



# ODISHA STATE URBAN WATER SUPPLY POLICY 2013

prepared by  
Government of Odisha  
Housing & Urban Development Department



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### 1. PREAMBLE

- 1.1. Water is essential for human existence and therefore assumes priority over most other basic services. Rapid urbanization, increased health awareness and higher aspiration level of the consumers has made it imperative for Governments across the world, particularly developing countries and least developed countries to focus on issues relating to water supply for human consumption. The United Nations Millennium Development Goal also emphasizes on providing safe drinking water to all in a time bound manner.
- 1.2. The National Water Policy -2002 as well as the Odisha State Water Policy -2007 defines water as a prime natural resource, a basic human need and a precious national asset. Accordingly, both the National Water Policy and the Odisha State water policy accord highest priority to water supply for human and livestock consumption for drinking and domestic use.
- 1.3. The Policy document aims at providing a framework for meeting national service level benchmarks, achieving consumer orientation and addressing issues and challenges of the sector.

### 2. RATIONALE

- 2.1. In order to address the complex technical, institutional, social and environmental challenges facing the urban water supply service, a specific urban water policy, consistent with State Water Policy is imperative. Hence, there is an immediate need to provide a detail framework that shall guide and support the preparation of a road map in achieving the targeted outcomes in the backdrop of the nature of service being a natural monopoly.

### 3. VISION STATEMENT

- 3.1 The Policy envisions at providing universal access to potable piped water supply on 24/7 basis at an affordable price and in an equitable, sustainable and eco-friendly manner with verifiable service level bench-mark for citizens in urban areas of the State.

### 4. MISSION STATEMENT

- 4.1. Reach out to all residents in the urban areas.
- 4.2. Provide adequate quantity of safe drinking water to all the consumers.
- 4.3. Achieve equity across geographical as well as demographic horizon with effective demand management.
- 4.4. Achieve system sustainability in a progressive manner and decrease dependence on subsidy by ensuring operational efficiency, tariff rationalization and corporatized / PPP model operation.
- 4.5. Achieve the desired service levels in a phased manner by ensuring required interventions and strengthening of infrastructure, institution, management efficiency, monitoring mechanism and regulatory framework.



- 4.6. Ensure satisfaction and drive amongst all employees of service provider through performance linked development incentive funds, individual performance recognition and linkage to appraisal.
- 4.7. Achieve high level of capacity, efficiency and morale amongst all employees of service provider through well articulated training programs and skill up gradation opportunities.
- 4.8. The time frame to accomplish the mission shall be over a period of 12 years in a phased manner through a comprehensive action plan.

### 5. POLICY OBJECTIVES

- 5.1 The broader policy objective is to provide an enabling environment for optimal resource utilization, efficient management and service level improvement in order to achieve predetermined benchmarks in respect of:-
  - a) Providing required infrastructure facility for improving service delivery.
  - b) Attaining operational efficiency .
  - c) Ensuring drinking water security and availability of adequate quantity .
  - d) Covering all urban area with piped water supply and all households with direct house connection.
  - e) Ensuring water quality supported by an efficient and effective surveillance system.
  - f) Ensuring ground water conservation by tapping feasible surface source and encouraging rain water harvesting .
  - g) Ensuring access of potable water to urban poor at affordable cost.
  - h) Reducing Non Revenue Water (NRW) through a metering regime progressively achieving 100% consumer level metering .
  - i) Institutionalising performance linked investment planning and funding.
  - j) Rationalising tariff structure to achieve 100% operational cost recovery and further explore possibility of recovering capital cost .
  - k) Developing a comprehensive monitoring mechanism and increase service provider accountability.
  - l) Generating awareness, sensitizing citizens, enhancing capacity and encouraging community participation.
  - m) Preparing a roadmap for operationalising provision of 74th CAA for power devolution.
  - n) Transiting to corporatized structure and promoting private sector participation .
  - o) Strengthening the institutional and legal framework.
  - p) Supporting disaster mitigation action plan .



## 6. GUIDING PRINCIPLES

- 6.1. All Household shall have access to water through direct piped connection.
- 6.2. All individuals must get at least 70 Liters Per Capita per Day (LPCD) progressively increased to 135 LPCD.
- 6.3. Any casualty or mass suffering due to water quality shall be prevented through a proper surveillance system.
- 6.4. Operational inefficiency shall not be passed on to the consumer.
- 6.5. Urban poor shall receive all the facilities available to other residents, at an affordable cost.

## 7. THRUST AREAS

### 7.1 Per Capita Availability & Continuity of Supply:

Minimum availability of 70 LPCD shall be ensured on priority, subsequently increased to 135 LPCD. The continuity in supply has to be progressively increased to attain 24/7.

### 7.2 Coverage :

100% Household level coverage shall be ensured by direct piped house connection.

### 7.3 Water Quality:

100% water quality for physical, chemical and bacteriological test at treatment plant, distribution point and consumer end shall be ensured .

### 7.4 Metering and Non Revenue Water:

The total water production shall be accounted for by attaining 100% metering. Non Revenue Water shall be reduced to less than 20% by managing losses.

### 7.5 Complaint Redressal:

All complaints and compliances shall be recorded. Redressal of at least 80% complaint within 24 hours shall be ensured.

### 7.6 Operational Efficiency:

Operational efficiency shall be ensured in respect of energy consumption, chemical consumption and resource deployment.

### 7.7 Cost Recovery and Tariff :

100% recovery of O&M cost shall be achieved in a progressive manner. Tariff structure shall be rationalized to facilitate cost recovery.

### 7.8 Collection Efficiency :

At least 90% collection of current demand shall be ensured and total arrear shall be reduced to less than 15% of current demand.

### 7.9 E-Governance :

E-governance shall be adopted in a progressive manner to encompass all components of the system.



### 7.10 Public Private Participation:

PPP mode of operation shall be encouraged for components of activity or complete system .

### 7.11 Data Quality :

Reliability level of data captured shall be improved by improving system, through sample survey and adopting innovative indirect methods.

### 7.12 Project Development :

Development of viable, sustainable and cost effective projects.

### 7.13 Project Implementation :

Time bound project completion and effective quality control measure .

### 7.14 Technology :

Technology shall be adopted with consideration of life cycle cost, output quality, and manpower requirement. Due weightage shall be given to energy efficient, low chemical consumption, mechanisation and automation.

## 8. KEY ISSUES AND CHALLENGES

### 8.1. Issues

- ❖ Drying water sources and deteriorating source sustainability.
- ❖ Over extraction of ground source in a few urban areas.
- ❖ Poor management of solid and liquid waste which finds its way into the water bodies, subsoil aquifer, leading to source pollution.
- ❖ Inadequate production leading to coverage limitation.
- ❖ Importance to operational efficiency not given due importance leading to increased operating cost.
- ❖ Poor pressure management leading to inequitable distribution and hence low consumer base.
- ❖ Leak management has not been made effective leading to higher water loss.
- ❖ High level of unaccounted water, leading to substantial revenue loss.
- ❖ Cost recovery is poor making the service unsustainable.
- ❖ Lack of resource and capacity of the service provider.
- ❖ Poor citizen communication and weak awareness campaign.

### 8.2. Challenges

#### 8.2.1. Social

To change citizen perception on potable water as a scarce resource having economic value which comes with service cost attached.

To eliminate unauthorized connections & default in payment.



## 8.2.2 Political

Support for structural reforms and empowerment of Urban Local Bodies (ULBs).

Support to promote rational tariff structure

Framework for handling illegal connections.

Strengthen urban water law and regulatory framework.

Simplify Procedures and conditions for ensuring universal access.

## 8.2.4 Management

Transfer of functions and empowerment of ULBs.

Undertake structural reforms including corporatization of PHEO.

Promote PPP model in the sector.

## 8.2.5 Financial

Improve financial viability of projects.

Resource availability for investment plan.

## 8.2.6 Operational

System revamping as per technical criteria due to lack of holistic approach.

Frequent breakdown due to lack of preventive maintenance or timely replacement.

Reliable data capture for monitoring.

Technical capacity of operational units.

## 9 IMPLEMENTATION STRATEGY

9.1 A comprehensive strategy shall have to be adopted to address the issues and challenges and achieve the objective of the policy framework with an overall aim to get closer to the vision statement.

## 9.2 Infrastructure

9.2.1 *Project Development:* New projects including augmentation of existing infrastructure shall be developed after assessment and feasibility study on availability of a sustainable source, availability of land, implementation feasibility, project viability and expected performance improvement. Outcome evaluation shall be the key factor for selection of projects. A non discriminatory project approval system shall be put in place based on objective criteria. All new projects shall be based on the prioritized action plan and augmentations shall be proposed after full utilization of existing capacity. A water supply system master plan for the city shall be developed prior to initiating expansion proposals. All new proposals shall include the cost of house connection and metering in the cost estimate. Comprehensive proposals shall also include cost of metering for existing consumers. Selection of material of construction shall be based on cost benefit analysis. All such new projects shall be accompanied by a check list in



accordance with Ministry of Urban Development (MoUD), GoI guidelines. The project estimate shall be prepared on a realistic basis in accordance with applicable code of practice. Market rate analysis supported by documents shall be adopted wherever applicable.

9.2.2 *Project Implementation:* A Standard Operating Procedure (SOP) shall be developed for planning, ground work detailing, supervision and quality control. A transparent procurement process shall be followed as per applicable guidelines. Land acquisition/procurement shall be completed before finalization of procurement process. Time and cost overrun shall be avoided through close monitoring and contract management. Contract management report of major projects shall be submitted to the Head of Department on a monthly basis and to the Government on a quarterly basis. Project management consultants shall be engaged as per requirement to support the implementation unit. Third party inspection of all projects shall be mandatory. Major projects valued greater than 10.00 Crores shall be completed within 36 months, projects valued between 5.00 to 10.00 Crores shall completed within 24 months, projects valued between 0.50 to 5.00 Crores shall be completed within 18 months and minor projects less than 0.50 Crores shall be completed within 1 year.

9.2.3 *Infrastructure Renovation, Rehabilitation and Replacement:* A study shall be conducted prior to taking up any infrastructure rehabilitation proposal. All such proposal shall include rationale, study report, maintenance record, efficiency evaluation, component detailing and expected outcomes. Priority consideration shall be given to life span, efficiency and technology.

## 9.3 Operational

9.3.1 *Situation Analysis and Database:* The existing status of infrastructure, resource, institutional set up shall be assessed and mapped. Household level survey shall be conducted to create a baseline database and assess the potential for new consumers. The current performance levels shall be captured using a predefined set of indicators. The database shall be updated on annual basis. The situation analysis and status report shall be completed within one year. GIS mapping of assets and consumer information shall be implemented in the long run. GIS base map developed by other service providers can be used for the purpose.

9.3.2 *Operational Efficiency:* The field units shall focus on operational efficiency by optimising utilization of available infrastructure and resources. Due importance shall be given to periodic checks and preventive maintenance of equipments. Maintenance records as per a standardized format shall be prepared and preserved for future references. Cost cutting initiatives like energy efficient equipments, Power Factor correction devices, calculated chemical consumption and system automation shall be adopted to improve efficiency.

9.3.3 *Adequacy and Equity:* Adequate and equitable supply shall be ensured through proper distribution management as the first step. Efficient demand management shall be achieved through distribution zoning, flow control and pressure control. Source augmentation shall be taken up to achieve service standards. The source selection vis-à-vis surface source and ground source shall be done based on sustainability, quality and cost. Topmost priority shall be given for



achieving the minimum availability of 70 LPCD in all Cities and towns of the state. The duration of supply shall be increased on an incremental basis.

- 9.3.4 Coverage: Physical coverage of distribution network shall be ensured across the city area with provisions for future demand in fringe growth areas. The water supply system master plan for the city shall be followed for initiating the expansion proposals. Household level coverage shall be given more importance with house connection in covered area made mandatory. No house connection shall be provided from transmission or feeder lines. Institutions like hospitals, schools, anganwadi Kendra, bus stop and other public places shall be provided with piped water supply on priority. The consumer base shall be broadened through awareness programmes, procedural simplification and tracking of illegal connections. Existing public stand posts in residential areas shall be phased out in pockets achieving 100% coverage. Tanker supply shall be phased out in next ten years on achievement of physical coverage and adequacy.
- 9.3.5 Water Quality: A water quality monitoring protocol and surveillance guideline shall be developed for regular monitoring and reporting. Laboratory facilities at field level shall be strengthened to facilitate surveillance system. All service units at ULB level shall have necessary facility to measure turbidity, PH and residual chlorine.
- 9.3.6 *Water accountability and Metering*: All water shall be accounted for. A metering regime shall be operationalised in a progressive manner to achieve 100% consumer level metering. All bulk production including ground source, transmission and distribution flow shall also be measured with a reliable data capture and reporting mechanism. All new connections shall be approved with meters and all old connections shall be metered within five years time span. The cost of house connection up to property line and meter shall be invested by the service provider to be recovered from the consumer in 24 monthly installments. Non Revenue Water shall be reduced through identification and management of technical and commercial losses. Steps shall be taken for ensuring proper leak detection and repairs, valve maintenance, regularisation of unauthorised connections and other conservation measures. Water audit shall be taken up at every two year interval to assess water account.
- 9.3.7 *Service Improvement action Plan*: The service provider shall develop a long term service improvement action plan based on the findings of the situation analysis. The plan shall identify the deficiencies and gaps influencing the key performance indicators, prioritize thrust area, set annual incremental performance targets and prepare action plan. The action plan shall also include information system improvement. Apart from ensuring 100% water quality, priority shall be given to availability (min 70 LPCD) of water, equitable distribution, 100% metering and 100% coverage. The priority list shall be reviewed every three years for midcourse correction as may be necessary based on the achievement of objectives and need of the time.

Priority	Indicative Parameter	Target
SERVICE DELIVERY		
1	Water Quality	100%
2	Adequacy	70 LPCD Minimum 135 LPCD desirable
3	Coverage (Physical)	100%
4	Coverage (Household)	100%
5	Residual pressure (Minimum)	7 m
SUSTAINABILITY		
1	Energy Efficiency	PF>95%; BEE rated equipments
2	Metering	100%
3	Non Revenue Water	Max. 15%
4	Cost Recovery	100%
5	Automation	100% Cities - Semi Automatic System

- 9.3.8 Outcome based Investment Plan: The action plan prepared shall be translated into performance linked investment plan. The investment required to achieve the service level benchmarks has been computed at Rs. 4,380.00 Crores and shall be phased over a period of twelve years. The computation is enclosed at [Annexure 1](#). All sources including Multilateral, Bilateral, Central, State, Institutional, OUIDF and PPP funding shall be sourced to operationalise the investment plan. All funding and budgetary allocation for both Capex and Opex shall be linked to performance. An evaluation and prioritization analysis shall be prepared to justify the funding, giving due consideration to basic needs and minimum service levels. A financial viability analysis shall be prepared based on investment planning and operational projections. Under no circumstance the budget shall be stretched beyond allocation. Investment shall be allocated based on action plan with the consideration of higher allocation for achieving the targets in order of priority. An investment phasing schedule is enclosed at [Annexure 2](#). Investment planning for new project shall take into consideration all the prioritized parameters.



Table 9.3.8: Targeted Outcomes

Sl.	Parameter	Unit of Outcome	Present Status	1 <sup>st</sup> Phase (2015 -19)	2 <sup>nd</sup> Phase (2019 -23)	3 <sup>rd</sup> Phase (2023 -27)
1	Water Quality	Test Passed	80%	100%		
2	Availability (70 LPCD)	No. of cities	55%	100%		
3	Availability (135 LPCD)	No. of cities	10%	70%	100%	
4	Physical Coverage	city area	60%	75%	94%	100%
5	Household Coverage	House Connections	25%	60%	88%	100%
6	Metering	House Connections	0%	70%	100%	
7	Non Revenue Water	Water Produced	50%	30%	19%	15%
8	Energy Efficiency	No. of cities	5%	60%	100%	
9	Cost Recovery	Revenue to O&M Cost	35%	50%	80%	100%
10	Supply Duration	Hours per day	2.5	4	8	12

**9.3.9 Performance Monitoring:** A robust monitoring and reporting mechanism shall be developed and implemented to track the project implementation and operational performance. SLB framework shall be used to define a set of key indicators. Monitoring of the projects and accounts shall be done with Works and Accounts Management Information System (WAMIS). A Program Monitoring Unit directly under Housing & Urban Development Department shall be set up at the state level with regional level sub units. The PMU shall be responsible for monitoring, providing technical support, evaluation, assessment, capacity building and hand holding field unit to ensure proper implementation of the policy framework. The PMU shall be headed by a state level nodal officer who shall also coordinate the High Power Steering Committee for its monitoring and review activities.

**9.3.10 Cost recovery, tariff design and rationalization:** Tariff structure should be designed to recover operational cost and then move on to recover capital cost in a phased manner. The operational cost shall be reduced through efficiency enhancement and revenue shall be increased through wider consumer base. Tariff revision shall be the ultimate step to bridge the gap. A rationalised tariff structure shall be developed giving due importance to the consumption pattern, social

aspect and demographic composition. In case of PPP projects, the water tariff will be decided on unit cost of water on project to project basis by the Government. There shall be an annual increment to the tariff over the previous rate until finalisation of next tariff structure. All revisions shall be effective from financial year beginning. Consumers may pay a uniform rate until a first block and then pay higher charges with every additional water consumed in successively higher blocks. The tariff structure shall be reviewed and rationalized at every three year interval.

**9.3.11 Standard Operation Procedure:** A standard operating procedure (SOP) shall be developed in line with CPHEEO O&M manual, with special focus on preventive maintenance. This will be supported by a procurement guideline.

**9.3.12 E-Governance:** E-governance shall be introduced in a phased manner through implementation of a IMIS system upto grass root level. The modules shall include procurement, payment, accounting, project management, grievance redressal, reporting and shall have compatibility for upward integration.

**9.3.13 Water supply to Slum:** As an immediate measure all Slum area shall have access to water through stand post within a maximum approach distance of 100 metres. Piped water supply to slums shall be ensured in a phased manner through community involvement. A mechanism shall be developed to involve Community Based Organisations (CBOs) duly supported by the ULBs for achieving the objective. Water supply to slums shall be dovetailed to other slum development schemes like IHSDP, RAY and the like.

**9.3.14 Disaster management:** A disaster mitigation plan shall be prepared consistent with the provisions of State Disaster Management Policy 2005 and in line with Odisha State Disaster Management Authority (OSDMA) framework. Adequate equipment shall be deployed at regional level. Field level employees shall be trained in handling water supply during and after disaster situation.

#### 9.4 Institutional

**9.4.1 Capacity Building:** A well articulated training module and calendar shall be developed for capacity development. New recruits shall undergo an extensive training including class room training and field training for a period of three months. Training for in service employees and field staff shall be conducted on a regular basis to enhance technical capabilities for achieving operational efficiency and skills upgradation. State Urban Development Agency (SUDA) shall be strengthened to act as the nodal agency to undertake capacity building on operations, monitoring and management. The Public Health Engineering Organisation (PHEO) training institute at Bhubaneswar can be used for the purpose.

**9.4.2 Institutional Mechanism and Strengthening:** A High Power Steering Committee headed by Hon'ble Chief Minister shall be constituted to monitor, review and advice on implementation of



the policy framework. The committee shall have the following members:

- i. Minister, Finance.
- ii. Minister, Housing & Urban Development.
- iii. Chief Secretary, Odisha.
- iv. Development Commissioner, Odisha.
- v. Secretary, Finance Department, Odisha.
- vi. Secretary, Water resources Department, Odisha.
- vii. Secretary, Rural Development, Odisha.
- viii. Secretary, Forest and environment Department, Odisha.
- ix. Secretary, Housing & Urban Development, Odisha as the convener.

9.4.3A Programme Management Unit (PMU) headed by a State Level Nodal Officer shall be in place to provide technical support to review and monitor the progress of implementation of the policy and to coordinate with all stakeholders.

9.4.3 The Policy shall lay down a structure of comprehensive management of the projects, so that the assets created in the process are maintained and utilized beyond their design life-span. Need based new recruitments shall be taken up from time to time concurrent with applicable policies. Separate project units shall be created on a dynamic basis to ensure focus on new project delivery. Project management consultants shall be engaged to support project units for successful implementation of major and medium projects. Need based individual quality monitors shall be engaged for third party quality audit. An objective based transfer guidelines consistent with applicable policy shall be worked out for efficient utilization of individual capabilities and timely project delivery. Technical officers in project implementation units shall not be disturbed till completion of the project except under exigency conditions. An independent monitoring & enforcement unit shall be created at state level under H& UD Department with regional level sub units to monitor performance of new project delivery and operational service delivery. They shall also be responsible for overseeing regulatory enforcement in close coordination with field units. Inter departmental coordination shall be strengthened.

9.4.4 Power Devolution: Devolution of power under 74<sup>th</sup> Constitutional Amendment Act shall be achieved systematically by operationalising the outsourcing model. The existing Memorandum of Agreement shall be modified to support transition of the service from information sharing to full ownership of the local body in a phased manner. The broader frame work is outlined at [Annexure 3](#).

9.4.6 Structural Reforms: The PHEO organisation shall transit to corporatized model of operation including accrual based accounting system to provide an operational environment with higher autonomy, greater accountability, promote sustainability and reduce subsidy dependence. This



will also support operationalisation of 74<sup>th</sup> CAA. A detail road map shall be prepared to adopt corporatized model for the whole state. The broader frame work is outlined at [Annexure 4](#).

9.4.7 PPP Model: The service provider shall promote private sector participation, ranging from service contract to DBFOT projects. Prior to outsourcing of operational activities, service provider has to make a pilot study, evaluate and improve efficiency. The scope of financial reforms can be extended further by making financing and pricing initiatives to enhance water service provision.

#### 9.5 Legal

9.5.1 Procedure simplification: Procedures for new connections shall be simplified to facilitate faster processing of application consistent with service delivery act, increase consumer base and improve service.

9.5.2 *Regulation and enforcement*: The relevant acts and rules shall be strengthened to take a holistic approach of the service and support improvement. Special focus shall be laid to prevent water theft, illegal tapping and defaulters. Enforcement guidelines shall be prepared to support service provider and give clarity to the consumers.

#### 9.6 General

9.6.1 *Source Selection*: Water source shall be tapped on a sustainable basis. The factors to be considered for selection of source shall be abundance, quality and cost. Extraction of ground water by individual households shall only be permitted in absence of feasibility of piped water supply. Rain water harvesting and recharge pits shall be encouraged. Conjunctive use of surface source and ground source shall be allowed to ensure coverage of remote habitation and as a lifeline to cover the risk of system failure .

9.6.2 *Awareness and IEC activity*: Consumer habit and behavior plays a vital role in success of an initiative. A well articulated awareness campaign shall be implemented to influence the consumer perception of the sector and help sensitize them. Community Consultation and participatory approach shall be adopted to facilitate service improvement.

9.6.3 *Citizen Chatter and Social accountability*: A citizen chatter consistent with service delivery act shall be developed. Citizen report card, consultation and feedback shall be taken at regular interval to facilitate service improvement.

9.6.4 *Specific Analysis of Rate and Schedule of Rate for water & Sanitation*: Considering the nature of activity associated with water and sanitation service, a specific schedule of rate and analysis of rate shall be prepared for enabling realistic estimates.



10 KEY PERFORMANCE INDICATORS

10.1 SLB frame provides a good platform for identifying and using key performance indicators for operational monitoring. Additional indicators have been defined and included to monitor project development, implementation and other relevant focus area.

Annexure 1

Sl.	Focus Area	Key Performance Indicators
Consumer Perspective		
1	Accessibility	1. Household level coverage 2. Physical coverage
2	Adequacy & Continuity	1. Per capita availability ( LPCD) 2. Duration of Supply
3	Quality	1. Number of samples tested (category wise) 2. Water Quality 3. Number of water quality related complaints
Service provider Perspective		
4	Project Implementation	1. Physical progress Index 2. Financial progress Index
5	Operational Efficiency	1. Non Revenue water 2. Cost of production Per KL 3. Energy charges per KL
6	Financial Sustainability	1. Cost recovery 2. Collection efficiency

GOVERNING LEGISLATIONS

- 11.1 The Orissa Municipal Act, 1950.
- 11.2 Orissa Municipal Corporation Act, 2003.
- 11.3 OWS&SB Act, 1991.
- 11.4 Water Works Rule, 1980.
- 11.5 Water (Prevention and Control of Pollution) Act, 1974.

10 POLICY EVALUATION .

12.1 Policy shall be reviewed every 4 years for assessing its effectiveness making changes if necessary.

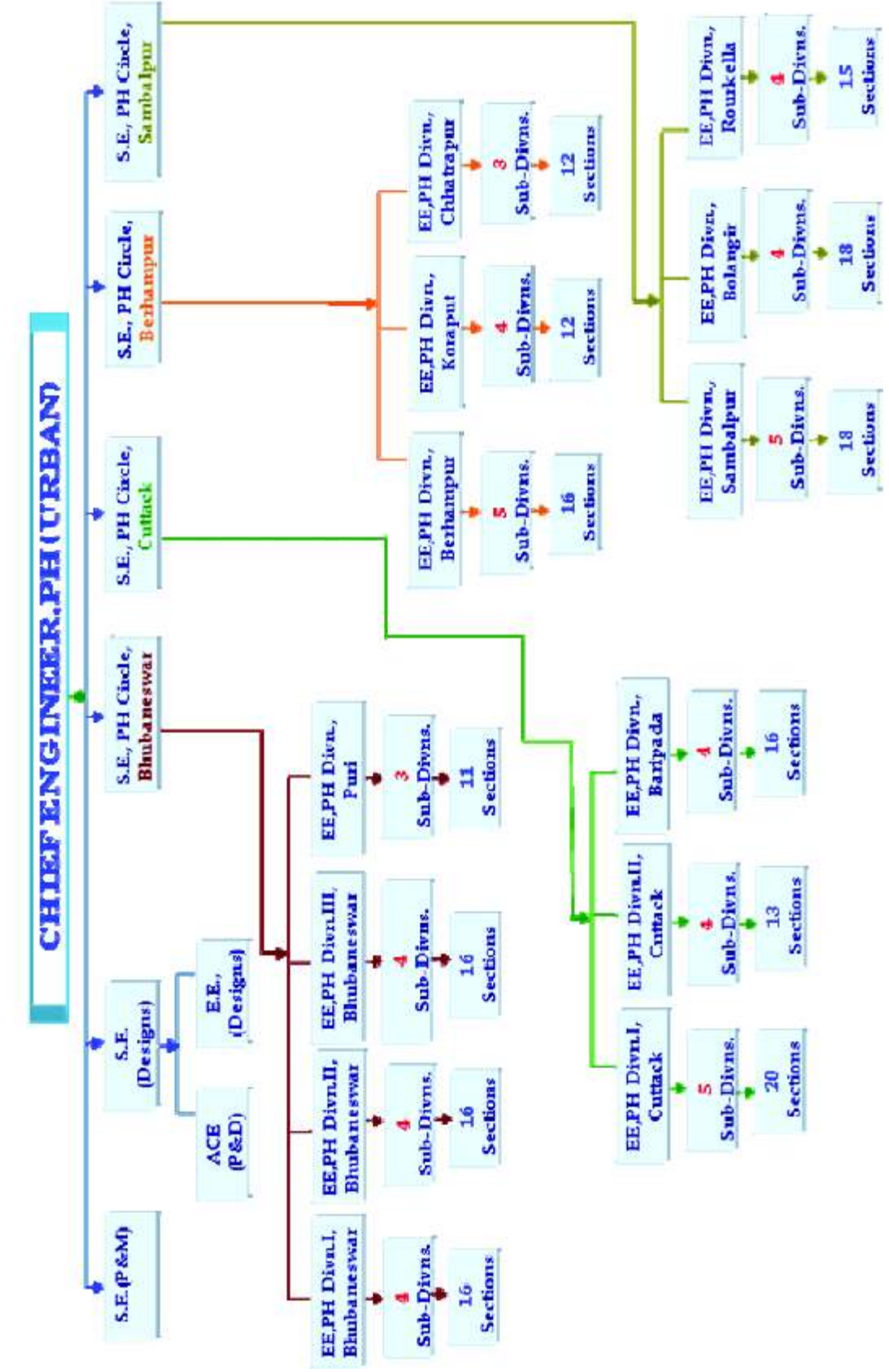
By order of Governor  
  
(INJETI SRINIVAS)  
Additional Chief Secretary,  
Housing and Urban Development Department

Investment Estimate (Urban Decadal Growth rate @ 26.8%)						
Coverage (for 103 ULBs)	No of Wards	Present Population (2011) in Lakhs	Projected Population (2027) in Lakhs	Nature of Infrastructure Improvement	Cost per person	Amount in Crore Rs.
Full	552	21.00	30.00	Rehabilitation	3,500.00	1,050.00
Partial	1146	42.00	60.00	Augmentation	4,500.00	2,700.00
Uncovered	145	7.00	10.00	New Project	6,000.00	600.00
<b>SUB TOTAL</b>	<b>1843</b>	<b>70.00</b>	<b>100.00</b>	<b>SUB TOTAL</b>		<b>4,350.00</b>
<b>PRELIMINARY &amp; PREOPERATIVE</b>						30.00
<b>GRAND TOTAL</b>						<b>4,380.00</b>
Rupees Four Thousand Three Hundred Eighty Crores Only						

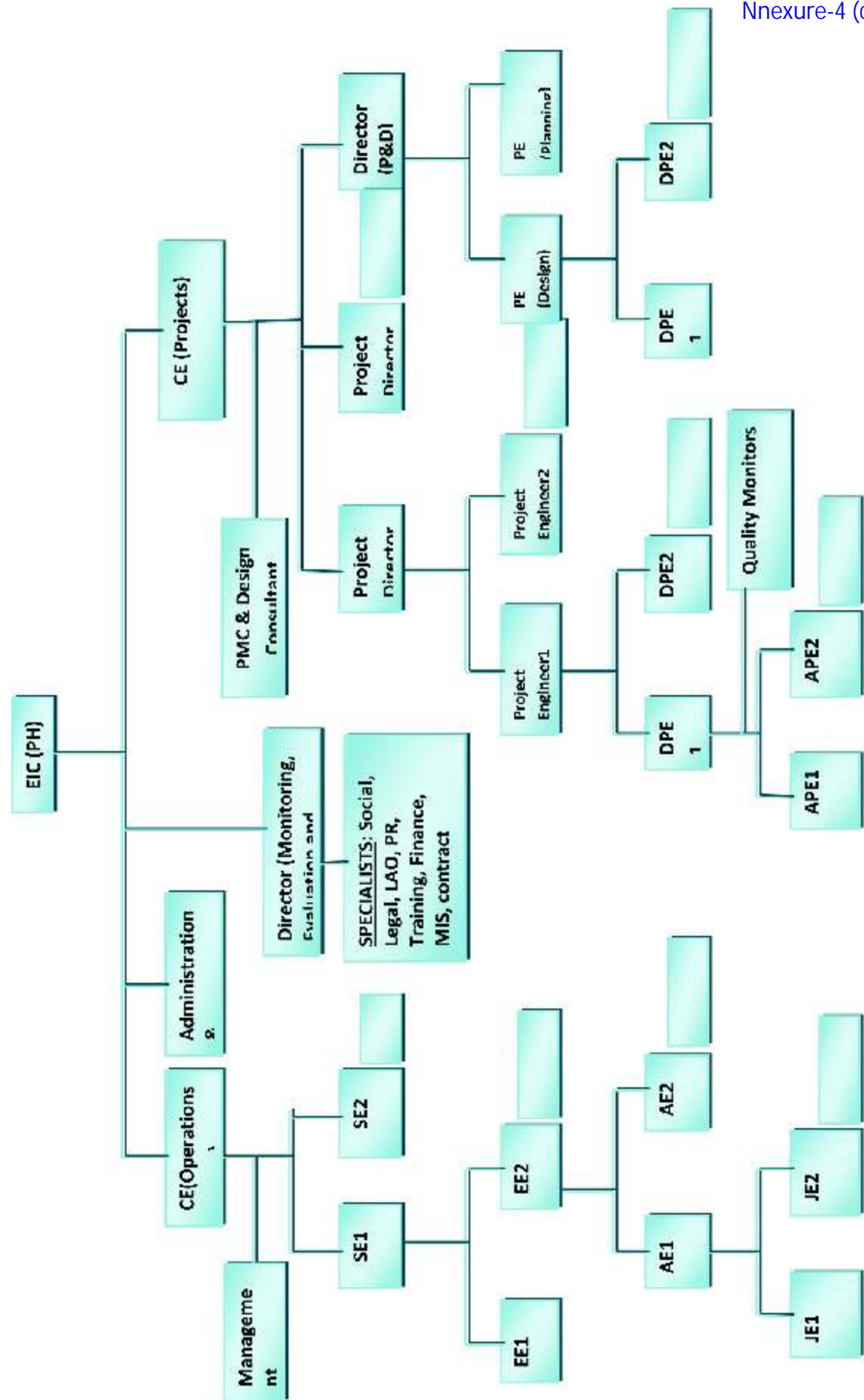
Sl.	Indicator	2015-16		2016-17		2017-18		2018-19		2019-20		2020-2021		
		Target	Amount	Target	Amount	Target	Amount	Target	Amount	Target	Amount	Target	Amount	
1	Preliminary & Preparatory(Study, Plan, DPR, SIP etc.)	80%	15.00	100%	15.00									
2	Water Quality	80%	100.00	30%	100.00	50%	200.00	70%	200.00	80%	100.00	90%	100.00	
3	Adequacy	10%	100.00	20%	100.00	30%	100.00	40%	100.00	50%	100.00	60%	100.00	
4	Coverage (Physical)	60%	100.00	66%	100.00	70%	175.00	75%	175.00	80%	225.00	85%	225.00	
5	Coverage (Household)	25%	5.00	30%	5.00	40%	20.00	50%	20.00	60%	20.00	70%	20.00	
6	Energy Conservation	5%	20.00	10%	20.00	20%	30.00	40%	50.00	60%	50.00	80%	25.00	
7	Metering	0%	75.00	30%	150.00	50%	150.00	70%	150.00	75%	38.00	80%	38.00	
8	Non Revenue Water	50%	40.00	40%	20.00	35%	30.00	30%	30.00	27%	20.00	24%	15.00	
9	Automation	5%	10.00	15%	10.00	20%	10.00	25%	10.00	30%	10.00	40%	15.00	
10	Support Activities		10.00		30.00		30.00		30.00		10.00		10.00	
	<b>Total</b>		<b>375.00</b>		<b>475.00</b>		<b>665.00</b>		<b>715.00</b>		<b>473.00</b>		<b>448.00</b>	
Sl.	Indicator	2021-2022		2022-2023		2023-2024		2024-2025		2025-2026		2026-2027		TOTAL
		Target	Amount	Target	Amount	Target	Amount	Target	Amount	Target	Amount	Target	Amount	
1	Preliminary & Preparatory(Study, Plan, DPR, SIP etc.)													30.00
2	Water Quality		100.00											30.00
3	Adequacy	100%	100.00											900.00
4	Coverage (Physical)	90%	225.00	94%	175.00	96%	100.00	98%	100.00	100%	100.00			1,750.00
5	Coverage (Household)	85%	10.00	88%	5.00	91%	5.00	94%	5.00	97%	5.00	100%	5.00	140.00
6	Energy Conservation	100%	25.00											250.00
7	Metering	85%	38.00	88%	23.00	91%	22.00	94%	22.00	97%	22.00	100%	22.00	750.00
8	Non Revenue Water	21%	15.00	19%	10.00	17%	10.00	15%	10.00					200.00
9	Automation	50%	15.00	70%	30.00	90%	30.00	95%	5.00	100%	5.00			150.00
10	Support Activities		10.00		10.00		10.00		10.00		10.00			180.00
	<b>Total</b>		<b>438.00</b>		<b>253.00</b>		<b>177.00</b>		<b>152.00</b>		<b>142.00</b>		<b>37.00</b>	<b>4,380.00</b>

NOTE: Support Activities includes activities like developing MIS, e-governance, IEC activities, rederassal, collection counters, Capacity building, assessment study etc.

Existing Administrative Structure

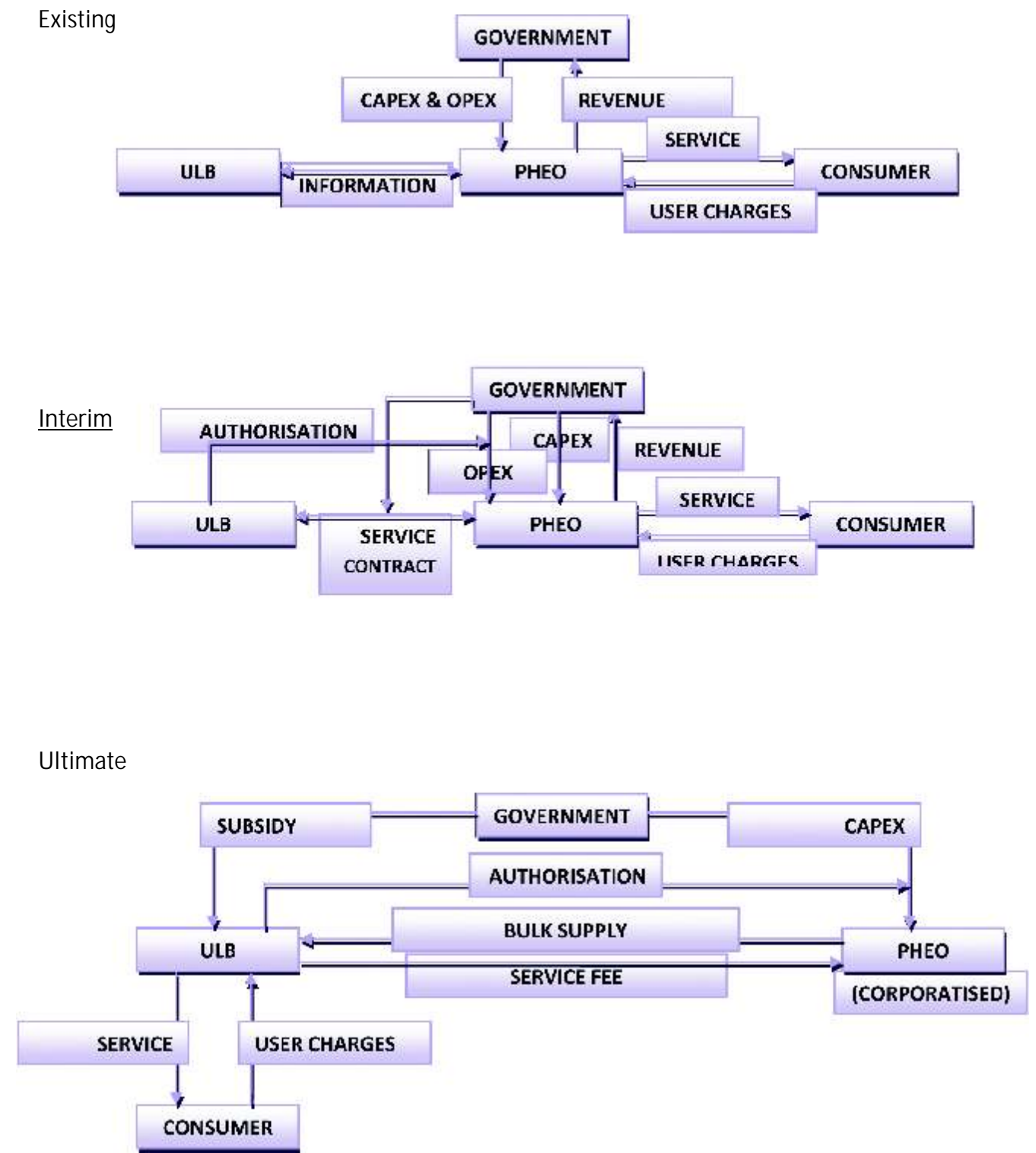


Nnexure-4 (contd.)



Annexure 3

Institutional Mechanism



Note: PPP mode of operation shall be encouraged in form of institutional mechanism