MUNICIPAL CORPORATION, JAGDALPUR (C.G.)

TEMPLATE FOR SERVICE LEVEL IMPROVEMENT PLAN (SEWERAGE)

1. Assess the Service Level Gap

The first step is to assess the existing situation and service levels gaps for Sewerage (AMRUT Guidelines; para 3 & 6). This will also include existing institutional framework for the sector. For this City has to review all policy, plans, scheme documents etc. to identify service level gaps and hold discussions with officials and citizens. AMRUT is focused on improvement in service levels. The zone wise data shall be used in identifying the gaps. These zone-wise gaps will be added to arrive at city level service gaps. While assessing service level gap reply following questions not more than word indicated against each question.

- What kind of baseline information is available for sewerage system of the city? Detail out the data, information, plans, reports etc related to sewerage available with city? Is zone wise information available? Have you correlated your data with census 2011 data? (100 words)

Source of baseline information is SLB prepared by 13th Finance Commission published in the Rajpatra on 31.03.2015 while recommending grant to local bodies for period 2010-11 to 2014-15.
ULB is divided into 12 Zones
Yes, Zone wise information is available.

- What are existing service levels for sewerage for coverage of sewerage network services, efficiency of collection of sewerage and efficiency in treatment. Provide information in table 2.1

Table 2.1: Status of sewerage network and Service Levels

Sr. No.	Indicators (as per SLB framework)	Existing	MOUD

		Service Level	Benchmarks
1	Coverage of latrines (individual or community)	92.80%	100%
2	Coverage of sewerage network services	0%	100%
3	Efficiency of collection of sewerage	0%	100%
4	Efficiency in Treatment: Adequacy of sewerage treatment capacity	0%	100%

- What is the gap in these service levels with regard to benchmarks prescribed by MoUD? (75 words)
    - Service levels gaps are as following:
    - Coverage of latrines (individual or community): 7.20, Sewerage Network Services: 100%
    - Efficiency of collection of sewerage: 100%
    - Efficiency in Treatment: Adequacy of sewerage treatment capacity: 100%
- Does city has separate drainage system or sewer lines take care of storm water? (50 words)
    - No. Storm drainage lines take care of effluent from septic tanks.

Sewerage network And Collection of Sewerage

- How much of the area of the city is covered by sewerage network? What is the status of household connections in each zone? What are the areas covered under septage? Provide information in Table 2.2.

Table 2.2: Zone Wise Coverage of Households

Zone No	Total No of Households	Households with Sewerage Network	Households with Septic Tank	Households without any outlets for toilets
12 Zone	28184	-	26155	--

- Are there any areas where sewer lines have been laid but still households are not connected to sewer lines? Are there any areas where toilets may be connected to sewer lines but kitchen or bathroom waste are not connected to sewerage system? (75 words)

  There is no sewerage system in town. Hence not applicable.

- Is there any systematic and organized method to collect and treat waste from septic tanks? What is the duration of cleaning of septic tanks (monthly, quarterly, semiannually or annually)? Indicate status of overflows of septic tanks, either in the nearby drains /open fields/ sewerage lines etc? (75 words)

  No, there is no systematic and organized method to collect and treat waste from septic tank. Duration of cleaning of septic tanks: Annually and as required. Status of Over flow of septic tank effluent: To storm water drains

- What is the situation of O&M of the existing sewerage system? Does the city has routine maintenance system or breakdown maintenance system? What is the duration of cleaning ofsewer lines (monthly, quarterly, semiannually or annually)? Indicate infrastructure available for O&M of the sewerage system i.e sewer jetting machines etc? (100 words)

  The city does not have any sewerage system

Sewage Treatment System

- Does city has Sewage Treatment Plant (STP)? Which areas are covered under each of the STPs? Provide details in Table 2.3.

Table 2.3: Status of Existing STPs

Sr. No.	Location	Capacity (MLD)	Inflow in the STP (MLD)	Efficiency in %
1	Nil	0	0	0

- Does decentralized waste treatment system exist or planned in the city? If yes, provide details (75 words)

  No, sewerage Treatment Plant exist. Decentralized STPs are proposed.

  .

- How much of sewerage is generated in the city? How much of this sewerage generated reaches the STPs? What is the Biological Oxygen Demand (BOD) of incoming and outgoing sewage of each STP? (100 words)

  Sewerage generated in the city is 16.70 MLD [Year 2015]
  No Sewerage Treatment Plant established as yet.

- Is treated sewage being reused or recycled? Is treated water being used for irrigation or industrial purpose? Does the option of power generation being explored? (75 words)

  No.
  Since Sewerage Treatment Plants not established, treated water is not available for any kind of re-use.

Institutional Framework

- Define role and responsibilities in terms of O&M, policy planning, funding, service provision in table 2.4.

Table 2.4: Functions, roles, and responsibilities

Planning and Design	Construction/ Implementation	O&M
ULB	ULB	ULB

- Please also detail that how city is planning to execute projects. Shall the implementation of project be done by Municipal Corporation or any parastatal body? (75 words)

  Planning, designing , execution and O&M to be carried out by the ULB, as decided by the Authority.

2. Bridging the Gap

Once the gap between the existing Service Levels is computed, based on initiatives undertaken in different ongoing programs and projects, objectives will be developed to bridge the gaps to achieve universal coverage. (AMRUT Guidelines; para 6.2 & 6.3, Annexure-2; Table 2.1). Each of the identified objectives will be evolved from the outcome of assessment and meeting the opportunity to bridge the gap.

- List out initiatives undertaken in different ongoing programs and projects to address these gaps. For this provide details of ongoing projects being carried out for sewerage system under different schemes with status and when the existing projects are scheduled to be completed? Provide information in Table 2.4

Table 2.4: Status of Ongoing/ Sanctioned

S. No.	Name of Project	Scheme Name	Cost in Rs Crore	Month of Completion	Status (as on dd Month 2015)
1	ILCS	Central Sponsored	6.84	Jan. 2016	50% Complete

- How much the existing system will able to address the existing gap in sewerage system? Will completion of above will improve the coverage of network and collection efficiency? If yes, how much. (100 words)

  No existing system for sewerage network.

- Does the city require additional infrastructure to improve the services? What kind of services will be required to fulfill the gap?

  No existing sewerage infrastructure.

Complete Sewerage infrastructure is required to be developed.

- How does the city visualize to take the challenge to rejuvenate the projects by changing their orientation, away from expensive asset replacement programs, to focusing on optimum use of existing assets?

  No, existing sewerage infrastructure/assets available.
  Complete Sewerage infrastructure is required to be developed.

  Provide information in Table 3.5.

Based on assessment of existing infrastructure and ongoing / sanctioned projects, calculate existing gaps and estimated demand by 2021 for sewerage network, number of household to be provided with connections, and required enhancement in capacity of STP (MLD), area to be covered under septage management. Based on the demand and gap assessment, evolve objectives to achieve bridging these gap.

3. Examine Alternatives and Estimate Cost

The objective will lead to explore and examine viable alternatives options available to address these gaps. These will include out of box approaches. (AMRUT Guidelines; Para 6.4 & 6.8 & 6.9). This will also include review of smart solutions. The cost estimate with broad source of funding will be explored for each alternative. While identifying the possible activities, also examine the ongoing scheme and its solutions including status of completion, coverage and improvement in O&M. Please reply following questions in not more than 200 words.

- What are the possible activities and source of funding for meeting out the objectives?

  Laying of complete sewerage network of 182 Km. to serve the 60000 households, Construction and commissioning of 36.45 MLD Decentralized Sewerage Treatment Plants [STP] including safe disposal of sludge, and Complete network for re-circulating and using treated sewage effluent [TSE] Source of funding: GoI/ State

Govt. grant and later on levying and collection of sewerage

- How can the activities be converged with other programmes like JICA/ ADB funded projects in the city etc?

  N/A

- What are the options of completing the ongoing activities?

  N/A

- How to address the bottlenecks in the existing project and lessons learnt during implementation of these projects?

  N/A

  Bottlenecks: Site Clearance, Land Issues,
  Lessons learnt: Land availability to be ensured well in time. Comprehensive Planning and implementation of Urban Infrastructure so that roads and public inconveniences not repeated for every service.

- Has projects includes O&M of sewerage system?

  N/A

- What measures may be adopted to recover the O&M costs? Can the option of sale of treated wastewater be applicable to recover the O&M cost.

  Effectively collect user charges from all households to recover the O&M costs.
  Yes, sale of TSE water for irrigation and industrial uses to cover part of O&M costs foreseen and also proposed.

- What are innovative alternative solutions explored in achieving objectives?

  Options for environmentally appropriate Treatment technology with less energy consumption, less footprint area and minimal sludge generation shall be investigated and adopted Treated water proposed to be used for irrigation of the agriculture fields , gardens, and plantations. Levying of user charges and efficient collection of revenues

- Are different options of PPP such as Design-build-Operate-Transfer (DBOT), Design Built Finance Operate and Transfer (DBFOT) are considered?

  Yes, options considered. However this option may not be feasible due to population size and the geographical location of the city.

- How the recycle and reuse of water will be done? How much quantity of treated water may be reused?

  Treated water is proposed to be used for meeting the fire demand of the city, for irrigation and industrial purposes and to maintain the city water bodies at an appropriate level. Treated waste water quantity that may be reused : 20.05 MLD [Approx.]

- Have you analysed best practices and innovative solutions in sewerage sector? Is any of the practice be replicated in the city?

  Yes. Innovative solutions such as decentralized treatment plants, reuse of treated waste water and less O&M costs have all been proposed

- Have you identified the areas for decentralized waste treatment system? Explore the approaches for septage management i.e People Public Private Partnership (PPPP) model or replacing septic tanks by bio-digesters, bioremediation etc.

  Areas for decentralized waste treatment plants have been identified. Options for bio-remediation shall be explored.

  .

For each identified activity and alternative indicate the cost estimate with broad source of funding will be explored for each alternative in Table 3.6

4. Citizen Engagement

Each alternative will be discussed with citizens and activities to be taken up will be prioritized to meet the service level gaps. ULB will prioritize these activities and their scaling up based on the available resources. (AMRUT Guidelines; Para 6.6, 6.7 & 7.2). Please reply following questions in not more than 200 words.

- Has all stakeholders involved in the consultation?

  Yes, stakeholders have been involved in the consultation.
  First phase of consultation completed during "citython", held July 14 to 18,2015. Stakeholders informed of the proposals and their suggestions on each proposal discussed and the same incorporated in the submission.Suggestion to provide an efficient underground service with household connections, . Suggestions for a mechanism to receive online complaint received from a majority of stakeholders.

- Has ward/ zone level consultations held in the city?

  Yes, ward/ zone level consultations have been held in the city

  Has alternatives explored are crowd sourced?

Yes, alternative proposed above are crowd sourced

.

- What is feedback on the suggested alternatives and innovations?

  The suggested alternatives and innovations have been well accepted by the stakeholders.

- Has alternative taken up for discussions are prioritized on the basis of consultations?

  Alternative taken up for discussions are prioritized on the basis of consultations

- What methodology adopted for prioritizing the alternatives?

  Methodology adopted for prioritizing the alternatives includes preliminary sustainability and cost- benefit analysis and the number of households that would benefit.

5. Prioritize Projects

Based on the citizen engagement, ULB will prioritize these activities and their scaling up based on the available resources to meet the respective objectives. While prioritizing projects, please reply following questions in not more than 200 words.

- What are sources of funds?

  GoI / State Govt. grant and ULB contribution from taxes and fee collected from local population

- Has projects been converged with other program and schemes?

  Yes.

  .

- Has projects been prioritized based on “more with less” approach?

  Yes, The projects has been prioritized based on “more with less” approach

- Has the universal coverage approach indiated in AMRUT guidelines followed for prioritization of activities?

Yes, The universal coverage approach have been followed for prioritization of activities

6. Conditionalities

Describe the Conditionalities of each project in terms of availability of land, environmental obligation and clearances, required NOC, financial commitment, approval and permission needed to implement the project. Please reply following questions in not more than 100 words.

Availability of land has been ensured.
The conditionality's of environmental obligations and clearances, required NOC, financial commitment, approval and permission for the project shall be ensured at the time of preparation of DPR.

7. Resilience

Required approvals will be sought from competent authority and organisations. The resilience factor would be built in to ensure environmentally sustainable sewerage scheme. Please reply following questions in not more than 100 words.

The required approvals shall be sought from ULB and competent authority and resilience factor would be built in to ensure environmentally sustainable sewerage scheme.

8. Financial Plan

Once the activities are finalized and prioritized after consultations, investments both in terms of capital cost and O&M cost has to be estimated. (AMRUT Guidelines; para 6.5) Based on the investment requirements, different sources of finance have to be identified. Financial Plan for the complete life cycle of the prioritized development will be prepared. (AMRUT Guidelines; para 4, 6.6, 6.12, 6.13 & 6.14). The financial plan will include percentage share of different stakeholders (Centre, State and City) including financial convergence with various ongoing projects. While preparing finance plan please reply following questions in not more than 200 words

- Does financial plan for the complete life cycle of the prioritized development?

Different sources of financing the prioritized activities have been identified by the ULB in accordance with the AMRUT guidelines and shall be detailed in the DPR. The proposed financial plan shall be structured for transforming , creating and maintaining the infrastructure created

- does financial plan include percentage share of different stakeholders (Centre, State, ULBs and)

  Financial plan includes percentage share of different stakeholders as under: Centre,-50%, State-50%, ULBs-0%

  .

- Does it include financial convergence with various ongoing projects.

  Yes

- Does it provide year-wise milestones and outcomes ?
  Yes, it provide year-wise milestones and outcomes

Work and Service Levels

Sr. No.	Indicators	Existing Service Level	MOUD Benchmarks
1	Coverage of latrines (individual or community)	92.80%	100%
2	Coverage of sewerage network services	-	100%
3	Efficiency of collection of sewerage	-	100%
4	Efficiency in Treatment: Adequacy of sewerage treatment capacity	-	100%

Table 3.2 Zone Wise Coverage of Households

Zone No	Total No of Households	Households with Sewerage Network	Households with Septic Tank	Households without any outlets for toilets
12 Zone	28184	-	26155	--

Zone wise data is not available at present.

Table 3.3: Status of Existing STPs

Sr. No.	Location	Capacity (MLD)	Inflow in the STP (MLD)	Efficiency in %
1	Nil	0	0	0

There is no treatment plant at present.

Table 3.4: Status of Ongoing/ Sanctioned

S.No.	Name of Project	Scheme Name	Cost in Rs Crore	Status (as on dd Month 2015)
1	ILCS	Cenntrals poncered	6.84	50% Complete

There is not any sanctioned project at present.

Table 3.5: Demand Gap Assessment

Component	Existing	Ongoing projects	Existing + Ongoing	2021 (Short term)	
				Demand	Gap
Sewerage network (km)	0	0	0	182	182
No of Households covered under sewerage system	0	0	0	60000	60000
Sewerage Treatment Plant (MLD)	0	0	0	36.45	-

There is no sewerage network or STP at present.

Table 3.6: Cost Estimate for each Objective:

S.No	Activity	Basis	Amount in Rs.lac
1	Cost of land for the project.	-	-
2	Construction of sewage treatment plant including drawing, bed, restroom, change room etc complete unit	-	330.00
3	Procurement of vacuum emptier (17 nos.)	-	170.00
4	Construction of Garage shed, Workshop area i/c all necessary components for septage mechanical section.	-	100.00
		Total	**600.00**

Year	Activity	Amount
2015-16	Construction of sewage treatment plant including drawing, bed, restroom, change room etc complete.	330.00
	Total (2015-16)	**330.00**

2016-17	Procurement of vacuum emptier (17 nos.)	170.00
2016-17	Construction of Garage shed, Workshop area i/c all necessary components for septage mechanical section.	100.00
	Total (2016-17)	**270.00**