

## Reviewed Paper

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## SUSTAINABLE DEVELOPMENT OF WATER RESOURCES, WATER SUPPLY AND ENVIRONMENTAL SANITATION

**Revenue Recovery Challenges Facing Water and Sanitation Service Institutions in Faisalabad, Pakistan***Gul Hafeez Khokhar, Pakistan*

*Drinking water supply is not only a basic need and precondition for a healthy life; it is also a human right. As per estimated figure 75% Population in Pakistan have not access to safe drinking water. As one indication of the magnitude of the problem, it is estimated that 200,000 children in Pakistan die every year due to diarrhoeal diseases alone. According to World Health Organisation (WHO) approximately 25-30 % of the diseases in Pakistan are gastrointestinal, about 58.5% of the people have piped water supply to their houses and about 7.6% get their drinking water from standposts. The remaining population obtains their water supplies from hand pumps, wells, or through private water vendors.*

**Introduction**

Public water supplies in Pakistan provide a poor service to their citizens. Most water mains were laid over 40 years ago, moreover careless operation and maintenance systems, limited financial resources contribute to poor water supply services

According to Population census report 1998 Pakistan population is 132.35 million. It is divided into four provinces: Sindh, Punjab, North West Frontier Province and Balochistan. Punjab is the largest province in Pakistan having Population 73.62 million with 35 districts. Faisalabad is second largest district in Punjab with population 5.4 million. Faisalabad district further divided into 8 towns with total 289 Union Councils (UCs). Jaranwala town is the largest town in City District Faisalabad with 1.0 million population as per Census 1998. Town has total 57 UCs and 5 are Urban UCs.

Since devolution in 2001, local governments have taken direct responsibility for the supply and management of water, sewerage and drainage services to their citizens but poor revenue collection does not allow them the opportunities to improve or expand their systems. There is a need to adopt a coordinated approach to improving services, focusing on both physical improvements and improvements in revenue collection to ensure that new facilities will continue to operate once they have been installed. However, improvements must be based a realistic understanding of current problems.

**Pre-devolution**

Pre-devolution in the Punjab the Provincial Government, through its Public Health Engineering Department (PHED) was responsible for provision of water supply, sewerage and solid waste management in the urban and rural areas of the province. Urban and Rural water supply schemes were then handed over to Municipal Committees & Community Based Organisations (CBOs) respectively for operation &

maintenance (O&M) and recovery of service charges. In five larger cities of the Punjab, Water and Sanitation Agencies (WASAs) were formed, working under the City Development Agency and its governing board, to provide water and sanitation services. WASAs had better billing systems than the Municipal Committees but most still failed to meet their operational costs. WASA Faisalabad O&M and revenue collection analysis (CIU case study 2002) shows that during 1991-2002 WASA unable to meet operational cost and relying on provincial contribution to meet the expenditure. More recently Jun 2006 WASA Faisalabad recovery statement shows that 40% consumers are paying their water bill.

**Post-devolution**

After the local government reforms in 2001, responsibility for water, drainage and sanitation (WATSAN) provision was devolved to the tehsil level<sup>1</sup>. The Punjab Local Government Ordinance 2001 states that the Tehsil Municipal Administration (TMA) shall be responsible for providing, managing, operating, maintaining and improving municipal infrastructure and services, including water supply, sewerage, sewage treatment and disposal, storm water, sanitation, solid waste collection and sanitary disposal of solid, liquid, industrial and hospital wastes. In the large cities the WASAs have retained direct responsibility for water, sewerage and drainage services but they now report to the concerned TMA or City District Administration. The PHED's role was originally reduced to executing large WATSAN schemes on behalf of TMAs and monitoring service development in rural areas. However, it was substantially revived in 2005 and is now playing a major role in planning, designing and executing both rural and urban schemes.

<sup>1</sup> A tehsil is a unit of government, covering a 'headquarters' town and the surrounding rural areas.

In the TMAs the Tehsil Officer, Infrastructure and Services (TO (I&S)) takes overall responsibility for WATSAN services. In the urban areas, as a hang-over from pre-devolution arrangements, a Chief Officer (CO) and his staff are responsible for approving and managing connections and day-to-day O&M. In most TMAs the CO's department is not under the management of the TO (I&S), despite the requirements of the PLGO 2001. In the rural areas communities are responsible to manage their Water supply systems.

This paper highlights of the issues related to water billing and revenue collection systems in City District Faisalabad. This being City District Government through its Strategic Policy Unit (SPU) under project "Strengthening Decentralised local Government in Faisalabad". The project is supported by Department for international Development (DFID).

### Initial investigations

Initial investigations have focused on Jaranwala Town, the headquarters town of the Jaranwala Town Administration (TMA), one of the eight TMAs that make up Faisalabad City District. The current population of the five Union Councils that make up most of the town is about 131,000 the town has been served by a piped water supply since about 1912.

### Perception survey

A perception survey of stakeholders undertaken in Jaranwala Town during 2004 has identified the following issues relevant to revenue:

#### Community views

1. Water is a gift of God, so there is no justification for charging and reason to pay.
2. Why we pay for contaminated and bad quality of drinking water.
3. Improper and poor billing system
4. Private Service providers provide a better service, so it is better to pay them and use that service

#### Registered consumers' views

1. They are ready to pay TMA Water supply service charges, if they receive better water quality and proper bills. As they are already paying to water vendors on daily basis Rs 10/- for 50 liters.
2. When TMAs take legal action against defaulters, they focus on poor areas and ignore the rich and commercial and industrial consumers.
3. There is no difference in the priority that is given to the complaints of registered consumers and those of illegal consumers and defaulters.
4. The service provider does not advise us of the reasons why it is important to pay for the different services and how to take proper care of them.

#### Town Municipal Administration views

1. TMA are facing problems because TMA has limited financial and human and resources, limited skills and the current ban on staff recruitment.

2. Consumers are not paying service charges on time.
3. Politicians interfere to prevent recovery of arrears. Staff and politicians are not serious about maximising revenue.

### Financial analysis

During last five year in TMA Jaranwala the revenue collected from water consumers is below 10% of the total expenditure of O&M cost. Town Budget 2005-06 suggest that income in 2003-04 was Rs 0.26 million, and expenditure on O&M of system is Rs 2.62 million.

Table 1 shows that while recovery has increased during 2004-05, the recovery still has not meet the operational cost. During 2004-05 TMA taken strict action against defaulters and illegal connections and registered new connections since 2001 only 25-30% registered consumers pay their bills every year. The analysis suggests, if 100% registered consumers pay their bill even then TMA still not meet the operational cost. This suggests that TMA still need to increase water tariff and number of consumers. Presently TMA have 4900 registered water consumers and city has 16500 properties in which 1600 are open plots. 25% registered consumers have not proper identification of location and house because of incomplete address. If TMA increase the water tariff, it will politically not acceptable at this moment. So TMA has one option that is increase number of consumers and improvement of record keeping for proper billing and O&M issues.

**Table 1. Water supply Year wise Operation & Maintenance cost & revenue recovery (Rs in million)**

| Year    | Number Of Connections | Revenue received | O&M Cost | If all registered consumers pay their bills |
|---------|-----------------------|------------------|----------|---|
| 2003-04 | 4262                  | 0.26             | 0.9      | 0.6   |
| 2004-05 | 4600                  | 0.46             | 1.7      | 0.82  |
| 2005-06 | 4900                  | 0.21             | 2.3      | 0.88  |

### Status of consumers records

45% of consumers have no house number & street number; about 10% have no proper Mohalla or Colony name. Some mohallas have their own property number. There are many duplications and discrepancies in the TMA's existing consumer records. There are discrepancies between the Central Register of connections and the Demand and Collection Registers (often referred to as ledgers). Each Demand and Collection Register covers a year and information (names, consumer numbers and addresses) are not always transferred correctly from one year to the next, with the result that information on some consumers is incomplete.

The recovery information shows that out of 4900 registered consumers there are no less than 500 cases of the same account number being allotted to two consumers. Out of 4900 registered consumers 1600 are paying their bills. At present, no bills are issued. Because of the inadequate house and street

numbering, bill collectors have no record of where many connections are located. The situation is further complicated by the discrepancies and mistakes in the records. The result is that bill collectors must visit every house in the supply area to ascertain whether there is a connection.

The reasons for the shortfall is summarised as the low tariff, Illegal connections, Inadequate consumer records, Inadequate billing systems, Lack of responsibilities and job descriptions, Lack of human resource available in TMA ,Politician involvement to over look the process and requirement.

### **The search for a way forward**

Efforts to improve the revenue and service situation in Faisalabad city District have focused on Jaranwala TMA. As a pilot for wider improvements, the following steps are being tested jointly by the SPU and the TMA Jaranwala.

- Household survey to verify the number of properties and the number and location of domestic, commercial, industrial connections.
- Preparation of reference base maps showing location (as preparation for GIS-based plans)
- Computerize the existing Water And Sanitation service user's data, link all necessary information to allow computerised billing, recording of new connections, complaints registration, etc.
- Introduce payment centres around the town, each to be open on a designated day of the week.
- Depute staff on permanent basis in revenue collection section; rotate working areas, with agreed responsibilities and performance levels.
- Arrange workshops and on-job-trainings to build TMA capacity and disseminate information and experiences.
- Increase number of consumers through legalisation of illegal connections.
- Verify categories of existing registered consumers (domestic/commercial/industrial).
- Introduce plans for staged recovery of overdue payments, to be agreed with consumers.
- Increase tariffs only after significant improvements in the number of registered consumers and the recovery from them.
- Investigate and record water production and water pressures, to allow informed responses to complaints about service levels and infrastructure and targeted, planned improvements.
- Create political demand for and expectation of improved revenue.
- Develop and implement information programmes about reasons for and use of water charges.

### **Other important related steps include:**

- Information-based planning for new infrastructure and operation & maintenance, including use of economic and cost information and expected impacts/benefits.
- Preparation of Colony/Mohalla base maps showing existing infrastructure and its capacity.

- Prepare catchment maps of sanitation / drainage services.
- Plan and implement water quality testing programmes.
- Lobby for TMAs to be given legal powers to recover revenue.

Where appropriate, the SPU is leading the process in one part of the town with the intention that successful initiatives will be replicated elsewhere in the town by the TMA and also replicated by other TMAs.

### **Progress to date for improvements of revenue**

TMA Jaranwala is taking a number of steps to improve revenue. This include accept payments in installments of connection fee and in some cases the connections have been registered with recovery of token fee.

### **Develop Base map with street & house numbering**

TMA Jaranwala procured Satellite image and developed a base map showing both spatial and topographical information. Base map prepared and overlaid on Satellite image to verify before using it. House numbers have now been allotted for every house in each mohallah within the supply area. These maps are now available in Soft (AutoCAD) format. The house number is now being using by TMA field staff during planning of new development schemes and management of existing municipal services.

### **Regularization of illegal connections**

TMA field staff using the base map and using street & house number during physical survey to check the status of existing water connection, and identify the illegal connection. Illegal connections regularization process is started. TMA is now in position to recover Rs3,50,000 ,also provide base for future recoveries.

### **Improvements in consumer records & billing systems**

Registered consumers record from Central Consumers registers and demand and collection consumer's registers is computerized and field information is being collected on every property and correlated with existing records. When this process has been completed, the TMA will have an accurate record of registered customer. Up till now 9000 houses have been visited by TMA field staff and verified 2450 registered connections. Verified Data are being recorded in a single database that will allow information on billing, connections. It is intended that the database will also be provide data for planning of repairs and services improvements as well as showing payments histories, income, connection status

### **The low tariff**

Once the water service, billing system is improved and local politician is aware and understood the problems, realities the tariff increase options will be discussed and approved by the town council.

### Capacity Building of TMA Staff

Capacity building of existing field staff of revenue through brainstorming sessions, field survey trainings and other on job trainings for consumer's records documentation. Now the staff is aware with the field survey and consumers documentations techniques.

### Results

- TMA now able to manage proper recovery campaigns as they have all the area wise details
- Registration of 300 new water connections based on new house and street numbering
- TMA staff trained through on job training and brainstorming sessions
- 60% Consumers have been verified against permanent property number
- Identification of 500 double consumers accounts and correct number allotted
- 500 illegal connections identified and regularization process started.
- Registered consumers encouraged as TMA taken action against illegal connections. Previously the illegal consumers was propagating that they are not pay and getting full services.
- Once the work 100% completed the aim will be to encourage other TMAs to replicate the approach, first in the City District Faisalabad, then in the Province and in the other part of country.

### Constraints

- Lack of planning culture at TMA level
- Provincial government's failure to devolve key powers, particularly those relating to staffing and recruitments, to lower tiers of local government.
- No Coordination between TMAs and district government and between PHED and TMA for new physical development water & Sanitation schemes and policy issues.
- TMAs have no legal powers to recover user charges from defaulters

### Recommendation

This has now proved that TMAs have limited technical capacity to plan and manage drinking water Supply and sanitation services. TMA Jaranwala believes that the revenue generation could be enhanced, by putting in place proper system and procedure and presently it is beyond the capacity of the staff to put in place such system and procedures. Therefore, keeping in view its financial significance and implication, the capacity of the revenue staff of the TMA is being enhanced. Provincial government must devolve powers to TMAs related to finance and human resources. There is need for strong coordination between TMAs, PHED and WASA. There is a need to establish proper training & monitoring unit to deal with technical capacity building issues of TMAs as well as play effective monitoring role in the districts. Politician need to play active & positive role

in service delivery. Improvement of Municipal services required base mapping showing existing services, street & house numbering.

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