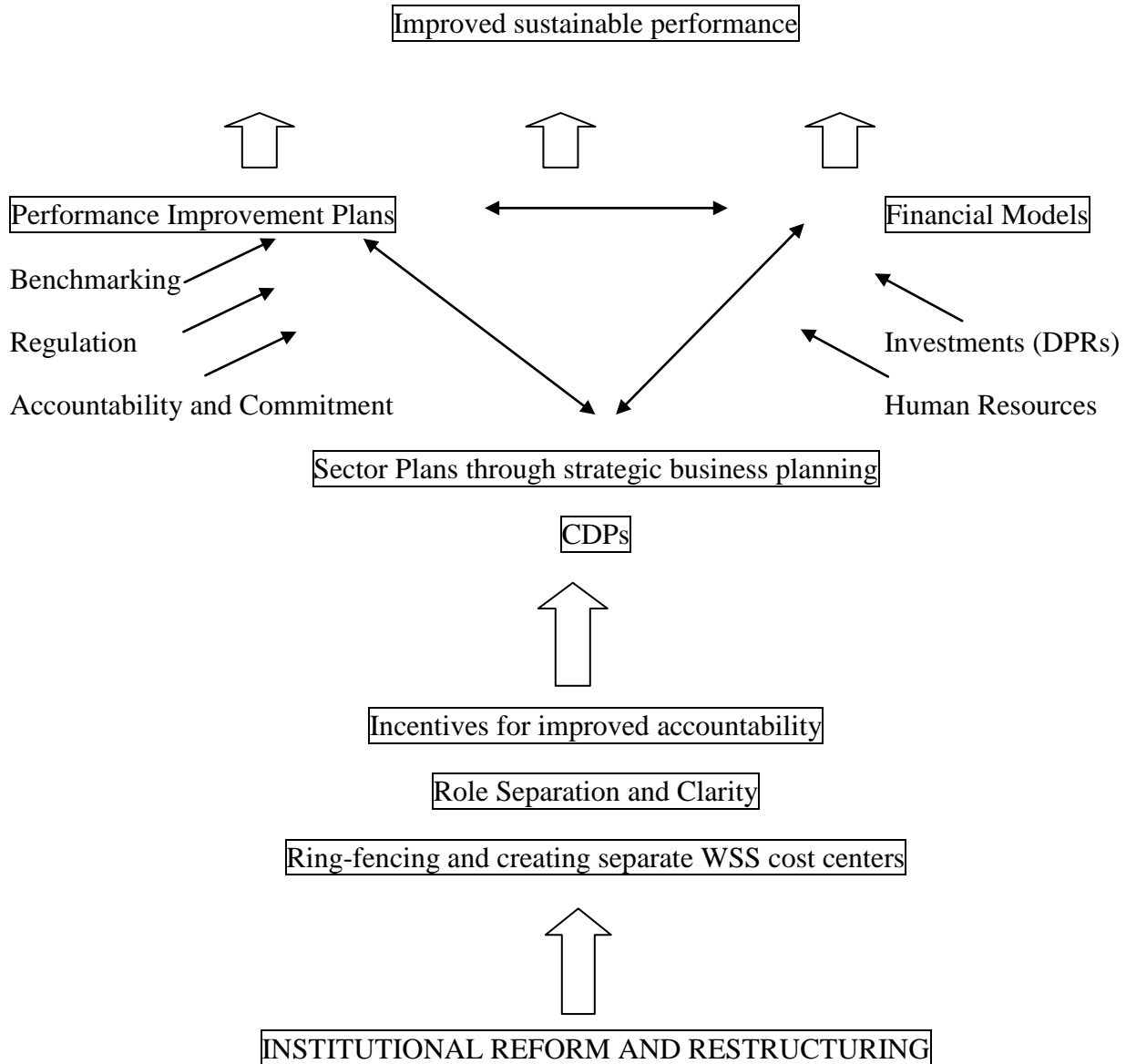


PERFORMANCE IMPROVEMENT PLANNING IN THE OVERALL PLANNING FRAMEWORK

Figure 1: Sustaining Benchmarking and Performance Improvement Planning



Guidance Notes on Information System Improvement Planning

Background

The challenges of the urban sector in India are growing rapidly, and the government agencies at various levels are taking steps to address the gaps in service delivery. One of the important steps towards this is the introduction of the appropriate systems for information management, performance monitoring, and benchmarking.

Performance monitoring and benchmarking require the collection and analysis of reliable and accurate performance data of service provider operations. The availability of such data depends on the use and management of an information system that is composed of the following elements: (i) measurement components, (ii) regular collection and recording of data, and (iii) an appropriate data base that allows ease of data retrieval for data analysis.

The initial round of data collection for the series of benchmarking projects and SLB initiative under MoUD show deficiencies in the information systems of the service providers for water supply, sewerage and drainage and solid waste management. Any program to improve service delivery performance will be hampered unless such deficiencies are corrected.

This guidance note provides the steps needed to be taken by the service providers to improve the information systems. This note only covers improvement of the information system that provides information on performance indicators. Improvement of performance is covered separately under performance improvement planning.

SLB Data Requirements

The SLB data requirements can be determined from the definitions of the 28 SLB indicators listed in the SLB Handbook covering the four services (water supply, sewerage and wastewater, drainage, and solid waste). Taking water supply indicators as examples, water supply coverage requires the number of households in the service area and the number of households connected to the service provider. Per capita supply of water requires annual volume of water consumed, number of population served and number of days in a year. Extent of non revenue water will require the annual volume of water produced and the annual volume of water sold. Cost recovery requires annual operating expenses and annual operating revenues. Quality of water sold requires test results of water samples taken at the required intervals and at different sampling points. Similar analysis of the data requirements for the other indicators can be done by identifying the data required for computing the indicators based on their definitions.

Collecting and Recording Data Required.

Apart from identifying the data requirements, a system of collecting and recording data must be put in place. Coverage data will require a system of doing house-to-house survey to determine households connected to the service provider and total households in the service area. No measurements are needed. Per capita supply and extent of non revenue water require measurement of production and consumption at least on a monthly basis through meter reading of production meters and individual meters of

customers connected to the service provider. Water quality data will require testing of water samples involving measurements using laboratory testing equipment and procedures. Cost recovery data needs a system of recording expenditure and revenue items. Revenue from water consumption by consumers requires monthly water consumption reading per connection, and a system for billing and recording collections.

For each required data corresponding to an SLB indicator, three components must be present: (i) measurement system if measurement is needed, (ii) a data collection and recording system, and (iii) an appropriate data base covering all the SLB data requirements for the four services.

Evaluating the Adequacy of the Information System

Accurate and reliable data can only be obtained and made available for use if all the components of the information system are available and working properly. Production and consumption meters need to be reading accurately, meter readers must be reading the meters correctly and recording the readings properly, and recorded data inputted into the data base. Survey of households in the service area and households connected to the service provider must be recorded properly and inputted to the data base. Regular updates must also be recorded when new connections are made and when others are disconnected. Financial transactions (expenses and revenue collections) must also be recorded as they occur and consolidated regularly preferably on a monthly basis. The requirements for each piece of information should be evaluated as to adequacy of measurement (reliability of equipment and methodology), collection method and recording, and data storage and retrieval (database).

Information System Improvement Planning

The previous step of evaluating the adequacy of the information system will show the way to plan the improvement to the whole information system. Any inadequacy in the measurement system, collection and recording system, and data base maintenance must be addressed through actions or series of activities that need to be planned and budgeted that become part of the service providers' annual business plans.

Annex 1 is an example of evaluating the data requirements of a number of indicators and the necessary steps required to improve or setting up the corresponding information and data system. This is similar to the process mapping done in process benchmarking as part of performance improvement planning for water utilities. A number of improvement plans are common to water supply, sewerage and wastewater and solid waste such as cost recovery, revenue collection efficiency and redressal of complaints. Some improvement plans involve the procurement and installation of equipment like production and consumption meters, and weighing stations for solid waste. Setting up of data bases could involve the procurement of computer hardware and software. Any additional system would involve training of staff in operating the systems, equipment, use of hardware and software, etc.

The information system improvement plans shown in Annex 1 need to be put into a detailed set of step-by-step activities with the corresponding timelines, responsible units/staff and budgets. These set of activities should be part of the annual business plan of the service provider and should be monitored on a regular basis once implemented.

Planning for ISIP in each of the Pilot Cities

Each of the pilot cities in the benchmarking and performance improvement project under the MoUD's SLB initiative would have their own level of development in the required data and information system.

The local consultants for each city, together with the concerned service provider officers/staff, should undertake the above described processes of evaluating the information system required for the set of indicators under a service provider. This should be followed by recommendations on how data gaps can be addressed by improving the corresponding information system. Such recommended information system improvement plans should be presented in the form of step-by-step activities with corresponding timelines, responsible units/staff and budget.

Detailed planning would require knowledge of data systems, equipment, computer hardware, software, staff and training requirements. This expertise could be provided by other utilities already using such systems and equipment, consultants and manufacturers. A very important component of any ISIP is the training and updating of skills of service provider personnel and staff. Training could include training with the other utilities already familiar with the systems and equipment.

The ISIPs should be prioritized starting with the no cost –lowest cost plans with in each service provider and within the SLB. The more costly plans could be done later with a longer timeline depending on budgetary requirements. Data bases and software for example could range from simple spreadsheets that could later graduate into more sophisticated databases and automated systems. Meter reading could be done manually with separate billing but can later graduate to hand-held meter readers which can immediate printout bills for the consumers.

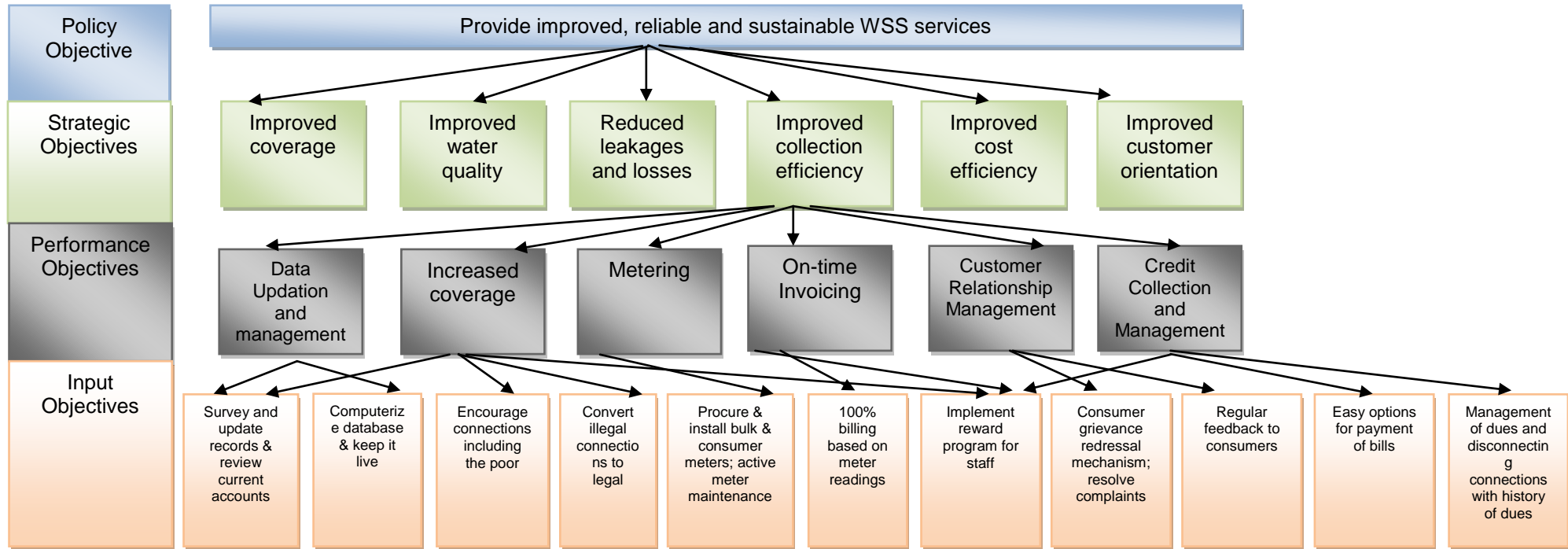
Information system improvement planning should be part of the overall benchmarking and performance improvement initiative under MoUD. It is a critical first step to make benchmarking and PIP meaningful and effective. It is important in monitoring performance of service providers and making the necessary adjustments to address performance gaps.

Annex 1 - Evaluation of Data Requirements for SLB Indicators

SLB Indicator	Data Required	Data Generation Requirement	Information System Improvement Plan
Water Supply Coverage	<ul style="list-style-type: none"> • # HHs connected • # HHs in service are 	<ul style="list-style-type: none"> • Survey to determine # HHs connected and # HHs in service area • Regular update • Coverage data base 	<ul style="list-style-type: none"> • Conduct survey if no data available • Update data if data available is not up to date • Set up coverage data base
Non Revenue Water	<ul style="list-style-type: none"> • Annual production • Annual consumption 	<ul style="list-style-type: none"> • Production meters • Consumption meters • Meter reading system • Meter testing and calibration • Meter reading data base 	<ul style="list-style-type: none"> • Install production and consumption meters • Hire and train meter readers and installers • Set up meter reading system • Set up meter calibration and testing system • Train staff on meter calibration and testing • Set up meter reading data base
Cost recovery	<ul style="list-style-type: none"> • Annual operating expenses • Annual operating revenues 	<ul style="list-style-type: none"> • Record of expense items and costs • Record of revenues • Financial data base 	<ul style="list-style-type: none"> • Set up a system of recording operating expenses and operating revenues • Set up a billing and collection system • Set up a financial data base
Revenue Collection Efficiency	<ul style="list-style-type: none"> • Current revenues collected for year • Annual operating revenues billed 	<ul style="list-style-type: none"> • Record of revenues collected • Record of revenues billed • Financial data base 	<ul style="list-style-type: none"> • Set up a system of recording revenues billed and revenues collected • Set up a billing and collection system • Set up a financial data base
Redressal of Customer Complaints	<ul style="list-style-type: none"> • Total # of complaints received/month • Total # of complaints redressed/month 	<ul style="list-style-type: none"> • Recording of complaints received • Recording of complaints redressed 	<ul style="list-style-type: none"> • Setting up a system of receiving, recording and redressal of complaints. • Setting up of complaints data base • Monthly update of complaints data base
Efficiency of Collection of Municipal Solid Waste	<ul style="list-style-type: none"> • Total waste generated in service area to be collected • Total waste collected in service area 	<ul style="list-style-type: none"> • Measurement or estimate of waste generated • Measurement or estimate of waste collected 	<ul style="list-style-type: none"> • Conduct survey of waste generation for each type of customer (residential, commercial, institutions, etc.) • Set up a system of quantifying waste generation and collection • Monitor and record waste collection of service provider

PERFORMANCE IMPROVEMENT PLANNING – URBAN WATER

1. OVERALL PIP SCHEMATIC



2. TEMPLATES FOR INDIVIDUAL PIPs

2 (a) PERFORMANCE IMPROVEMENT PLANNING - Improving Water Supply Coverage

PROCESS	PRACTICES/ACTIVITIES	ACTION	TIMELINES
Increase Connections in existing network area	Reduce Illegal Connections	<ul style="list-style-type: none"> ➤ Revisit historical disconnections and identify illegal tapplings ➤ Amnesty scheme for regularizing ➤ One time penalty and regular billing ➤ Recovery of penalty in installments along-with monthly consumption bill 	
	Encourage legal connection and simplify admin procedures	<ul style="list-style-type: none"> ➤ Simplify connection application ➤ Reduce process time (response in 5 days from the date of application and connection commissioning in 5 days from date of payment of connection charge) ➤ Delegate connection sanction powers to service stations ➤ Improve data capture for new commissioned connections and reduce data loss ➤ Delink land tenures and approved building plans for availing connections ➤ Meter or Connections '<i>melas</i>' ➤ Connections to private layouts eg. Private farms, housing societies ➤ Rate contract for connection installations instead of licentiate plumbers 	
	Urban Poor Connections	<ul style="list-style-type: none"> ➤ Connections to slum and low income households ➤ Subsidized connections replacing public taps for urban 	

		<p>poor</p> <ul style="list-style-type: none"> ➤ Individual connections in place of group connections 	
Increase network coverage	Expanding distribution system into un-serviced areas	<p>Extend distribution system into</p> <ul style="list-style-type: none"> ➤ neighborhood areas ➤ slums ➤ private layouts <p>Pooling of funds for increasing coverage</p> <ul style="list-style-type: none"> ➤ Non plan grants for expansion of service ➤ Deposit schemes for new layouts ➤ Standards for private layouts 	

2 (b) Improving Collection Efficiency

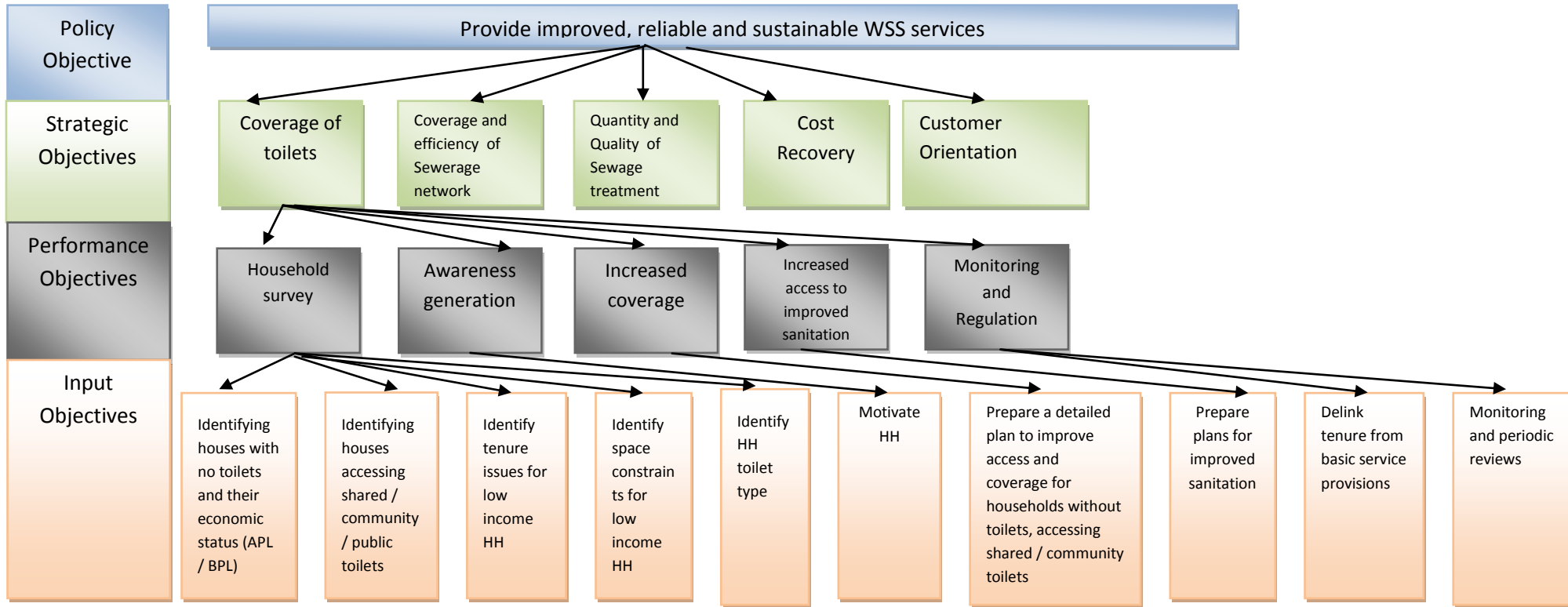
PROCESS	PRACTICES/ACTIVITIES	ACTION	TIMELINES
<p>Increase collection efficiency</p>	<p>Improve billing system</p>	<p>Update all consumer records (maintain consumer records and ensure all are mapped)</p> <p>Full computerization of the billing and collection system</p> <p>Timely production and delivery of bills to customers</p> <p>Incentives for early payments</p> <p>Quick resolution of billing disputes</p> <p>Good record keeping for billing of arrears</p>	
	<p>Improve collection system</p>	<p>Simplify collection procedures – payment through post offices, banks, kiosks</p> <p>Establish a good payment scheme to encourage consumers to pay including incentive and bonus programs for customers</p> <p>Consumer cell for grievances, liaise with consumer and provide regular feedback</p> <p>Incentive rewards program for staff to encourage collection</p> <p>Notify consumer in case of long default and disconnect where necessary</p> <p>Debt Management – one time settlements, write off debts</p>	

2 (c) Consumer Grievance Redressal Mechanisms

PROCESS	PRACTICES/ACTIVITIES	ACTION	TIMELINES
Effective Consumer Redressal Mechanisms	Defining Service Offered	Define the service charter fixing timeframes that the utility will provide to the consumer	
	Effective Consumer Redressal Mechanisms	<p>Set up a centralized system for receiving and recording complaints (e-governance initiatives, citizen centres, etc) and monitoring redressal</p> <p>Set up citizen centers/cells at locations convenient to the consumer and connected to central server</p> <p>Ensure that all complaints are mapped onto the centralized system</p> <p>Provide the consumer with the timeframe within which the complaint will be addressed</p> <p>Provide the consumer with a reference number which s/he can call up and track complaint</p> <p>Ensure that complaints are redressed within the stipulated timeframe</p> <p>Regular water '<i>adalats</i>' at consumer neighborhoods</p> <p>Provide for incentives to staff for redressing the complaint within the stipulated time period.</p> <p>Checks and balances in place to ensure that the complaint is redressed, and if not, it moves to the next level</p>	
	Measuring Customer Satisfaction	Periodical regular measurement of consumer satisfaction with the redressal they received.	

PERFORMANCE IMPROVEMENT PLANNING – SANITATION

1. OVERALL PIP SCHEMATIC



2. TEMPLATES FOR INDIVIDUAL PIPs

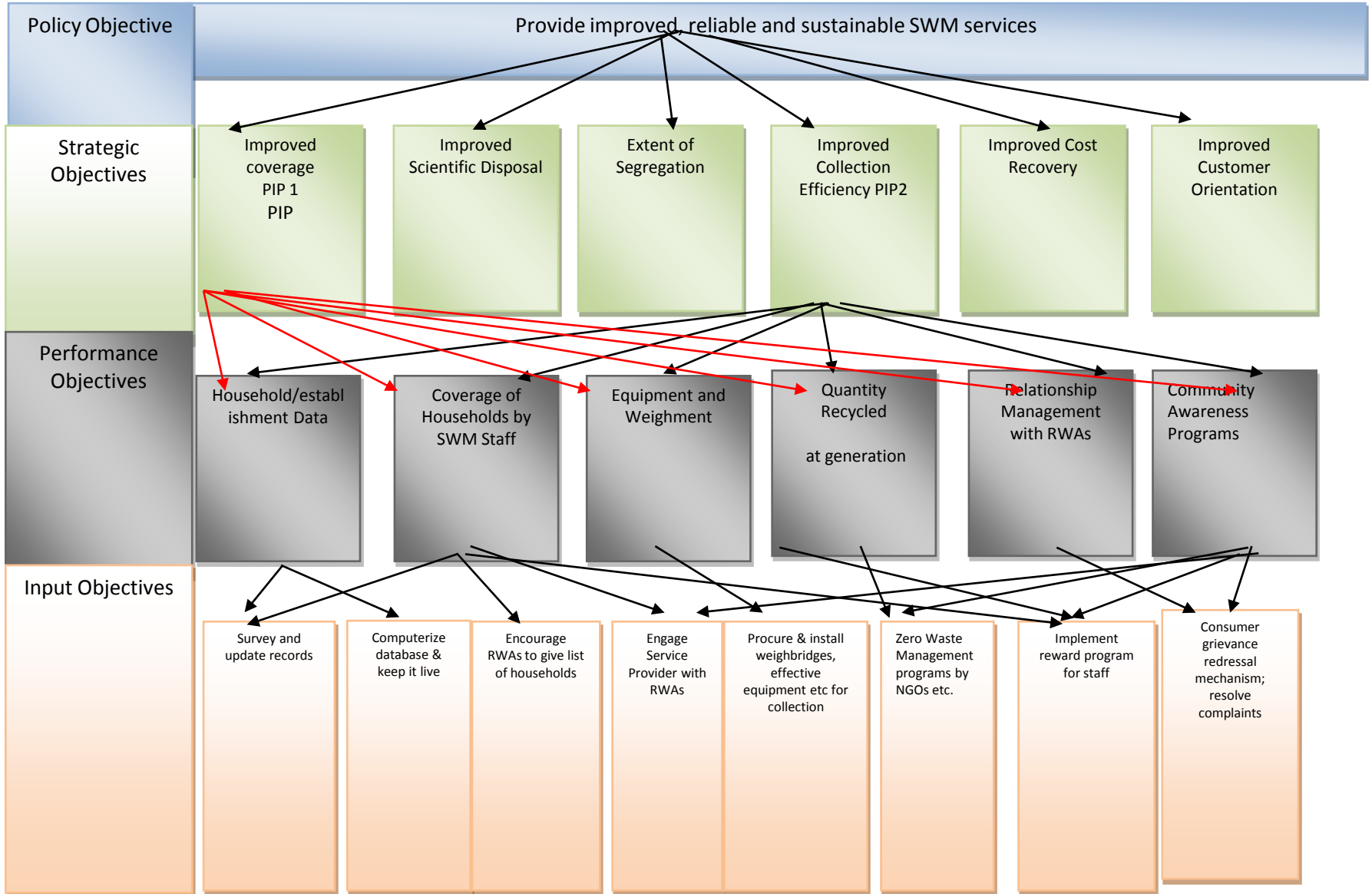
2 (a) PERFORMANCE IMPROVEMENT PLANNING - Improved Toilet Coverage

PROCESS	PRACTICES/ACTIVITIES	ACTION	TIME	BUDGET
Improved Toilet Coverage	Household Survey	<p>Identifying houses with no toilets and their economic status (APL / BPL)</p> <p>Identifying houses accessing shared / community / public toilets</p> <p>Identify tenure issues for low income households</p> <p>Identify space constraints for provision of toilets for low income households</p> <p>Identify household toilet type</p>		
	Awareness Generation	Motivate households on the need for toilets.		
	Increase Coverage	Prepare a detailed plan to improve access and coverage for households without toilets, accessing shared / community toilets, including accessing Govt. funding for BPL households.		
	Increased access to improved sanitation	Prepare plans to upgrade to improved sanitation.		

PROCESS	PRACTICES/ACTIVITIES	ACTION	TIME	BUDGET
	Monitoring and Regulation	Delink tenure from basic service provisions irrespective for notified or non-notified slums. Monitoring and conduct periodic reviews for open defecation, toilet access, and up-gradation		

PERFORMANCE IMPROVEMENT PLANNING – SOLID WASTE MANAGEMENT

1. OVERALL PIP SCHEMATIC



2. TEMPLATES FOR INDIVIDUAL PIPs

2 (a) Household Level Coverage of SWM Services

PROCESS	PRACTICES/ACTIVITIES	ACTION	TIMELINES
Database update	Update total number of households & establishments	Update total households & establishments in each ward/zone	
Improve collection system	Door-to-door coverage of households	Engage with RWA/ Ward Councilor to introduce door-to-door collection Identify and appoint service provider in the ward for door-to-door collection Provide street corner bins at multiple location for poor/ slum households	
	Door-to-door coverage of establishments	Engage with Shop keeper Association/ Hotel Association/ Other establishment Identify and appoint service provider for collection	
	Incentive and Penalty	Incentive rewards program for staff to encourage better collection Enact and introduce penalty for littering of streets	
	Communication & Awareness	Plan and introduce intensive communication & awareness program Encourage RWA/ residents/ establishments to keep waste at doorstep and not to dispose on street or municipal bins	

2 (b) Improving Collection Efficiency of SWM

PROCESS	PRACTICES/ACTIVITIES	ACTION	TIMELINES
Waste Generation Quantification	Estimates of waste generation	Baseline Waste Survey - Primary survey to estimate per capita household, establishment, markets, C&D and other bulk waste generation	
Increase the collection efficiency	Weighing of waste at Treatment/ Disposal sites	Install weighbridge at treatment and scientific waste disposal sites Mandatory daily weighing of waste going to open dumpsites Maintain daily record of quantity of waste reaching treatment/ disposal site Service Contract in case of Private Operator: Introduce contract based on per ton of waste collected instead per trip of vehicle	
Estimating recyclable material	Estimation of recyclable material taken away by recyclers from waste stream	Collect data on recyclable material in the city Total waste recycled and reaching waste recyclers	