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Shehr Ki Duniya – Municipal Management Series

Water and Sanitation Program

An International partnership to help the poor gain sustained access to improved water supply and sanitation services

South Asia Region

In real terms, per capita expenditure for services in 1996-97 compared to 1991-92 has decreased by almost 50% for sanitation and 35%- 75% for drainage.

Actual expenditure reported does not include depreciation, overhead costs, capital costs or interests on loans. Except for Sadiqabad, electricity expenses have not been included.

In four cities, expenditure for repair & maintenance on water, sanitation & drainage was shown under six different budget heads.

Cost recovery for water supply during 1991-92 to 1996-97 ranged between 6-13% in MC Khanpur, 9-24% in MC DGKhan, 20-43% in MC Sadiqabad and 27-71% in MC RYKhan.

This publication - one of a series - is based on the Working Paper "A Comparative Analysis of the Municipal Finance of Four Cities in Southern Punjab". The Working Paper contains a detailed examination of the past six years' actual revenues and expenditures of the four municipalities Khanpur, Rahim Yar Khan (RYKhan), Sadiqabad and Dera Ghazi Khan (DGKhan). It is part of preparatory work for a municipal strengthening/ Strategic Sanitation Approach pilot being undertaken by the Water and Sanitation Program - South Asia and the Local Government and Rural Development Department, Government of the Punjab

Costing Basic Services for the Urban Poor

Water, Sanitation and Drainage Expenditure in Four Cities of Southern Punjab

The provision of essential urban services like water, sanitation and drainage (WS&D) is defined as a compulsory function to be performed by the urban local councils under the Punjab Local Government Ordinance 1979.

Financial sustainability of these services is one of the main problems being faced by service delivery agencies. This is true for both supply-driven and demand-responsive projects as the most important information required to recover costs and determine user fees, is the cost per unit of service. Present practices in service delivery agencies and the current arrangements for the flow of funds to the city make it difficult to calculate the actual cost per unit of service provision.

The nature of the information provided and the manner in which it is reported varies across the four municipal committees (MCs), despite the fact that all are required to follow a similar prescribed format. This NEWSLINK addresses the question: Do MCs know what they are spending on municipal services? And highlights current trends in expenditure and cost recovery, cost estimation practices and suggests some improvements in their financial management practices.

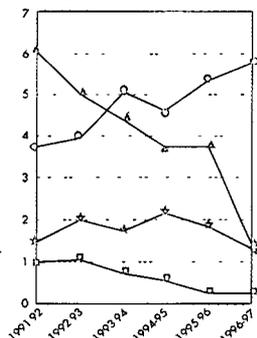
	Khanpur	RYKhan	Sadiqabad	DGKhan
Founded in	Oldest town of RYKhan Distt	1751	1925	1476
Population (1998 census)	117,764	228,479	141,509	188,149
Population growth rate (1981-1998)	3.06%	3.88%	4.78%	3.67%
Water Supply				
Water connections (MC record/ Nos)	1,731	12,200	10,864	9,957
Population covered (8 persons per HH)	12%	43%	61%	42%
Sewerage/ Drainage				
Sewerage Coverage (of population)	70%	75%	60%	40%

EXPENDITURE ON WATER, SANITATION AND DRAINAGE

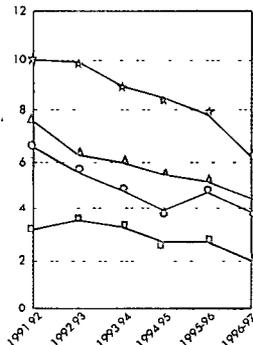
Expenditure in Constant 1991-92 Rs

□ KPUR ★ RYK ○ SDQ ▲ DGK

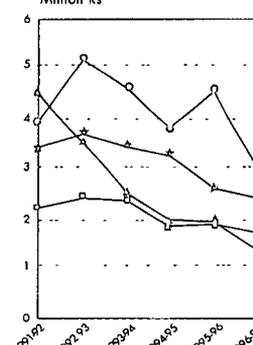
MC Water Supply
Million Rs



MC Sanitation
Million Rs



MC Drainage
Million Rs



I MC's CURRENT EXPENDITURE ON WATER SUPPLY, SANITATION AND DRAINAGE

With the exception of water supply expenditure in Sadiqabad, all other WS&D expenditure in these four MCs has shown a severe downward trend in constant terms (see box). Even this expenditure is probably an underestimate (see following page). The way in which "actual" expenditure is reported in the budget makes it difficult to distinguish between recurrent and capital expenditure incurred for the provision of WS&D services.

Expenditure on water excludes fire brigade and street watering costs; drainage includes sewerage, and sanitation includes management solid waste management. □

III COMPONENTS OF EXPENDITURE ON PROVISION OF SERVICES

Establishment expenses are made up of staff costs (pay and allowances).

Establishment as a percentage of total expenditure during 1996-97 was 86% at Khanpur, 90% at RYKhan and 49% at Sadiqabad. Establishment is the major component of the expenditure on Sanitation: it accounts for 95% of the sanitation expenditure at MC Khanpur and MC RYKhan, and 86% at MC Sadiqabad. For drainage, establishment consumes 91% of the drainage expenditure at Khanpur and RYKhan, and 62% at Sadiqabad.

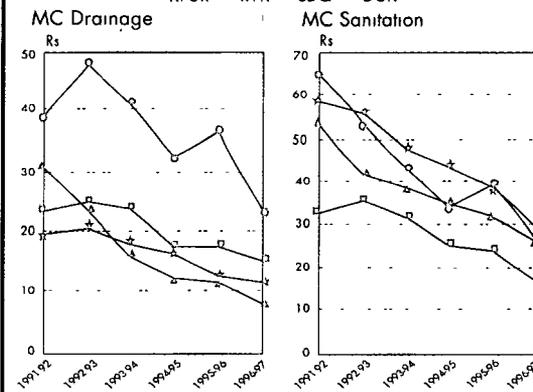
Contingencies include administrative/ office expenditure, fuel and power, transport and communications, etc. Normally, this should include electricity costs. However, for 1996-97, Khanpur, RYKhan and DGKhan have not paid for electricity; Sadiqabad has paid over Rs. 6 million as electricity costs, as a result pushing up their contingencies expenditure as compared to the other three MCs. As DGKhan has not shown the breakup of actual departmental expenditure; the reasons for their lower expenditure in 1996-97 compared to previous years could not be analyzed. □

II WHAT DOES THIS EXPENDITURE MEAN IN PER CAPITA TERMS?

In real terms, the per capita expenditure on water supply, except for MC Sadiqabad, has decreased. The per capita expenditure on sanitation has decreased during 1991-92 to 1996-97 by an identical 50% at all the four MCs, while per capita expenditure on drainage has decreased by 35% to 75% in different cities. Per capita expenditure does not reflect efficiency (or quality of service) if intercity comparison of per connection expenditure of water supply in 1996-97 in these four MCs is used as a proxy indicator for efficiency it reveals a large variation: Rs. 1,435 in Khanpur, Rs. 260 in RYKhan, Rs. 1,267 in Sadiqabad and Rs. 337 in DGKhan. □

Per Capita Expenditure in Constant 1991-92 Rs

□ KPUR ★ RYK ○ SDQ ▲ DGK



Actual MC Expenditure (1996-1997)

(in 1996-97 current Rs)

	Water Supply			Sanitation			Drainage		
	Kpur	RYK	SDQ	Kpur	RYK	SDQ	Kpur	RYK	SDQ
Establishment	380,172	3,173,434	2,589,000	4,457,299	13,963,610	6,947,000	3,635,907	5,281,578	4,183,200
Contingencies	0	0	6,850,000	231,956	710,801	1,001,000	210,822	464,263	275,000
Works	236,517	0	4,328,000	0	0	172,000	168,180	0	2,269,500
Total	616,689	3,173,434	13,767,000	4,689,255	14,674,411	8,120,000	4,014,909	5,745,841	6,727,700

COST RECOVERY

The cost recovery for water supply, as a percentage of revenue, at the four MCs during the period 1991-92 to 1996-97 was 6%-13% at MC Khanpur, 9%-24% at MC DGKhan, 20%-43% at MC Sadiqabad, and, 27%-71% at MC RYKhan.

This is true inspite the fact that MCs do not presently know the unit cost of provision of services, and do not charge for water according to consumption; a flat rate according to ferrule size is currently being applied.

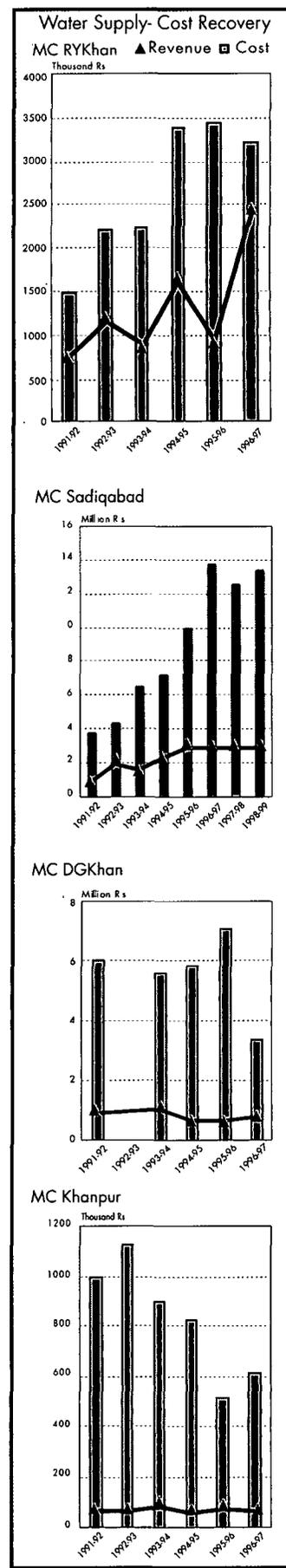
Water rates are being recovered by the MCs (in addition MC RYK charged a Sewerage/Drainage Rate of Rs. 55,400 during 1996-97). The recovery of water connection fee (if any) is included in the water rates.

As the Schedule of Arrears (Form B-12) is seldom completed fully (such as in RYKhan and DGKhan) the budget document of the MCs do not provide a clear picture. From whatever information is available, it can be deduced that recovery is poor and large arrears have been accumulated. In Khanpur, the amount of arrears equals nine years budgeted revenues for water rates. Due to poor quality of water supply, consumers are willing to get their supplies disconnected, even if they later resort to getting them reconnected illegally. In this situation recovery of arrears would appear difficult. In DGKhan, Rs. 1.5 million were recoverable as water rates in 1998-99 out of total MC arrears on all accounts of Rs. 10 million. In Sadiqabad, water-rate arrears were Rs. 3.8 million in 1998-99.

In the absence of quantitative data, (quantity produced, supplied, billed, number of connections of different types and sizes, number of households using one connection, etc.) a rough method has been used for an inter-city comparison of efficiency in collection. This is based on the minimum rate prescribed by each MC (smallest ferrule size for residential connection). In 1995-96, in the three cities (except Sadiqabad), the actual average collection per connection is much lower compared to the minimum rate laid down in the respective schedules of the MCs. The potential exists to recover higher revenues, by at the least, correct billing and collection even at the current rates. The inter-city variation in rate is apparent where a residential supply of 1/4" ferrule size is being charged between Rs. 10 and Rs. 23 per month.

The present coverage and quality of service delivery is not satisfactory and needs improvement. The state of the maintenance of water supply and sanitation systems requires immediate attention. New capital investments would be necessary, even to operate at the present condition and level of service; and, in time, to increase coverage and improve the quality of services. A simple projection of revenues and expenditure based on current trends does not provide estimates for the future. □

	Water Rates Recovered			
	(Per Connection Per Month)			
	Kpur	RYK	Sdq	DGK
Number of Connections	1,731	12,200	10,864	9,957
Min. water rate for residential connection (Rs.)	12	10	23	20
1995-96 (Actual Rs.)	3.30	6.34	21.31	5.17
1996-97 (Actual Rs.)	2.92	16.37	21.48	6.68



✓ What is the actual expenditure on electricity compared to what is in the budget?

Khanpur, RYKhan and DGKhan have not shown any expenditure on electricity consumed for water supply or drainage in 1996-97 since no payments were made by the MCs, although these were budgeted (Rs. 0.6, Rs. 4 and Rs. 5 million respectively). Sadiqabad, however, showed an actual expenditure of Rs. 6 million during this year. These liabilities are not reflected in the municipal accounts as there is no double entry accounting system. However, a Schedule of Liabilities (Form B-11) has to be filled in and attached to the budgets. In some MCs, the schedule for 1998-99 are not filled-in properly; they do not show any liability for electricity bills. Furthermore the notes attached to the budgets are silent about any arrears payable to WAPDA (the Mission was told that the amount in arrears is Rs. 7 million at MC DGKhan). The MC has no information in case the provincial government makes any adjustments for electricity dues from MC's share of Urban Immovable Property Tax. Consequently these deductions are neither shown as income (from Property Tax) nor shown as expenditure (as electricity).

(in 1996-97 current Rs)				
	Khanpur	RYKhan	Sadiqabad	DGKhan
Water Supply				
Budgeted	600,000	4,000,000	4,500,000	5,000,000
Actual	NIL	NIL	6,013,656	NA
Drainage (Pumps)				
Budgeted	400,000	NIL	NIL	470,000
Actual	NIL	NIL	NIL	NA

✓ Compared to budgeted expenditure, what is actually incurred on Repair and Maintenance?

The table below compares expenditure actually incurred on R&M to the amount budgeted. Both the budgeted and actual

(in 1996-97 current Rs)				
	Khanpur	RYKhan	Sadiqabad	DGKhan
Water Supply				
Budgeted	270,000	100,000	640,000	860,000
Actual	236,517	39,925	430,352	NA
Sanitation				
Budgeted	190,000	790,000	785,000	510,000
Actual	231,956	710,801	1,001,000	NA
Drainage				
Budgeted	325,000	1,091,000	6,439,000	4,015,654
Actual	379,000	1,060,360	2,629,000	NA

expenditure are low when seen in the light of real needs. According to the Report of the Fact-Finding Mission in Khanpur, six of the seven tubewells are in-operational; two out of three overhead tanks have been abandoned; and, due to broken pipes, the water supplied is contaminated. The main disposal station has never worked as it has been built by the provincial Public Health Engineering Directorate (PHED) at the highest point of the city and the MC has refused to take it over from PHED due to flaws in design and construction. At Sadiqabad, the water distribution system is damaged at places and residents complain of a foul odor in drinking water because of which they are getting their water supply

disconnected. Less than 50% of disposal pumping capacity is operational. Two out of three tractors for solid waste are not operational. At DGKhan, the entire water supply network is rusted and leaking.

✓ What is the position of capital expenditure/works?

"Works" in the MC budgets includes R&M and capital expenditure. The MC constructs some works at the lane or secondary level; the cost for these is reflected in different departments in the four MCs. Most secondary, trunk and disposal systems are constructed by the provincial PHED and/ or the Housing and Physical Planning Department (H&PPD). During 1991-92 to 1996-97, six water supply and sewerage projects were undertaken from the provincial Annual Development Program (ADP) in DGKhan, two projects at Sadiqabad and one each in Khanpur and RYKhan. Provincial departments like H&PPD and PHED are provided funds under the provincial ADPs to undertake schemes in the city. The appropriateness of scheme design, perceived needs of the community, the quality of work executed, the capital cost, resources required for its R&M and cost recovery are neither discussed with the citizens nor is the MC involved in any meaningful manner in the process. However, the responsibility for the R&M of the schemes is shifted to the MC which is handed over these schemes for their operation. □

FEATURES OF BUDGET PREPARATION

I COMMON PRACTICES

The expenditure which MCs consider necessary to deliver services is reflected in their budget estimates: however these estimates are subject to further constraints due to current budget practices. Except in a few cases, the actual expenditure incurred is much lower compared to that planned or budgeted. Revenues are used to meet the staff costs as a first charge, and any remaining amount is used to meet contingencies, repair and maintenance (R&M), and capital expenditure, in this order of priority. In all the MCs, expenditure has to be curtailed in line with revenues actually realized, the axe falling on R&M and capital expenditure. An evaluation of actual expenditure as a percentage of budgeted expenditure shows that severe financial constraints have forced the MCs to include only those expenditures in the budgets that they hope would be covered by the resources actually generated. Some common features of the budget preparation process are highlighted below:

- ✓ The budgeted amount of the intergovernmental grant is very different from the receipts under this head. This is because the exact amount of grant receivable is not ascertained at the time of budget preparation.
- ✓ Establishment expenditure is budgeted on the sanctioned strength of staff. This number is almost always higher than the actual number of staff on

Year	Water Supply				Sanitation				Drainage			
	Kpur	RYK	SDQ	DGK	Kpur	RYK	SDQ	DGK	Kpur	RYK	SDQ	DGK
1993-94	64	83	100	92	85	92	100	88	92	97	100	53
1994-95	58	82	89	71	73	79	90	74	69	81	113	36
1995-96	36	92	100	83	84	77	121	80	69	77	106	37
1996-97	44	77	124	32	89	86	100	88	81	72	65	35

roll. Staffing is not based on any standard staffing plan (e.g. sanitation staff required per 1,000 population); the population served per sanitation employee varied between 786 in Sadiqabad to 588 in DGKhan.

- ✓ Contingencies are budgeted by adding an incremental value to the previous year's budgets.
- ✓ R&M is not budgeted on the basis of actual requirement. The capital expenditure budget is determined on the basis of projected surplus. R&M expenditure is not shown separately.
- ✓ Annual depreciation expenses cannot be calculated due to the single entry accounting system. Similarly, there can also be no provision for replacement.
- ✓ The contribution of other departments and MC staff to support WS&D services is not considered.
- ✓ The MCs do not maintain an accounting record for the outstanding loans and/or interest as they are required to do under the prescribed system. The provincial government deducts interest and markup out of the municipality's dues of Urban Immovable Property Tax. □

II INTERCITY VARIATIONS

- ✓ Where are electricity, R&M, and capital expenditure/works reported in the budgets?

	Khanpur	RYKhan	Sadiqabad	DGKhan
Electricity Expenditure				
Water Supply	Water Supply Dept. Works	B&W Dept. Works	Water Supply Dept. Contingencies	Water Supply Dept. Contingencies
Drainage	Drainage Dept. Works	B&W Dept. Works		Drainage Dept. Contingencies
R&M Expenditure				
Water Supply	Water Supply Dept. Works	B&W Dept. Works	Water Supply Dept. Contingencies	Water Supply Dept. Contingencies & Works
Sanitation	Sanitation Dept. Contingencies	Sanitation Dept. Contingencies	Sanitation Dept. Contingencies	Sanitation Dept. Contingencies
Drainage	Drainage Dept. Contingencies, & Works	Drainage Dept. Contingencies, B&W-Works	Drainage Dept. Works	Drainage Dept. Contingencies, & Works
Works/Capital Expenditure				
Water Supply	B&W Dept. Lump-sum ADP	B&W Dept. Works	Water Supply Dept. Works	Water Supply Dept. Works
Sanitation	Sanitation Dept. Works	B&W Dept. Works	Sanitation Dept. Works	Sanitation Dept. Works
Drainage	Drainage Dept. Works	B&W Dept. Works	Drainage Dept. Works	Drainage Dept. Works

Building and Works (B&W)

IMPROVEMENTS IN FINANCIAL MANAGEMENT

In order to design effective tariff structures, which have the right incentives to deliver services to the poor, MCs have to improve their understanding of the current cost of service provision. This is a prerequisite for both supply driven and demand responsive projects; projects where communities and consumers are involved in capital cost sharing at the lane or secondary levels; and to enable informed decisions regarding subsidy for services to the poor.

To avoid reductions in establishment expenditures MCs will have to improve their financial practices. These could be supported by creating pragmatic and realistic systems for monitoring financial performance and practices. These include city level monitoring through the effective implementation of the Local Government Ordinance 1979, a legislation which envisaged active participation of the citizens in monitoring the MC performance; improved financial management within the MCs; and improved monitoring by the provincial government. Transparency is an essential requirement of good governance. Involvement of residents in almost all activities of the local council is envisaged in various sections of the legislation and related rules. This built-in monitoring system of making all decisions and changes transparently and with active public involvement would result in a more efficient local government.

- ✓ The budgetary system prescribed under the existing rules should, in the first instance, be strictly followed with all its Schedules filled in; budget prepared on need based allocation (not on incremental basis) and asset registers required under the Punjab Local Council Property Rules properly maintained and regularly updated. Monitoring and linkages between expenditures and physical indicators should be made. Computers should be introduced for budget preparation, monitoring and analyses of budget variances.
- ✓ Financial management could be improved by steps to do the following: establish performance standards and benchmark indicators; computerize staff records, billing, demand and collection; budget analysis and monitoring; and in the long run resource related information such as land use cadastre and Property Tax maps. Quantitative data - quantity of water pumped, supplied and billed, system wastage, actual number of connections, etc. should be recorded and used for financial management. This would require some managerial motivation to keep the records in the Engineering and Sanitation Departments, and to link that information to the financial management systems and the budget.
- ✓ Capital/Development Works in the city – for secondary and trunk systems – are undertaken by the provincial government under their ADPs through the provincial departments/agencies. Not only should the MC be cognizant of all development works in the city, regardless of implementation modalities and source of funding, but should take a lead role in the consultations on citizen needs and perceptions, scheme designs, quality of work, capital and R&M cost and user charges. This is absolutely essential if the MC has to accept responsibility for taking over and maintaining the system/project.
- ✓ In order to provide a firm basis for user charges, (and exemptions and subsidies where essential), a unit cost of service provision should be determined; quantitative records maintained; survey for illegal water connections conducted; service network map be maintained and linked to registers, which should have a complete record of installation, R&M date and cost.

In order to build on the incentives and imperatives, for improved financial management practices, being faced by MC staff there is a need to design training and capacity building programs which can upgrade their existing skills.

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This NEWSLINK is based on a Working Paper, "A Comparative Analysis of the Municipal Finance of Four Cities in Southern Punjab" (October 1999), available with the Water and Sanitation Program – South Asia. Some information has been taken from "Selection of the SSA Pilot in Southern Punjab: Report of the Fact-Finding Mission" (August 1999).

Please send your comments and requests for more information to Mr. Syed Farukh Ansar, Administrative Assistant, UNDP-World Bank Water and Sanitation Program, The World Bank, 20-A, Sharah-e-Jumhuriat, G-5/1, Islamabad, Pakistan.

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An international partnership to help the poor gain sustained access to improved water supply and sanitation services. The Program's main funding partners are the governments of Australia, Belgium, Canada, Denmark, Germany, Italy, Luxembourg, Netherlands, Norway, Sweden, Switzerland and the United Kingdom; the United Nations Development Programme and The World Bank.

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