

MUNICIPAL CORPORATION, AMBIKAPUR, SURGUJA (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)

At present there is no sewerage system in the town. In the town individual household have their septic tank and overflow is connected to surface drains through soakage pit commercial, industrial and other institutional housing are also having their septic tank and outlet connected to the drainage through sock pit. Base line information for septage management is taken out from the service level bench mark data, City development plan, census 2011 data, GI best household survey, CSP of SBM and SBM survey data. The proposal of septage management has been done according advisory note of MoUD guidelines for septage management.

- 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 Service Level | MOUD Benchmarks |
|---------|--|------------------------|-----------------|
| 1 | Coverage of latrines (individual or community) | 69.46% | 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% |

- What is the gap in these service levels with regard to benchmarks prescribed by MoUD? (75 words)

As the town does not have integrated sewerage system there is an utmost need of integrated sewerage system all septage management in the town in accordance to MoUD norms. There is a 100% gap in the present service level and the bench mark prescribed by MoUD. As per population and topography of town we are willing to plan for septage management.

- Does city has separate drainage system or sewer lines take care of storm water? (50 words)

There are open / covered drain along with the streets of the town the carrying capacity of this drain have been adversely of affected due to silting and choking time to time. These drains take care of storm water and household outlet and sewerage too in some places.

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 |
|---------|------------------------|----------------------------------|-----------------------------|--|
| - | 25023 | - | 17382 | 7641 |

- 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)

There is no systematic and organized method to collect and treat waste taken out from septic tanks the individual for cleaning of septic as when required than ULB cleaning the septic tank by vacuum emptier machine the frequency for cleaning of septic is about three years (Average) the over flow of septic tank is flooding out in nearby drains some times.

- 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 of sewer lines (monthly, quarterly, semiannually or annually)? Indicate infrastructure available for O&M of the sewerage system i.e sewer jetting machines etc? (100 words)

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

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 % |
|---------|----------|----------------|-------------------------|-----------------|
| - | - | - | - | - |

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

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

- 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)

There is no sewerage or sewerage treatment plant in the town.

- 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)

There is no sewerage or sewerage treatment plant in the town.

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)

ULB is planning for preparation of DPR for planning design construction/ implementation project for septage management along with operation and maintenance of the system through a dedicated cell constituted for this purpose.

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) |
|--------|-----------------|-------------|------------------|---------------------|------------------------------|
| - | - | - | - | - | - |

- 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)

There is no ongoing project regarding sewerage or septage management.

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

Yes, the city required a completely planned infrastructure for septage management through which the septage management of the town can be handled as per the guidelines.

- 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?

The town does not have any existing sewerage / septage system how ever in order to achieve the economy the project is prepared as to take the maximum advantage of its own.

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?

To meeting out the objectives proposed under septage management project for grant from govt. of India and state Govt. through different scheme so as to reduce the financial burden of the ULB.

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

There is no JICA/ADB or any other agency funded schemes are running or proposed for septage management in the town.

- What are the options of completing the ongoing activities?

There is not any ongoing project regarding septage management in town.

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

There is not any ongoing project regarding septage management in town. As per the present scenario of the town regarding sewerage / septage management there should be a foolproof project for the same.

- Has projects includes O&M of sewerage system?

Yes, the proposed project includes O&M of septage management system.

- 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.

To recovered the O&M cost of the project the cell of treated water along with user charges shall be imposed for recovering the O&M cost.

- What are innovative alternative solutions explored in achieving objectives?

The innovative salutation in the form of SBR technology for sewage treatment plant so that the treated water can be reused and the land requirement for setting up to STP can be minimized.

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

No, The project will be executed through EPC contractor and O&M can be done of the basis of PPP.

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

To be done as per the guidelines.

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

SBR technology is proposed for sewage treatment so as to keep the BOD load and land requirement can be minimized.

- 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.

The proposed project is being prepared on decentralized approach having separate STPs for each zone so that the mobility of sewage can be minimized.

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?
First phase of citizen consultation "Cityhon" has been completed all the stake holder were involved in this consultancy. Crowd sourcing platform is ready.
- Has ward/ zone level consultations held in the city?
Yes, the ward wise citizen consultation has been completed in the month of August 2015
- Has alternatives explored are crowd sourced?
Will start crowd sourcing soon.
- What is feedback on the suggested alternatives and innovations?
During the consultation most of the citizen has been suggested for the foolproof septage management system.
- Has alternative taken up for discussions are prioritized on the basis of consultations?
Yes.
- What methodology adopted for prioritizing the alternatives?
For the prioritizing the alternatives of project objectives different technical aspect of the project has been considered.

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?
Govt. of india and State Govt grant
- Has projects been converged with other program and schemes?
Not now. But can be converged through livelihood generation.

- Has projects been prioritized based on “more with less” approach?
Yes, It is the necessity for the city and will be done on the priority basis.
- Has the universal coverage approach indicated in AMRUT guidelines followed for prioritization of activities?
Yes

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.

Identification of land for STP has been done. Allotment of land for the project will be obtained after selecting the source of fund for project.

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.

All the required approval / NOCs will be obtained before the commencement of project as per primary survey govt. land is available for implementation of project. Under this project we will ensure for the environmental protection.

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?
Yes. The project is prepared for the complete life cycle.

- does financial plan include percentage share of different stakeholders (Centre, State, ULBs and)
Yes. The project is prepared as per Govt. guidelines including share of GOI and State Govt.
- Does it include financial convergence with various ongoing projects.
No. there is not any ongoing project for this purpose.
- Does it provide year-wise milestones and outcomes ?
Yes.

Work and Service Levels

| Sr. No. | Indicators | Existing Service Level | MOUD Benchmarks |
|---------|--|------------------------|-----------------|
| 1 | Coverage of latrines (individual or community) | 69.46% | 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 |
|---------|------------------------|----------------------------------|-----------------------------|--|
| - | - | - | - | - |

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 % |
|---------|----------|----------------|-------------------------|-----------------|
| - | - | - | - | - |

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) |
|-------|-----------------|-------------|------------------|------------------------------|
| - | - | - | - | - |

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) | - | - | - | - | - |
| No of Households covered under sewerage system | - | - | - | - | - |
| Sewerage Treatment Plant (MLD) | - | - | - | - | - |

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 |

