

10. Pakistan

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INTRODUCTION

The current state of towns and cities in Pakistan is at complete odds with the rich heritage of urban planning that flourished in the subcontinent for more than a millennium. Cities once known for manicured gardens and exquisite fountains today reek of unmanaged solid waste and sewage. Due to resource constraints, sanitation and water supply have not been given top priority for the disenfranchised urban poor in Pakistan, who face poverty, disease, and lack of opportunity. This chapter explores issues related to urbanization.¹ It provides three case studies that demonstrate good practice in sustainable urban development in Pakistan related to water supply, solid waste management, and sanitation.² Table 10.1 shows some development statistics for Pakistan.

COUNTRY CONTEXT

Pakistan in the early 1950s was primarily rural, with only a handful of small to mid-sized cities. The population was estimated at 34 million in 1951; it is estimated at 160 million in 2005. The current urban population is about 56 million. The proportion of urban population increased from 17% in 1951 to 35% in 2005.

Since its inception as an independent state in 1947, Pakistan has experienced dramatic changes in economy and demographics. The agriculture sector, which contributed more than 53% of gross domestic product (GDP) in 1949–1950, declined to 24% of GDP in 2004 (Zaidi 2005). Over the same period, manufacturing increased from 8% to 26%, and services and trade increased from 25% to 51%. Whereas the share of agriculture in the national GDP halved over the last 5 decades, the agricultural labor force has declined less, from 65% in 1951 to 48% in 2003 (Zaidi 2005).

Urbanization Issues

Pakistan has experienced a large increase in population over the last 5 decades, with the population growth rate in urban and rural areas differing

Table 10.1: Country Development Profile, Pakistan

Human Development Index rank of 177 countries (2003) [^]	135
GDP growth (annual %, 2004)	6.38
GNI per capita, Atlas method (current \$, 2004)	600
GNI, Atlas method (current \$ billion, 2004)	90.7
GDP per capita PPP (\$, 2003) [^]	2,097
GDP PPP (\$ billion, 2003) [^]	311.3
Population growth (annual, 2005–2010, %) [#]	2.41
Population, total (million, 2005) [#]	161.15
Urban Population, total (million, 2005) [#]	56.08
Urban Population percent of total population (2005) [#]	35
Population Largest City: Karachi (2005, million)	11.82
Population Growth: 26 capital cities or centers with > 750,000 (2000) [#]	
- Est. average growth of capital cities or urban agglomerations 2005–2015 (%)	40
- No. of capital cities or urban agglomerations with growth > 50%, 2005–2015	1
- No. of capital cities or urban agglomerations with growth > 30%, 2005–2015	26
Sanitation, % of urban population with access to improved sanitation (2002) ^{**}	92
Water, % of urban population with access to improved water sources (2002) ^{**}	95
Slum population, % of urban population (2001) ^{**}	74
Slum population in urban areas (million, 2001) ^{**}	35.63
Poverty, % of urban population below national poverty line (1999) ^{**}	24.2
Aid (Net ODA received; (\$ million, 2003) [^]	1,068.4
Aid as share of country income (Net ODA/GNI, 2003, %) [*]	1.5
Aid per capita (current \$, 2003) [^]	7.20

GDP = gross domestic product, GNI = gross national income, ODA = official development assistance, PPP = purchasing power parity.

Sources: See Footnote Table 3.1, World Bank (2005); OECD (2003); United Nations (2004, 2005).

considerably. The population growth rate averaged about 2.5% per year for rural areas and about 3.5% per year for urban areas. The urban population in Baluchistan Province has been increasing at a rate of 5.1%, which is much higher than those of other provinces. However, the population base of

Table 10.2: Heterogeneity in the Rate of Urbanization in Pakistan

Area	1981 Urban (%)	1998 Urban (%)	Growth Rate Rural (%)	Growth Rate Urban (%)
Pakistan	29.1	33.1	2.3	3.5
NWFP	15.1	16.9	2.7	3.5
Punjab	27.6	31.3	2.3	3.4
Sindh	43.4	48.8	2.2	3.5
Baluchistan	15.5	23.9	1.9	5.1
Islamabad	60.1	65.7	4.3	5.8

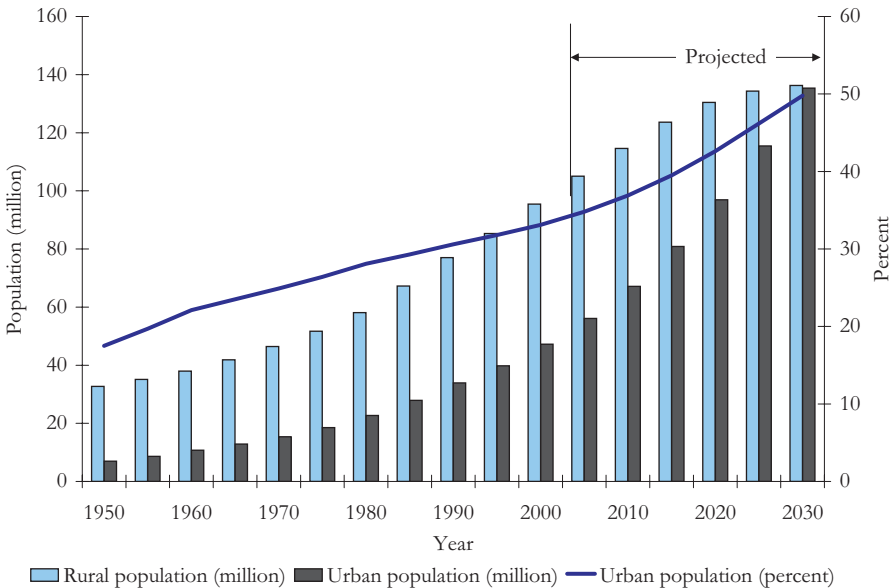
NWFP = North-West Frontier Province.

Source: Population Census 1998.

Baluchistan is very small and does not affect the national growth rate of urban populations. Table 10.2 shows population growth rates in various provinces.

Over the next 25 years, the urban population is expected to increase significantly (Figure 10.1). By 2030, the urban population is expected to have grown by 80 million, reaching 135 million, or 50% of the total population.

Figure 10.1: Trends in Urban and Rural Population, Pakistan



Underestimating the Urban Population

Defining what is urban is controversial. The definition carries huge ramifications for the political balance of the country. It has been argued in the past that there has been a systematic underestimating of the urban population. 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 argument goes that the true representation of urban population will shift the electoral balance from the rural electorates to urban centers. The shift of the political center of gravity to urban centers could diminish the influence of rural politicians.

Behind the controversy is an ad hoc land 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 nonfarming labor force characteristics of an area were also considered in declaring a place as urban.³ The definition for urban changed in the 1981 census and only areas designated as municipal corporations, municipal committees, or cantonment boards were considered urban areas.

This seriously underestimated the urban population in the 1981 census. At least 1,462 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 by at least 1 million. If the populations of small towns that are congruent to the administrative boundaries of Lahore and enjoy strong economic linkages with Lahore were added to the population of Lahore, the estimated population of the city would swell to 7 million.

High-density peri-urban areas showing urban characteristics have been emerging in South Asia. This phenomenon has been termed “ruralopolis” (Qadeer 2000). These areas exhibit characteristics that are similar to those of urban areas. Indicators of housing quality, labor force characteristics, educational attainment, and the travel behavior of the inhabitants of such “rural” areas are similar to those of low- to middle-income communities in designated urban areas. Characterizing such areas as rural serves only to maintain the political status quo.

Housing and Land Policies

Pakistan faces an acute housing shortage. The current estimate of the housing backlog is about 6 million (Government of Pakistan 2005). The annual construction of housing is about 300,000 units whereas the estimated demand is about 570,000 units.

The housing backlog presents only a partial view of the housing crisis. Another aspect is the housing affordability crisis for low-income households. The poor 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. Many low-income, nonsquatter settlements also remain deprived of water supply and sanitation facilities.

In the absence of a financing mechanism that targets the very poor, the housing crisis continues. In the last few decades, a land “mafia” has developed and has been devouring public land under varying guises. The urban development authorities have been transferring 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 who, 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. The land development industry has systematically transferred wealth to a privileged few, who have benefited from exclusive access to state-owned land. Government policies have encouraged such schemes in the name of promoting the housing industry (Jacobsen et al. 2002). The fact remains that the housing needs of low- and middle-income households have remained largely unmet, resulting in huge housing backlogs.

Infrastructure Deficit

Municipal infrastructure is, in general, in very poor shape. Underfunding of municipal governments by the national Government and poor attention to revenue collection over the decades have weakened the capacity of municipal governments to fund, build, and maintain infrastructure. In the absence of capital grants, new infrastructure required to cope with the needs of rapidly growing urban populations has not been planned or built (Zaidi 2005).

These factors paint a disturbing picture of municipal service delivery. Only 63% of the overall population has access to potable water (Shah 2003). The situation is more acute in rural areas, where only 53% of the population has ready access to water compared with 83% in urban areas. Access to sanitation facilities is worse: only 39% of the total population has access to proper sanitation facilities, of which only 27% is in the rural areas and 59% in cities (Shah 2003).⁴ Furthermore, overall, less than 1% of wastewater is treated and only 40% of the solid waste is disposed of properly.

The quality of municipal services is not uniform throughout the country. For example, the 1998 census revealed that only 28% of the population had in-house access to tap water (Table 10.3), 42% relied on hand pumps, and another 5% obtained drinking water from wells. A comparison of water supply across the provinces reveals huge disparities in coverage. For instance, only 42% of the population in Baluchistan had sources of drinking water inside the house and 36% relied on ponds and other sources

Table 10.3: Sources of Drinking Water in Pakistan (%)

Area	Outside the House					Inside the House		
	Tap Water	Hand Pump	Well	Pond	Others	Tap Water	Hand Pump	Well
Pakistan	4.2	5.1	5.1	2.9	7.8	28.1	42.1	4.9
NWFP	12.3	1.2	8.4	4.0	18.8	27.2	9.7	18.4
Punjab	2.2	5.3	2.2	1.1	2.5	24.3	60.4	2.0
Sindh	4.5	7.2	6.1	3.2	10.1	47.2	29.3	2.4
Baluchistan	4.3	2.1	16.1	16.7	19.0	25.3	2.4	14.1
Islamabad	6.1	1.9	18.3	0.5	3.1	57.3	5.0	7.9

NWFP = North-West Frontier Province.

Source: Population Census 1998.

of drinking water. In Punjab, 87% of the population had drinking water outlets inside the house.

National Regional Development and Decentralization Policies

Pakistan began implementing a major devolution plan in 2000, which has produced a new breed of local leadership under the military-led government of General Pervez Musharraf, who also holds the civilian office of the President of Pakistan. Some studies have viewed the current devolution exercise in Pakistan as a success; others have seen it as the military's attempt to prolong its rule in Pakistan.

Since its independence in 1947, Pakistan has been governed by civil or military dictatorships. Military rule has been interrupted by a few short periods 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 produce a new breed of politicians who would owe their allegiance to the armed forces rather than to the political party or civil society. 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 General Ayub's military regime, as it did not enjoy grassroots support.

The civilian government following General Ayub's regime 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 the Constitution mandated. The next military regime of General Zia-ul-Haq, which took power in 1977, stayed in office for 8 years before it eventually held nonparty-based local government elections. With the demise of General Zia-ul-Haq in 1988, the local government system he introduced also faded away.

It is interesting to note that civilian governments have also tried to undermine local governments. 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 that of 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 military regime overthrew the civilian government in October 1999. Within a year of its control of government, the regime began a decentralization and devolution program, which has proven to be the most ambitious of all devolution programs to date. Unlike the previous devolution programs, the new plan enjoys the protection of the Constitution.

Under the new system, local governments have been set up in urban and rural areas. A new generation of more than 126,000 municipal councilors was elected 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 new blood into the political establishment in Pakistan has brought about some changes. The devolution plan has reserved 33% of seats for women. As a result, nearly 25% of the new councilors elected in 2001 were women. Although this number is less than the constitutionally mandated target, the new order has certainly given a voice to women, who have for the most part remained disenfranchised in the Pakistani political system.

Review of the Devolution Program

The initial results of the decentralization and devolution program are mixed. The devolution plan has been successful in bringing women into the political process and at the same time creating a higher degree of awareness of local issues in the political setup. International and bilateral development partners have run training schools for women councilors to prepare them for municipal governance. The impact of women’s involvement in policy making at the grassroots level will be felt in time. Nevertheless, this scale of women’s involvement in decision making in Pakistan is unprecedented.

Critics view the devolution plan as another attempt by 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 documented gross electoral irregularities, which facilitated

the government-backed candidates to win their seats in an essentially non-party-based local government election.

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 graveyard.⁵

Detractors of the devolution plan 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 the resources required. The lack of technical expertise at the union council and *tehsil* level of government limits their ability to plan and deliver municipal services. The local governments are financially dependent on provincial and federal governments, which subject the local governments to potential exploitation by the higher tiers of government.

Municipal finances in Pakistan are a financial conundrum. The lack of local revenue is due to poorly managed and enforced property taxation. A study conducted by the United Kingdom's Department for International Development (DFID) found that own-sources of revenue in municipal governments varied between 0% and 8%. The ad hoc transfer of funds from the higher levels of government to local government restricted the latter's capacity to plan and deliver municipal services.

The devolution plan tried to maintain the status quo by upholding "revenue adequacy" to keep municipal service delivery at the pre-devolution level (Manning et al. 2005). As such, the plan was not innovative 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 local governments cannot levy new taxes, which exclude direct revenues, does not bode well for them. In addition, a significant portion of their budget is spent on recurring expenditures. The local government in Peshawar, for example, spent 86% of its budget on salaries and utility bills (Zaidi 2005). This left 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 bilateral development partners have been involved in supporting regional development in Pakistan. The Asian Development Bank (ADB) has supported regional and urban development projects in the past. In the Water Supply, Sanitation, and Waste Management Sector, ADB invested a total of \$600 million up to 2003 while another \$620 million was 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. For the period 2003–2007, ADB is providing \$23 million for local government performance enhancement (Shah 2003). Numerous bilateral donors, such as DFID and the Canadian International Development Agency (CIDA), are also supporting the devolution plan. CIDA, for instance, is operating a devolution support program, which is operating in districts in Punjab.⁶

GOOD PRACTICE CASE STUDIES

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

The selection of the good practice case studies was prompted by the deplorable state of water supply and sanitation in Pakistan and the communities' response to take the lead in addressing their needs. Most communities do not have access to proper sanitation facilities. Only 13.5% of rural communities have access to any such amenities in Pakistan (Bajwa 2005). The situation is only marginally better in urban areas. Research has suggested that accessibility of municipal services and infrastructure does not perfectly correlate with income (Brook and Irwin 2003). The case of inadequate water supply in high-income urban areas in Pakistan suggests that access to basic infrastructure faces inherent structural constraints, which adds to the complexity of these issues.

The three case studies highlight the need for government and CBOs to work together. The three projects succeeded because they did not try to eliminate

Figure 10.2: Map Showing Location of the Case Studies



or replace the role of the state (municipal governments), but instead collaborated with them. The very recognition that the state has the mandate and is most likely to develop the capacity to deliver region-wide solutions has helped the community-based initiatives in the three good practice case studies.

The demographic makeup of the communities being discussed in the following sections is presented in Table 10.4. The case studies are based in Faisalabad, Lahore, and Lodhran districts.

Lodhran Pilot Project

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

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

Lodhran is an evolving district in 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 development, which was self-financed by the community, paid for the construction of in-house latrines and the laying of drains in the lanes. The external works—financed and developed by the local government—linked the neighborhood drains with the trunk sewers. In its initial phase, LPP completed 18 projects in Lodhran district costing \$143,000, of which \$45,000 was contributed by the community. Within Lodhran City, which is the urban part of Lodhran Tehsil and has an estimated population of 75,000, 6.7 kilometers (km) 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. Donor support helped develop the organizational and technical capacity of LPP.

Characteristics of the Region

Lodhran District comprises three *tehsils*: Lodhran, Dunyapur, and Karor Pacca. The district has a population of 1.17 million and an area of 1,790 square

Table 10.4: Demographic Makeup and Infrastructure Provision in Selected Districts

Area	Ave. Annual G.R.	Population Density	Urban %	Ave. HH Size	Literacy Rate	Rooms Per HH/Unit	Housing Structure		
							Formal (%)	Semi-formal (%)	Informal (%)
Faisalabad District	2.5	962	42.7	7.2	51.9	2.3	69.8	14.0	16.1
Lahore District	3.5	3,566	82.4	7.1	64.7	2.4	92.3	3.4	4.3
Lodhran District	2.7	422	14.5	7.2	29.9	2.1	33.7	10.7	55.6
Rural									
Faisalabad District	1.8			7.1	42.5	2.3	60.5	14.1	25.4
Lahore District	4.1			7.3	41.7	2.0	84.6	5.7	9.7
Lodhran District	2.4			7.2	26.8	2.1	30.2	11.3	58.5
Urban									
Faisalabad District	3.7			7.3	64.2	2.4	82.8	14.0	3.3
Lahore District	3.3			7.1	69.2	2.4	93.9	2.9	3.2
Lodhran District	5.0			7.5	47.7	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	

Ave. = average, G.R. = growth rate, HH = household.

Source: Population and Housing Census, 1998.

kilometers (km²). The gross population density is about 422 persons/km². The locality is composed of 11 urban and 62 rural union councils. The economy is primarily agrarian. Lodhran District represents 0.2% of the total area of Pakistan and 0.8% of its population.

A sewerage system was laid many years ago. The lack of maintenance and repair of the system, however, resulted in clogging, silting, and overflowing. Eventually, sewer lines stopped functioning. The result was that rubbish and sewage filled the streets, which increased the incidence of disease among women and children, in particular. The local governments did not have the resources to serve the communities where these conditions existed, or 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.⁷ The Population Health and Engineering Department, a provincial institution, provided some informal drawings of the infrastructure to the *tehsil* municipal administration (TMA). The plans for housing and physical planning, however, were not implemented.

Lodhran TMA has a total budget of \$1.2 million equivalent. TMA spends 73% of its budget on development of roads and *solings*,⁸ water supply and sewerage, and drainage projects. The remaining budget is for salaries, utility bills, and the operation and maintenance costs of sanitation. The main sources of revenue are urban immovable property tax, tax on the sale and purchase of livestock, grants in lieu of the abolished *octroi*, and from the province or multilateral donors.

Description of the Project

In March 1999, a local community leader, Mr. Tareen, invited Akhtar Hameed Khan to visit Lodhran and analyze the region's potential for a community-based sanitation project. Dr. Khan visited Lodhran in 1999. Dr. Khan encouraged Mr. Tareen to register an NGO and initiate the work. Dr. Khan also deputed the late Hafeez Arain to the project.

Mr. Arain, an expert in community mobilization, relocated to Lodhran and initiated outreach efforts in the community. Mr. Arain's dedication to Dr. Khan, coupled with his commitment to the downtrodden, was legendary. His devotion and sincerity—his biggest strengths—enabled Mr. Arain to influence communities in Lodhran, Faisalabad, and Karachi.

Leadership at the community level played an important role in LPP. The vision and initiative of Mr. Tareen were instrumental in making LPP a success. Mr. Tareen realized from the beginning that OPP had developed a workable model for Pakistan that brought the community together with

development partners and the local governments in extending sanitation services to the poor neighborhoods. Later, CIDA, the Natural Resources Systems Programme, United Nations Development Programme (UNDP), and the World Bank also supported the LPP-launched sanitation schemes.

LPP is also a good example of collaboration between the local government and the CBOs. 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 TMA were always updated on each stakeholder’s progress. In 2005, TMA in Dunyapur allocated 25% of its development budget for projects initiated by CBOs (or CBBs). This arrangement also eliminated the mistrust between the community and the local government. CBBs have extended LPP’s work into solid waste management in Teshil Dunyapur, where households pay the equivalent of \$0.50 monthly for the service.

LPP operates on the OPP philosophy, which divides the project into internal and external development. Internal development 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, develops, and maintains the internal development. External development refers to constructing main sewer lines and connecting these to the trunk sewers, and the final disposal and treatment of sewage. TMA finances and manages the external development.

LPP mobilizes the community and helps it constitute a sanitation committee. In rural areas, these committees are called village sanitation committees. 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 project implementation. The sanitation committee appoints lane managers, collects local contributions, procures construction materials, manages internal development, and maintains the infrastructure over the long term. TMA connects the components to 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). In 2003, the World Bank took notice of LPP, which at that time had successfully operated for 4 years and was carrying out sanitation projects in 30 communities. In 2005, the World Bank and Japan Social Development Fund injected \$1.1 million in LPP to extend the project to an additional 100 villages. LPP is expanding the project using the same principle of internal and external development. The expansion will help improve sanitation for 20,000 households at an average cost of \$25/house-

hold. World Bank's support also includes funding for workshops to educate communities, develop curriculum in community-based sanitation, and train 150 associate engineers and 400 municipal councilors.

LPP has made certain technical innovations in the laying of sewer lines and connecting primary sewer lines to outlets from houses. Community participation has eliminated intermediaries, resulting in huge savings. LPP has also relied on the use of a geographical information system (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 development partners, whose priorities are dictated by the geo-politics of the region. 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 certain. To sustain itself over the long run, LPP should generate sufficient local funds to mobilize communities for internal development. Similarly, own-source revenue is required for TMAs to fund external development.

LPP is considered a good 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.

Community-based Water Supply and Sanitation Services in Faisalabad

In Faisalabad, numerous low-income communities—home to blue-collar labor—lacked proper water supply and sanitation. Local community leaders lobbied the politicians for years for improved municipal services. In return, they only received empty promises. Meanwhile, the size and density of communities had increased.

GOOD 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 wastes. These unhygienic conditions were more than just an eyesore. Poor sanitary conditions resulted in higher disease incidence. Women and children

who spend the most time in the unhygienic environment suffered the most. The community relied on donkey carts to supply water to the households.

A few local leaders in the community of Daddiwala, Faisalabad, tried to attract the attention of politicians to their plight. Their NGO, Anjuman Samaji Behbood (ASB), aimed to promote social welfare in the localities it served. However, for years, ASB confined its role to lobbying politicians.

Eventually, ASB transformed itself to become an agent of change and has helped launch a community-driven water supply and sanitation program that has equipped 10,000 households in 85 communities. These households have spent the equivalent of \$0.72 million for better water supply and sanitation facilities.

Characteristics of the Region

Faisalabad is a sprawling metropolis with a population of 2 million (1998 Census). The city evolved from a primarily agrarian 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 population in Faisalabad has been growing at a rate of 2.5% annually (Table 10.4). 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 quarters of the rural households obtained water from a hand pump located in the house. In urban areas, nearly half of the housing units obtained water from a municipal tap located in the house, and most of the remainder drew water from a hand pump located in the house.

The rural part of Faisalabad consists of numerous villages. The urbanization that followed industry was mostly unplanned. 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 high water table also caused waterlogging on agricultural land.

Description of the Project

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 from OPP. Akhtar Hameed Khan inspired Nazeer Ahmad Wattoo (ASB leader in Faisalabad) 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 in vain. OPP invited Mr. Wattoo for a visit in 1988. He returned with the idea of self-help and community-based solutions. Over the next 6 years, 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 the community's trust in ASB because years of association with political parties had tainted its reputation.

OPP assisted ASP launch a microfinance project in Faisalabad similar to OPP's microcredit program in Karachi. Mr. Arain invited the community to submit applications for five microcredit schemes for a total value of \$1,670 equivalent. Three projects were chosen after due consideration. The success of these projects was instrumental in building the community's trust in ASB. It was only then that Mr. Wattoo and Mr. Arain started to mobilize the community for a self-financed water supply scheme.

ASB's first project was based in Hasanpura, a community that suffered from waterlogging. Residents of Hasanpura (about 1,000 households) used hand pumps to obtain water. The local authorities, however, used eight deep tube wells to lower the water table, rendering most of the residents' hand pumps useless. The residents had to rely on private vendors, who used donkey carts to supply water. Poor-quality water was responsible for the high disease incidence in the community. ASB estimated the total cost of illness and loss of business due to poor water quality to be more than \$150,000/year.

ASB initiated work on the project in 1994 by conducting infrastructure surveys, GIS mapping, establishing linkages with the Water and Sanitation Authority, Faisalabad Development Authority, and Faisalabad Municipal Corporation. ASB followed OPP's philosophy of dividing the project into internal and external development. 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 notable persons in the region and approached them with their plan. 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 was formed in November 1995. The lane committees collected funds from each lane, purchased construction materials, arranged for labor, and laid pipes in the lanes and connected them to individual houses. OPP continued providing technical help. Once the network within the community was completed, it was linked with 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. Such collaboration reduces project costs significantly. According to ASB, community-based projects could be 60% lower in cost because they eliminate the intermediaries and their mark-ups, and the community volunteers its services for the operation and maintenance of the infrastructure. On average, each household in Hasanpura paid the equivalent of \$53 to install the infrastructure.

A drainage and sanitation scheme, which was based on OPP's planning approach, followed. The result was that sewage and garbage disappeared from the streets. As the streets became clean, a significant decline in disease incidence was observed. The community's health improved and it became an attractive place for both residents and businesses. An additional benefit 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 involved from the beginning, ASB's first project in Hasanpura struggled to win the trust of the municipal authorities. 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 member of Parliament lied to the community about a bogus government-funded water supply project, which would supposedly provide free water connections to the community. However, community leaders discovered the hoax. This added to the credibility of ASB.

ASB was also successful in dispute resolution. In August 1996, some 65 households established unauthorized and unpaid connections. ASB challenged these households in the courts and complained to the municipal authorities about the unauthorized connections. The authorities decided in ASB's favor, and the households paid fines and other fees for their connections. By June 1999, 30% of the households in Hasanpura were connected to the network.

Role of Development Partners

The role of development partners was very critical in the successful implementation of ASB's water supply and drainage schemes. The community was willing to finance internal development only and not the cost of linking with the main water line. WaterAid, a United Kingdom-based development agency, offered a revolving loan of \$3,330 that made the project feasible.

DFID has been instrumental in building capacity of local governments in Faisalabad. It launched four pilot initiatives under the Faisalabad Area Upgrading Project (FAUP) in 1994–1995 to upgrade the quality of life of slum dwellers in Faisalabad. FAUP also offered technical expertise in planning, design, and implementation of primary and secondary water/sewerage infrastructure. At present, an adequate research and operational unit called the Strategic Policy Unit is working in Faisalabad.¹⁰ FAUP played an important role in convincing municipal authorities to allow the community's water supply network to tap the municipal water supply network.

ASB has received numerous requests for technical assistance from TMAs in neighboring areas wanting to adopt ASB's model to empower communities. ASB's innovative use of GIS to map the existing infrastructure and the spatial distribution of communities that required services also helped convince the local government to connect the community water supply infrastructure to 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 tons (t) of solid waste per day, of which almost 20,000 t are generated in urban areas. In worst cases, solid waste is left to litter or decompose on streets and empty lots. Even solid waste collected by the municipal authorities is dumped and burned in open areas. Although solid waste directorates do exist in most large urban centers, the service they offer is irregular, inefficient, and inadequate. Moreover, the final disposal of waste involves either dumping in non-engineered landfills or burning, which further pollutes the environment.

Lahore, with a population of about 7 million, is the second largest city in Pakistan. Housing conditions in Lahore are far superior to those in Lodhran and Faisalabad. Most housing units (92%) in Lahore are categorized as formal housing, yet 36% of these lack a proper kitchen facility (Table 10.4). Only 15% of housing units are without a bathroom and 13% lack a lavatory. Most households (78%) obtain water from municipal taps, while others obtain water from hand pumps. Thus, Lahore benefits from good water supply.

Waste Busters is a private company that collects solid waste in Lahore. The company operates in the middle- to high-income neighborhoods in

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

urban centers where it charges a market price for collecting waste. Waste Busters sorts and recycles the waste, and produces organic fertilizers for sale to farmers.

This case study is different from the previous two case studies for the following reasons. First, Waste Busters operates largely in urban centers where water supply and drainage facilities have been provided by the municipal authorities. Second, it operates in communities that exhibit willingness to pay 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. It uses a differential fee structure, based on 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. But, in the absence of imaginative entrepreneurs, the demand for solid waste management services remains unmet. Entrepreneurs such as Waste Busters manager, Asif Farooki, have turned waste into profit while at the same time have cleaned up the cities and helped curb the spread of disease.

Description of the Project

Averaging about 0.5–0.7 kilograms (kg) per capita/day, the rate of waste generation is significantly lower in Pakistan than those in developed countries. Yet, 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 t of solid waste generated every day.¹¹

Despite the large municipal workforce dedicated to the solid waste management operations in Lahore, solid waste remains a huge problem. The Lahore Municipal Corporation (LMC) and two cantonment boards struggle to keep the streets clean.¹² Lahore generates 4,750 t of solid waste/day, of which almost 10% is estimated to be recyclable. Even where waste is collected by the municipal authorities, it is disposed of in an ad hoc manner, causing harmful pollution. Most solid waste (almost 60%) is vegetable and fruit residue, along with dust, dirt, and remnants of construction.¹³

LMC's budget for solid waste management is about \$8 million. With the advent of the devolution plan, the City District Government of Lahore (CDGL) has assumed responsibilities for waste management. Since devolution, the new city has grown by 1,350 km² to almost 1,800 km². Its budget for solid waste management, however, has remained the same.¹⁴ At present, CDGL spends roughly \$1.10/person annually on solid waste management.

Even with these paltry funds, there have been accusations of mismanagement (Dogar 2001).

Waste Busters started its operations in the cantonment areas of Lahore in 1996. Initially, garbage was collected on donkey carts. Later, small-sized pickups replaced donkey carts. Nowadays, Waste Busters uses large trucks for transporting waste more expediently. Waste Busters works in collaboration with the municipal authorities from whom it has leased land for its operations.

CDGL has contracted out waste management to Waste Busters in three union councils for \$72,000/month. As part of the decentralization plan, CDGL will continue with privatizing these services, which have proven to be run more efficiently by the private sector.

Waste Busters has installed a composting and a biogas (methane) generation plant in Lahore at a cost of about \$500,000.¹⁵ The plant has a processing capacity of 500 t/day (10% of the waste generated in Lahore). It can also generate 150 t of organic fertilizer and 1,000 cubic meters (m³) of methane. The organic fertilizer is sold to farmers at \$0.05/kg. Waste Busters has planned a similar plant for the federal capital, Islamabad.

Waste Busters distributes to households large bags for storing waste, which are collected every day and transported to the waste management sites where solid waste is sorted, composted, or dumped in a landfill.

Waste Busters 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 Busters' project in Gujarat was selected by the United Nations Centre for Human Settlements (UN-HABITAT) as good practice in solid waste management. Its work is being replicated in many cities in Pakistan and in other countries. In 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, which specializes in dairy products and packages milk in small cartons, retained Waste Busters to collect used Tetrapak packaging for recycling. Other corporations have initiated promotional campaigns for environmentally sustainable solid waste management with Waste Busters. Waste Busters' successful approach provides evidence in support of public-private partnerships.

The donor community also has played a role in solid waste management. The recycling plants, vehicles, and the hiring of a large number of workers require huge capital investments. Waste Busters and other similar establishments have been unable to convince commercial banks to invest in waste management. Development partners have provided the start-up capital or loans.

KEY LESSONS LEARNED

Community-based Solutions are Preferred

The three case studies are examples of successful community involvement in municipal service delivery. The local governments were unable to offer vital municipal services. Each community realized a need, formed a leadership structure, either self-financed or obtained loans from a donor, developed an 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 economists and offering solutions for the most pressing challenges, also endorses community-based solutions. CBOs check corruption and excessive pricing by eliminating intermediaries and by encouraging the community to invest labor, time, and expertise.

The case studies highlight the need for the Government and CBOs to work together. The projects succeeded because they did not try to eliminate or replace the state (municipal governments), but instead worked with it. In 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 up with the municipal water supply network. The formula of neighborhood-level development by CBO and the external development by the local government was partially behind the success of these projects. In addition, since the community took responsibility for maintaining the neighborhood infrastructure, these projects experience longevity that has eluded numerous other pilot projects.

The Role of Leadership in CBO-led Initiatives

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

Along with the intellectual leadership is the crucial role of community mobilizers whose job is to win the trust of the community and mobilize them toward a common goal. In this regard, the key role of the late Hafeez Arain of OPP needs to be recognized. Mr. Arain worked tirelessly in communities across Pakistan. He earned their confidence before he proposed any plans for infrastructure development. Mr. Arain laid the foundation of trust in Lodhran

and in Faisalabad that allowed local leaders, such as Mr. Wattoo and Mr. Tareen, to proceed with the development.

In the case of solid waste management in Lahore, a local entrepreneur, Asif Farooki, provided the leadership role in a slightly different capacity. The project was based in a middle-income community demonstrating 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, technically sound designs will further reduce operating costs and prevent communities from erecting infrastructure that fails to deliver. In the 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. They often focus on one 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 an adequate solid waste program, so that the solid waste does not clog the municipal drains. In Lahore, the solid waste program did not complement the newly built drainage system; thus, solid waste ended up in drains and the city flooded in the very first shower of the monsoon season in 2004.

Role of Donor Agencies

Two schools of thought concerning development partner assistance are prevalent in Pakistan. Dr. Khan's vision precludes grants to the poor for community-based development projects. He argued that the community should finance its own development. The other school of thought argues that in very poor communities, development partners can provide the seed funding on a cost-sharing basis toward the capital costs of the projects. The role of WaterAid in Faisalabad in extending loans to the community is one such example. In Lodhran, the World Bank joined the initiative after seeing the successful implementation of the sanitation project.

Since September 2001, donor interest in Pakistan has reached new heights. During the Afghan war in the late 1970s and mid-1980s, the international donor community showed a similar interest in financing development projects in Pakistan. But this was only temporary. Some development partners, such as the United States Agency for International Development (USAID), shut down their offices in Pakistan when their interest in Afghanistan diminished in the mid-1980s. With the renewed interest in Afghanistan today, USAID and other partners have returned. 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 development partners and their investments in Pakistan may diminish yet again. This has serious repercussions for longevity of donor-assisted projects in the country.

Linking Community Infrastructure with Municipal Networks

In community-based initiatives, infrastructure is developed locally 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 in Pakistan, the private banking sector is missing from the picture. There is great potential for commercial banks to make a meaningful contribution in reducing poverty while creating a new client base. The Grameen Bank in Bangladesh established the viability of microcredit in that country. OPP-run microcredit programs have done the same. With lower-than-average default rates, poor consumers have proven themselves to be creditworthy and bankable. Realizing the potential of microcredit, the Pakistan Government has initiated a microcredit facility: the Khushhali Bank. However, the bank’s coverage is rather limited, expecting to reach only 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.

Akhtar Hameed Khan's OPP pioneered the community-based development culture in Pakistan in the late 1970s. What is not widely known is the role of the private banking sector in the creation of OPP. Agha Hasan Abedi, who headed the Bank of Credit and Commerce International, financed the creation of OPP and supported Dr. Khan's initial setup in Pakistan. Agha Hasan Abedi saw value in investing in the country's poorest people. What he envisioned in the early 1980s has been reproduced globally. In fact, the latest in financial thought proposes targeting the largest market segment—those in the world who live on less than \$2 a day (Prahalad 2006).

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

There are no simple answers for the role of development partners in offering financial assistance to communities. However, the likelihood of long-term survival is higher for projects where assistance is restricted to capital costs and where the community pays operating and maintenance costs.

Municipal finance in Pakistan, as in 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 direct taxation. Metropolitan areas, such as Lahore (population: more than 5 million) and Karachi (population: 11 million) have a critical mass to sustain their operations from local taxes. In addition, large municipalities possessing high-value assets should be permitted to float bonds and debentures in open markets to finance urban development.

There is a dire need for capacity building in local governments. Municipal governments have inadequate technical experts, such as engineers and planners. Thus, they continue to struggle in delivering the mandate they have assumed under the devolution plan. Similarly, there is a need to extend technical assistance to CBOs while they plan local infrastructure development. The central Government could create a national agency with the mandate to assist CBOs in this regard. Given the lack of trained technical staff at the local government level, it may not yet be feasible to deputize local government staff to CBOs.

These case studies have highlighted the strengths of public-community partnerships, which are inherently different from public-private partnerships.

The latter involve a private, for-profit enterprise that builds the infrastructure and provides service at a price that also includes the profits for the private enterprise, which is essentially acting as an intermediary between the community and the Government. A public-community partnership eliminates the intermediary and places the community in the driving seat. This approach reduced project costs by almost 60% in Faisalabad.

The successes outlined in the three case studies point to the synergies that can be attained when stakeholders—NGO, community, and local government—pool their resources. The important lesson learned is that NGOs and CBOs do not eliminate or replace the state, but in fact work with it for large-scale implementation of community-led initiatives.

Revising the engineering and planning curricula to include community-based infrastructure development is also needed. 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 programs 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 has created some 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. Needless to say, this shortcoming should be addressed at the earliest opportunity by bringing such entities under the ambit of local governments.

Efficient planning and service delivery cannot happen without location-specific data. Such information has not been made available in the past in Pakistan. The donor community has 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 policy makers. A paradigm shift is in order when it comes to making data available for informed policy making.

Only recently, the Population Census Organization in Pakistan 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 databank that pools information from the various entities of government and development partners could play a major role in improved decision making by becoming a data depository, which would also disseminate information to various stakeholders. In the absence of such a databank, many agencies will waste precious development funds by duplicating data collection. The databank

would support research, planning, and execution of municipal services so that informed, timely, and relevant decisions can be made to improve the lives of millions of poor in Pakistan.

Notes

- ¹This chapter is dedicated to the memory of Hafeez Arain, hero of community development in Pakistan. He worked tirelessly in spreading the vision of Akhtar Hameed Khan.
- ²The authors acknowledge the considerable support given by persons involved in the case study projects and the community members who shared their experiences about the projects.
- ³Interview with M. Saeed, Census Commissioner at the Population Census Organization. December 2005.
- ⁴These data differ significantly from the United Nations data shown in Table 10.1 for percent of the population with access to improved urban water supply and improved sanitation.
- ⁵Najeeb Aslam Qureshi. 2005. *A Success Story of Citizen Community Boards at Tehsil Dunyapur*. Mr. Qureshi is the Tehsil Municipal Officer in Dunyapur.
- ⁶Details of CIDA supported projects are listed on the site www.pakdevolution.com.
- ⁷Interview with Ashraf Gill, Assistant Tehsil Officer (Infrastructure and Services) in TMA Lodhran.
- ⁸*Solings* are street pavements of brick masonry generally laid with cement and sand mortar both in rural and peri-urban settlements.
- ⁹The SPU's website URL is www.spu.com.pk. SPU operates out of the DCO's office in Faisalabad and is assisting the devolution program.
- ¹⁰Sadiq Ibrahim Khan. 2004. ISLAMABAD: Upgradation of solid waste management need of hour. 6 February. Available: www.dawn.com/2004/02/06/local20.htm.
- ¹¹www.tve.org/ho/doc.cfm?aid=640. Accessed on 11 November 2005.
- ¹²Cantonment boards are military garrisons. Although 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 40 cantonments in Pakistan.
- ¹³Hammad Naqi Khan, Director, Freshwater and Toxics Programme WWF-Pakistan.
- ¹⁴Babar Dogar. 2001. Solid waste disposal a great challenge. *The Nation*. 24 November. Available: www.nation.com.pk/daily/241101/national/lhr1.htm.
- ¹⁵Anonymous. 2003. Pakistan's first biogas plant opens tomorrow. *Daily Dawn*. 22 April. Available: www.dawn.com/2003/04/22/local60.htm.