or replace the state, but in fact work with the state for large scale implementation of community led initiatives.

There is also a need to revamp the engineering and planning curricula in Pakistan. Community based infrastructure development is missing from the curricula being taught in engineering and planning programs. Those who are employed in the field also lack experience in community-based infrastructure development. This creates an opportunity for the institutes of higher learning to step in and design new curricula for students and practitioners.

Some agencies dealing with municipal services, such as water supply, sanitation, and transportation, continue to be under the control of provincial governments. The devolution plan did not bring these agencies under the purview of local governments. This creates administrative and operational confusion. While the local governments have the mandate to deliver municipal services, the state apparatus bearing the technical expertise and financial resources, continues to be under provincial control. Need less to say, this shortcoming should be addressed at the earliest by bringing such entities under the purview of local governments.

Efficient planning and service delivery cannot happen without location-specific data. Local indicators of municipal services are vital in benchmarking the performance of local governments and also in planning interventions and improvements. Such information has not been made available in the past in Pakistan. The donor community has also financed numerous surveys in Pakistan on municipal service delivery, literacy, and gender related development. Often such data sets have remained with the international consultants and have not been made available to local planners and policymakers. A paradigm shift is in order when it comes to making data available for informed policymaking.

Only recently, the Population Census Organization in Pakistan has started publishing district-wide reports with details on development indicators at the neighborhood level. In addition, different state agencies have started to generate GIS databases with spatial details at the local level. A data bank that pools information from various entities of government and donors will play a large role in improved decision-making by becoming a data depository, which would also disseminate data to various stakeholders. In the absence of such a data bank, many agencies would waste precious development funds by duplicating data collection. The data bank will support research, planning, and execution of municipal services so that informed, timely, and relevant decisions could be made in improving the lives of millions of poor in Pakistan.

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Community-based sanitation and water supply in Faisalabad

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DISTRICT LODHRAN

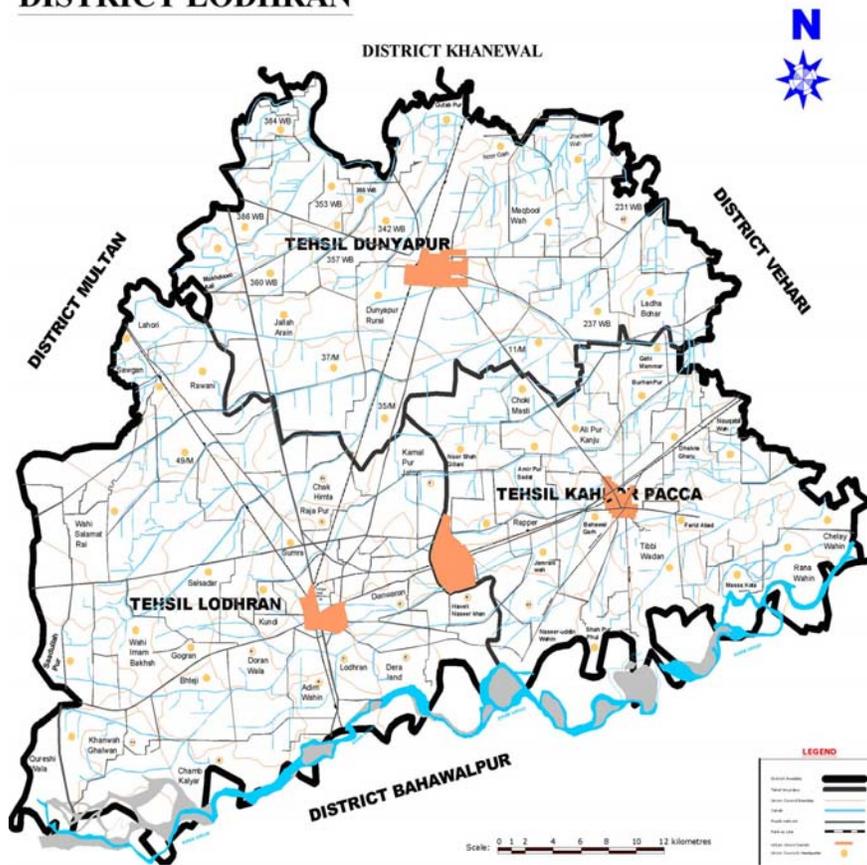


Figure 1 Map of Lodhran District

Source: <http://www.pakdevolution.com>



Figure 2 LPP operated disposal site for sewage

LPP

- Motivation
- Survey
- Estimation
- Level marking
- Technical Assistance
- Monitoring

- Activists' training

COMMUNITY

- Organization
- Lane Manager
- Contribution
- Purchase of material
- Supervision of work
- House connections

- Maintenance of lane sewer

TMA

- Change in policy
- Main Sewers
- Disposal works
- Treatment plants
- Pavement of streets
- Mechanical Assistance

- Transparency of procedures

Figure 3 Who does what in LPP

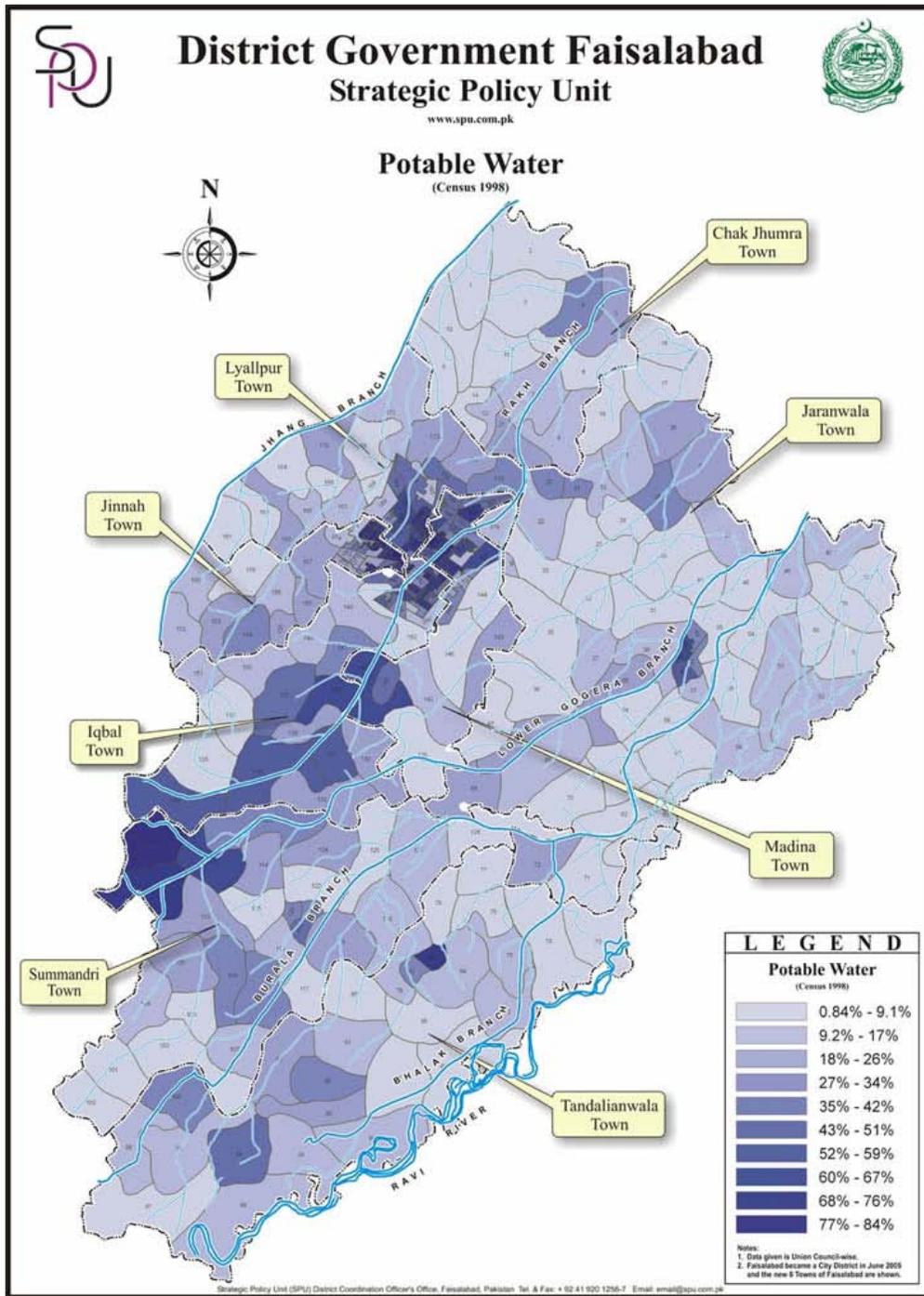


Figure 4 District Map of Faisalabad showing availability of potable water

Source: <http://www.spu.com.pk> (base data from Population and housing census, 1998)



Figure 5 Pioneers of community-based sanitation in Faisalabad: Mr. Nazeer Ahmad Wattoo (left) and his team members

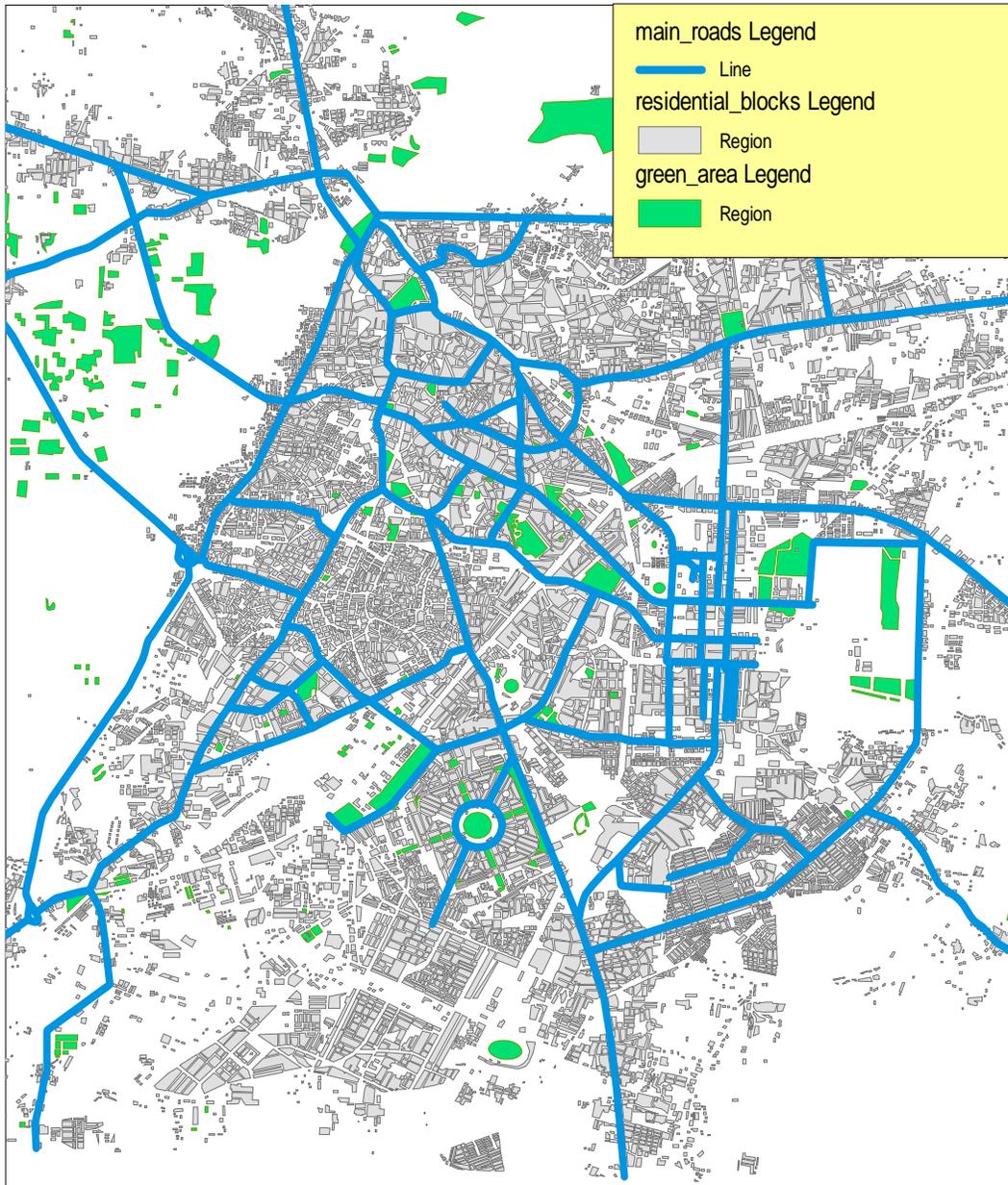


Figure 6 Map of the City of Lahore



Figure 7 Door-to-door waste collections by Waste Busters in Lahore



Figure 8 Waste Buster's staff collecting waste in Gujarat

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