



## **CONSULTANT'S STRATEGY REPORT:**

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## **MONITORING AND EVALUATION**

### **SCIP-03: PROGRAM MANAGEMENT AND IMPLEMENTATION SUPPORT, SUPPORT FOR PLANNING AND DEVELOPMENT DEPARTMENT**

**(ADB LOAN No. 2499-PAK)**

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**SINDH CITIES IMPROVEMENT PROGRAM  
PLANNING AND DEVELOPMENT DEPARTMENT  
GOVERNMENT OF SINDH**



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FINAL DRAFT

## Acronyms and Abbreviations

ADB	Asian Development Bank
BCE	Brisbane City Enterprises
DMS	Design and Monitoring Framework
EMP	Environmental Management Plan
GIS	Graphic Information System
GOS	Government of Sindh
IPPMS	Investment Program Performance Monitoring System
KPI	Key Performance Indicators
M&E	Monitoring and Evaluation
MRM	Monitoring and Reporting Mechanism
MFF	Multi-tranche Financing Facility
MU	Monitoring Unit
NSUSC	North Sindh Urban Services Corporation
PD&D	Planning & Development Department
PSU	Program Support Unit
QBPA	Quantitative Baseline Poverty Assessments
RRP	Report and Recommendations of the President
SAMAs	Service and Asset Management Agreements
SPSS	Statistical Package for Social Sciences
SWM	Solid Waste Management
TAs	Town Administrations
TA	Technical Assistance
TORs	Terms of Reference
USCs	Urban Services Corporations

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## I. INTRODUCTION

### 1.1 Program Background

Sindh province is becoming increasingly urbanised with an estimated 22 million residents now living in the urban areas<sup>1</sup>. While the vast majority of this urban population reside in Karachi and Hyderabad, more than 6 million residents live in 20 secondary towns of the province. These towns are witnessing increased growth in population whereas the development and provision of basic municipal infrastructure and associated urban services has not kept pace with the rising population in the province. The existing coverage of municipal services, therefore, falls short to satisfy the growing needs of the local populations. Barring Karachi, 55 percent of the urban population has access to piped water facilities. Approximately 37 percent is being served by the garbage collection systems. Access to sewage and sanitary facilities is limited. The sewage and wastewater treatment facilities are virtually non-existent and where these facilities do exist, they require rehabilitation and maintenance.

Sindh Cities Improvement Program (SCIP) is a 10-years program to support physical and institutional improvements in urban infrastructure relating to municipal services in the secondary towns. The program aims to achieve its objectives by (i) establishment of local government-owned and professionally managed Urban Services Corporations (ii) urban sector reforms and capacity development, and (iii) making priority investments in water supply, wastewater and solid waste management infrastructure. The program costs USD 400 million of which USD 300 million is provided by the Asian Development Bank (ADB) through its Multi-tranche Financing Facility (MFF)<sup>2</sup>. The remaining USD 100 million will be provided by the Government of Sindh.

SCIP is comprised of four parts: Part A involves improved urban service management and planning. This component entails urban planning, institutional development and program implementation, support and assistance to the executing agency and implementing agencies in program execution and institutional reforms. Part B involves investments in water supply and waste water management improvements. It entails improvements in water supply and wastewater management to enhance the scope of coverage, improve the quality of services, and increase reliability through civil works and provision of equipment. Part C involves investments in solid waste management to improve the existing status of service delivery. This component requires improvements in solid waste management by provision of civil works and equipment required for the construction and operation of sanitary landfill facilities, solid waste collection equipment and communal waste bins. Part D involves operational and transition support funding. This covers cash shortfalls in newly established Urban Services Corporations (USCs), in advance of tariff increases and increased cost recovery.

SCIP is implemented phase-wise in a strategic manner incorporating specific clusters of towns via establishment of USCs for managing water supply, wastewater and solid waste management (SWM) services. The Program Support Unit (PSU) will select the cluster of towns of each distinct geographical area for inclusion in the investment program. The cluster of towns will: (i) have an anchor town around which a cluster of towns will be identified<sup>3</sup>, together providing a critical mass for efficient operation of a USC (ii) have an anchor town that

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<sup>1</sup> The estimated population of Sindh is 42.4 million of which 52 percent reside in urban areas (Source: Population Welfare Department Website, Government of Sindh, 2010).

<sup>2</sup> The program is being implemented in five successive tranches.

<sup>3</sup> The anchor town has a contiguous urban area with a population in excess of 150,000. Other towns within 150 kilometres of the anchor town have urban populations in excess of 50,000 to constitute the cluster. Each cluster constitutes an aggregated urban population of more than 350,000 (Source: Facility Administration Memorandum: MFF Sindh Cities Investment Improvement Program, Asian Development Bank, December 2009).



is strategically located near transport links, and owing to its proximity to natural and industrial resources, and has the capacity to generate economic growth and employment (iii) be prepared to jointly incorporate a USC (registered under the Companies Ordinance 1984) with other towns within the cluster, and (iv) agree to a package of institutional reforms aimed at the effective and efficient management of urban services.

Under the proposed implementation agreement for subsequent tranches, a USC will be established as the implementing agency for each cluster. In Cluster 1 – referred as the North Sindh cluster – in 2010, the North Sindh Urban Services Corporation (NSUSC) was established with the responsibility to provide municipal services including water supply, wastewater, and SWM services. Subsequently, in Cluster 2 – referred as the Central Sindh cluster – the second USC will be established for providing municipal services for the cluster of towns in Central Sindh. And finally in Cluster 3 – referred as the South Sindh cluster – the third USC will be established as the implementing agency for delivering municipal services to the cluster of towns in Southern Sindh<sup>4</sup>.

The anticipated impact of SCIP will be enhanced quality, coverage, and reliability of water supply, wastewater and SWM services for an estimated 570,000 households in the participating towns. The introduction of professionally managed and financially sustainable USC Model and more efficient urban planning is anticipated to create a platform for private sector participation, which can create employment opportunities for the local population. Additionally, the impact of SCIP is anticipated to accrue multi-faceted benefits in terms of poverty reduction, improvements in public health, general quality of life, and reduced environmental degradation for an estimated 4 million residents.

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<sup>4</sup> Under the program, Karachi and Hyderabad are ineligible for financing.

## **1.2 Program Components**

SCIP is comprised of six activity-based components which are:

### **1.2.1 SCIP-01: Independent Verification, Support for Planning & Development Department (PD&D)**

SCIP-01 involves four broad tasks which are:

(a) Review of NSUSC Business Plans and approval of Annual Funding Requests (b) Verification of NSUSC's Annual Operational Plans (c) Verification of performance against targets set out in the business plans and the reasons for deviations in these targets and (d) Advisory role if there is sufficient information to shift from an input to output based Operational Support Funding disbursement mechanism and identification of missing information, with additional tasks of: Verification of Information Availability to establish that results of programs correspond well with the ground realities of NSUSC.

### **1.2.2 SCIP-02: Program Management and Implementation Support, Support for North Sindh Urban Services Corporation (NSUSC)**

SCIP-02 involves five broad tasks which are:

(a) Advise on NSUSC operations, management systems, and reforms initiatives (b) Assistance to NSUSC with implementation of North cluster sub-projects and review of Central cluster sub-projects (c) Advise on compliance with ADB's safeguard policies (d) Assistance to NSUSC for expanding and institutionalising sustainable service provision to low-income communities, and (e) Advise NSUSC on establishing sound practices in program monitoring and evaluation and results measurement.

### **1.2.3 SCIP-03: Program Management and Implementation Support, Support for PD&D**

SCIP-03 involves four broad tasks which are:

(a) Support to PSU in overall monitoring and evaluation of SCIP and implementation of the SCIP Action Plan for Reform including propelling the reform agenda and implementing province-wide policy, regulatory and institutional change (b) Identification and formation of Second Cluster in Central Sindh including incorporation, formation, and legal documentation of USC in Central Sindh (c) Mapping and Master Planning of water supply, wastewater management, SWM infrastructure; Identification of potential Subprojects and project preparation; preparation of feasibility studies including preliminary designs for cost estimates of subprojects in each participating TMA of Central Sindh Cluster, and (d) Support Urban Policy and Strategic Planning Unit on implementation of urban planning initiatives and reforms.

### **1.2.4 SCIP-04: Consulting service for Mapping, Planning, Feasibility Studies, Detailed Designs and Construction Supervision for NSUSC**

SCIP-04 involves three broad tasks which are:

(a) Development of Master Plan and Mapping Studies for North and Central cluster towns<sup>5</sup> (b) Water supply Master Plans for Central Sindh cluster towns, and (c) Wastewater Management Master Plans for Sukkur, New Sukkur, Rohri, Shikarpur and the Central Sindh cluster towns (d) Solid Waste Management Master Plans for selected Central Sindh towns (e) Baseline Surveys for North and Central Sindh cluster

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<sup>5</sup> Mapping for Central cluster towns will begin after the selection of towns.

towns (f) preparation of detailed engineering designs and technical specifications for North Sindh cluster towns (g) Project preparation for Central Sindh cluster sub-projects.

### **1.2.5 SCIP-05: TA on Improving Efficiency and Accountability of NSUSC: Technical, Operational, and Organizational Support**

The broad tasks of SCIP-05 are:

(a) Assistance to NSUSC in design and implementation of information gathering programs required under the Investment Program Service and Asset Management Agreement for effective operations (b) Assistance to NSUSC in establishing a benchmarking database for improving operational activities having compatibility with World Bank's IBNET Water Benchmarking Toolkit (c) Working with NSUSC management in designing and implementing a number of improvement programs in NSUSC's key operational areas to improve technical and commercial operations and customer services (d) Development and implementation of improved outsourcing including renegotiating of existing water supply billing and sanitation contracts and identification of operational activities to be outsourced (e) Building internal expertise of NSUSC by training of Corporation staff in performance management, supervisory skills, customer services training, network pressure management, and investment planning (f) Development of Private Sector Participation Options (PSP) (g) Implementation of PSP transaction, and (h) Support to NSUSC staff and management.

### **1.2.6 SCIP-06 TA on Improving Efficiency and Accountability of NSUSC: Public Awareness and Outreach, Public Monitoring and Customer Relations**

The components of SCIP-06 include:

(a) Development and implement public awareness and communication strategy and plan (b) Computerized customer relation system (c) Pro-poor outreach complaints system, and (d) Development and implementation of CRC system.

## **1.3 Program Location**

Sindh Cities Improvement Program is being implemented in successive tranches. The first cluster of North Sindh covers the towns of (i) Sukkur (ii) New Sukkur (iii) Rohri (iv) Khairpur (v) Shikarpur, and (vi) Larkana. Besides, there are two additional towns of Jacobabad and Ghotki. The anticipated towns of Central Sindh cluster may include (i) Nawabshah/Benazirabad (ii) Shahdadpur (iii) Tando Adam (iv) Sanghar (v) Moro, and (vi) Noushero Feroze<sup>6</sup>. In addition to the 14 towns of North and Central Sindh, six additional towns will be selected that will constitute the geographical cluster of Southern Sindh.

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<sup>6</sup> The cluster of towns in Central Sindh is in the process of being finalised.

## 2. SCIP MONITORING AND EVALUATION FRAMEWORK

Any development and investment program requires a monitoring and evaluation framework as a significant component of the overall program management. Without a robust monitoring, evaluation and reporting mechanism, it is difficult to examine the progress and direction of program activities. But most importantly, lack of monitoring information system halts program management's key decision making and learning outcomes. To improve the effectiveness of development by measuring subsequent progress in investment activities, the ADB actively promotes a results-based management system by advocating the Program Performance Monitoring System (PPMS). The PPMS is a coherent and results-based approach relating to program planning and performance monitoring for achieving program targets and evaluating the outcomes of investment.

Sindh Cities Improvement Program's monitoring and evaluation (M&E) framework is an important part of the overall investment program. Its core objective is to measure periodic progress in multiple program components concerning (i) municipal services delivery (ii) institutional reform (iii) physical implementation, and (iv) capacity development, in meeting the desired goals of the program. The overall M&E framework is based on three major components, which are discussed in detail in the proceeding sections of the report<sup>7</sup>. These include:

- The Baseline surveys
- The Investment Program Performance Monitoring System (IPPMS), and
- Verification and Reporting of Performance Monitoring Data

For investment programs with medium to long time-durations, it is critical to collect baseline information prior to regular quantitative measurement of progress in program implementation and subsequent reporting. Based on ADB program documents, SCIP's monitoring and evaluation framework identifies the need to collect quantitative baseline data on the various program components. This data requires collection prior to the implementation phase carried out by the USCs for each cluster. Without baseline information, it is a difficult to measure subsequent progress towards program targets. It is very critical that baseline indicators must be compatible with the performance indicators of the Investment Program Performance Monitoring System (IPPMS). It is also essential that performance indicators identified and selected for the IPPMS must also be coherent, compatible and applicable to all the three geographical clusters.

The standardisation of performance indicators for North, Central, and South clusters is essential for five reasons: (i) To bring uniformity in measuring progress in program activities which in essence are homogeneous (ii) to examine geographical progress for the purpose of comparability and learning from outcomes (iii) to avoid collection of diverse and often redundant data (iv) to assist the PSU-SCIP, implementing agencies and other stakeholders in making better decisions about program implementation vis-à-vis mutual learning, and (v) to measure relative and progress rate towards program targets achieving impact, outputs and outcomes for all three clusters<sup>8</sup>.

<sup>7</sup> The baseline surveys are discussed in Section 3 of the report. The IPPMS and Reporting of Performance Monitoring Data are discussed in Sections 4 and 5 respectively.

<sup>8</sup> This relates to: (a) anticipated increase in per-capita incomes in each participating town (b) improvements in the quality of life and general well-being of beneficiary populations in the participating town (c) improved health outcomes for the local populace, and (d) anticipated increase in economic competitiveness of participating towns in the three geographical clusters.

## **2.1. ADB's Design and Monitoring Framework**

ADB's Design and Monitoring Framework (DMF) provides the basic guidelines for SCIP's overall M&E framework. It has established certain performance indicators and adjusted broad targets for participating towns in the North cluster. The draft document provides consolidated information relating to SCIP's impact, outcomes, and outputs along with specific performance indicators and targets (Annex–A). However, the DMF is an active document which is updated and revised as per the requirements, in particular, following any changes in the program design and implementation. The DMFs for the Central and South Sindh towns are anticipated to be designed by the ADB.

## **2.2 Objectives of Monitoring and Evaluation Framework**

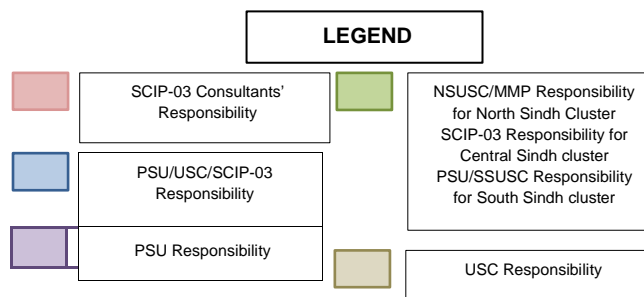
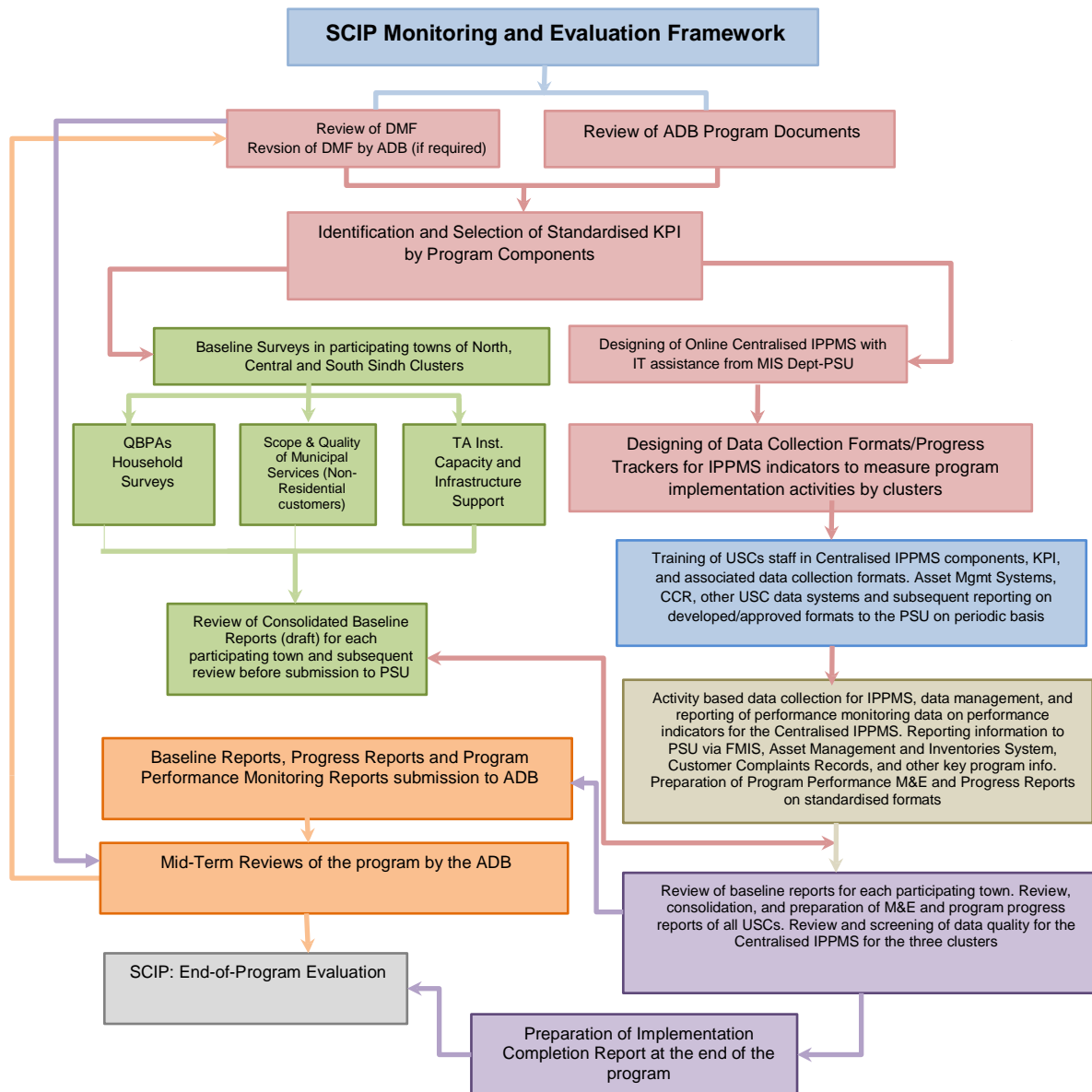
The objectives of SCIP's M&E framework are based on following key tasks:

- i) To conduct baseline information of each participating through primary surveys for benchmarking information prior to institutional reforms, service provision, physical implementation, and capacity development functions of the USCs. The baseline information will assist in subsequent measurement of program's activity-based performance through periodic monitoring (IPPMS) and outcome and impact monitoring (annual surveys including poverty audits in clusters).
- ii) To identify and select standardised key performance indicators (KPI) having compatibility and coherence with the IPPMS components for all three clusters. These components include: (a) service delivery performance (b) institutional reform (c) physical implementation, and (d) capacity development.
- iii) To design a centralised monitoring and data reporting system – the IPPMS – for the three geographical clusters. The objectives of the monitoring information and reporting system are: (a) regular reporting and availability of program performance of each USC to the PSU and other stakeholders vis-à-vis online information system (b) improve learning outcomes and lessons from program's activities in clusters (c) improve program management and decision making relating to implementation, and (d) preparing objective and analytical program performance monitoring and evaluation reports for the ABD.

## **2.3 Institutional Responsibilities: SCIP's Monitoring and Evaluation Framework**

The structure of activities and responsibilities based M&E framework is presented in Chart I. Based on program requirements and activity based TORs related to monitoring and evaluation functions (incorporated from SCIP-02 – SCIP-06), the chart provides specific roles and responsibilities to carry out the multiple functions by the Program Support Unit, the implementing agencies, and the out-sourced consulting firms. It is very pertinent for the support organisation, implementing agencies, and sub-contracted firms to allocate individual roles and responsibilities to their staff related to monitoring, data verification, and reporting of performance data after the monitoring and reporting system is established.

**Chart I: OUTLINE OF SCIP's MONITORING AND EVALUATION FRAMEWORK**



The specific roles and responsibilities related to M&E functions are presented as follows:

i) The Brisbane City Enterprises Pty Ltd (referred as SCIP-03 Consultants) will:

- a) Design the baselines for each of the 6 towns in the Central Sindh cluster. The baseline surveys will be outsourced to a research firm whereas the consultants will provide technical support and supervision to the research firm in carrying out the assignment . The consultant firm will extensively review the draft baseline reports prepared by the research firm and will subsequently submit the documents to the PSU.
- b) Identify and select KPI (and their sub-components) for the Centralised IPPMS encompassing all the three clusters.
- c) Design data collection formats (or program progress trackers) based on IPPMS components and additional sub-components.
- d) Provide technical support to the MIS Department-PSU in designing of the online centralised IPPMS for all three clusters. The consultants will assist in the implementation of the IPPMS in the clusters including provision of training to the M&E and other program implementing staff of the USCs.

ii) The USC will:

- a) Outsource the baseline surveys for cluster of towns in North and South Sindh. The draft baseline reports will be submitted to the PSU.
- b) Ensure collection and reporting of monitoring data on periodic basis for the centralised IPPMS. Performance monitoring data management and reporting on KPI relating to SCIP components to the Program Support Unit. Manage record of performance monitoring data on time-specific basis (by months) and update data on the online IPPMS.
- c) Ensure reporting to the PSU on environmental and safeguards compliance on sub-project contracts.
- d) Periodically report to PSU the financial and accounting information, assets and inventories data through its financial and accounting, asset and inventories management information systems for the respective cluster.
- e) Share Maps, Master Plans, Business Plans, and Consultant and Contractor Reports with the PSU and TAs.
- f) Share Customer Care Response (CCR) with the PSU and TAs.

iii) The Program Support Unit-SCIP will:

- a) Review and examine the consolidated baseline reports of all towns in the three clusters. Submission of finalised baseline documents to the ADB.
- b) Review baseline reports of all clusters and submission of finalised documents to the ADB.
- c) Provide general assistance, financial and administrative support in training of USC staff and implementation of the Centralised IPPMS in all three clusters. Administrative and financial assistance in conducting poverty audits and other surveys during subsequent progress of the program.
- d) Review periodic performance data of IPPMS submitted by each USC for screening. Independently verify reported data for ensuring credibility and quality of data. Submit Program Performance Monitoring and Evaluation and Program Progress Reports to ADB.
- e) Examine and review financial reports, operational and business plans, asset and inventories management, and Customer Complaints Record (CCR) and other information reported by the USCs.
- f) Report EMP compliance of sub-projects undertaken by contractual arrangements in progress reports submitted to the ADB.



### 3. BASELINE SURVEYS

The baseline surveys are the foremost activity of SCIP's monitoring and evaluation framework. These surveys are pre-requisites to acquire benchmark information based on the program's components. According to ADB's Report and Recommendations of the President (RRP) for SCIP (Section F; sub-section 9, page 20): The PSU will develop baseline data for each of the selected indicators and conduct annual surveys with the assistance of consultants, and update ADB on the progress against each indicator. Therefore, it is pertinent that baseline surveys should be designed in line with the performance indicators selected for the IPPMS. It will facilitate program management (including the PSU) in measurement and review of progress towards program targets mentioned in the DMF. The baseline information, therefore, will assist in examining the mid-term program impacts and outcomes vis-à-vis the annual surveys including poverty audits in the participating towns.

The baseline surveys will broadly serve five purposes: (i) Provide reliable baseline estimates (quantitative) relating to programs four components namely service delivery performance, institutional reform, physical implementation, and capacity development (ii) As base values, assist to gauge anticipated periodic improvements and impact of program's activities during SCIP's duration (iii) numerical support in revising targets in the DMF – if needed (iv) Provide rich information for multiple program needs and documentation including the formulation of tariff strategy and anticipated increased cost recovery, program's overall communication strategy, and statistical support for other documentation, and (v) finally assist program evaluation activities for mid-term evaluations, mid-term reviews, and the end-of-program evaluation.

#### 3.1 Objectives of Baseline Surveys

The major objectives of the baseline survey are:

- i) In the absence of baseline information of participating towns, establish a reliable benchmarking database – in a segregated manner – to cover the four components of the program and targets and goals identified in the DMF. The segregated data will pertain to:
  - a) Socio-economic status of households in the participating towns for subsequent measuring of the economic impact of the program in participating towns and anticipated increase in per capita incomes. The socio-economic status of households baseline will incorporate estimation of the magnitude of poverty in each of the participating town for three clusters. In addition, this baseline will incorporate service delivery performance in terms of access, coverage, reliability, and quality of municipal services at households prior to the municipal services provision by the USCs, and their willing to pay for anticipated improved municipal services.
  - b) The status of coverage, reliability, and quality of municipal services availed by the non-residential customers in all participating towns prior to implementation of the USC Model. The baseline will provide information pertaining to services delivery performance to non-residential customers and their willingness to pay.
  - c) The existing status of institutional capacity and infrastructure support of town administrations in provision of municipal services to the multiple customers in each participating town. Formal data will be acquired from each town administration relating to multiple parameters of municipal services delivery. These relate to governance and administration, finance and accounts, human resources, physical assets, and others. The institutional and infrastructure information will be prior to establishment and implementation of service provision activities under the USC Model. The baseline will provide benchmark information pertaining to the institutional reform and physical

implementation, and capacity development components of the IPPMS<sup>9</sup>.

### 3.2 Types of Baseline Surveys

As mentioned above, the baseline surveys have been designed as per the requirement of the IPPMS performance indicators for towns in the three clusters, and targets identified in the DMF for the North Cluster. These surveys relate to: (a) Socio-economic status of households – also called the Quantitative Baseline Poverty Assessment (b) Baseline on the Present Scope and Quality of Municipal services – non residential customers, and (c) Baseline on Town's Present Institutional Capacity and Infrastructure Support.

#### a. Quantitative Baseline Poverty Assessments

The Quantitative Baseline Poverty Assessment (also referred in the report as the household socio-economic survey) is designed to collect benchmark data that will assist in measuring targets related to subsequent economic impacts (town's economic competitiveness and increase in per capita incomes), social benefits (improved health status and reduction in water-borne diseases), and service delivery performance to households after the implementation and provision of activities and services by the USCs<sup>10</sup>.

There are various methods to estimate poverty. The incidence of poverty among households can be estimated by the head-count index<sup>11</sup>, designing a multi-parameter Poverty and Water Poverty Indexes, or rather simplistically by analysing data through a multi-indicator cross-correlation approach of socio-economic data. A few of these socio-economic indicators that are considered to assessing household poverty include: (i) demographic characteristics (ii) housing status, quality, and ownership (iii) household's educational status by family members (d) access to basic social services including health and education (e) average household income per family member, (f) household expenditures per family member (g) ownership of assets by type, and (f) other indicators relevant to determine the socio-economic status.

The QBPA survey will obtain household information on access to municipal services, quality and municipal services, and the estimated amount of user-charges households are willing to pay for improved municipal services<sup>12</sup>. The survey information will assist in providing data for tariff revisions and/or adjustments in the participating town of the program.

#### b. Baseline on the Present Scope and Quality of Urban Municipal Services (Non- Residential Customers)

In addition to households, there is a large consumer-base of non-residential entities that avail municipal services in the three clusters. Some of these include: (i) industries (ii) medium size commercial businesses (iii) educational institutions – schools and colleges (iv) health facilities – hospitals and private clinics (v) retail trade and markets (vi) hotels and restaurants, and (vii)

<sup>9</sup> <sup>9</sup> The Assets and Inventories Survey is envisaged to assist in baseline information relating to physical implementation. The survey will support and supplement on physical implementation, infrastructure support, and staffing prior to the USC Model, which will be outsourced to a professional firm experienced in assets and inventories valuation. However, the primary objective of the Assets and Inventories Survey is to provide information for preparing SAMAs for 6 towns in the Central Sindh cluster.

<sup>10</sup> The survey will estimate the magnitude of household poverty in each participating as well. The baseline survey will be comprised of two parts: (i) The general socio-economic status of households including estimation of the level and magnitude of poverty in each participating town, and (ii) the coverage, reliability, and quality of municipal services provided to households.

<sup>11</sup> The Head Count Index (HCI) is the proportion of the population whose economic welfare (Y) is less than the poverty line (P). If n people are deemed to be poor in a population of size N then  $HCI = n/N$ .

<sup>12</sup> Access and quality of municipal services is also one of the important indicators of household's socio-economic status. Most of the poor households around the world do have access to quality municipal services such as water supply, sanitation, and solid-waste management.

others. This consumer-base is not only significantly diverse but it also provides a good potential for revision and/or adjustment of utility based tariffs. Therefore, the baseline survey will acquire information on the coverage, reliability and quality of municipal services (water supply, wastewater and solid-waste management) which at present are being provided to the non-residential consumers. The baseline survey will also incorporate the user-charges paid by these establishments for municipal services including private costs.

### **c. Baseline on Town's Present Institutional Capacity and Infrastructure Support**

Under the USC Model of institutional reforms for all clusters, the function of providing municipal services will be transferred from town administrations (previously Taluka Municipal Administrations) to the newly-established USCs. In North Sindh, the transition is already in effect. The NSUSC has assumed the responsibility of services provision in 6 towns through the Services and Assets Management Agreements (SAMAs). In the Central and South Sindh clusters, the transition will take place after establishment of one USC in each cluster.

The purpose of this baseline is to examine the institutional structures of local town administrations, including physical and human structures, pertaining to provision of municipal services. Based on SCIP-05 (detailed activity iii and iv), this baseline survey will assist in subsequent measurement of progress in services delivery and improvements in physical implementation after establishment of reforms based USCs. The Implementation Improvement Program activities have been defined for the NSUSC<sup>13</sup>. The TA institutional capacity and infrastructure support baseline will acquire formal data from local administrations within the following parameters: (i) governance and administration (ii) municipal infrastructure for services delivery (water supply, wastewater and solid waste management), (iii) customer complaints and compliance (iv) human resources municipal services provision (v) assets and inventories management (vi) financial information and tariff collection, and (vii) contractual arrangements.

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<sup>13</sup> The activities relate to Implementation of Improvement Programs (IIPs) and development and implementation of improved outsourcing. The IIPs entail NSUSC to make improvement in key operational areas related to technical operations, financial operations, and customer services. As town administrations will be administering such operations at the local government level, the sub-activities relate to macro-metering strategies, district metering, leakage detection and repair, regularisation of illegal connections, customer meter management, and other tasks.

### 3.3 Survey Design and Methodology of Baseline Surveys

#### a. Quantitative Baseline Poverty Assessments

The sample selection methodology of quantitative baseline poverty assessment is based on two alternative scenarios. These are (i) when population size of the participating town is not known, and (ii) when population size of the participating town is known.

There are no good estimates available on the population size of districts and cities within each district to draw a sample from the sampling frame<sup>14</sup>. The available estimates of population are often conflicting. Likewise, there is no reliable data available on the percentage of households which have direct access to municipal services (water supply, wastewater, and solid waste management) in the participating towns of the program. In presence of such information ambiguities, the discrete probability distribution method can be used to draw the sample for each participating town to provide sufficient representation to the populations under study. Therefore, the following statistical formula has been used to draw a representative sample for each participating town in the Central cluster.

$$n = P (100-P) x Z/D$$

Where

$n =$	The sample size of the baseline survey in a participating town
$P =$	Discrete probability distribution of households among participating population having access to municipal urban services (Discrete Probability Distribution)
$(100-P)=$	Discrete probability distribution of households in the participating population with no access to municipal urban services (Discrete Probability Distribution)
$Z =$	Value from normal distribution for the desired confidence interval (Confidence Interval: 1.96 (95% CI))
$D =$	Desired precision (adjusted at $\pm 5$ percent).

In the absence of household information on accessibility to municipal services, equal numerical weightage (50 percent each) has been assigned to: (i) households having access to municipal services in a participating town and (b) households who do not have access to municipal services in a participating town at the most widely used 95 percent confidence interval.

Table 1 provides the list of various sample sizes that are drawn for the QBPA survey at various degrees of precision and standard CI. At desired precision of  $\pm 5$  percent, the total sample size is estimated as 980 households per town. Similarly, for desired precision of  $\pm 7$  percent, the sample size is estimated to be 700 households per town for Central Sindh.

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<sup>14</sup> In Pakistan, the last population census was conducted thirteen years ago in 1998.

**Table 1: Sample Size Variations with Unknown Population  
(Central Sindh Cluster)**

	<b>P (1-P)</b>	<b>Z [95% CI]</b>	<b>D [%]</b>	<b>HH Sample Size</b>
i	50(50)	1.96	5	980
ii	50(50)	1.96	7	700
iii	50(50)	1.96	10	490

Based on sample size estimations in Table 1, the total sample size for QBPA survey in Central Sindh cluster are presented at various degrees of precision in Table 2. It is proposed that a sample size of 980 respondents per participating town needs to be collected with the most commonly used +- 5 percent of desired precision.

**Table 2: Sample Size of Household Survey  
(Central Sindh Cluster)**

	<b>P(1-P)</b>	<b>Z [95% CI]</b>	<b>D [%]</b>	<b>Total Sample of HHs in Central Sindh towns</b>
i	50(50)	1.96	5	5,880
ii	50(50)	1.96	7	4,200
iii	50(50)	1.96	10	2,940

It is desirable to collect a sample of 980 households in each participating town at +- 5 percent of desired precision. However, it is critical to consider the economic and time costs of data collection.

In the case of known population size, the following statistical formula has been used to draw the sample size for each participating town of Central Sindh.

$$n = [P (1-P) / (D^2/Z^2 + P (1-P)/N)]/R$$

Where

- $n =$  The sample size of the baseline survey in a participating town
- $N =$  Population size of the urban town
- $P =$  Population access to municipal services as a decimal (i.e. 0.5)
- $1-P =$  Population without access to municipal services as a decimal (i.e. 0.5)
- $Z =$  Value from normal distribution for the desired confidence interval (Confidence Interval: 1.96 (95% CI))
- $D =$  Desired precision (adjusted at ± 5 percent).
- $R =$  Estimated Response Rate, as a decimal

Based on the above sampling formula, the sample sizes determined by degrees of precision and constant confidence interval are presented in Table 3. At  $\pm 5$  percent of desired precision, the total sample size comes to 425 households in each participating town of Central Sindh. At  $\pm 7$  and  $\pm 10$  percent of desired precision, the total sample size of households is 213 and 106 respectively for each town. It is desirable to survey a total of 5,100 households in 6 towns of the Central Sindh, primarily keeping in mind the economic and time cost considerations of the surveys<sup>15</sup>.

**Table 3: Sample Size Variation with Known Population**

	P	Z (95%)	D [in %]	R	Sample Size/Town	Total Sample Size in Central Sindh Cluster
i	0.5	1.96	5	0.9	425	5,100
ii	0.5	1.96	7	0.9	213	2,556
iii	0.5	1.96	10	0.9	106	1,272

In the absence of sampling frames for population in the participating towns of Central Sindh, "stratified random sampling" technique will be adopted to collect the survey data<sup>16</sup>. Based on the key objective of estimating the extent of poverty in the participating town, a detailed mapping exercise must be conducted for identifying the cluster of houses according to the economic and social status of the residential localities. Therefore, the sample of population in each town can be subdivided into three equal size mutually exclusive strata to avoid overlapping and over-representation of any one geographical stratum<sup>17</sup>. The categories of households may include: (i) low-income residential areas (ii) middle-income residential areas and (iii) relatively high or high-income residential localities. (See Annex: C for the draft QBPA/household socio-economic survey questionnaire).

### **b. Present Scope and Quality of Urban Municipal Services (Non-Residential Customers)**

The baseline will acquire data on the present status of coverage, reliability, and quality of municipal services availed by the non-residential customers in each participating town of Central cluster. As previously mentioned, the sample of surveyed entities to be incorporated in the baseline is significantly diverse. Therefore, each distinct entity of establishments with homogeneous characteristics will constitute a "cluster" – for example cluster of educational institutions including schools and colleges in the private and public sector. In each participating town, the total number of heterogeneous clusters and sample of respondents within the homogeneous cluster will sum-up to formulate the total number of survey respondents in each participating town.

The methodology of non-residential baseline survey is principally based on "geographical cluster sampling". For greater coverage by area, the number of entities in each homogeneous cluster of entities will be extended geographically to incorporate the coverage of municipal services provided in each participating town.

<sup>15</sup> See Annex – B for sample size distribution of households in Central Sindh Cluster Towns. The criterion of known population size is subject to revision based on population estimates of each town.

<sup>16</sup> A similar approach to standardised random sampling, both reduce the sampling error in data collection.

<sup>17</sup> Every element in the population has been assigned to only one stratum.

The sample size for each cluster is determined as:

$$\text{Sample size} = (\text{total number of representative geographical clusters by type}) \times (\text{number of respondents interviewed in each cluster})$$

The proposed number of clusters will vary from 6-15, which depends on the number of diverse commercial activities in each town. Within each cluster, 10 respondents will be interviewed from various geographical areas of the town. Therefore, the total sample size will be in the range of 60-150 respondents in each town. Based on calculations, the total sample size of the baseline survey including all 6 towns will be in the range of 360-900 establishments<sup>18</sup>.

### **c. Town Administration's Present Institutional Capacity and Infrastructure Support.**

A total of 6 interviews will be conducted with the town administrations of Central cluster towns. The information incorporated for the survey mainly pertains to present (i) governance and administrative structures (ii) status of municipal services physical infrastructure (iii) human resources engaged in municipal services provision (iv) capacity development (v) status of compliance to customer complaints (vi) municipal assets and inventories management (v) finance and accounting systems including utility tariff information (vi) culture of contractual arrangements in municipal services delivery and others (see Annex E for Baseline questionnaire on TAs institutional capacity and infrastructure support).

### **3.4 Out-sourcing, Data Collection, Encoding and Processing Management**

SCIP-03 Consultants will outsource the baseline studies to a research firm having previous experience and expertise in conducting baseline studies. The selected research firm will be responsible for conducting baseline surveys and preparing the first draft of consolidated baseline reports for each participating town. The format of the report will be designed by the SCIP-03 Consultants and the draft reports prepared on the format will be subject to approval by the aforementioned Consultants.

According to ADB guidelines, the process of selecting the research firm will be done in two phases. In the first phase, interested organisations will be invited through a newspaper advertisement to submit the Expression of Interests (EOIs) for conducting the baseline studies. Based on submitted EOIs, three research firms will be shortlisted and their relevant documents will be submitted by PSU to the ABD. The criterion for selection of firms and associated weightage is as follows: (a) Competency (20 percent), (b) Technical competency (60 percent), and (c) Geographical competency (20 percent). The shortlisted firms will be requested to submit RFPs whereby technical and financial proposals will be received for the concerned assignment. On the basis of submitted RFPs, one research firm will be shortlisted which will be approved by the ABD. On approval of the research firm, a detail contract with the selected research firm relating to the assignment will be prepared.

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<sup>18</sup> The draft questionnaire for this baseline survey is presented in Annex: D of the report.

### **3.5 Overview of the Terms of Reference for the Research Firm**

The scope of work for the sub-contracted survey agency is as follows:

- The subcontracted research firm for baseline surveys in 6 towns of Central Sindh will collect all data related to (a) Quantitative Baseline Poverty Assessment (b) Present Scope and Quality of Urban Municipal Services (Non- Residential), and (c) Town Administration's Present Institutional Capacity and Infrastructure Support. The data on all three baselines will be collected on separate questionnaires which have been designed by the SCIP-03 Consultants and will be provided to the selected research firm.
- The research firm will exclusively assume responsibility for arranging and conducting the training workshop(s) for its team of supervisor(s) and enumerators of all out-sourced baseline surveys in the Central towns of Sindh. The training workshops will be attended by the SCIP-03 Consultant to providing the necessary technical assistance required to conduct these baseline surveys.
- The research firm will encode all baseline questionnaires separately prior to execution of the survey. The encoded information will be provided to the SCIP-03 Consultants on both hard and soft copies of each of the three baseline questionnaires.
- Once the data for all three baselines has been entered in spreadsheets, the hard copies of all three baseline survey questionnaires for towns of Central Sindh filled must be provided to the SCIP-03 Consultants. These questionnaires will remain the property of the Consultants.
- The data collected for each of the three baseline studies will be kept and managed in separate files (for each baseline) both in MS Excel and SPSS. The copies of cleaned and encoded data of all three baseline surveys must be provided to SCIP-03 Consultants both in MS Excel and SPSS.
- The research firm will be provided the table of contents for each baseline report which will be prepared in consultation with the SCIP-03 Consultants.
- Each draft report for the Central Sindh town will incorporate the findings of the three baseline studies (in a consolidated form) in specific sections of the report. The draft reports (totalling six in number) will be reviewed by the SCIP-03 Consultants for any omissions and commissions. The SCIP-03 Consultants possess the right to ask the research firm to revise the report until it is finally approved.
- The research firm bears sole responsibility of preparing the operational work plan in conducting the three baseline surveys in the six towns of Central Sindh and any other associated activities within the timeframe of the contract. The research firm must inform the SCIP-03 Consultants the progress of activities in data collection and post data collection tasks which will be assigned to the research firm in the work agreement.

### **3.6 Training and Oversight**

The survey agency will provide training to enumerators and other members of survey teams. The oversight for training workshops will be provided by SCIP-03 consultants/contracting firm. After the initiation of surveys, the survey agency will have to inform the contracting firm about the progress of activities and the reasons for any delays which may occur during the course of the baseline survey assignment.



### 3.7 Timeframe and Deliverables

The tentative activity based timeframe for conducting the baseline surveys is presented in Table 4.

Table 4: Timeframe of Baseline Studies by Activities (Tentative)

Activity	Activities by Weeks	2012													
		Feb			March			April			May			June	
		II	III	IV	II	III	IV	II	III	IV	II	III	IV	I	II
I	Discussion on all baseline modalities with the research including methodology, training, work plan, reporting, format of draft reports, and others														
A2	Training of Enumerators/Pilot Survey and oversight of training sessions														
A3	Data Encoding and Collection for all Baseline Survey data in the Central Sindh Cluster participating Towns														
A4	Data Analysis and Inference of Baseline Surveys														
A5	Preparation of first draft of baseline reports of each participating town on standardised formats provided by the contracting firm														
A6	Submission of first draft of all baseline reports to the contracting firm														
A7	Review of all Baseline Reports by BCE														

## 4. INVESTMENT PROGRAM PERFORMANCE MONITORING SYSTEM

The Investment Program Performance Monitoring System (IPPMS) is a core component of SCIP's monitoring and evaluation framework. The monitoring system is a pre-requisite in monitoring and evaluating periodic performance of various program components in line with the targets of the program by each cluster. It is essential that selected performance indicators should be: (i) clear (precise and unambiguous), (ii) relevant (appropriate and timely), (iii) economical (available at reasonable costs), (iv) adequate (sufficient to access performance), and monitorable (can be independently verified).

### 4.1 Components of IPPMS

The IPPMS is comprised of four core components: (i) service delivery performance (ii) institutional reform (iii) physical implementation, and (iv) capacity-development.

The component of service delivery relates to service improvements in water supply, wastewater, and solid waste management in terms of coverage, reliability and quality. The component of institutional reform relates to anticipated improvements in service delivery vis-à-vis the set up of institutional reform through establishment of implementing agencies, improved governance and management, urban planning, institutional development and strengthening. The physical implementation component entails infrastructure development through sub-projects and equipment provision to bring anticipated improvements in water supply, wastewater and solid waste management services. The component of capacity development incorporates urban planning activities for better planning, project identification, human resource development, pacing of the reforms agenda, improving the quality of services, ensuring compliance to safeguards, and implementing robust monitoring and reporting functions of program activities. Importantly, the four program components are not isolated in functioning but facilitate the others in one way or another.

### 4.2 Design of IPPMS: Selection of Key Performance Indicators

The IPPMS components and their associated sub-components are presented in Table 5. For each of the sub-component, draft KPI have been selected for results-based monitoring of program activities. For each sub-component, further numeric parameters will be selected for the objective to collect detailed monitoring performance data. These quantifiable parameters will be part of the data collection formats (program performance trackers) which will be utilised in acquiring data for program activities.

**Table 5: Components and Sub-components of IPPMS**

	<b>Service Delivery Performance</b>	<b>Institutional Reform</b>	<b>Physical Implementation</b>	<b>Capacity Development</b>
	Coverage of Water Supply, Wastewater and Solid Waste Management	Governance and Operational and Business Plans	Construction and Rehabilitation of Water Supply Systems	Capacity Building for Urban Planning (District and Local Government)
	Reliability of Water Supply, Wastewater and Solid Waste Management	Management Systems for Assets, Finance, Service Delivery and Customer Services	Construction and Rehabilitation of Wastewater Systems	Subproject Identification, Preliminary Design, Economic and Financial Evaluation
	Quality of Water Supply, Wastewater and Solid Waste Management services	Tariff Adjustments, Collection and Cost Recovery	Changes in implementation of Solid Waste Management Services	Capacity for Procurement of Works and Service Contracts
				Safeguards Compliance, Results, Monitoring, and Program Evaluation

**4.3 Key Performance Indicators: Service Delivery**

The KPI for sub-component: coverage of water supply, wastewater and SWM, are presented in Table 6. In the water supply section (column I), the selected KPI require data collection from water supply stations, household and non-residential entities. These indicators measure the change in water supply in terms of volume, extended water supply network, water supply connections, and increase in population with access to water from public water points. The wastewater section (column II) requires performance data collection from wastewater plants, households and non-residential establishments. The performance indicators measure coverage of wastewater services through increase in volume of wastewater generated and extension in network at the macro-level. On the micro-level, the indicators examine the anticipated increase in wastewater facilities accessible to both households and non-residential customers. The SWM section (column III) measures coverage by increased volume of solid waste collection, geographical extension of solid waste collection services, increase in the number of private contractors to extend services of solid waste collection, provision of solid waste collection equipment to increase geographical coverage, and increasing the number of communal waste bins for extending the coverage of solid waste collection services.

**Table 6: Key Performance Indicators for Service Delivery: Coverage of Water Supply, Wastewater, and Solid Waste Management Services**

	<b>Water Supply</b>	<b>Wastewater</b>	<b>Solid Waste Management</b>
	Change in the total volume of water supply to a participating town from the benchmark volume (in million gd)	Increase in the total volume of wastewater generated in the participating town	Percentage change in the geographical coverage of solid waste collection in the participating town (in kms)
	Numeric (and percentage) increase in the length of water distribution network in the participating town	Total volume of wastewater collected in the participating town	Average amount of solid waste collected in each participating town (in tonnes)
	Percentage increase in the population of households having tap water services/connections from the benchmark data	Numeric (and percentage) increase in the length of wastewater disposal network in the participating town	Percentage change in the number of households availing secondary solid waste management services from the baseline value
	Percentage increase in the population of households with tap water facility as well as operating water meters	Percentage increase in the number of households having sewerage connections and wastewater disposal services	Change in the number of contracted private sector operators responsible for collecting solid-waste management
	Percentage change in the population of households with access to public water point/potable water supply in total households of the participating town	Percentage increase in the number of commercial establishments having sewerage connections and wastewater disposal services	Increase in the number of solid waste collection equipment
	Percentage change in households with improved water supply in Rohri town from the benchmark value	Percentage increase in the number of industrial establishments having sewerage connections and wastewater disposal services	Increase in the number of communal waste bins in geographical areas not covered before in the participating town
	Percentage increase in commercial establishments having tap water services	Increase in the number of households with improved sewerage flow in Khairpur	
	Percentage increase in industrial establishments having access to water supply services		

The KPI for reliability of municipal services are presented in Table 7. Reliability of municipal services is an important indicator to measure the efficiency of services provided to customers. It is a pre-requisite that service provision system of the municipal services be maintained for continuous provision of services. This not only enhances the quality of services but reduces consumer costs of acquiring municipal services privately. The KPI for the sub-component of water supply reliability (column I) relates to frequency of repair and maintenance of water supply systems for efficient provision of water supply network. Beside, service provision, the KPI involves level of customer satisfaction with the reliability of services (quantifiable). Likewise, column II incorporates KPI for maintaining the wastewater systems for reliable wastewater services, removing sewer blockages, and customer satisfaction with services. The KPI for SWM entails examining of frequency in garbage collection systems and associated customer satisfaction with service reliability.

**Table 7: Key Performance Indicators for Service Delivery: Reliability of Water Supply, Wastewater, and Solid Waste Management Services**

	<b>Water Supply</b>	<b>Wastewater</b>	<b>Solid Waste Management</b>
	Frequency of periodic repair or maintenance at pumping stations, and distribution network per annum	Frequency of periodic repair and maintenance of sewerage lines per annum	Frequency of secondary collection of solid waste management from municipal garbage points
	Frequency of periodic repair and maintenance at water treatment plants in towns where such units exist per year	Frequency of reactive maintenance of sewerage lines	Frequency of street sweeping and garbage collection in the participating town per week
	Frequency of periodic repair and maintenance at water supply distribution network per year	Change in the quantity of incoming and outgoing Biochemical Oxygen Demand (BOD) and suspended solids measurement in mg/litre.	Percentage of households satisfied/dissatisfied with the collection of secondary solid waste management from communal waste bins (Likert Scaling)
	Change in average number of hours of continuous water supply to households per day	Frequency of sewerage blockages removal	Percentage of commercial customers satisfied/dissatisfied with collection of secondary solid waste management (Likert Scaling)
	Change in average number of hours of continuous water supply to non-residential customers per day	Percentage of households incurring private costs of sewerage	
	Change in amount of money households and other customers with tap water spent to purchase water per month as a percentage of household income	Level of household satisfaction/dissatisfaction with the reliability of sewerage facilities of the corporation (Likert Scaling)	
	The duration of average water supply at all public water points in the participating town	Level of non-residential customers satisfied/dissatisfied with wastewater services (Likert Scaling)	
	Level of household satisfaction/dissatisfaction with the reliability of tap water supply services (Likert Scaling)		
	Level of households satisfaction/dissatisfaction with reliability of water supply at public water points (Likert Scaling)		
	Level of non-residential customers satisfied/dissatisfied with water supply reliability (Likert Scaling)		

The KPI for quality of municipal services are presented in Table 8. Quality of municipal services in part is associated with service reliability. If services are reliable, they ensure a certain level of quality. The KPI for quality of water (column I) examines the improvements in water quality through water treatment and laboratories tests. The KPI also entail collecting data from public health facilities to examine changes in the incidence of water-borne diseases in the participating towns. In addition, the indicator of customer care compliance for measuring quality has also been incorporated for all the three municipal services. The indicators for quality of wastewater services (column II) incorporate treatment for ensuring environmental safeguards and compliance and reduction in the number of spillages and sewers. The indicators also take into account the level of customer satisfaction with wastewater facilities including improvements in drainage systems.

**Table 8: Key Performance Indicators for Service Delivery: Quality of Water Supply, Wastewater, and Solid Waste Management Services**

	<b>Water Supply</b>	<b>Wastewater</b>	<b>Solid Waste Management</b>
	The total volume of water treated at water treatment facilities as a percentage of total water supply in the participating town	The total volume of wastewater treated as a percentage of total volume of wastewater generated in the town	Frequency in solid waste collection from residential areas in the participating town
	Improvement in the quality of water supplied to customers	Change in the number of spillages of sewers per month	Frequency of garbage is collected from municipal containers in both residential and commercial localities per month
	Number of tests of treated water for residual chlorine which passed the relevant standards	Frequency of cleaning and desilting of combined sewer cum drainage lines	Frequency of sweeping streets and roads in residential and commercial areas per week
	Compliance/resolution of customer complaints as a percentage of total customer complaints relating to water supply service in each participating town	Compliance/resolution of customer complaints as a percentage of total customer complaints relating to wastewater services in each participating town	Level of customer satisfaction/dissatisfaction with the quality of solid waste management services provided in the participating town (Likert Scaling)
	Incidence of water-borne diseases among children and adults in the participating town	Level of customer satisfaction/dissatisfaction with the quality of wastewater disposal services (Likert Scaling)	Compliance/resolution of customer complaints as a percentage of total customer complaints relating to solid waste management services in each participating town
	Level of customer satisfaction/dissatisfaction with the quality of water supplied to households and non-residential entities at homes/establishments and water points (Likert Scaling)		

#### 4.4 Key Performance Indicators: Institutional Reform

Institutional reform component of SCIP relates to nonphysical investments of the program. It involves urban planning, institutional development, and program implementation support for program execution and expediting institutional reforms, and phasing out of physical investments in new 'town clusters' once institutional reforms are in place with the establishment of USCs in each cluster. The sub-components of institutional reform include (i) governance and operational plans (ii) management systems for assets, and finance, improved service delivery, and customer services, and (iii) tariff adjustments, collection, and cost recovery.

**Table 9: Key Performance Indicators: Institutional Reform**

	<b>Governance and Operational and Plans</b>	<b>Management Systems for Assets, Finance, Service Delivery and Customer Services</b>	<b>Tariff Adjustments, Collection and Cost Recovery</b>
	Development of professional service delivery institutions (USC) created under the Companies Ordinance 1984 in serving clusters	Development of Asset Management and Inventories, and Staffing Systems for USCs	Revision and implementation of water supply tariff system for increased cost recovery
	Number of SAMAs signed between the USCs and the Town Administrations for towns in each cluster	Designing of financial and accounting systems and other management systems by the USCs	Percentage increase in the number of customers (household and commercial) billed for water charges and other utility services
	Monthly progress in preparation of Business Plans, Operating Plans and Annual Budgets by the USC in each cluster.	Progress and completion in designing of customer complaint systems for effective compliance of customer grievances	Annual change in the recovery of operation and management costs in each USC
	Progress in preparation of PFR for relevant sub-projects in each cluster	Prepare PFR for relevant sub-projects	
	Number of performance-based contracts signed between the USC and private operators for collection of Solid Waste		
	Establishment of urban policy and strategic planning unit		

#### 4.5 Key Performance Indicators: Physical Implementation

The physical implementation component is comprised of construction and rehabilitation activities. The KPI for construction activities for water supply, wastewater and solid waste management services needs to be constructed by sub-project activities and percentage-wise completion of these activities contracted out by both local competitive and international competitive bidding.

**Table 10: Key Performance Indicators: Physical Implementation (Construction)**

	<b>Water Supply</b>	<b>Wastewater</b>	<b>Solid Waste Management</b>
	Percentage increase in completion of each construction and non-construction activity associated to contracted water supply sub-projects under local competitive bidding.	Percentage increase in completion of each construction and non- construction activity associated to contracted wastewater sub- projects under local competitive bidding.	Monthly progress in construction of landfill sites for disposing solid waste management
	Percentage increase in completion of each construction and non-construction activity associated to contracted water supply sub-projects under international competitive bidding.	Percentage increase in completion of each construction and non-construction activity associated to contracted wastewater sub-projects under local competitive bidding.	
<b>The detail IPPMS will prepare numeric parameters of implementation progress in sub-project activities. Each USC will identify the sub-activities on each sub-project.</b>			

**Table 11: Key Performance Indicators: Physical Implementation (Rehabilitation)**

	<b>Water Supply</b>	<b>Wastewater</b>	<b>Solid Waste Management</b>
	Percentage progress in component wise rehabilitation tasks of water treatment plants in a particular town for meeting standard quality of infrastructure	Percentage progress of rehabilitation activities for quality improvements and service reliability at wastewater disposal stations in towns	Progress in geographical distribution of skip platform wheelbarrow for improving SWM services
	Percent progress in component wise tasks of rehabilitation for distribution network improvements in a particular town for meeting standard quality of infrastructure for improved services	Progress improvements in rising main of selected disposal stations	
		Progress in provision of diesel generators	

#### 4.6 Key Performance Indicators: Capacity Development

**Table 12: Key Performance Indicators: Capacity Building**

	<b>Capacity Building for Urban Planning</b>	<b>Subproject Identification, Preliminary Design, Economic and Financial Evaluation</b>	<b>Capacity for Procurement of Works and Service Contracts, and Tariff Adjustments</b>	<b>Safeguards Compliance, Results, Monitoring, and Program Evaluation</b>
	Progress in development of human resource training manuals for staff of various organisations involved in program implementation	Change in organisational capacity for due diligence, including subproject identification, preliminary design, and economic and financial evaluation.	Ensuring compliance with construction contracts including turnkey or ordinary design for ICBs and NCBs	Ensure implementation of environmental review and screening procedure. Preparation of a checklist for such procedures to be followed
	Training of deputed TA Staff to NSUSC and USC in Central Sindh	Change in capacity of supervising and monitoring detailed design and construction of facilities	Capacity building of employees for Solid Waste Management Services relating to physical implementation and service provision	General anticipated impact measurement of the components or projects on the environment
	Preparation and progress in training manuals for USC staff concerning program operations and key associated sub-tasks	Capacity improvements in preparation of financial appraisal reports	Progress in measures adopted in developing capacity for SCIP's environmental management	Adoption of mitigation measures for the additional subprojects developed on principles agreed upon in the EMP
	Periodic progress in number of employees trained in North and Central Sindh		Periodic progress in development of broad consensus on policies and Tariff-setting for water, sanitation, and SWM services.	General anticipated impact measurement of the components on involuntary resettlement
	Total number of training workshops conducted by type of responsibilities of staff in Central Sindh cluster			Progress in establishment of Safeguards Cell and its subsequent functioning according to procedural guidelines
	Total number of orientation visits arranged conducted for staff in Central Sindh cluster			Regular monitoring and Reporting of contractor's compliance with contractual environmental mitigation measures.
				Trainings conducted for capacity building of capacity building of staff for efficient reporting from NSUSC and other USCs.



#### **4.7 IPPMS: Online Monitoring and Reporting**

Based on IPPMS performance indicators, the online reporting system of monitoring data is an important part of the program's performance monitoring system. The system is critical for four major reasons: (i) To ensure regular reporting and availability of information to the management at various tiers concerning performance of program activities and associated sub-activities (ii) To examine the cluster and town-wise progress in program implementation of activities and sub-activities (iii) To identify issues and limitations in project management and implementation, and (iii) Assist the program management in taking important decisions to overcome multi-faceted gaps in management and implementation of the program activities.

The standardised KPI of IPPMS requires approval from the PSU and consequently the ADB. On finalisation of KPI and its sub-components for multiple program activities, data collection formats will be prepared. The purpose of data collection formats (or output trackers) will be acquire data from the field and the project sites which subsequently will be transferred in to the electronic IPPMS made available online. The standardised IPPMS for all the three clusters will be designed by the MIS Specialist at PSU-SCIP.

## 5. REPORTING OF PERFORMANCE MONITORING DATA

Robust reporting of information post collection of performance monitoring data is an essential activity of the M&E framework. A time-based reporting mechanism ensuring constant flow of information after data collection and verification enhances the efficiency of program management and promotes good and effective decision making. It also appraises the multiple partners in comprehending the limitations which may arise during program's implementation.

Based on DMF guidelines, SCIP's reporting framework calls for sharing of (a) periodic performance monitoring data, and (ii) time-specific performance monitoring data. The periodic performance monitoring data is primarily associated with acquiring information based on performance indicators incorporated in the IPPMS. The data requires periodic collection on short time-intervals to assist the program management, PSU and other key stakeholders in measuring program performance and issues which may arise. The time-specific data requires relatively large intervals in collection to measure mid-term progress towards impact, outputs, and outcomes. This includes conducting annual surveys such as poverty audits in each participating town of program implementation.

### 5.1 Structure of Operations Monitoring and Reporting Framework

Chart 2 outlines the reporting mechanism for both periodic and time-specific sharing of information. It also allocates the specific roles and responsibilities of PSU as the support organisation and USCs as the implementing partners.

The monitoring functions of USCs relate to:

- a) Collection of data on components of centralised IPPMS for each town in the respective cluster of operational activities.
- b) Screening and verification of monitoring data prior to its incorporation in the online data reporting system – the centralised IPPMS.
- c) Ensure time-based reporting of performance data to the PSU. After successive updating of data, previously reported data needs to be kept, managed and maintained as a record in the computer file.
- d) Review and revise its reported performance data, if required from the PSU.
- e) Generate and prepare time-based Program Performance Monitoring and Evaluation Reports for each month of its activities. Besides, the USC must provide the progress reports for each month to the PSU before it is reported to the ABD.
- f) Besides the centralised IPPMS, the USCs have to ensure reporting on the various information systems (finance, assets, and others) to the PSU.

The core responsibilities of the PSU relating to performance monitoring data and reporting are:

- a) Monitor and verify the performance monitoring data reported by the USCs from each cluster through monthly field visits by the Monitoring and Evaluation Specialist and other members of the PSU.
- b) To ensure regular reporting of performance data by the USCs, screening and maintaining its quality during the course of the program.
- c) To ensure regular availability of performance data and monthly updating of electronic IPPMS by all the USCs.
- d) Prepare consolidated Program Performance Monitoring and Evaluation and Program Progress Reports for North, Central, and South Sindh clusters and subsequent submission to the ADB and the GOS.
- e) Provide guidelines and technical assistance to the USCs in conducting annual (or bi-annual) poverty audits based on the performance indicators in the IPPMS.

## **5.2 Data Formats, Frequency and Methodology of Periodic Monitoring Data**

The data formats for collecting SCIP's periodic performance data will be designed by the SCIP-03 Consultants. The periodic data requires to be collected and reported on a monthly basis based on performance indicators included in the IPPMS. The method of reporting this data will be the online IPPMS.

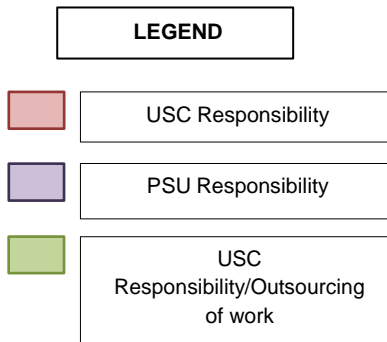
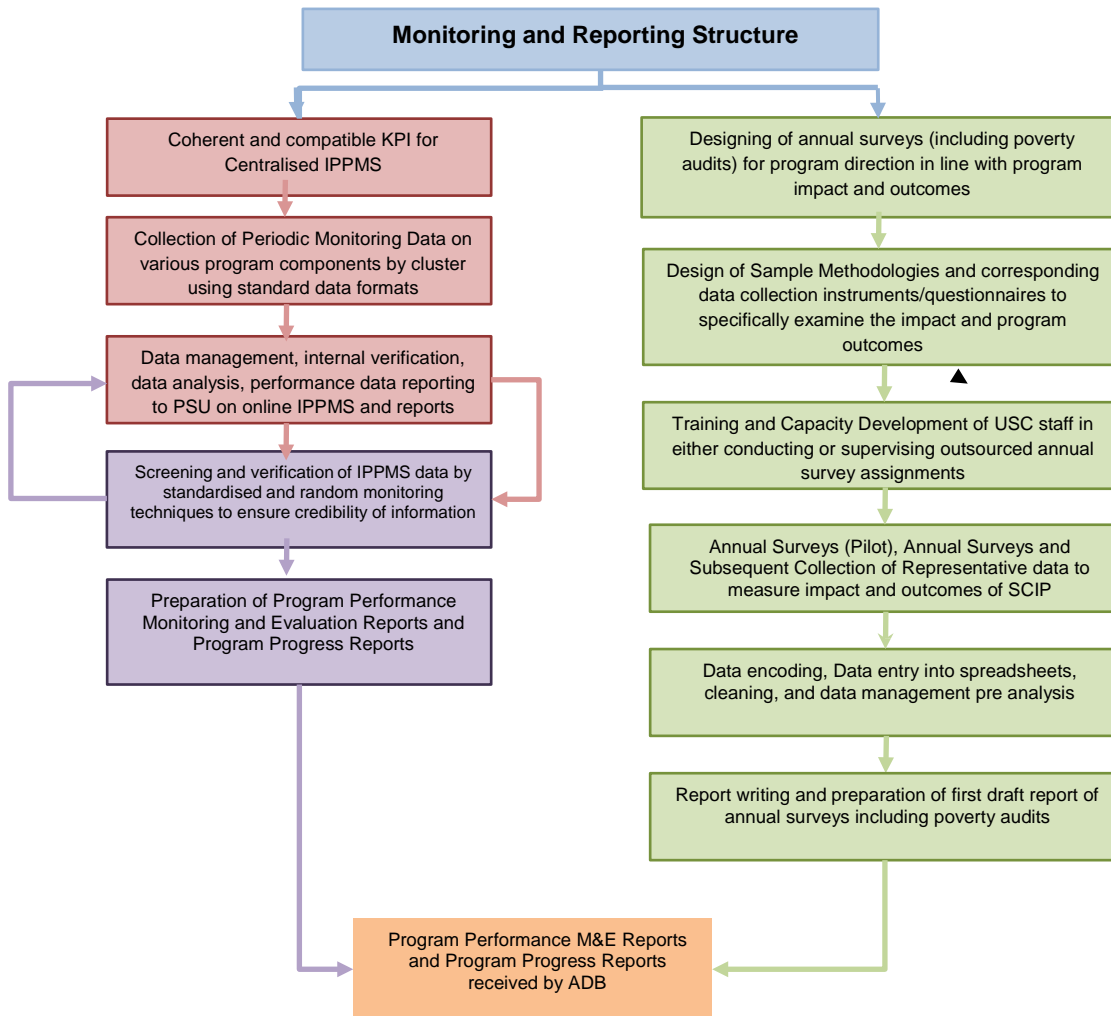
## **5.3 Data Formats, Frequency and Methodology of Time-specific Monitoring Data**

As already mentioned, the time-specific data for SCIP will be collected on an annual basis. The data formats include standard questionnaires designed to measure progress from baseline information through standard performance indicators. The standard design of this data type primarily can be quantitative however qualitative data collection methods may be incorporated based on information needs. The annual surveys must be designed with extreme care to examine the program related impacts of the program whereas keeping other factors as constant. The data must be statistically representative of the cluster populations under study. This is important to ensure credibility of information. The data will be mainly reported in the form of poverty audit and survey reports.

## **5.4 Data Verification**

Verification of data is an important function to ensure transparency, quality of information, accountability, good management and right decision making. It is equally important that relevant staff at the USC and the PSU needs to be trained in IPPMS but also the verification of data that will be reported.

**Chart 2: SCIP MONITORING AND REPORTING STRUCTURE**



## 6. MONITORING AND REPORTING BY USC

As previously discussed, management information systems, monitoring of program activities and subsequent reporting of performance data are essential requirements of all USCs. What equally important is to select standardised KPI for program performance and avoid the issues related to generating multiple data sets which may prove to be costly as well as redundant.

At present, NSUSC is the only established implementing agency providing municipal services to the cluster of North Sindh towns. The utility corporation has been active for nearly eighteen months with its major targets identified in the DMF<sup>19</sup>. In addition, the corporation has responsibilities to develop its financial, asset and inventories management systems for effective and time-bound reporting of activities.

### 6.1 Consultative Discussions with NSUSC on the M&E Framework

From January 5-6, the PSU management accompanied by the SCIP-03 Consultants' team visited the head office of North Sindh Urban Services Corporation (NSUSC) in Sukkur. The purpose of the visit was to have an orientation of NSUSC's organisational structure, its operational and implementation activities, and to discuss the overall monitoring and evaluation framework of SCIP.

During the meetings, various presentations were given by NSUSC management and staff relating to (i) the organisation structure (ii) operational activities (iii) operating costs and finance (iv) business plan (v) information system (vi) the CRC system and on tasks which have been assigned to the sub-contractors. The SCIP-03 Consultants presented the draft M&E Strategy of the program which included baseline surveys, selection of KPI on program components, development of a centralised IPPMS, and reporting mechanism for sharing performance monitoring data. The core discussion points of monitoring and evaluation tasks were related to: (i) Baseline surveys and compatibility in baseline methodology and questionnaires (ii) Selection of compatible and coherent KPI for North and Central Sindh clusters (iii) IBNET utilities benchmarking (iv) Economic costs and human resource limitations in collecting performance monitoring data, and (v) Reporting systems for sharing program information with the PSU.

(a) The baseline surveys for six North Sindh towns will be conducted by Mott Macdonald Pakistan – the sub-contracting firm of NSUSC. In addition, sub-contractor will conduct baseline surveys for two additional towns including Jacobabad and Rohri. The SCIP-03 Consultants Brisbane City Enterprises Pty Ltd (subcontracted by PSU) will conduct baseline surveys for 6 towns in the Central Sindh cluster, which will be outsourced to a research firm.

(b) The SCIP-03 consultants have designed the methodology and data collection formats/questionnaires (draft) for the three baseline surveys. There is a need to universalise the baseline methodology and data collection formats for both Central and North Sindh towns. The baseline questionnaires designed for the Central Sindh cluster will be shared with the NSUSC to comprehend the benchmarking data requirements of the program.

(c) It is essential to have a compatible and coherent selection of performance indicators for all clusters which will be subsequently incorporated in the centralised IPPMS. The IPPMS is based on identical components of service delivery performance, institutional reform, physical

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<sup>19</sup> The two USCs for Central and South Sindh will be established subsequently and their program targets will be established accordingly.

implementation, and capacity development for all clusters. The NSUSC has selected certain KPI. The PSU and NSUSC require an agreement on KPI selected by both organisations.

(d) The IBNET benchmarking of utilities is a global database with standard performance indicators on utility provision<sup>20</sup>. However, these indicators cannot be adopted in totality for the monitoring system of SCIP for two major reasons: (a) The indicators have limited scope, they do not incorporate the solid waste management services, a key service under SCIP, and (ii) They have a different objective that is to compare benchmark indicators for various utilities around the world. The selected KPI for IPPMS differ in both context and meaning. NSUSC being a utility may adopt these indicators for its comparative analysis with other global utilities. But in the broader context, the selection of KPI requires different performance indicators in line with the goals and targets of DMF.

(e) Collection of performance monitoring data can be a costly exercise. The cost can increase if selected performance indicators are more than what is required. It is essential to find appropriate and specific KPI that reduces collecting costs. Besides devising cost-effective ways, adequate deployment of technical staff to perform multiple monitoring and evaluation functions is essential for the NSUSC for subsequently initiating the process of periodic monitoring.

(f) The NSUSC requires regular reporting of its multiple operational activities to the PSU. Any delays in sharing the information hinder project management decisions reporting requirements relating to progress reports and program project progress monitoring and evaluation reports. This affects the decisions

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<sup>20</sup> Based on SCIP-05, the NSUSC has to establish benchmarking database for improving operational activities having compatibility with World Bank's IBNET water benchmarking toolkit.

## **CONSULTED REPORTS AND PUBLICATIONS**

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Terms of Reference (SCIP-01 to SCIP-06): Untitled documents.

**ANNEXURES**

**ANNEX A – Draft Design and Monitoring Framework**

Design Summary	Performance Targets / Indicators	Data Sources / Reporting Mechanisms	Assumptions and Risks
<p><b>Impact</b></p> <p>Improved health, quality of life in and economic competitiveness of participating towns</p>	<p>By 2020, increase in per capita monthly income from an estimated PKR1,446 in 2008</p> <p>Percentage of children under 5 years old suffering from diarrhea in last 30 days reduced from 19% in urban areas of Sindh (excluding Karachi and Hyderabad) in FY2005 to &lt;10% by 2020</p>	<p>Program area income survey</p> <p>Pakistan Standard of Living and Measurement Survey</p>	<p><b>Assumptions</b></p> <p>Political and economic stability prevails</p> <p><b>Risks</b></p> <p>Interior Sindh towns adversely affected by broader economic shocks, natural disasters, or law and order issues</p>
<p><b>Outcome</b></p> <p>Increased quality, reliability, and coverage of water supply, wastewater, and solid waste management services in participating towns</p>	<p>Population served by household water connections increased on average from 37% in 2008 to 52% by 2014</p> <p>Average hours per day of water supply increased from 3 hours in 2008 to over 6 hours by 2014</p> <p>Drainage benefits for 100,000 households by 2014</p> <p>Household access to secondary solid waste management services increased on average from 37% in 2008 to 80% by 2014</p>	<p>Pakistan Standard of Living and Measurement Survey</p> <p>Baseline and follow-up surveys</p> <p>Baseline and follow-up surveys</p> <p>Baseline and follow-up surveys</p>	<p><b>Assumptions GoS</b></p> <p>remains committed to clear delineation of roles and responsibilities for urban service provision</p> <p>Properly staffed and empowered institutions are able to effectively deliver, operate, and manage urban services</p> <p>Households want and are willing to pay for improved urban services</p>



<b>Output</b>			<b>Assumptions</b>
<p>NSUSC provides effective and more sustainable services in participating towns</p>	<p>Performance-based contracts between NSUSC and private operators for solid waste collection by 2014</p> <p>Increase in recovery of operation and maintenance cost through user charges from 1% to at least 5% by 2014</p> <p>Average percentage of connected households paying water bill increases</p>	<p>Quarterly progress report</p> <p>Audited financial statement of NSUSC</p> <p>Annual benchmarking data</p>	<p>Suitable institutional reforms are implemented and an effective corporate body established for the management and operations of urban services</p> <p>GoS and private sector will increase and maintain interest in private sector participation</p>

<p>More informed urban policies and planning</p>	<p>from 39% in 2008 to 67% by 2014</p> <p>Adoption of strategic urban vision by 2012</p> <p>Planning processes for interior Sindh by 2012</p> <p>Digitized maps for 6 participating towns in North Sindh publicly available by 2012</p> <p>Urban plans at town-level for Sukkur and Larkana submitted to P&amp;DD by 2013</p>	<p>Urban Unit business plan</p> <p>GoS notice in gazette</p> <p>Uploaded to website</p> <p>Quarterly progress reports</p>	<p><b>Risks</b></p> <p>Interdepartmental coordination and support is not forthcoming</p> <p>Appropriately qualified staff not found or retained</p> <p><b>Assumptions</b> GoS focus on urbanization continues</p> <p><b>Risks</b></p> <p>Cooperation and coordination with line ministries not forthcoming</p>
<p>Timely and transparent operations support funding for NSUSC to cover eligible shortfall</p>	<p>NSUSC staff payroll met each month</p> <p>NSUSC suppliers paid as agreed</p>	<p>Quarterly Progress Report</p> <p>Quarterly Progress Report</p>	<p><b>Assumptions</b></p> <p>NSUSC management adopt business culture and focus on revenue generation to reduce GoS subsidy</p> <p><b>Risks</b></p> <p>Increasing electricity and fuel costs, including nontransparent billing and faulty meters</p>
<p>Project implemented on time and in accordance with approved design and ADB policies</p>	<p>Infrastructure implemented on time and budget</p> <p>Safeguards and gender action plan complied</p>	<p>Quarterly Progress Report</p> <p>Quarterly Progress Report</p>	<p><b>Assumptions</b></p> <p>Qualified international consultants willing to work in Sindh</p>
<p>Improved water supply, wastewater and solid waste management services in participating towns</p>	<p>Over 18,000 households with access to potable water available &gt;20 hours day in 6 distribution network improvement zones by 2014</p> <p>6,000 households in Rohri with improved water supply at intake by 2014</p> <p>Over 27,500 households in Khairpur with improved sewage flow and</p>	<p>Annual benchmarking data and survey</p> <p>Annual benchmarking data and survey</p> <p>Annual benchmarking data and survey</p> <p>Annual benchmarking data and survey</p>	<p><b>Assumptions</b></p> <p>NSUSC has exclusive right to plan, design, construct and operate systems in covered areas</p> <p>Private sector will increase and maintain interest in SWM outsourcing in Sindh</p> <p>Trust in municipal service provision can be restored</p>

	<p>wastewater stabilization by 2014</p> <p>Percentage of solid waste collected increases on average from 19% in 2008 to at least 80% by 2014</p>		<p><b>Risks</b></p> <p>Vested interests in status quo resist NSUSC efforts at efficiency and accountability</p> <p>Rising energy costs increase cost of pumped systems</p> <p>Poor enforcement of sanitation laws</p>
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**Annex B: List of Towns by Sample of Households in the Central Sindh Cluster**

Town	Unknown Population Size	Known Population Size
i Nawabshah/Benazirabad	980	425
ii Shahdadpur	980	425
iii Tando Adam	980	425
iv Sanghar	980	425
v Moro	980	425
vi Noushero Feroze	980	425
<b>TOTAL</b>	<b>5,880</b>	<b>2,550</b>

**ANNEX C:**

**Quantitative Baseline Poverty Assessment/Household Socio-economic Survey Questionnaire**

Date of Interview: \_\_\_\_\_

Enumerator's Name: \_\_\_\_\_ Enumerator's Code:

Town Committee: \_\_\_\_\_ Ward No. \_\_\_\_\_ Union Council: \_\_\_\_\_

District : \_\_\_\_\_

**A. GENERAL INFORMATION:**

1. Name of the Respondent (Head of Household): \_\_\_\_\_

2. Full Residential address: \_\_\_\_\_

3. Telephone contact: i) Landline  ii) Cell

4. Education Level: i) No Education  ii) Less than Primary  iii) Primary  iv) Middle

v) Matriculation  vi) Intermediate  vii) Graduate  viii) MA/M.Sc

5. Occupation: i) Government Employee  ii) Private Sector  iii) Self-employed (business)

iv) Self-employed (labourer)  vii) Unemployed  viii) Other (specify)

6. Housing Status:

i. Type of House    Katcha                  Pucca                  Semi-pucca                  Temporary

ii. Tenure Status    Owned                  Rented                  Free-hold                  Others (specify)

iii. No. of Stories:    One    |    Two    |    Three   

iv. No. of Rooms:    One     Two     Three     More than Three

v. Latrine/Toilet Type:    Conservancy     Deep Well     Flush     Otherwise (Specify)

vi. No. of toilets in the house: One  Two  Three  More than three

6.1 What is the present price (value) of your house in Rs?

**B. HOUSEHOLD PROFILE**

7. Total Number of family members residing in the house:

(i) Adults  (ii) Children (less than 18 years)  Total members

7.1 Details of family members residing in the house:

For education, please put the following codes: 1 = Primary; 2 = Secondary; 3 = Middle; 4 = Matriculation; 5 = F.A/M.Sc  
6 = B.A/B.Sc 7 = M.A/M.Sc)

Family Member	Relationship with head of the household	Sex		Age	Marital status		Education
		Male	Female		Married	Unmarried	
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							

7.2 If Yes, do they attend, i) Private school  ii) Public school  iii) Both

a) Number of boys who attend school

b) Number of girls who attend school

**C. HOUSEHOLD INCOME AND EXPENDITURE, AND ASSETS PROFILE**

8. What is your (respondent's) average monthly income? Rs. \_\_\_\_\_/month

9. Total number of earning members in the household:  (Please, put the total number including the respondent)

10. Do they contribute in monthly household income? Yes  No

11. What is the average monthly household income (all sources)? Rs. \_\_\_\_\_ per month.

12. What are the average monthly household expenditures? Rs. \_\_\_\_\_ per month.

Share of monthly household expenditures by head (Tick either in Rs. or a percentage)

	<b>Expenditure Heads</b>	<b>Amount Spent (in Rs.)</b>	<b>As percentage of Total Expenditures</b>
1	Food		
2	Clothing and Shoes		
3	Transportation		
4	Education		
5	Health/Medicines		
6	Utilities		
7	Others		
	<b>TOTAL</b>		

13. If income is less than expenditures, How do you cover the monthly income deficit?

i) Borrow money from relatives  ii) Take credit from the shopkeeper

iii) Others (Specify)

**14. Household Assets with net worth (please tick the relevant item with value in Rs)**

	<b>Item Heads</b>	<b>No.</b>	<b>Value (in Rs.)</b>
<b>A</b>	<b>Electric Items</b>		
i	Television		
ii	Refrigerator		
iii	Stereo System/Radio		
iv	Dish antenna		
v	Electric water pump		
vi	Electric Fan		
v	Others (Specify)		
v-a			
v-b			
v-c			
<b>B</b>	<b>Transport</b>		
i	Car		
ii	Pick-up Van (commercial)		
iii	Rickshaw/Motor-cycle Rickshaw		
iv	Motorcycle		

v	Bicycle		
vi	Animal Cart		
vii	Others (Specify)		
vii-a			
vii-b			
vii-c			
<b>C</b>	<b>Livestock</b>		
i	Buffalo		
ii	Cow		
iii	Sheep/Goat		
iv	Donkey		
v	Camel		
vi	Poultry		
vii	Others Specify		
vii-a			
vii-b			
vii-c			
vii-d			

15. Do you own a piece of land? Yes  No

15.1 If Yes, is it: Residential  Commercial  Agricultural

16. What is the value of the land in Rs:

17. Do you receive any income from this property? Yes  No

17.1 If Yes, how much is the income from property per month? Rs.



**D-I. ACCESSIBILITY, RELIABILITY, AND QUALITY OF WATER SUPPLY SERVICES**

18. What is the main source of water used by your household for drinking, cooking, and other purposes?

i) Tap Water  ii) Tanker-truck  iii) Tube well/Borehole  iv) Public water pump

v) Public Tap  vi) Other Source (please specify)

19. Do you treat water to make it safer for drink? Yes  No

19.1 If Yes, What do you usually do to make it safer for drinking?

i) Boil  ii) Add bleach/chlorine  iii) Strain it through a cloth  iv) Use a water filter (ceramic, sand, composite, etc.)  v) Solar disinfection  vi) Let it stand and settle

vii) Other (specify)

20. If tap water is available, What is the daily supply of water received by the household?

i) 1 hour  ii) 2 hours  iii) 3 hours  iv) 4 hours  v) 5 hours  vi) 6 hours

vii) 7 hours  viii) More than 7 hours

21. Is the water supply to the house regular? Yes  No

21.1 If No, how consistent is the water supply?

i) Once/week  ii) Twice/week  iii) Three times/week  iv) More than three times/week

22. Do you have a pumping motor at your house? Yes  No

23. Do you have a water storage tank in your house? Yes  No

23.1 If No, where do you store water for household use? Please specify?

24. How often you buy water per month?

i) Daily  ii) 2times/week  iii) 3times/week  iv) Others (specify)

How much do you pay to buy water/month? Amount paid in Rs. \_\_\_\_\_/month

25. If the household fetches water from the public tap, what is the distance of public tap from

- i) less than 100 meters  ii) 100-200 meters  iii) more than 200 meters   
iv) More than 300 meters  v) more than 500 meters  vi) Other (specify)  meters

26. Who fetches water from water point/municipal tap water? (Tick more than one if appropriate)

- i) Adult Men  ii) Adult Women  iii) Female Child  iv) Male Child

27. How much minutes does it take to go, fetch water, and come back from the public tap?

Minutes: \_\_\_\_\_, (Convert into hours, if appropriate): \_\_\_\_\_ hours

28. Are you satisfied with the present volume of water received?

- Highly Satisfied (1) Satisfied (2) Indifferent (3) Dissatisfied (4) Highly-dissatisfied (5)

28.1 If (4) or (5), please specify reasons for dissatisfaction:

I)

II)

III)

29. Are you satisfied with the present quality of water you receive at your house?

- Highly Satisfied (1) Satisfied (2) Indifferent (3) Dissatisfied (4) Highly-dissatisfied (5)

29.1 If (4) or (5), please specify reasons please specify reasons for dissatisfaction:

I)

II)

III)

## D-II. ACCESSIBILITY, RELIABILITY, AND QUALITY OF SANITATION

30. How many household members share a toilet on a regular basis?

31. How do you/other members of your household handle the defecation of babies and children? Explain?

32. Where does the toilet waste go to:

- i) Municipal sewer  ii) Open drain  iii) Bucket latrine  iii) Single soak   
 iv) Double soak pit  v) Septic tank/ aqua privy  vi) Other (specify)

33. If the waste go to bucket latrine/septic tank, who empties it?

- i) You  ii) Male Relative  iii) Female Relative  iv) Paid sweeper   
 v) Other (specify)

34. If Paid sweeper, how much do you pay per month? Rs. \_\_\_\_\_

35. Where does the Kitchen waste go to:

- i) municipal sewer  ii) open drain  iii) Other (specify)

36. In case of blockage in the main sewer, do you complain about it to the municipal authority?

Yes  No

36.1 If Yes, how quickly they respond to your complaint? Please explain?

37. Are you satisfied with the quality of sanitation services provided by the municipal authority of your town?

Highly Satisfied (1) Satisfied (2) Indifferent (3) Dissatisfied (4) Highly-dissatisfied (5)

37.1 If (4) or (5) , suggest three ways to improve the sanitation services in your household and locality?

I)

II)

III)

**D-III. ACCESSIBILITY, RELIABILITY, AND QUALITY OF SOLID WASTE MANAGEMENT SERVICES**

38. Do you have dust bins at home?

Yes  No

39. Do you segregate garbage by type (kitchen waste, glasses, plastic bottles, wrapping material, old clothes):

Yes  No

39.1 If Yes, What do you do with it? i) Sell it  ii) Dispose it

39.2 If dispose it, how is the garbage disposed of by your household? (please tick more than one if appropriate)

- i) Collected from the house by the municipal agency
- ii) Collected by the sweeper paid for this service
- iii) Disposed in a municipal container
- iv) Thrown in the street
- v) Thrown in a open area nearby
- vi) Burning the garbage

vii) Others (specify):

40. If choices are i) and ii) in the question above, how frequent is the garbage collected

40.1 By the municipal agency:

i) Daily  ii) Once in 3 days  iii) Once/week  No. of times/week (specify)

40.2 By the paid sweeper:

i) Daily  ii) Once in 2 days  iii) Once in 3 days  iv) Once/week  Other (specify)

41. How much do you pay the sweeper for garbage collection per month? Rs.

41.1 If dispose of in a municipal container, how often it is done?

i) Daily  ii) Once in 2 days  iii) Once in 3 days  No. of times/week (specify)

41.2 If garbage is disposed of in a municipal container, how far is it from your house?

i) less than 100 meters  ii) 100-200 meters  iii) more than 200 meters

iv) more than 300 meters  v) more than 400 meters  vi) more than 500 meters

42. Are you satisfied with the present status of garbage disposal services by municipal agency?

Highly Satisfied (1) Satisfied (2) Indifferent (3) Dissatisfied (4) Highly-dissatisfied (5)

42.1 If (4) or (5), what needs to be done to improve these services? Give specific reasons?

I)

II)

III)

43. Are you satisfied with the municipal container services for disposing of garbage?

Highly Satisfied (1) Satisfied (2) Indifferent (3) Dissatisfied (4) Highly-dissatisfied (5)

43.1. If (4) or (5), what needs to be done to improve these services? Give specific reasons?

I)

II)

III)

## E. HEALTH AND ENVIRONMENT

44. Did any member of your household fallen ill during the last 6-12 months due to poor quality of water and sanitation? Yes  No

44.1 If Yes, how many fell ill by poor quality of water? i) No. of children  ii) No. of adults

45. And how many fell sick due to poor sanitation conditions?

i) No. of children  ii) No. of adults

46. What were the diseases/Infections, household members suffered from during the last 6-12 months?

	Disease	No. of Adult(s)		Age	No. of Children		Age
		Male	Female		Male	Female	
i	Diarrhea						
ii	Dysentery						
iii	Gastroenteritis						
iv	Scabies						
v	Other (Specify)						
v-a							
v-b							
v-c							
v-d							
v-f							

47. Did the patients go to: i) Public hospital  ii) Private clinic  iii) Private doctor   
 iv) Other (specify)

48. Were they admitted to the hospital/private clinic: Yes  No

48.1 If Yes, how much does the whole treatment cost: Rs.

**ANNEX: D**

**BASELINE ON THE PRESENT SCOPE AND QUALITY OF URBAN MUNICIPAL SERVICES NON-HOUSEHOLD QUESTIONNAIRE**

Date of Interview: \_\_\_\_\_

Enumerator's Name: \_\_\_\_\_ Enumerator's Code:

Town Committee: \_\_\_\_\_ Union Council: \_\_\_\_\_

District: \_\_\_\_\_

**A. GENERAL INFORMATION:**

1. Name of the Respondent: \_\_\_\_\_

2. Profession/Business: \_\_\_\_\_

3. What type of Establishment are you operating?

[i] Hospital  [ii] School  [iii] Hotel

iv] Other (Specify) \_\_\_\_\_

(May be Masjid, Service/Filling Station, Shops, Industry, Workshop, Govt. Offices, Public Latrine etc.)

4. Address: \_\_\_\_\_

5. Telephone contact: i) Landline  ii) Cell

6. How many persons are employed in this Establishment? No.

**B. ACCESSIBILITY, RELIABILITY, AND QUALITY OF WATER SUPPLY SERVICES**

7. Is your Establishment served with Municipal piped water connection? Yes  No

a) If yes, state the nature of supply: Continuous  Intermittent

b) If intermittent, state the duration Intermittence: \_\_\_\_\_ hours/day

c) Is the Municipal Water Supply sufficient to meet the daily requirement of the Establishment?

Yes  No

8. How much do you pay for the water supply per month? Amount paid in

Rs. \_\_\_\_\_/month

8.1. If "No", then what are the alternate arrangements to meet the required demand?

i) Tube Well Inside Establishment  ii) Water Carrier Tanker

iii) Other Source (specify)

9. If Water Carrier Tanker, how often do you buy water?

i) Daily  ii) Once a week  iii) 2 times/week  iv) 3 times/week

v) Others (specify)

10. Do you treat water to make it safer for drinking? Yes  No

a) If Yes, what do you usually do to make it safer for drinking?

i) Boil  ii) Add bleach/chlorine  iii) Use a water filter  iv) Solar Disinfection

v) Let it stand and settle  vi) Bottled water

vii) Other (specify)

11. Do you have a water storage tank in your Establishment for emergency purposes?

Yes  No

11.1 If yes, where is it? Underground  On the Roof

12. Have you ever cleaned this tank? Yes  No

12.1. If yes, when was the last time you clean?

Within Last 7 days  Within Last 15 days  Within Last 30 days

Within the Last 6 months  Within the Last one year

Other (Specify) \_\_\_\_\_

13. Have you ever got the water tested? Yes  No

13.1. If yes, when (state month & year)? Year



14. In case of a problem/ technical fault, which Department do you visit to get the water supply problem redressed? TA  Other (specify)

15. Do the officials of the above department visit your Establishment in case of water shortage problem?

Yes  No

15.1. If yes, how often ? \_\_\_\_\_

16. What are your main complaints about the Department? (Please state three)

17. Are you satisfied with the present quality of water?

Highly Satisfied  Satisfied  Indefinite  Dissatisfied  Highly-dissatisfied

17.1. If dissatisfied or highly-dissatisfied, please specify reasons or any water borne disease (diarrhea, hepatitis etc.):

I)

II)

### C. ACCESSIBILITY, RELIABILITY, AND QUALITY OF SEWERAGE SYSTEM

18. Is there a Municipal Sewer/Sewer line in your street? Yes  No

18.1. If yes, whether your building is connected with line? Yes  No

18.2 If No, how do you dispose off your water and toilet waste?

i) In an open drain  ii) In the soakage pit  iii) on the Street

18.3. If yes, to whom the charges are paid: Town Administration  Other

19. How much money is paid for the service? Rs. \_\_\_\_\_ per month

20. How many times your sewer gets clogged in a month?

i) Once  ii) Twice  iii) Thrice  iv) Nil  v) Other (specify)

21. Which Department do you visit to get the sewerage problem redressed?

i) Town Administration  ii) Union Council  iii) Other (specify)

22. Do the officials of the above department visit your area in case of sewer blockage or associated problems?

Yes  No

22.1. If Yes, how often do they visit? \_\_\_\_\_

22.2. If No, how do you solve the problem of sewer blockage?

i) Self-help  ii) Paid Sweeper  iii) Other (specify)

23. How much money do you pay on average to solve problems? Rs. \_\_\_\_\_ per month

24. In case of blockage/clogage in the main sewer, do you complain about it to the municipal authority?

Yes  No

24.1. If Yes, how quickly they respond to your complaint? Please explain?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

25. Are you satisfied with the quality of sewer services provided by the municipal authority of your town?

Highly Satisfied (1) Satisfied (2) Indefinite (3) Dissatisfied (4) Highly-dissatisfied (5)

25.1. If dissatisfied or highly-dissatisfied, please suggest the ways to improve the sanitation services in your household and locality:

I)
II)
III)

#### D. ACCESSIBILITY, RELIABILITY, AND QUALITY OF DRAINAGE SERVICES

26. Is there any problem of storm water drainage in your street/area? Yes  No

27. Does rainwater accumulates occur during Rains? Yes  No

28. For how much time water keep stagnant? \_\_\_\_\_ hours

29. Which Department do you visit to get the drainage problem redressed?

i) Town Administration  ii) Union Council  iii) Other (specify)

30. Do the officials of the department visit your area in case of water stagnation or associated problems?

Yes  No

30.1 If No, how do you manage to solve the problem?

31. How much money do they spend in solving the problem of flood water? Rs. \_\_\_\_\_

32. Are you satisfied with the present drainage system?

Highly Satisfied (1) Satisfied (2) Indefinite (3) Dissatisfied (4) Highly-dissatisfied (5)

32.1. If dissatisfied or highly-dissatisfied, please suggest the ways to improve the Drainage System:

I)
II)
III)

**E. ACCESSIBILITY, RELIABILITY, AND QUALITY OF SOLID WASTE MANAGEMENT**

33. How is garbage disposed of by your establishment? (please tick more than one if appropriate)

- i) Collected by the Town administrator/municipal agency
- ii) Collected by a paid sweeper  iii) Dropped in a municipal container
- iv) Thrown in the street  v) Thrown in a open area nearby
- vi) Burned  vii) Others (specify):

33.1. If (i), how the Town administration collects Solid Waste?

Collection Truck  Hand Cart  Wheel Barrow  Other (specify)

32. How frequent is the garbage collected by the municipal agency ? i) Daily

ii) Once in 3 days  iii) Once a week  iv) No. of times/week (specify)

(ii) By the paid sweeper: i) Daily  ii) Once in 2days  iii) Once in 3 days

iv) Once a week  v) No. of times/week (specify)

33. How much do you pay the sweeper for garbage collection per month? Rs. \_\_\_\_\_

34. If dropped in a municipal container, how often it that done? i) Daily  ii) Once in 2 days

iii) Once in 3 days  iv) Once a week  v) No. of times/week (specify)

35. How far is the municipal container from your establishment?

- i) less than 100 meters  i) 100-200 meters   
 iii) more than 200 meters  iv) more than 300 meters   
 v) more than 400 meters  vi) more than 500 meters

36. Do you segregate garbage? Yes  No

37. By what material do you segregate your garbage?

- i) Glasses  ii) Plastic Bottles  iii) Wrapping Material

37.1. If Yes, What do you do with it (explain)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

38. Are you satisfied with the present drainage system and?

Highly Satisfied (1) Satisfied (2) Indefinite (3) Dissatisfied (4) Highly-dissatisfied (5)

38.1. If dissatisfied or highly-dissatisfied, please suggest the ways to improve the Solid Waste System:

I)
II)
III)

**E2. ACCESSIBILITY, RELIABILITY, AND QUALITY OF HOSPITAL SOLID WASTE**

39. Do you have information about the hospital waste management rules 2005 prepared by the Pakistan Environmental Protection Agency?

Yes  No

40. How is the hazardous toxic (bio-medical waste) generated from hospitals/clinics is disposed off:

- i) Incinerator  ii) Disposed at some specific collection point   
 iii) A Special Container (Specifically Designed to held infectious/pathogenic waste material)

40.1 If (i), who is deputed to burn the waste? i) Qualified operator ii) Other (specify)

41. How Often is the waste incinerated? i) Daily  ii) Once in 2 days   
 iii) Once in 3 days  iv) Once a week  v) No. of times/week (specify)

42. How much do you spend on the incinerator's fule per month? Rs. \_\_\_\_\_

43. How far is the collection point from your hospital?

- i) less than 100 meters
- ii) 100-200 meters
- iii) more than 200 meters
- iv) more than 300 meters
- v) more than 400 meters
- vi) more than 500 meters

44. How often is the waste material taken to the point? i) Daily  ii) Once in 2 days   
 iii) Once in 3 days  iv) Once a week  v) No. of times/week (specify)

45. Who is deputed to transport the material to the point?   
 i) Special Transporter  ii) Other (specify)

46. How much do you spend on its transport per month? Rs. \_\_\_\_\_

47. If (iii), please provide relevant details

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

48. How much do you spend on the Special Container? Rs. \_\_\_\_\_

49. Are you satisfied with the present Hospital solid waste management?

- Highly Satisfied (1) Satisfied (2) Indifferent (3) Dissatisfied (4) Highly-dissatisfied (5)

49.1 If dissatisfied or highly-dissatisfied, please suggest the ways to improve the Hospital solid waste management:

I)

II)

III)

**ANNEX E:**

**Baseline on Town's Institutional Capacity and Infrastructure Support**

i) Date of Interview: \_\_\_\_\_

ii) Enumerator's Name: \_\_\_\_\_ iii) Enumerator's Code:

iv) Town: \_\_\_\_\_ v) District: \_\_\_\_\_

**1. GENERAL INFORMATION:**

1. Name of the Respondent: \_\_\_\_\_

1.2 Designation: \_\_\_\_\_

1.3 Full official address of Respondent: \_\_\_\_\_

1.4 Telephone contact: i) Official  ii) Cell  (If provided)

**2. TOWN INFORMATION, GOVERNANCE AND ADMINISTRATION**

2.1 Total Geographical Area of the Town: \_\_\_\_\_

2.2 What is the estimated population of this town? \_\_\_\_\_

Males  %; Females  %

2.3 Population per square kilometer:

2.4 What are the major departments of this town administration?

i) General Admin.  ii) Accounts and Finance  iii) Planning and Development

iv) Information Technology  v) Municipal Service Delivery

Others (Specify): 


2.5 How many individuals are employed with the town administration in the following categories?

i) Management  ii) Administration  iii) Accounts  iv) Technical

iv) Regularised workers  v) Daily-wage workers  vi) Others

2.6 Is Municipal Service Delivery (Water Supply, Wastewater, and Solid Waste Management) the

responsibility of this town administration?

i) Completely  ii) Private Contractor (completely)  iii) Private Contractor (partially)

iv) Other (Specify)

2.7(a) If Partially contracted out to the private contractor (please specify the type of service):  
(Put the tick where required)

i) Water Supply  ii) Wastewater  iii) Solid Waste Management

### 3. STATUS OF INFRASTRUCTURE AND SERVICES DELIVERY

#### 3(a): WATER SUPPLY

3.1 What is the geographical coverage/max. diameter of water supply system in this town?

\_\_\_\_\_ Kilometres (kms)

3.1 (a) What is the diameter of waterlines and their lengths?

Waterlines (major): \_\_\_\_\_ Waterlines (minor): \_\_\_\_\_

3.2 Is the present geographical coverage of water supply:

i) Less than actually required  ii) Equivalent

3.2 (a) If it is less than actually required, what is the deficiency: \_\_\_\_\_ kms

3.3 What is the total volume of water supplied in this town? \_\_\_\_\_ mgd

3.4 Is there a mismatch between water demand and water supply? Yes  No

3.4 (a) If Yes, what is the average amount of shortage? \_\_\_\_\_ mgd

3.5 When is the water-shortage on the rise? i) During Summer  ii) During Winter

3.6 What are the three major reasons for water-shortages?

i)

ii)

iii)

3.7 How do you address the problem of water shortages? Please explain?

3.8 How do you rate the Water Supply System in this town? (Please tick one)

i) Pumping Station: Very good  1 Good  2 Satisfactory  3 Bad  4 Very Bad  5

ii) Water Pipelines: Very good  1 Good  1 Satisfactory  3 Bad  4 Very Bad  5

iii) Valves: Very good  1 Good  2 Satisfactory  3 Bad  4 Very Bad  5

iv) Allied Equipment: Very good  1 Good  2 Satisfactory  3 Bad  4 Very Bad  5

v) Other (specify)

Very good  1 Good  2 Satisfactory  3 Bad  4 Very Bad  5

3.9 Is there a water-treatment facility in this town? Yes  No

3.9 (a) If Yes, is the water treatment facility: i) Functional  ii) Non-functional

iii) Being rehabilitated  iv) Other Status (Specify)

3.9 (a.1) If in a functional state, is the water-treatment plant sufficient to treat the total volume of this town's water supply?

Yes  No

3.9 (a.2) If No, What is the difference in volume of water supply and treatment? \_\_\_\_\_ mgd

3.10 Do the water supply system has sufficient and trained manpower to perform operations, maintenance and repair?

Yes  No

3.10 (a) If No, What have been the technical limitations of manpower concerning:

i) Operations

ii) Maintenance and Repair:

3.11 What is the total cost incurred on maintaining Water supply system per annum? Rs

\_\_\_\_\_

**3(b): WASTEWATER**

3.12 What is the total volume of wastewater generated in your town? \_\_\_\_\_mgd

3.13 What is the maximum geographical coverage/diameter of wastewater system in this town? \_\_\_\_\_Kms



3.13 (a) What is the diameter and length of wastewater lines?

i) Major Sewer line \_\_\_\_\_ ii) Minor drainage lines \_\_\_\_\_

3.14 Is the present geographical coverage of wastewater system:

i) Less than actually required  ii) Equivalent

3.14 (a) If less than actually required, what is the deficit? \_\_\_\_\_kms

3.15 How do you rate the wastewater infrastructure system of this town?

i) Sewer Lines: Very Good  1 Good  2 Satisfactory  3 Bad  4 Very Bad  5

ii) Drainage Lines: Very Good  1 Good  2 Satisfactory  3 Bad  4 Very Bad  5

iii) Valves: Very Good  1 Good  2 Satisfactory  3 Bad  4 Very Bad  5

iv) Manholes Very Good  1 Good  2 Satisfactory  3 Bad  4 Very Bad  5

v) Other (Specify)

Very Good  1 Good  2 Satisfactory  3 Bad  4 Very Bad  5

3.16 Is there any wastewater treatment facility in this town? Yes  No

3.16 (a) If Yes, is the wastewater treatment facility?

i) Functional  ii) Non-functional  iii) Being rehabilitated

iv) Other Status (specify)

3.16 (a.1) If Functional, What is the volume of wastewater treated at the plant? \_\_\_\_\_ mgd

3.17 Do this town's wastewater system has sufficient and trained manpower to perform operations, maintenance and repair?

Yes  No

3.17 (a) If No, What have been the technical limitations of manpower concerning:

i) Operations

ii) Maintenance and Repair:

3.18 What is the total cost incurred on maintaining Wastewater system per annum?

Rs. \_\_\_\_\_

**3(c): SOLID WASTE MANAGEMENT**

3.19 What is the total volume of solid waste collected in this town?

megatons/month

3.20 Is there any record kept for solid waste collection by type (households, commercial, hospital, industrial etc)?

Yes  No

3.20 (a) If Yes, what is the total volume by category (000 tons)?

i) Household  ii) Commercial/Markets  Other (Specify)

3.21 Are the following services provided to customers for collection of solid waste in this town?

i) Door-to-door collection  ii) Municipal/Public containers  iii) Street dumping sites

iv) Others (specify)

3.21 (a) If Yes, How is solid-waste collected from households?

i) Door-to-door pushcarts  ii) Door-to-door by small pick-up truck

iii) Door-to-door by tractor-trolley  iv) Door-to-door by animal with baskets

By other means (specify):

3.22 How is solid waste collected from markets and commercial areas?

i) Door to door collection  ii) From municipal dumps  iii) From street dumping sites

iv) Sweeping of streets  iv) Other (specify)

3.23 What is the normal frequency of collecting solid-waste for both household and commercial customers?

i) Households  times/week ii) Commercial  times/week

3.24 Is the solid waste segregated post collection?

Yes  No

3.24 (a) If Yes, where is the solid waste dumped after collection? Please explain?

3.25 What is done with the non-organic solid waste? Recycled  Dumped

If dumped, at what site is the dumping mostly done? Please elaborate.

3.26 Does the department comply with environmental safeguards during solid waste dumping?

Yes  No

3.26 (a) If Yes, What are the key features of town's environmental safeguard compliance?

3.25 (b) If No, What are the reasons for not doing so?

**4. CUSTOMER COMPLAINTS/ GRIEVANCES AND SUBSEQUENT COMPLIANCE**

4.1 Do you have a complaint cell to address the customers' problems?

i) For Water Supply: Yes  No

ii) For Wastewater: Yes  No

iii) For Solid Waste Management Yes  No

4.1 (a) If Yes, how are customer complaints registered?

i) Written application  ii) Telephone  iii) Email  iv) Others (specify)

4.1 (a.1) If Yes, what was the total number of complaints registered during the last one year? (Please provide us data of these complaints)

4.2 How much of these complaints were addressed? (please put the number or percentage after checking the published record)

Number  Compliance Rate  %

**5. HUMAN RESOURCES FOR URBAN MUNICIPAL SERVICES**

5.1 Number of Employees for Urban Municipal Services:

A.	Categories	Designation	Gender		Total
			Male	Female	
	<b>Water Supply</b>				
	Engineers				
	Plant Operators				
	Technicians				
	Fitters				
	Linemen				
	Labourers				
	Others (Specify)				
B.	<b>Wastewater</b>				
	Engineers				
	Plant Operators				
	Technicians				
	Fitters				
	Linemen				
	Labourers/Collectors				
	Others (Specify)				
C.	<b>Solid Waste Management</b>				
	Engineers				
	Technicians				
	Machine Operators				
	Mechanics				
	Vehicle Truck Drivers				
	Tractor-Trolley Drivers				
	Supervisors				
	Sweepers				
	Others (Specify)				

**6. ASSETS, ASSET MANAGEMENT AND INVENTORIES**

List of Inventories with their net worth at present.

	Service	No.	Present Net Worth (in Rs.)
	Water Supply		
i)			
ii)			
iii)			
iv)			
v)			
vi)			
vii)			
viii)			
ix)			
x)			
	Wastewater		
i)			
ii)			
iii)			
iv)			
v)			
vi)			
vii)			
viii)			
ix)			
x)			
	Solid Waste Management	No.	Present Net Worth (in Rs.)
i)			
ii)			
iii)			
iv)			
v)			
vi)			
vii)			
viii)			
ix)			
x)			
	Office Equipment	No.	Present Net Worth (in Rs.)
i)			
ii)			
iii)			
iv)			
v)			
vi)			
vii)			
viii)			
ix)			
x)			
D	Other Assets (specify)	No.	Present Net Worth (in Rs.)

i)			
ii)			
iii)			
iv)			
v)			
vi)			
vii)			
viii)			
ix)			
x)			

6.2 What is the individual and total valuation of assets? Rs. \_\_\_\_\_

6.3 Are there any nationally owned public assets are in the custody of this town administration?

Yes  No

6.4 Does the existing framework clear in giving authority to town administration over ownership of municipal assets?

Yes  No

6.5 If Yes, is there an inventory policy and practice that is clearly recognized in keeping and maintaining these assets?

Yes  No

6.5 (a) If Yes, could you please brief us about the core features of this policy? It would also be helpful if you could provide us with the available policy documentation.

6.6 Is there a clear and consistent classification, documentation, and registration of both fixed and movable assets concerning municipal services owned by this town administration?

Yes  No

6.6 (a) If Yes, is this part of a asset management system? Yes  No

6.6 (a.1) If Yes, is the asset management system: i) Computerized  ii) Exists on paper

iii) Other mechanism (Specify):

**7. FINANCIAL INFORMATION**

7.1 What is the total annual budget of this town? Rs. \_\_\_\_\_

7.2 Could you provide us with the details of this town's development and non-development budget?

	Budget Heads			
	Development	Amount (in Rs.)	Non-Development	Amount (in Rs.)
i)				
ii)				
iii)				
iv)				
v)				
vi)				
vii)				
viii)				
ix)				
x)				

7.3 Do the town administration receive any fiscal transfers from the government under the Annual Development Plan? Yes  No

7.4 What is the average amount of the Town's water supply budget that is for pump stations, repair and maintenance, and other associated water supply services?

Rs.  per year.

7.5 Is there a conservancy tax levied on customers to cover part of the budget on municipal services?

Yes  No

7.5 (a) If Yes, what percentage of the City's total recurrent budget on municipal service provision is covered by the conservancy tax?

%

7.5 What is the average amount of Town's solid waste management budget that is for sweeping, small drain cleaning, solid waste collection, solid waste disposal and maintenance of the solid waste equipment?

Rs.  per year.

7.7 Within your town, are there any user charges for solid waste paid by residents?

Yes  No

7.7 (a) If Yes, how much is the total fee collected per annum? Rs. \_\_\_\_\_/year

**8. CONTRACTUAL AGREEMENTS**

\*In case, if services have been contracted out to the private contractor.

8.1 Is there any contract policy of the town administration concerning?

i) Lease of physical assets  ii) Contracting-out service delivery  iii) Customer complaints

iv) Other services (specify):

8.1(a) If Yes, what procedures were followed regarding contractual agreements with the private contractors? Please explain by contractual agreement and service.

8.2 Do you have any mechanism to monitor the quality of services provided by the private contractors?

Yes  No

8.2 (a) If Yes, how does this monitoring mechanism works? Please explain:

9.1 Within your town, is there a tariff structure for municipal urban services which are payable by the residents of this town?

Yes  No

9.1 (a) If Yes, is there a separate tariff structure for domestic, commercial, and industrial users?

Yes  No



9.1 (b) If Yes, does it apply to: i) Water Supply ii) Wastewater  
 iii) Solid Waste Management

9.2 What are the rates for municipal services?

	Municipal Services	Tariff (in %)		
		Household	Commercial	Industrial
i)	Water Supply			
ii)	Wastewater			
iii)	Solid Waste Management			

9.3 What is the basis for adjusting tariff for household/domestic consumers?

i) Size of the plot/property  ii) Consumer's income  iii) Volume of usage   
 iv) Other criteria (Specify)

9.4 Are bulk consumers metered for water supply?

Yes  No

9.4 (a) If No, what is the basis for charging the fee? Please explain.

i)  ii)  iii)

9.5 Is there any separate charge for sewerage?

Yes  No

9.5 (a) If Yes, what is the amount and how is it determined?

Amount: Rs. \_\_\_\_\_ i) Volume of waste generated  ii) Size of the property   
 iii) Other Criteria (Specify)

9.6 What is the collection efficiency of tariff? i) Water supply % ii) Solid waste %

9.7 Is the tariff structure for residents served by private sector systems different from the tariff structure for residents served by municipal systems?

Yes  No

9.8 Have you done any planning to upwardly adjust tariffs (or conducted a tariff study) to make delivery of municipal services sustainable in your town?

Yes  No

9.8 (a) If No, how does the administration plan to make the urban municipal services sustainable? Please explain?

9.8 (b) If Yes, what percentage of cost of service provision is expected to be covered by tariff increase?

%

9.9 Do you realistically think that the town administration will be able to collect the targeted amount through tariffs keeping in consideration the socio-economic status of customers and other factors in this town?

Yes  No