



# Beneficiary Perception Survey of Selected Completed PMSIP Sub Projects



September 2013

## 1. EXECUTIVE SUMMARY

### 1.1. Introduction and Background to PMSIP

Funded by the **World Bank** and implemented by the Punjab Municipal Development Fund Company (**PMDFC**), the **Punjab Municipal Services Improvement Project (PMSIP)** is designed to improve the viability and effectiveness of urban services provided by Tehsil Municipal Administrations (TMAs). The project has been active since **2006**.

**The Infrastructure development component** has made investments in TMAs to enhance municipal services. Till date, investments have been made in **41 sub-projects** (out of which **39 have been completed**) with a total cost of **PKR 3,043 million** since the start of the project. Investments include rehabilitation, improvement, and coverage expansion in Water Supply, Roads and streets, Solid Waste Management, Sewerage, Parks and Firefighting.

### 1.2. Beneficiary Perception Survey

In order to determine the effectiveness of completed sub-projects and to assess the beneficiaries' perception of service delivery improvements, PMDFC planned to undertake this Survey in selected TMAs. This exercise was conducted in the light of 'results framework' given in the PMSIP project documents. Out of the completed subprojects, 14 were selected for a 'Beneficiary Perceptions Survey'.

- **Water Supply – 8 sub-projects**
- **Widening / improvement of Roads / Streets – 4 sub-projects**
- **Solid Waste Management – 2 sub-projects**

These **14 sub-projects** were selected based on the sole criterion that they were fully functional for at least six months at the time of selection.

**PMDFC** contracted the services of **APEX Consulting Pakistan** for conducting this beneficiaries' perceptions survey. The following table gives a glimpse of sub-projects, number of potential/actual beneficiaries and sample sizes across sub-projects.

Table 1-1 Sample Size in each sub-project

Sector	TMA/ Sub-project	Survey Sample	Total Sample for TMA/ Sub-project	Actual Beneficiary population
<b>Water Supply</b>	Jhelum	140	190*	62,592
	Kasur	150	200*	169,654
	Khudian	130	180*	30,420
	Kot Radha Kishan	110	160*	11,160
	Liaquatpur	130	180*	34,609
	Mustafa abad	120	170*	16,200
	Pind Daden Khan	100	150*	21,942
	Mailsi	120	170*	23,720
	<b>Total Water Supply</b>		<b>1,000</b>	<b>1,400</b>

Sector	TMA/ Sub-project	Survey Sample	Total Sample for TMA/ Sub-project	Estimated Beneficiary Population
Roads and Streets	Shorkot	140	140	33,550
	Dunyapur (streets)	130	130	11,038
	Malakwal	140	140	22,529
	Daska	140	140	50,146
	<b>Total Roads/Streets</b>	<b>550</b>	<b>550</b>	<b>117,263</b>
SWM	Chiniot	150	150	180,938
	Mailsi	150	150	66,897
	<b>Total SWM</b>	<b>300</b>	<b>300</b>	<b>247,835</b>
	<b>Total</b>		<b>2,250</b>	<b>711,674</b>

\*- In water supply sub-projects, a sample of **50 non-beneficiaries** for each sub-project was also surveyed in order to conduct with-and-without analysis.

The method for estimating the number of beneficiaries and the total population are available in Chapter 3 of the main report.

### 1.3. Methodology of survey and analysis

#### 1.3.1. Sampling

The survey was conducted using a questionnaire that was 'pilot tested' in the field and refined before being administered. In total, 2,250 beneficiaries and non-beneficiaries were surveyed across 14 sub-projects (spread in 11 TMAs and 8 districts). For sample selection, 3-stage stratified sampling strategy was used to make the sample more representative. The details of estimating the population of beneficiaries is explained in the section related to Sampling in this report.

#### 1.3.2. Analysis Plan

An analysis plan was developed separately for each sector on the basis of a 'three-layered analysis' approach to perform data analysis and assess the perceptions of beneficiaries. This included;

- **Layer I – Summary Indicators** (for each sector, which capture the overall immediate outcome of the sub-projects),
- **Layer II - Intermediate Indicators**, mainly those factors that shape summary indicators,
- **Layer III - Substantiate findings** on the basis of "with and without", and "before and after" analyses, whichever applicable.

The following sections present main findings from each sector.

#### 1.3.2.1. Roads and Streets Sub-Projects

##### a) Roads: Main problems before the project and design features

Before the intervention, the condition of roads infrastructure in Daska, Malakwal and Shorkot had been unsatisfactory – according to respondents as well as sub-project feasibility reports. The main problems faced by communities included congestion and traffic jams, time loss due to slow traffic on deteriorated/bad-condition roads, high repair and maintenance costs of vehicles, and the absence of proper drainage system along the roads.

In **Daska** town, two roads were selected for improvement/widening totaling 5,660 feet in length. In **Malakwal** town, four roads were improved totaling 7,850 feet in length. In **Shorkot** town, six roads were improved totaling 12,350 feet in length. Notable design improvements usually included green belts, covered drains, service roads and installation of street lights along the road.

*b) Analysis Plan for Roads Sub-projects*

The following **summary indicators** were selected as criteria for analyzing the perceptions of beneficiaries:

- a. Improvement in access (to emergency centers, educational institutions, health facilities, government offices, bus station etc.)
- b. Reduction in travel time
- c. Ease and safety of pedestrians
- d. Direct and Indirect Economic benefits for community

These criteria relate to the plausible immediate outcomes of the roads sub-projects based on sub-project outputs.

*c) Summary of Key Findings – Roads sub-projects*

Table 1-2 Summary of Key Findings – Roads Sub-projects

Indicator		Overall (% saying Yes)	TMA-wise Distribution (% saying Yes)		
			Shorkot	Daska	Malakwal
Perception about Improvement in access (after the project)		<b>66%</b>	<b>54%</b>	<b>59%</b>	<b>84%</b>
Perception about Reduction in Travel Time (after the project)		<b>87%</b>	<b>78%</b>	<b>90%</b>	<b>93%</b>
Ease and safety of pedestrians	Presence of street lights after the project		<b>65%</b> (compared to only 4% before)	<b>41%</b> (compared to only 1% before)	Not applicable, as not included in scope
	Presence of rainwater drainage system after the project	<b>62%</b> (compared to 18% before)	<b>11%</b> (compared to 18% before)	<b>98%</b> (compared to only 2% before)	<b>76%</b> (compared to 34% before)
Economic Benefits (Direct and Indirect)	Whether reduction in repair and maintenance cost of vehicles? (responses from drivers only)	<b>70%</b> (Out of n=50 drivers)	<b>82%</b> (Out of n=22 drivers)	<b>53%</b> (Out of n=15 drivers)	<b>69%</b> (Out of n=13 in drivers)
	Whether reduction in fuel consumption cost? (responses from drivers only)	<b>74%</b> (Out of n=50 drivers)	<b>77%</b> (Out of n=22 drivers)	<b>73%</b> (Out of n=15 drivers)	<b>69%</b> (Out of n=13 drivers)
	Whether Increase in value of property?	<b>83%</b> (n=420)	<b>78%</b> (n=140)	<b>86%</b> (n=140)	<b>84%</b> (n=140)
	Whether Improved business opportunities along road?	<b>75%</b> (n=420)	<b>70%</b> (n=140)	<b>87%</b> (n=140)	<b>66%</b> (n=140)

### 1.3.2.2. Street Pavement Sub-Project

A streets pavement sub-project was undertaken in **Dunyapur town** (District Lodhran) to improve the conditions of streets.

#### a) Main Problems: Streets before the sub-project

The town mainly comprised narrow winding streets with open drains on one or both sides. Many of these streets were brick-paved and were in an impoverished condition which caused inconvenience for local communities.

#### b) Summary of Key Findings - Street pavement sub-project

Table 1-3 Summary of Key Findings – Street Pavement Sub-projects

Indicator		% Respondents saying Yes
Perception about Improvement in access		Access to emergency centers including medical facilities – <b>50%</b> Access to educational institutions – <b>42%</b>
Perception about Reduction in inconvenience to users		<b>89%</b>
Main factors of perception about reduction in inconvenience to users	Improvement in sewage / wastewater system after the project	<b>63%</b> reporting presence of sewerage/gutter system (compared to 52% before the project)  <b>Reduction</b> in presence of Open drainage system in streets ( <b>37%</b> reporting compared to 48% before the project)
	Presence of rain water drainage system after the project	<b>70%</b> (compared to 45% before the project)
Economic and Environmental Benefits (Direct and Indirect)	Whether increase in value of property?	<b>79%</b>
	Whether reduction in noise?	<b>29%</b>
	Whether reduction in environmental pollution?	<b>82%</b>
	Whether improvement in household health due to less dust?	<b>75%</b>

### 1.3.2.3. Solid Waste Management Sub-Projects

Solid Waste Management (SWM) sub-projects completed in **two towns i.e. Mailsi and Chiniot** were included in the survey. The perceptions of beneficiaries regarding SWM sub-projects are assessed through a summary indicator '*Cleanliness of Neighborhood*' since cleanliness is the direct outcome of the subproject.

#### a) Analysis Plan for SWM sub-projects

Summary Indicator: **Improvement in Cleanliness of Neighborhood**. Attributes that help explain the Summary indicator:

- Improvement in Sources of Primary Collection of Waste
- Availability of Collection Bins/Containers
- Regularity in Collection of Solid Waste from Containers/Bins
- Improvement in Transportation of Solid Waste
- Dumping Points in Streets and Regularity in Collection of Solid Waste

b) Summary of Key Findings in SWM sub-projects

Table 1-4 Summary of Key Findings – SWM Sub-projects

Indicator		Overall	Mailsi	Chiniot
Respondents perceiving Improvement in Cleanliness of Neighborhood		<b>72%</b>	<b>75%</b>	<b>69%</b>
Factors Determining positive beneficiaries' perception				
Improvement in Primary Collection	Door to Door Collection by TMA Staff	52% compared to 35% before	74% compared to 57% before	31% compared to 13% before
	Households disposing waste in Container / Bin placed by TMA	33% compared to 7% before	12% compared to 11% before	54% compared to 3% before
Availability of Collection Containers/Bins	Containers/Bins placed in neighborhood within 50 meters	22%	19%	25%
	Containers/Bins placed in neighborhood within 500 meters	43%	26%	61%
Regularity in Collection from Containers/Bins	Collected on Daily and/or Weekly Basis	56% (n=300)	43% (n=150)	70% (n=150)
		67%* (n=216)	52%* (n=113)	83%* (n=103)
Transportation of Solid Waste	Improved transportation perceived	71% (n=300)	61% (n=150)	81% (n=150)
Enumerators' observations about existence of Proper Dumping Points	Containers placed by TMA	53% (n=300)	45% (n=150)	61% (n=150)
		63%* (n=216)	51%* (n=113)	75%* (n=103)
Regular vacation of Dumping Points	Informal dumping is a major source of environmental pollution	26% compared to 52% before (n=300)	17% compared to 23% before (n=150)	35% compared to 81% before (n=150)
	Improvement in vacating pre-existing informal dumping points	18% (n=300)	3% (n=150)	33% (n=150)
Complaints related to Solid Waste Management	Respondents having No complaints regarding SWM	52% (n=300)	59% (n=150)	45% (n=150)
		64%* (n=216)	72%* (n=113)	55%* (n=103)
Improvement in Efficiency of TMA Staff in Complaint Resolution	Respondents perceiving Significant Improvement	42% (n=173)	61% (n=110)	8% (n=63)
		49%* (n=130)	69%* (n=89)	7%* (n=41)
	Respondents perceiving minor Improvement	56% (n=173)	38% (n=110)	86% (n=63)
		48%* (n=130)	31%* (n=89)	85%* (n=41)

\*: Percent of those respondents reporting improvement in cleanliness

#### 1.3.2.4. Water Supply Sub-Projects

Water supply sub-projects were assessed in **8 towns** on the basis of a total sample of **1,000 respondents**. The sample size for each sub-project varied from 100 respondents in Pind Daden Khan to 150 in Kasur city.

##### *a) Main problems before the Project and design features:*

Main problems faced by local communities regarding the water supply, as mentioned in respective feasibility studies, included insufficient water supply as compared to demand and irregular timings of water supply. To eliminate these problems, the main design features generally included the construction and repair of overhead reservoirs, tube-wells and tube-well machinery, distribution mains and lines, and other water supply infrastructure. While each sub-project was different in scope, the above were the general and most common design features.

##### *b) Analysis Plan for water supply sub-projects*

The following **three Indicators** were used as **Layer I or summary findings** for assessing the perceptions of beneficiaries about overall outcomes of the sub-projects:

- a. Improvement in quantity of water
- b. Improvement in quality of water used for drinking
- c. Improvement in quality of water used for household purposes such as washing and bathing etc.

##### *c) Summary of Key Findings in TMA Water Supply sub-projects*

#### Improvement in Quantity of water

- 1) Quantity of water
  - 54% of respondents (n=1000) saying improved or significantly improved. Remainder said no change.
  - Median value of 8 sub-projects: 53%
  - Range: 93% (Mailsi) to 30% (Kasur)
- 2) Pressure of water
  - 56% of respondents (n=1000) saying pressure of water supply improved or significantly improved. Remainder said no change.
  - Median value of 8 sub-projects: 61%
  - Range: 93% (Mailsi) to 20% (Kasur)
- 3) **Most frequent complaints:** low water flow (i.e. low pressure), improper timing.
- 4) **Some reduction in use of private motor/pump after water supply sub-project:** 20% of 530 respondents having groundwater pump said that they have very little use of it after the water supply sub-project project.

#### Improvement in Quality of water used for drinking

- 1) Overall Result
  - 56% of respondents (n=1000) saying improved or significantly improved. Remainder said no change.
  - Median value of 8 sub-projects: 50%
  - Range: 96% (Mailsi) to 32% (Jhelum)
- 2) TMA water supply is primary source of drinking water for 70%.
  - Range: 99% (Mustafa bad) to 34% (Liaquatpur)

- 3) **Perception of improvement is better for those using TMA water as primary source:** Perception of improvement increases to 71% compared to 50% overall.
- 4) **Significant switching to TMA supply as primary source of drinking water:** 49% used private-bore/hand pump as primary source before sub-project. Out of these, 71% now use TMA water supply as primary source.
- 5) **Beneficiaries facing fewer problems in drinking water:** Among those who use TMA supply as primary source, 31% report problems. In comparison, 50% of non-beneficiaries report problems.

Improvement in Quality of water used for household purposes (washing, bathing etc.)

- 1) Overall Result
  - 61% of respondents saying that improved or significantly improved. Remainder said no change.
  - Median value of 8 sub-projects: 59 %
  - Range: 94% (Mailsi) to 49% (Pind Daden Khan)
- 2) TMA water supply is primary source for household purposes for 74%.
  - Range: 99% (Pind Daden Khan) to 34% (Mustafa bad).
- 3) **Significant switching to TMA supply as primary source of water for household use:** 64% used private-bore/hand pump as primary source **before** sub-projects. Now, 74% use TMA water supply as primary source.

Figure 1-1: Perceptions about improvement in Quantity of Water Supply

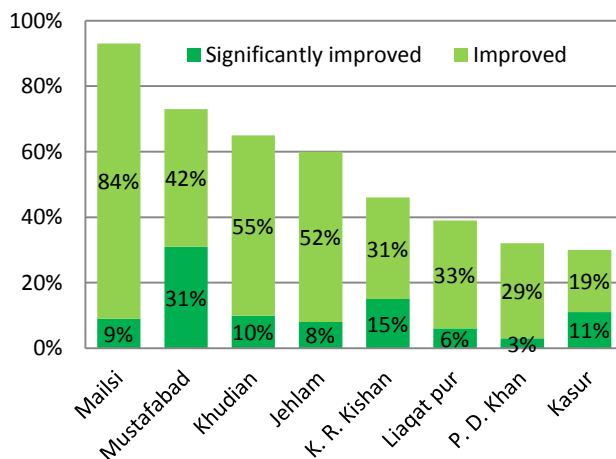


Figure 1-2: Perceptions about Improvement in the Quality of Water used for Household Usage

