



Service Level Improvement Plan (SLIP)  
Atal Mission for Rejuvenation and Urban Transformation (AMRUT)



# BALASORE



# Balasore

As per the 2011 census, the population of Balasore Municipal Corporation is 1.18 Lakh. The decadal growth rate of the city is @ 13.4%. The average floating population is about 10,000. Both horizontal and vertical growth of the city is observed during the recent years. Satellite towns are developing in the out skirts of the city. Recently the merged areas include Kutchery, Moti Gunj, Purana Balasore Sahadevakunta and Balis are likely to develop in the future to constitute a regional hub.

The primary occupation of people in the district of Balasore is agriculture. Balasore district is mostly known for the cultivation of paddy, since rice is the staple cereal of the local people. The district has four major revenue sources – industries, agriculture, fishing and tourism. Many small and large scale industries are located both within the city limits as well as the outskirts. Balasore Alloys Limited, Emami Paper Mills, Oriplast, Birla Tyres etc. are some of the major industries based in Balasore. The main markets of Balasore are Nua Bazar, Motiganj, FM Square, Vivekanand Marg, Station Square, ITI Chakh, Kachehri Road, Town Hall and Nua Sahi. Many shopping malls are also in the pipeline.

In the Service Level Improvement Plan (SLIP) for Balasore, sector-wise projects identified and the estimated costs are: water supply-15 nos./Rs. 168.44 Cr.; sewerage/Septage- 5 nos./ Rs. 566.25 Cr.; storm water drainage- 6 nos/ Rs. 368.83 Cr.; urban transport – 7 nos. / Rs. 57.00 Cr.; and parks – 6 nos./ Rs. 4.25 Cr. In total 39 nos of projects have been identified with a total estimated cost of Rs. 1164.76 Crore.



# Water Supply

# Mission Management Information System

## 1. Assess the Service Level Gap

The first step is to assess the existing situation and service levels gaps for Water Supply (AMRUT Guidelines; para 3 & 6). This will also include existing institutional framework for the sector. 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

Question: What kind of baseline information is available for water supply system of the city? Detail out the data, information, plans, reports etc related to sector. Is zone wise information available? (75 words)

Ans. As per census 2011 the population of the town is 118162. The city is completely dependent on ground source with 74 nos. of production wells and 113.9 km pipeline. There are 10,874 house connections and 631 nos. of stand posts are available. The water is available for 2 hour for the consumer. There are 31 nos. of wards in the ULB. All information are available ward wise. Consumer and asset database is maintained which are updated annually.

Question: Have you collected census 2011 data? Are you aware of baseline survey data of MoUD? Have you correlated data from these and other sources? (75 words)

Ans. The data regarding census 2011 has been collected. We have correlate the data with other sources before preparing the proposal

What are existing service levels for water supply in the city? What is the coverage of water supply Connections? What is per capita supply of water? How much is the extent of metering? How much is non-revenue water? Provide information in table

Table: Status of Water Supply service levels

**TABLE 1.1 : Status of Water Supply Service**

Sr. No.	Indicators	Present status	MOUD Benchmark	Reliability Level
1	Coverage of water supply connections	42.3%	100%	B
2	Per capita supply of water	107	135 LPCD	C
3	Extent of metering of water connections	0%	100%	D
4	Extent of non-revenue water	66%	20%	D
5	Quality of water supplied	100%	100%	C
6	Cost recovery in water supply services	48%	100%	B
7	Efficiency in collection of water supply related charges	55%	90%	B

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

Ans. The quality of water has low reliability though the benchmarks are achieved. HH coverage is deficit by 57.3% as compared to the benchmark. Though LPCD has achieved 107 LPCD there is heavy draw down during summer and hence not sustainable in long run. In absence of metering the NRW is high at 66%. The low cost recovery is due to low coverage.

## **SOURCE OF WATER AND WATER TREATMENT SYSTEM**

Please provide information in 150 words on the above responding to (however not limited to) following questions.

Question: What is the existing source of water? Is it surface water source or underground water source? What is the capacity of these sources?

Ans. The existing source is underground water & the Capacity of total nos of sources is 19.19 MLD from 74 production wells

Question: Is there any treatment provided to water from these sources? How much water is required to be treated daily? What is the treatment capacity installed in the city?

Ans. As the water is ground water, only disinfection in the form of chlorination through bleaching powder is being done to the water supply system. There are 25 nos. of Bleaching dosing pumps are operating in the system.

Question: What per capita water supply in LPCD (liter per capita per day) comes out, if you divide total water supply by the total population?

Ans: The per capita water supply is 107 LPCD after deduction of 15% losses from the total production.

## **DISTRIBUTION ZONES**

Please provide information in 150 words on the above responding to (however not limited to) following questions.

Question: City is divided in how many zones for water supply ?

Ans. The W/S system of the city is functioning in 6 zones.

Question: Provide details of total no of Households (HH) in each zone, no of HH with and without water tap connections in the Table

Table: Zone Wise Coverage of Households

**TABLE 1.2: Zone wise coverage of household**

Zone No	Total No of Households	Households with direct water supply Connection	Households without direct water supply connections
1	4535	1876	2659
2	3478	1413	2065
3	5418	2182	3236
4	3455	1605	1850
5	4019	1748	2271
6	4808	2050	2758
<b>Total</b>	<b>25713</b>	<b>10874</b>	<b>14839</b>

### **STORAGE OF WATER**

Please provide information in 150 words on the above responding to (however not limited to) following questions.

Question: What is the total water storage capacity in the city? What is capacity of elevated and ground water reservoirs?

Ans. The total water storage capacity in the city is 3.78 ML. Capacity of ESR is 0.80 ML & Ground water reservoirs is 2.98 ML.

Question: In case of surface water, does city need to have ground level reservoirs to store raw treated water?

Ans. Yes.

Question: Is water being supplied to consumers through direct pumping or through elevated reservoirs?

Ans. Both

Question: Is storage capacity sufficient to meet the cities demand?

Ans. No.

### **DISTRIBUTION NETWORK**

Please provide information in 150 words on the above responding to (however not limited to) following questions.

Question: What is the total length of water supply distribution pipe line laid in the city?

Ans. 113.9 KM.

Question: What is the total road length in the city? Is the pipe lines are laid in all streets? Is the objective of universal coverage of water supply pipe line is achieved?

Ans. The total road length in the city is 282.7 KM. Pipelines are not laid in all streets. The objective of universal coverage of water supply pipe line is not achieved.

Question: What are the kind of pipe materials used in distribution lines?

Ans. The pipe materials used in distribution lines are generally CI & PVC.

Question: Provide zone wise details of street length with and without water distribution lines in the Table?

Table: Zone Wise length of distribution network

**TABLE 1.3: Zone wise length of distribution network**

Zone No	Total Street Length (m)	Street length with water distribution pipe line (m)	Street length without water distribution pipe line (m)
1	41966	20079	21887
2	42311	15220	27091
3	51875	30211	21664
4	33760	14819	18941
5	41272	16110	25162
6	71483	17510	53973
<b>Total</b>	<b>282666</b>	<b>113949</b>	<b>168717</b>

## INSTITUTIONAL FRAMEWORK

Please provide information in 150 words on the above responding to (however not limited to) following questions.

Question: Define role and responsibilities in terms of O&M, policy planning, funding, service provision in table

Table: Functions, roles, and responsibilities Planning and Design

**TABLE 1.4a: Functions, roles, and responsibilities Planning and Design**

Planning and Design	Construction/ Implementation	O&M
Planning and design Cell in EIC (PH) office headed by SE(P&D) and supported by technical cell and PDMC	Project team headed by divisional EE of PHEO along with supervision field engineers (AEE/AE/JE) and supported by PMMU and PDMC. MoU will be signed between PHEO and ULB for execution of the project	O & M team headed by EE of PHEO and supported by operations engineers and operators. MoU will be signed between PHEO and ULB for O & M of the infrastructure. Outsourced PPP model will also be explored.

Question: How city is planning to execute projects?

Ans. The project will be executed by PHEO through a dedicated project team.

Question: Shall the implementation of project be done by Municipal Corporation or any parastatal body? Please refer para 8.1 of AMRUT guidelines.

Ans. It will be executed by a Public Health Engineering Organisation, which a wing of Housing & Urban Development Department

## 2. Bridge 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.

Question: 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 sector under different schemes with status and when the existing projects are scheduled to be completed? Provide information in Table

Table: Status of Ongoing/ Sanctioned

**TABLE 1.4b: Status of Ongoing/ Sanctioned projects**

Sl. No.	Name of Project	Scheme Name	Cost	Month of Completion	Status
	NIL				

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

Ans. Since there are no new projects under implementation, the gap continues.

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

Ans. Yes. Additional infrastructures are required to address the demand gap. New WTP, feeder main, storage and distribution are needed to the bridge the gap and attain the benchmark levels.

Question: 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?

Ans. Gaps have been computed after optimally utilizing the existing assets. Replacements are proposed only for the sections which are affecting the service levels.

Question: Has city conducted assessment of Non Revenue Water ? if yes, what is the NRW level? Is city planning to reduce NRW ?

Ans.

City has conducted assessment of Non-Revenue Water through indirect methods which is approximately 66.00%. Yes the city has plans to reduce NRW by way of introduction of HH level metering, reducing illegal connections and reducing technical losses.

Question: Based on assessment of existing infrastructure and ongoing / sanctioned projects, calculate existing gaps and estimated demand by 2021 for water supply pipe network, number of household to be provided with tap connections, and required enhancement in capacity of water source/ treatment plant (MLD). Gaps in water supply service levels be provided as per Table

**TABLE 1.5: Gaps in water supply service levels**

Component	2015			2021	
	Present	Ongoing projects	Total	Demand	Gap
Source (MLD) - Ground Source	19		19	29	29
Treatment capacity (MLD)			0	25	25
Elevated Storage capacity (ML)	0.8		0.8	6.48	5.68
Distribution network coverage (m)	113949		113949	282666	168717

## OBJECTIVES

Based on above, objectives will be developed to bridge the gaps to achieve universal coverage. While developing objectives following question shall be responded so as to arrive at appropriate objective.

Please provide List out objectives to meet the gap in not more than 100 words. Question: Does each identified objectives will be evolved from the outcome of assessment?

Ans. Each of the objective have been evolved from the outcome assessment. Which can be listed as follows

1. Ensure quality to water
2. Universal household level access with adequate water
3. Reduce NRW thereby increase the coverage & cost recovery

Question: Does each objective meet the opportunity to bridge the gap?

Ans. Yes each of the objective meets the opportunity to bridge the gaps

### 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. While identifying the possible activities, also examine the ongoing scheme and its solutions including status of completion, coverage and improvement in O&M. Please provide information on the above responding to (however not limited to) following questions.

Question: What are the possible activities and source of funding for meeting out the objectives? (75 words)

Ans. AMRUT for holistic approach to achieve universal coverage in all the 6 zones

Question: How can the activities be converged with other programme like JICA/ ADB funded projects in the city etc? (100 words)

Ans. The activities are converged with small incremental projects undertaken under state plan

Question: What are the options of completing the ongoing activities? (75 words)

Ans. The ongoing projects will be completed with state budgetary support

Question: How to address the bottlenecks in the existing project and lessons learnt during implementation of these projects? (75 words)

Ans. Availability of land is the major bottleneck which have been specifically addressed prior to preparation of SLIP for the AMRUT projects. Technically feasible lands have been identified and the concerned authorities have been moved for transfer of land.

Question: What measures may be adopted to recover the O&M costs? (100 words)

Ans. Increase coverage, introduce metering, reduce unauthorized connection, introduce automation and optimize operational cost

Question: Will metering system for billing introduced?

Ans. Yes

Question: Whether reduction in O&M cost by addressing NRW levels be applied? (75 words)

Ans. Yes. Reduction in NRW will lead to lower production levels and hence reduction in direct operational cost like chemical, electricity, manpower etc.

Question: Does each objective meet the opportunity to bridge the gap?

Ans. Yes.

THE ALTERNATIVE ACTIVITIES TO MEET THESE OBJECTIVES BE DEFINED AS PER TABLE  
 Table: Alternative Activities To Meet Objectives

**TABLE 1.6: Alternative Activities to Meet Objectives**

Sr. No.	Objective	Activities	Financing Source
1	Quality water supply	Rehabilitation of venerable stretches	AMRUT
2	Reliability of source & adequacy of water	Source & treatment facility	
3	Universal coverage	Network expansion and house connection	
4	NRW reduction	Consumer metering & leak reduction	
5	Cost recovery	Coverage & NRW reduction	

#### 4. Citizen Engagement

ULBs will organize and conduct city level citizen consultation and receive feedback on the suggested alternatives and innovations. 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 explain following questions in not more than 200 words detailing out the needs, aspirations and wishes of the local people.

Question: Has all stakeholders involved in the consultation?

Ans. Yes

Question: Has ward/ zone level consultations held in the city?

Ans. Yes. Ward level consultation

Question: Has alternative proposed above are crowd sourced?

Ans. Yes

Question: What is feedback on the suggested alternatives and innovations?

Ans.

The suggested alternatives quite acceptable to the stake holders

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

Ans. Yes

Question: What methodology adopted for prioritizing the alternatives?

Ans. The prioritization is based on objective, land/power/water availability, implementation feasibility and sustainability

## **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.

Question: What are sources of funds?

Ans. Central and state support on 50:50 basis under AMRUT mission

Question: Has projects been converged with other program and schemes?

Ans. Yes

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

Ans. Yes

Question: Has the universal coverage approach indicated in AMRUT guidelines followed for prioritization of activities?

Ans. Yes

## **6. Conditionalities**

Describe in not more than 300 words 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.

Ans: Lands is available for the proposed infrastructures. Environmental clearances are not required proposed project. Power availability has been discussed with NESCO and agreed upon. The funding shall be tied up with AMRUT scheme

## **7. Resilience**

Required approvals will be sought from ULBs and competent authority and resilience factor would be built in to ensure environmentally sustainable water supply scheme. Describe in not more than 300 words regarding resilience built in the proposals.

Ans. The projects are environmentally sustainable and also disaster resilient

## **8. Financial Plan**

The State has identified 15 Water Supply projects with an estimated cost of Rs. 168.44 Cr. to achieve universal coverage as envisaged under AMRUT. The completion period of these projects is by the year 2019-20. The water supply projects shall be implemented by a parastatal agency, i.e. Public Health Engineering Organization (Urban). As the own revenue of ULBs is insufficient, the State has taken a decision to meet ULB share from within state resources and funds. Therefore, all infrastructure development projects under AMRUT will be funded by Centre/State grants or loan funds by state agencies. Accordingly, the present investment on AMRUT projects is on the basis of 50 percent fund as grant from Centre and 50 percent fund that will be met by State Government grant. The state share will be met from funds budgeted for the Housing and Urban Development Department. In the case of Bhubaneswar however,

the water supply project is proposed for implementation through PPP and State Government share by way of VGF (Viability Gap Funding) will predicate on the response to the PPP offering. Based on the above financial plan the specific responses to the questionnaires given in the template are as under:

- **How the proposed finance plan is structured for transforming and creating infrastructure projects?**

The financial plan is made considering 50 % Central grant and 50% state grant. Since the ULB do not have the financial capability, no share has been considered from ULBs. Nevertheless, the state government has taken proactive steps to amend Municipal Corporation and Odisha Municipalities Act to amend property tax to improve the revenue stream of the ULBs. This will help the service provider manage the O & M expenses (OPEX) and move towards financial sustainability. The state shall provide budgetary support fill up the financial gaps if any.

- **List of individual project which is being financed by various stakeholders?**

All the projects listed are planned under AMRUT on the basis of 50 % Central grant and 50% state grant. Soft loan from funding agencies will be explored which will form part of ULB contribution. However, the state share will not be less than 20%.

- **Has financial plan prepared for identified projects based on financial convergence and consultation with funding partners?**

Yes, the project identified here does not include the ongoing projects covered under other schemes. As all the identified projects are funded under AMRUT on 50: 50 basis, consultation with external funding partners is not required. However, consultation for involving other funding partners will be explored to achieve the objective of the mission.

- **Is the proposed financial structure sustainable? If so then whether project has been categorized based on financial considerations?**

Yes, the financial structure proposed is sustainable. The state govt. is committed to contribute required funds for all AMRUT projects. However, the O&M cost for these projects will be met from internal resources including collection of user charges. The projects have been categorized based on gap analysis identified for universal coverage as required under AMRUT scheme.

- **Have the financial assumptions been listed out?**

Yes, the financial assumption of 50% grant by the State Government is committed and listed.

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

Yes, projects proposed include O&M for 5 years, which shall form an integral part of the execution contract so that the agency/contractor who develops the assets shall be responsible for post asset creation O&M for 5 years. The O&M cost for Water Supply shall be borne by the PHEO, which is provided with budgetary support for both CAPEX and OPEX by the State Government.

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

Yes, the financial plan is based on 50 % Central grant and 50% state grant.

- **Does it include financial convergence with various ongoing projects?**

Yes, it includes convergence with various ongoing projects under different schemes supported by both Central & State grant.

- **Does it provide year-wise milestones and outcomes?**

Yes, the detailed milestones and outcomes are furnished at table 8.1.

Details in financial plan shall be provided as per table 8.1, 8.2, 8.3, 8.4 and 8.5. These tables are based on Amrut guidelines tables 2.1, 2.2, 2.3.1, 2.3.2, and 2.5.

**TABLE 2.1: Master Plan of Water Supply Projects for Mission period**

Sr. No.	Project Name & code	Priority number	Year in which to be implemented	Year in which proposed to be completed	Estimated Cost (Cr. Rs.)
1	Improvement of WS to Balasore -Rehabilitation P1 (AMRUT/OD/BALASORE/WS/01)	1	15-16	16-17	8.37
2	Improvement of WS to Balasore -Rehabilitation P2 (AMRUT/OD/BALASORE/WS/02)	2	15-16	16-17	4.51
3	Improvement of WS to Balasore -Rehabilitation P3 (AMRUT/OD/BALASORE/WS/03)	3	15-16	16-17	4.51
4	Improvement of WS to Balasore -Rehabilitation P4 (AMRUT/OD/BALASORE/WS/04)	4	15-16	16-17	4.51
5	Improvement of WS to Balasore -Rehabilitation P5 (AMRUT/OD/BALASORE/WS/05)	5	15-16	16-17	4.51
6	Improvement of WS to Balasore -New Z1 (AMRUT/OD/BALASORE/WS/06)	9	16-17	18-19	13.10
7	Improvement of WS to Balasore -New Z2 (AMRUT/OD/BALASORE/WS/07)	14	16-17	18-19	13.73
8	Improvement of WS to Balasore -New Z3 (AMRUT/OD/BALASORE/WS/08)	11	16-17	18-19	13.86
9	Improvement of WS to Balasore -New Z4 (AMRUT/OD/BALASORE/WS/09)	10	16-17	18-19	9.24
10	Improvement of WS to Balasore -New Z5 (AMRUT/OD/BALASORE/WS/10)	13	16-17	18-19	13.14
11	Improvement of WS to Balasore -New Z6 (AMRUT/OD/BALASORE/WS/011)	12	16-17	18-19	25.10
12	Improvement of WS to Balasore - Headworks P1 (AMRUT/OD/BALASORE/WS/012)	6	16-17	17-18	19.46
13	Improvement of WS to Balasore - Headworks P2 (AMRUT/OD/BALASORE/WS/013)	8	16-17	18-19	23.88
14	Improvement of WS to Balasore - Headworks P3 (AMRUT/OD/BALASORE/WS/014)	7	17-18	18-19	5.00
15	Improvement of WS to Balasore - Automation P1 (AMRUT/OD/BALASORE/WS/015)	15	18-19	18-19	5.50
	<b>Grand Total</b>				<b>168.44</b>

**TABLE 2.2: Master Service Level Improvement during Mission period**

Sr. No.	Project Name & code	Physical Component	Change in Service Levels			Estimated Cost (Cr. Rs.)
			Indicator	Existing	After	
				(As-Is)	(To-be)	
	Improvement of WS to Balasore - Rehabilitation P1 (AMRUT/OD/BALASORE/WS/01)	Consumer meter	Metering	0%	42%	8.37
			NRW	66%	30%	
	Improvement of WS to Balasore - Rehabilitation P2 (AMRUT/OD/BALASORE/WS/02)	Replacement pipes	Quality	100% C	100% A	4.51
	Improvement of WS to Balasore - Rehabilitation P3 (AMRUT/OD/BALASORE/WS/03)	Replacement pipes	Quality	100% C	100% A	4.51
	Improvement of WS to Balasore - Rehabilitation P4 (AMRUT/OD/BALASORE/WS/04)	Replacement pipes	Quality	100% C	100% A	4.51
	Improvement of WS to Balasore - Rehabilitation P5 (AMRUT/OD/BALASORE/WS/05)	Replacement pipes	Quality	100% C	100% A	4.51
	Improvement of WS to Balasore -New Z1 (AMRUT/OD/BALASORE/WS/06)	Storage & Distribution	Coverage	41.4%	100.0%	13.10
	Improvement of WS to Balasore -New Z2 (AMRUT/OD/BALASORE/WS/07)	Storage & Distribution	Coverage	40.6%	100.0%	13.73
	Improvement of WS to Balasore -New Z3 (AMRUT/OD/BALASORE/WS/08)	Storage & Distribution	Coverage	40.3%	100.0%	13.86
	Improvement of WS to Balasore -New Z4 (AMRUT/OD/BALASORE/WS/09)	Storage & Distribution	Coverage	46.5%	100.0%	9.24
	Improvement of WS to Balasore -New Z5 (AMRUT/OD/BALASORE/WS/10)	Storage & Distribution	Coverage	43.5%	100.0%	13.14
	Improvement of WS to Balasore -New Z6 (AMRUT/OD/BALASORE/WS/011)	Storage & Distribution	Coverage	42.6%	100.0%	25.10
	Improvement of WS to Balasore - Headworks P1 (AMRUT/OD/BALASORE/WS/012)	Source Development	Per capita water supply	107	135	19.46
	Improvement of WS to Balasore - Headworks P2 (AMRUT/OD/BALASORE/WS/013)	Treatment	Per capita water supply	107	135	23.88
	Improvement of WS to Balasore - Headworks P3 (AMRUT/OD/BALASORE/WS/014)	Source Development	Per capita water supply	107	135	5.00
	Improvement of WS to Balasore - Automation P1 (AMRUT/OD/BALASORE/WS/015)	Automation	Cost Recovery	48	53	5.50

**TABLE 2.3.1a: Total Fund Sharing Pattern for water supply projects during mission period**

Sr. No.	Name of Project & code	Total Project Cost (Cr. Rs.)	Share (Amount in Cr. Rs.)				
			GOI	State	ULB	Others	Total
1	Improvement of WS to Balasore -Rehabilitation P1 (AMRUT/OD/BALASORE/WS/01)	8.37	4.19	4.19			8.37
2	Improvement of WS to Balasore -Rehabilitation P2 (AMRUT/OD/BALASORE/WS/02)	4.51	2.26	2.26			4.51
3	Improvement of WS to Balasore -Rehabilitation P3 (AMRUT/OD/BALASORE/WS/03)	4.51	2.26	2.26			4.51
4	Improvement of WS to Balasore -Rehabilitation P4 (AMRUT/OD/BALASORE/WS/04)	4.51	2.26	2.26			4.51

5	Improvement of WS to Balasore -Rehabilitation P5 (AMRUT/OD/BALASORE/WS/05)	4.51	2.26	2.26			4.51
6	Improvement of WS to Balasore -New Z1 (AMRUT/OD/BALASORE/WS/06)	13.10	6.55	6.55			13.10
7	Improvement of WS to Balasore -New Z2 (AMRUT/OD/BALASORE/WS/07)	13.73	6.87	6.87			13.73
8	Improvement of WS to Balasore -New Z3 (AMRUT/OD/BALASORE/WS/08)	13.86	6.93	6.93			13.86
9	Improvement of WS to Balasore -New Z4 (AMRUT/OD/BALASORE/WS/09)	9.24	4.62	4.62			9.24
10	Improvement of WS to Balasore -New Z5 (AMRUT/OD/BALASORE/WS/10)	13.14	6.57	6.57			13.14
11	Improvement of WS to Balasore -New Z6 (AMRUT/OD/BALASORE/WS/011)	25.10	12.55	12.55			25.10
12	Improvement of WS to Balasore – Head works P1 (AMRUT/OD/BALASORE/WS/012)	19.46	9.73	9.73			19.46
13	Improvement of WS to Balasore – Head works P2 (AMRUT/OD/BALASORE/WS/013)	23.88	11.94	11.94			23.88
14	Improvement of WS to Balasore – Head works P3 (AMRUT/OD/BALASORE/WS/014)	5.00	2.50	2.50			5.00
15	Improvement of WS to Balasore - Automation P1 (AMRUT/OD/BALASORE/WS/015)	5.50	2.75	2.75			5.50
	<b>Total</b>	<b>168.44</b>	<b>84.22</b>	<b>84.22</b>	<b>-</b>	<b>-</b>	<b>168.44</b>

**TABLE 2.3.1b: Annual Fund Sharing Pattern for water supply projects**

Sr. No.	Name of Project & code	Total Project Cost (Cr. Rs.)	Share (Amount in Cr. Rs.)				
			GOI	State	ULB	Others	Total
1	Improvement of WS to Balasore -Rehabilitation P1 (AMRUT/OD/BALASORE/WS/01)	8.37	2.09	2.09			4.19
2	Improvement of WS to Balasore -Rehabilitation P2 (AMRUT/OD/BALASORE/WS/02)	4.51	1.13	1.13			2.26
3	Improvement of WS to Balasore -Rehabilitation P3 (AMRUT/OD/BALASORE/WS/03)	4.51	1.13	1.13			2.26
4	Improvement of WS to Balasore -Rehabilitation P4 (AMRUT/OD/BALASORE/WS/04)	4.51	1.13	1.13			2.26
5	Improvement of WS to Balasore -Rehabilitation P5 (AMRUT/OD/BALASORE/WS/05)	4.51	1.13	1.13			2.26
6	Improvement of WS to Balasore -New Z1 (AMRUT/OD/BALASORE/WS/06)	13.10	-	-			-
7	Improvement of WS to Balasore -New Z2 (AMRUT/OD/BALASORE/WS/07)	13.73	-	-			-
8	Improvement of WS to Balasore -New Z3 (AMRUT/OD/BALASORE/WS/08)	13.86	-	-			-

9	Improvement of WS to Balasore -New Z4 (AMRUT/OD/BALASORE/WS/09)	9.24	-	-				-
10	Improvement of WS to Balasore -New Z5 (AMRUT/OD/BALASORE/WS/10)	13.14	-	-				-
11	Improvement of WS to Balasore -New Z6 (AMRUT/OD/BALASORE/WS/011)	25.10	-	-				-
12	Improvement of WS to Balasore - Headworks P1 (AMRUT/OD/BALASORE/WS/012)	19.46	-	-				-
13	Improvement of WS to Balasore - Headworks P2 (AMRUT/OD/BALASORE/WS/013)	23.88	-	-				-
14	Improvement of WS to Balasore - Headworks P3 (AMRUT/OD/BALASORE/WS/014)	5.00	-	-				-
15	Improvement of WS to Balasore - Automation P1 (AMRUT/OD/BALASORE/WS/015)	5.50	-	-				-
	<b>Total</b>	<b>168.44</b>	<b>6.61</b>	<b>6.61</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>13.21</b>

**TABLE 2.3.2: Annual Fund Sharing break up for water supply project** (Amount in Cr. of Rs.)

Sr. No.	Project Name & code	Gol	State			ULB			Convergence	Others	Total
			14 <sup>th</sup>	Others	Total	14 <sup>th</sup>	Others	Total			
			FC			FC					
1	Improvement of WS to Balasore - Rehabilitation P1 (AMRUT/OD/BALASORE/WS/01)	2.09		2.09	2.09						4.19
2	Improvement of WS to Balasore - Rehabilitation P2 (AMRUT/OD/BALASORE/WS/02)	1.13		1.13	1.13						2.26
3	Improvement of WS to Balasore - Rehabilitation P3 (AMRUT/OD/BALASORE/WS/03)	1.13		1.13	1.13						2.26
4	Improvement of WS to Balasore - Rehabilitation P4 (AMRUT/OD/BALASORE/WS/04)	1.13		1.13	1.13						2.26
5	Improvement of WS to Balasore - Rehabilitation P5 (AMRUT/OD/BALASORE/WS/05)	1.13		1.13	1.13						2.26
6	Improvement of WS to Balasore -New Z1 (AMRUT/OD/BALASORE/WS/06)	-		-	-						-
7	Improvement of WS to Balasore -New Z2 (AMRUT/OD/BALASORE/WS/07)	-		-	-						-
8	Improvement of WS to Balasore -New Z3 (AMRUT/OD/BALASORE/WS/08)	-		-	-						-
9	Improvement of WS to Balasore -New Z4 (AMRUT/OD/BALASORE/WS/09)	-		-	-						-
10	Improvement of WS to Balasore -New Z5 (AMRUT/OD/BALASORE/WS/10)	-		-	-						-

11	Improvement of WS to Balasore -New Z6(AMRUT/OD/BALASORE/WS/011)	-	-	-						
12	Improvement of WS to Balasore – Head works P1 (AMRUT/OD/BALASORE/WS/012)	-	-	-						
13	Improvement of WS to Balasore – Head works P2 (AMRUT/OD/BALASORE/WS/013)	-	-	-						
14	Improvement of WS to Balasore – Head works P3 (AMRUT/OD/BALASORE/WS/014)	-	-	-						
15	Improvement of WS to Balasore - Automation P1 (AMRUT/OD/BALASORE/WS/015)	-	-	-						
	<b>Total</b>	<b>6.61</b>	<b>6.61</b>	<b>6.61</b>			-	-	-	<b>13.21</b>

**TABLE 2.5: Year wise Plan for Service Level Improvement**

Proposed Project	Project Cost in Cr. Rs.	Indicator	Baseline	Annual Targets						
				(Increment from the Baseline Value)						
				FY 2016		FY	FY	FY	FY	
				H1	H2	2017	2018	2019	2020	
Improvement fo water supply to Balasore under AMRUT	168.44									
		Coverage of water supply connections	59%	60%	65%	75%	90%	100%	100%	
		Per capita supply of water	107	107	107	107	107	135	135	
		Extent of metering of water connections	0%	0%	40%	60%	80%	100%	100%	
		Extent of non-revenue water	66%	66%	55%	40%	30%	20%	20%	
		Quality of water supplied	100%	100%	100%	100%	100%	100%	100%	
		Cost recovery in water supply services	48%	50%	55%	65%	80%	90%	100%	
		Efficiency in collection of water supply related charges	55%	55%	70%	90%	90%	90%	90%	

# Storm Water Drainage

## Mission Management Information System

### I. Assess the Service Level Gap

The first step is to assess the existing situation and service levels gaps for Storm Water Drainage (AMRUT Guidelines; para 3 & 6). This will also include existing institutional framework for the sector. 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.

#### 1.1 . What kind of baseline information is available for storm water drainage system of the city? Detail out the data, information, plans, reports etc related to sector. Is zone wise information available? (75 words)

The base line information of urban population(ward wise) is available in Census-2011, rainfall data with significance of catchment area is received from metrological department, information about length of roads & drains (ward wise), maps are available in final CDP for Balasore City-2040 prepared by Senes Consultants India Pvt. Ltd..

Yes, zone wise information for Storm Water Drainage (SWD) is available.

#### 1.2. Have you collected data from census other sources? Are you aware of baseline survey data of MoUD? Have you correlated data from these and other sources? (75 words)

Yes, the datas are collected from population Census 2011, District Statistics Office, slum population from Urban Poverty Alleviation.

Yes, the above information relating to baseline survey data of MoUD are ascertained from CDP for Balasore City-2040.

Yes, all the datas so manifested above are correlated as per availability of different sources.

#### 1.3 What is existing service levels for storm water drainage in the city? What is the coverage of drains? What are the no of incidence of sewerage mixing in the drains? How many times water logging incidence happens in the city? Provide comparative information of service levels (in tabulated form) with respect to the service level bench marks prescribed by MoUD and sustainable standards for service levels under the National Mission on Sustainable Habitat (NMSH) in table 1.1

Sr. No.	Indicators	Sustainable standards	Black (Caution for improvement)	Red (Immediate action for improvement)	Present Status
1	Coverage of Storm water drainage network	100%	<75%	<50%	23.5%
2	Incidence of sewerage mixing in the drains <sup>1</sup>	0%	<25%	<50%	1%
3	Incidence of water logging <sup>2</sup> (in nos. per year)	0	<25	<50	7

Table 1.1 : Status of Storm Water Level service levels

<sup>1</sup>Incidence of sewerage mixing in the drains are ratio of no of households discharging wastewater directly into the drains to the total no of households.

<sup>2</sup> No of times water logging is reported in a year, at flood prone points in the city

**1.4: What is the gap in these service levels with regard to benchmarks prescribed by MoUD and sustainable standards for service levels under the National Mission on Sustainable Habitat (NMSH)?(75 words)**

The Service Level Benchmarks as prescribed by the MoUD are being maintained w.r.t. promotion of facilities to the urban citizens within the limited resources as per guidelines under National Mission on Sustainable Habitat (NMSH). The coverage area of drain is achieved only 23.7% w.r.t. road length. There are 7 nos. of water logging spots are identified within the city.

**1.5 What are major challenge facing the city in regard to achieving these service level benchmarks?**

The challenges faced by the city to achieve SLB are as follows

1. Lack of proper drainage network
2. Encroachment & obstacles
3. Tidal river/ high tide/ flooding of river/ natural calamities
4. Choking of drains by solid waste
5. Conversion of drains into waste water carrying lines
6. Silting of drains
7. Constraint on human resource.

**1.6: Identify gaps in capacity in managing the services efficiently and also provide an innovative solution for efficiently managing these services.**

The challenges faced by the city to achieve SLB are as follows

1. Lack of funds
2. Existing drain should be covered
3. Kutcha drains need to be converted to RCC.
4. Raising & widening of existing culverts in every points of bye lanes
5. Sufficient human resources

**1.7: Brief the ongoing drainage projects in the city. The components included in these projects, how and up to what extent it will support to the drainage system of the city. Weather it address all the issues related to drainage?**

A sum of rupees 10.21 crore have since been deposited to OWSSB for preparation of master plan of drainage & execution of some pivot drains in the city. Renovation of some major Strom Water Channel are proposed to be taken up by the Drainage Division. However the ULB is constructing some road side drains in bye lanes while the project is taken up for construction of CC road. The present SLB is covering only 20% service efficiency.

NO, it cannot solve all the issues related to drainage within the city.

**2.0 Coverage of drains \*\***

Please provide information in 150 words on the above responding to (however not limited to) following questions.

**2.1: Describe how at present, the storm water of City is drained off? How many natural and manmade drains are exists and their coverage with respect to road network?**

There exist a network of kutch and pucca drains finally leading to “Bada Nala” which finally leads to Budhabalanga River. There are four major natural drains and 532.4 km of manmade drains which sums up to be a total of 630 kms of drain. This compared to 487.110 kms of road network provides an coverage 23.4% on storm water drainage sector.

**2.2 What is the capacity and condition of these drains? Is sufficient to carry the peak flow of the catchment/water shed?**

Presently the existing Pucca drains are in captive condition. These SWD are repaired and maintained on regular basis.

No, the existing SWD network is not sufficient to carry the peak flow of the catchment/water shed.

**2.3 Does city have separate storm water drainage network? If no, provide the information regarding locations of gray water mixes with the existing drains in table 1.2. In case of mixed drainage how it works in peak rainy days?**

There is no separate SWD network prevailing in the city. All households outlet their gray water to the existing drains ultimately disposed by SWD. Generally in rainy season the all house hold gray water outlet and rain water are combined mixed with and ultimately disposed to SWD. And eventually flooding and stacking of water causes due to ancestral rain fall. Due to lack of SWD facilities the position for providing service level bench marks to the habitats become in proper especially during rainy season.

S.No.	Sewer Zone/ Ward No	Location	Merging with which sewer
1	List of SWD in ward wise and zone wise with location are annexed		

Table 1.2: Detail of Locations where storm water get mixed with sewer

**2.4 In case of mixed drainage how it works in peak rainy days?**

During the peak rainy days the whole waste water that is storm water and the sewer water in the combined system comes floods the roads hence creating nuisance to general public on the ground of promotion of the basic amenities to the urban people.

**3.0 Water Logging**

Please provide information in 150 words on the above responding to (however not limited to) following questions.

**3.1 Presently how the problem of water logging is handled? Is it provides the satisfactory outcome?**

The present scenario of O & M of SWD is becoming poor due to paucity of funds and proper drainage system is another factor for water logging in 7 places of the town putting in convince to the town people.

More over the cause of water logging is generally observed due to silting of existing drains and construction of Pucca RCC continuous RCC slab covered in front of Households and shopping complexes areas as well as lack of proper sewerage system.

Apart from this, the ULB is taking all measures for desilting of existing drains, excavation of natural storm water channel to main drain yearly much before the rainy season. Besides action have been taken to evecit the unauthorities occupants obstacling natural storm water channels as well as demoilition of permanent continuous RCC slab over drains for free flow of rain and drain water .

Some how it solves the present problems during peak rainy season.

**3.2 Provide details of flood points/areas prone to frequent water logging with special focus on Key road intersections, along roads (50 mt length or more) and Locality (affecting 50 HH or more) in the Table 1.2.**

The reason for water logging and flooding are generally observed during peak rainy season in low laying areas of the town with adjacent to the locality of the river bed side. Especially during flood situations. As a result of which a very few households on the slum pockets are being affected.

S.No.	Area	No of points	No of times water logging reported in a year ( stagnant water for more than four hours of a depth more than 6'' )
1	Key road intersection	Gudi pada, Hotel suraj, Cinema hall Chowk,	2
2	Along roads ( 50 mt length or more)	Near hotel suraj, Tilebasa, Science college,	2
3	Locality (affecting 50 HH or more)	Cinema hall chowk, gudi pada,	1/2

Table 1.2: Flood prone points in the city

**4.0 Chocking of drains**

Please provide information in 150 words on the above responding to (however not limited to) following questions.

**4.1 Provide details of flood points/areas prone to frequent water logging with special focus on Key road intersections, along roads (50 mt length or more) and Locality (affecting 50 HH or more) in the Table 1.2.**

S.No.	Sewer Zone/Ward No	Location	Stretch Length Affected
1	20, 21	Tilebasa, Gudipada, Suraj Hotel	60 mts
2	26	Cinema hall chowk	70mts
3	30	Pradeep Science College	65mts

Table 1.2: Detail of Locations prone to chocking of drains due to solid waste

**4.2 How presently the problem is addressed?**

This ULB is taking all appropriate measures for Desilting of drains by excavation and regular cleaning of slussy soil through outsourcing. Besides during rainy season special attention is being taken to clear the SW drain channels from free of garbage to maintain free pass of drain and rain water .

**5.0 Institutional Framework**

*Please provide information in 150 words on the above responding to (however not limited to) following questions.*

**5.1 Define role and responsibilities in terms of O&M, policy planning, funding, service provision in table 1.3. Is it in accordance with the AMRUT guidelines (Clause 8.1)?**

This ULB is confined with promoting basic amenities to its town’s people in terms of O&M creating awareness amongst the people and their role of social responsibility through the community participation. The Planning & Policies are being prepared and monitored by technical experts and stakeholders. The implementation of the policy with reference to appropriation of funds is being monitored by GA with a view of maximum utilities with limited resources.

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

Table 1.3: Functions, roles, and responsibilities

**5.2 How city is planning to execute projects?**

The council of the ULBs at the beginning of the FY prepares the projects to be undertaken under this head with availability of funds and execution of projects in time bound manner.

**5.3 Shall the implementation of project be done by Municipal Corporation? If no, weather resolution has been passed by the Municipal Corporation and accordingly, a tripartite Memorandum of Understanding (MoU) between State Government, Municipal Corporation and Parastatal has been signed? Please refer para 8.1 of AMRUT guidelines.**

YES. The projects shall be implemented by the ULB concerned with due weightage to MoU and AMRUT guidelines with the help of technical experts, designers and stakeholders. But presently the SWD system is being maintained by the ULB in traditional process.

**II. Bridge 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.

**1.1 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 sector under different schemes with status and when the existing projects are scheduled to be completed? Provide information in Table**

S. No.	Name of Project	Scheme Name	Cost	Month of Completion	Status (as on ddm 2015)
1.	NIL	NIL	NIL	NIL	NIL

Table 1.4: Status of Ongoing/ Sanctioned

**1.2 How much the existing system will able to address the existing gap in storm water drainage system? Will completion of above improve the coverage of network; eliminate the chocking of drains and water stagnation problem? If yes, how much. (100 words)**

As the existing system has coverage of just 23.4%, with an efficiency of carrying 20% of the total. So there existing gap of 76.6% with proper renovation and construction. Yes, the completion would effect the coverage and would improve the choking of the drains and water stagnate problem.

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

Yes, the city would require additional asset creation and renovation of the existing one to achieve the 100 % universal coverage necessary to improve the SWD system.

The city needs 100% SWD coverage which would need asset creation and proper maintenance of the existing infrastructure

**1.4 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?**

As the terrain is align towards Budhabalanga river, hence there is no other way which could optimize the created asset. Which is because of existing natural drain and its connectivity to other primary, secondary drains.

**1.5 Has city conducted assessment of O&M cost of drains and potable pumps? if yes, what is it? Is city planning to reduce it?**

There is no assessment done in maintenance of the drains and the pumps. However there are maintenance as in when required.

**1.6 Based on assessment of existing infrastructure and ongoing / sanctioned projects, calculate existing gaps and estimated demand by 2021 for Rejuvenation of existing drains, construction of new primary and secondary drains, construction of pump house with pumping machinery, covering of drains. Gaps in Storm water drainage service levels are provided as per Table 1.5.**

**1.7 Provide details of flood points/areas prone to frequent water logging with special focus on Key road intersections, along roads (50 mt length or more) and Locality (affecting 50 HH or more) in the Table 1.5.**

Component	2015			2021	
	Present	Ongoing projects	Total	Demand	Gap
Major Drains (new construction)		nil		32	
Network requirement to provide proper drainage to all identified water stagnant point/ flooding points up to the end discharge point (in Km)	110.64	nil	110.64	471.11	360.48
Network length where households discharging wastewater directly into the drains	110.64	nil	110.64		
Rejuvenation of existing primary drains and primary drains including covering and installation of filter	0	nil	0	65.19	65.19

**1.8 Whether these gaps presented in measurable/ executionable ways considering all the ongoing projects? (75 words)**

As there are no existing projects available.

## **2.0 Objectives**

Based on above, objectives will be developed to bridge the gaps to achieve universal coverage. While developing objectives following question shall be responded so as to arrive at appropriate objective.

### **2.1 Does each identified objectives will be evolved from the outcome of assessment?**

Yes, the objective has been evolved from the SLB assessment which tries to fill the gap in order to achieve the 100% universal coverage.

### **2.2 Does each objective meet the opportunity to bridge the gap?**

Yes, all the objectives has been derived keeping in mind the existing opportunities which would probably try to bridge the existing gap in order to achieve the 100% universal coverage.

### **2.3 Does objectives clearly address all these gaps /solution to all the problems related to storm water drainage of the city?**

Yes, each of the objective has been formulated in order to bridge the existing gap and find solution to all the problems related to storm water drainage of the city.

Please provide List out objectives to meet the gap in not more than 150 words.

## **III. 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. While identifying the possible activities, also examine the ongoing scheme and its solutions including status of completion, coverage and improvement in O&M. Please provide information on the above responding to (however not limited to) following questions.

### **1.1 Does all these gaps clearly identified and addressed? (75 words)**

Yes. The detail estimate with source of funding have been identified in respect of Balasore City in connection with SWD which can some extent improvise the present scenario with an expectation of greater utility. The details are annexed III

### **1.2 What are the possible activities and source of funding for meeting out the objectives? (75 words)**

Tertiary drains could be constructed under the state and ULB funding. (Annual cleaning of Drainage is also from state / ULB fund)

The possible activities are as follows:

- 1) Construction of RCC drain with cover slabs
- 2) Construction of SW channels

## **SLIP – Balasore - SWD**

- 3) Desilting of existing drains
- 4) Frequent Cleaning of SWD channel.

The major funding of the above sector has been three folded that is central, state and ULB.

### **1.3 How can the activities be converged with other programme like JICA/ ADB funded/SBM/Smart city mission projects in the city etc.? (i.e. convergence with other schemes)(100 words)**

The convergence of the activity cant be done for the city as the city is not covered in any of the major mission like **JICA/ ADB funded/ Smart city mission. However, the SBM is taken up by the municipality. So** we could propose the action necessary to avoid choking of the drainage through the SBM. Which indirectly helps in improving the SWD of the city.

### **1.4 What are the options (financial alternatives) of completing the ongoing activities specially on going JnNURM projects? (75 words)**

As the SWD sector is not covered under the JNNURM/UDISSMT etc for Balasore city. So there are no other mission which would cater as a financial alternative. Further there is no major ongoing activity on the sector for the city.

### **1.5 What are the lessons learnt during implementation of similar projects? (100 words)**

There has been an issue related to execution of the similar project. There exists local and site specific issues. Further there are also encroachment & eviction of the property adjacent to the SWD.

Also there are various service lines like cable line/ service lines/ phone line laid with the SWD which creates an unnecessary delay in O&M and also renovation of the SWD. Also, there has been shortage of staff, lack of skilled personnel, training. The ULB also need proper capacity building for the staffs and the service providers who can improvise the day to day activities.

### **1.6 Have you analyzed best practices and innovative solutions in sector? Is any of the practice be replicated in the city?(75 words)**

Cuttack could be taken up as the best practice and many of the issues related to the flooding and storm water network could be resolved by looking at the city.

Further there are similarity in geographical features of the Cuttack and Balasore.

### **1.7 What measures may be adopted to recover the O&M costs?(100 words)**

Presently there is only holding tax being imposed in the town so by imposing property tax the sector could achieve the required financial help atleast for the maintenance. Then inclusion of SWD into the Property tax.

**1.8 Whether reduction in O&M cost by energy efficient pumps etc be applied?(75 words)**

There are no pumps used in the city the flow is through the gravational flow so it could be considered energy efficient.

**1.9 Are different options of PPP such as Design-build-Operate-Transfer (DBOT), Design Built Finance Operate and Transfer (DBFOT) are considered?(100 words)**

There are no PPP mode used in any of the plan or project in Balasore city.

The alternative activities to meet these activities are defined as per Table 1.6

Sr. No.	Objective	Activities	Financing Source
	To Have Complete Coverage Of The Storm Water Network	Augmentation Of The SWD Network	State / Central/ ULB
		Creation of the new network	
	To reduce the flooding points and its flooding time	Covering of the SWD	
		Improving the SWM under Swatch Bharat Abhiyan	
		Creating the pumping facility	
	To reduce the backflow of the flooding water	Creating the pumping facility	
		Creating the Swliss gate facility	

**IV. Citizen Engagement**

ULBs will organize and conduct city level citizen consultation and receive feedback on the suggested alternatives and innovations. 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 explain following questions in not more than 200 words detailing out the needs, aspirations and wishes of the local people.

**1.1 Has all stakeholders involved in the consultation?**

All the major stakeholder has been included in the consultancy workshop. This includes social workers, advocates, senior citizen, social activist, media persons, council members etc.

**1.2 Has ward/ zone level consultations held in the city?**

Yes, but not separately the ward council members have been called up in the consultations.

**1.3 Has alternative proposed above are crowd sourced?**

No the alternative hasn't been proposed above the crowd source.

**1.4 What is feedback on the suggested alternatives and innovations?**

Yes, only the major and the relevant feedbacks and alternatives/innovations has been taken up.

**1.5 Is any new potential alternative is received? If so, how it is addressed?**

No there are no potential alternative is received.

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

As no alternatives has been received so it hasn't been taken up for discussion.

**1.7 What methodology adopted for prioritizing the alternatives?**

Our approach has been taken up with the consideration of prioritizing the more problematic area with less problematic area as the city is flood affected.

**V. 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.

**1.1 What are sources of funds?**

The major sources of State fund / ULB fund/ finance commission fund (central)

**1.2 Has projects been converged with other program and schemes?**

Yes. But partly and indirectly with the SWM, for choking of the drains

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

Our approach has been taken up with the consideration of prioritizing the more problematic area with less problematic area as the city is flood affected.

**1.4 Has the universal coverage approach indicated in AMRUT guidelines followed for prioritization of activities?**

Yes, we have taken up approach to completely solve (Universal coverage that is 100% coverage) the problem of SWD.

## VI. Conditionalties

**Describe in not more than 300 words the Conditionalties 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. \*\* (Plz : attach pages)**

As the project is for Storm Water Drainage so no major land is required. However, it is necessary for the pump house. There is requirement of environmental clearance and the NOC for the outfall points.

The financial commitment, approval and permission is needed to be implement for the project from the necessary department.

## VII. Resilience

**Required approvals will be sought from ULBs and competent authority and resilience factor would be built in to ensure environmentally sustainable storm water drainage scheme. Describe in not more than 300 words regarding resilience built in the proposals. \*\* (Plz : attach pages)**

The BOD and the COD of the storm should be lower down to the necessary level such that it doesn't affect the nearby environment.

Further the possibility of the necessary ground water recharge for the area should be considered.

## VIII. 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 250 words

- **How the proposed finance plan is structured for transforming and creating infrastructure projects?**

The financial plan is made considering 50 % Central grant and 50% state grant. Since the ULB do not have the financial capability, no share has been considered from ULBs.

- **List of individual projects which are being financed by various stakeholders?**

All the projects listed are planned under AMRUT on the basis of 50 % Central grant and 50% state grant.

- **Has financial plan prepared for identified projects based on financial convergence and consultation with funding partners?**

Yes, as all the identified projects are funded under AMRUT on 50: 50 basis, consultation with other funding partners is not required. However, consultation for involving other funding partners will be explored to achieve the objective of the mission.

## SLIP – Balasore - SWD

- **Is the proposed financial structure is sustainable? If so then whether project has been categorized based on financial considerations?**

Yes, the financial structure proposed is sustainable. The state govt. is committed to contribute required funds for completing the projects. However, the O&M cost for these projects will be met from internal resources including collection of user charges. The projects have been categorized based on gap analysis identified for universal coverage as required under AMRUT scheme.

- **Have the financial assumptions been listed out?**

Yes, the financial assumption has been listed to work out the operational sustainability.

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

Yes, the financial plan takes care of apart from infrastructure cost, the O&M requirement of project life cycle. It will be possible to be sustained throughout the life cycle.

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

Yes, the initial sharing of financial plan is based on 50 % Central grant and 50% state grant.

- **Does it include financial convergence with various ongoing projects?**

Yes, it includes various ongoing projects under different schemes supported by both Central & State grant.

- **Does it provide year-wise milestones and outcomes?**

Yes, it has been provided as per detailed furnished at table 1.7

**Details in financial plan shall be provided as per Table 1.7,1.8,1.9,1.10 and 1.11. These tables are based on AMRUT guidelines tables 2.1, 2.2,2.3.1,2.3.2, and 2.5.**

Table 1.7 Master Plan of Storm Water Drainage Projects for Mission period (As per Table 2.1of AMRUT guidelines)

Sr. No	Project Name	Priority number	Year in which to be implemented	Year in which proposed to be completed	Estimated Cost
1	Augmentation of SWD in Balasore town in zone 4 AMRUT/OD/BALASORE/SWD/04	1	2015-16	2016-17	70.80
2	Augmentation of SWD in Balasore town in Zone-2 AMRUT/OD/BALASORE/SWD/02	2	2016-17	2017-18	122.96
3	Augmentation of SWD in Balasore town in Zone-5 AMRUT/OD/BALASORE/SWD/05				
4	Augmentation of SWD in Balasore town in Zone-1 AMRUT/OD/BALASORE/SWD/01	3	2017-18	2018-19	106.92
5	Augmentation of SWD in Balasore town in Zone-3 AMRUT/OD/BALASORE/SWD/03	4	2018-19	2018-19	45.50
6	Augmentation of SWD in Balasore town in Zone-6 AMRUT/OD/BALASORE/SWD/06	5	2019-20	2019-20	22.65
Grant Total					368.83

**SLIP – Balasore - SWD**

Table 1.8 Master Service Levels Improvements during Mission Period  
(As per Table 2.2 of AMRUT guidelines)

Sr.No	Project Name	Physical Component	Change in Service Levels			Estimated Cost
			Indicator	Existing As-Is	After to Be	
1	Augmentation of SWD in Balasore town in zone 4 AMRUT/OD/BALASOR E/SWD/04	1. Construction of covered storm water drainage network. 3. Construction of wet well. 4. Construction of Pumping Station and erection of pumping arrangement. 5. Arrangement of Sluice gate	Coverage Drainage Network	28.37%	100%	70.80
			Incidence of Water Logging	2	0	
2	Augmentation of SWD in Balasore town in Zone-2 AMRUT/OD/BALASOR E/SWD/02	1. Construction of covered storm water drainage network. 3. Construction of wet well. 4. Construction of Pumping Station and erection of pumping arrangement. 5. Arrangement of Sluice gate	Coverage Drainage Network	17.07%	100%	67.29
			Incidence of Water Logging	2	0	
3	Augmentation of SWD in Balasore town in Zone-5 AMRUT/OD/BALASOR E/SWD/05	1. Construction of covered storm water drainage network. 3. Construction of wet well. 4. Construction of Pumping Station and erection of pumping arrangement. 5. Arrangement of Sluice gate	Coverage Drainage Network	22.56%	100%	55.68
			Incidence of Water Logging	0	0	
4	Augmentation of SWD in Balasore town in Zone-1 AMRUT/OD/BALASOR E/SWD/01	1. Construction of covered storm water drainage network.	Coverage Drainage Network	18.55%	100%	106.92
			Incidence of Water Logging	2	0	
5	Augmentation of SWD in Balasore town in Zone-3 AMRUT/OD/BALASOR E/SWD/03	1. Construction of covered storm water drainage network.	Coverage Drainage Network	31.05%	100%	45.50
			Incidence of Water Logging	1	0	
6	Augmentation of SWD in Balasore town in Zone-6 AMRUT/OD/BALASOR E/SWD/06	1. Construction of covered storm water drainage network.	Coverage Drainage Network	20.50%	100%	22.65
			Incidence of Water Logging	0	0	

Table 1.10 Annual Fund Sharing Break-up for Storm Water Drainage Projects  
(As per Table 2.3.2 of AMRUT Guidelines)

Sr.No	Name of Project	Fincacial Year	Total Project Cost	Share			
				GoI	State	ULB	Others
1	Augmentation of SWD in Balasore town in zone 4 AMRUT/OD/BALASORE/SWD/04	2015-16	28.32	14.16	14.16		
2	Augmentation of SWD in Balasore town in zone 4 AMRUT/OD/BALASORE/SWD/04	2016-17	42.48				
3	Augmentation of SWD in Balasore town in Zone-2 AMRUT/OD/BALASORE/SWD/02	2016-17	33.64				
4	Augmentation of SWD in Balasore town in Zone-2 AMRUT/OD/BALASORE/SWD/02	2017-18	33.64				



**SLIP – Balasore - SWD**

Table 1.11 Year wise Plan for Service Levels Improvements

(As per Table 2.5 of AMRUT guidelines)

<b>Year wise Plan for Service Levels Improvements</b>											
SI.No	Proposed Project Cost in Cr.	Indicator	Base Line	Present Status	Gap	FY2016		FY 2017	FY 2018	FY 2019	FY 2020
						H 1	H2				
1	368.83	Coverage of Storm Water Drainage Network	100%	23%	77%	0%	57.73%	71.58%	82.83%	94.11%	100.00%
2		Incidence of Water Logging	0	7	7	7	4		2	1	0

**SLIP – Balasore - SWD**  
ANNEX-1

<b><i>DRAIN LENGTH WARD WISE.</i></b>				
<b>Sl. No.</b>	<b>Ward No.</b>	<b>KUTCHA DRAIN In Meter</b>	<b>Covered Drain Length In Meter</b>	<b>Un-Covered Drain Length In Meter</b>
1	1	18873	10	24192
2	2	14996	12	20839
3	3	15864	9	20488
4	4	13892	17	17978
5	5	20283	13	22796
6	6	14795	15	18491
7	7	14291	14	17276
8	8	17964	18	21909
9	9	16532	15	20641
10	10	20102	13	25595
11	11	15394	12	19235
12	12	16420	11	21131
13	13	15927	13	19820
14	14	16872	12	23237
15	15	14332	20	19202
16	16	14836	18	18395
17	17	16569	19	20148
18	18	17468	21	20587
19	19	21794	26	25685
20	20	16543	17	18099
21	21	17893	21	18947
22	22	16634	19	18367
23	23	20943	27	24170
24	24	16835	25	18918
25	25	15332	19	18626
26	26	16201	17	18657
27	27	15978	14	18004
28	28	16324	12	19516
29	29	16565	16	20324
30	30	17432	12	21513
31	31	16081	13	17314
	<b>Total :</b>	<b>519965</b>	<b>500</b>	<b>630100</b>

**SLIP – Balasore - SWD**

Sewerage

## Mission Management Information System

### 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.

**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)

**Ans.** Census 2011, Draft CDP, are available and have been correlated with census 2011 data.

**Question:** 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

**Table 2.1 : Status of sewerage network and Service Levels**

Sr. No	Indicators	Existing Service level	MOUD Benchmark
1	coverage of latrines ( individual or community)	81%	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%

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

**Ans:** There is no sewerage network & hence no collection & no treatment. The septage disposal is irregular and mostly to open drains. Hence the gap in these service level with regard to benchmarks prescribed by MoUD is 100%.

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

**Ans:** Yes, the city is having partly separate drainage system.

**Coverage of latrines (individual or community), Please provide information in Table 2.2 A**

Zone No	Total number of HH ( a)	Total number of HH without individual or community toilets within walking distance b	Coverage of latrines (%),(a-b)/a*100%
1	11542	2193	81%
2	14171	2692	81%
Total	25713		

**SEWERAGE NETWORK AND COLLECTION OF SEWERAGE**

Question: 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

Table 2.2b : Sewerage network and collection of sewage

Zone No	Total No. of Households(HH) a	Households with Sewerage Network b	Coverage of sewerage network services (b/a)*100%
1	11542	0	0
2	14171	0	0

Question: 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)

Ans: Such condition does not arise.

Question: 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)

Ans: At present there is no systematic and organized method to collect and treat waste from septic tanks. Only 1(one) nos. of Cess Pool emptier are available which is not sufficient for systematic and organized cleaning. As there is no organized method of collection in many of the cases, the septic tanks overflow either into nearby drains /open fields etc.

Question: 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)

Ans: Does not arise, since there is no sewerage system .

## SEWAGE TREATMENT SYSTEM

Question: 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 zone	Capacity (MLD)	Inflow in the STP (MLD)	Efficiency in %
1		NIL		
2				
3				

**Question:** Does decentralized waste treatment system exists or planned in the city? If yes, provide details (75 words)

Ans: There is no decentralized waste treatment system in the city

Question: 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)

Ans: NIL. Since there is no sewer collection & treatment system, no sewage reaches the STP.

**Question:** 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)

Ans: No.

## INSTITUTIONAL RAMEWORK

**Question:** Define role and responsibilities in terms of O&M, policy planning, funding, service provision in table

**Table: 2.4: Functions, roles, and responsibilities**

Planning and Design	Construction/Implementation	O & M
Planning and design Cell in Ms of , OWSSB	Project team headed by divisional PE OWSSB supported by PMMU and PDMC . There will be MOu between Municipality and State Govt/ OWSSB for implementation.	O & M team headed by Municipal Engineer of Balasore Municipality.

**Question:** 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)

Ans: Implementation of project will done by Orissa Water Supply & Sewerage Board

## 2. Bridge theGap

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.

Question: 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

**Table: 2.5 Status of Ongoing/ Sanctioned**

Sr. No	Name of Project	Scheme name	Cost in Rs Cr	Month of completion	Status (as on ddmm 2015)
	NIL		0		
			0		
Total			0		

Question: How much the existing system will be 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)

Ans: The existing system will be able to address the existing gap by 0%. Since no on going scheme, ongoing/ sanctioned system will be able to improve 0% network and collection efficiency.

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

Ans: Yes, the city requires additional infrastructure to improve the services. It needs sewerage system and treatment.

Question: 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?

**Table 2.6: Demand Gap Assessment.**

Component	2015			2021	
	Existing	Ongoing projects	Total	Demand	Gap
Sewerage net work km	0	0	0	471.11	471.11
No of Households covered under sewerage system (2021 demand)	0	0	0	29416	29416
Sewerage treatment plant MLD (2030 demand)	0	0	0	16.4	16.4

*Note: The demand gap will be fulfilled as per requirement of CPHEEO Manual.*

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 this gap.

Question: Does each identified objective will be evolved from the outcome of assessment?

Ans: Yes

Question: Does each objective meet the opportunity to bridge the gap?  
Please provide List out objectives to meet the gap in not more than 100 words.

Ans: Yes, each objective meets the opportunity to bridge the 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.

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

Ans: The activities are sewer net work, treatment and house connection to meet the objective for universal coverage of sewerage system.

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

Ans: Does not arise.

Question: What are the options of completing the ongoing activities?

Ans: here does not arise. But done Through State Govt and other funding.

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

Ans: The bottlenecks that is disposal arrangements, reuse of treated waste water etc learnt have been addressed and shall be taken care during implementation of these projects under AMRUT.

Question: Has projects includes O&M of sewerage system?

Ans: Yes.

Question: 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.

Ans: Collection of new connection fees and monthly sewerage fees.

Question: What are innovative alternative solutions explored in achieving objectives?

Ans: Options for STP methodology and innovation that is reuse of treated waste water explored in achieving objectives.

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

Ans: Yes, Design-build-Operate-Transfer (DBOT) will be considered.

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

Ans: Does not arise.

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

Ans: Yes.

Question: 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.

Ans: Decentralized waste treatment system provided.

The alternative activities to meet these activities be defined as per Table 2.7

**Table 2.7 Alternative Activities To Meet Objectives**

Sl. No	Objective	Activities	Financing Source
1	Universal coverage with sewerage system	Sewerage system and construction of STP, re use of treated waste water.	AMRUT

#### **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.

Question: Has all stakeholders involved in the consultation?

Ans: Yes

Question: Has ward/ zone level consultations held in the city?

Ans: Yes

Question: Has alternative proposed above are crowd sourced?

Ans: Yes through website.

Question: What is feedback on the suggested alternatives and innovations?

Ans: Proposed proposal is well appreciated.

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

Ans: Yes.

Question: What methodology adopted for prioritizing the alternatives?

Ans: Keeping in mind how the house holds can be well covered under sewerage facilities opted for achieving early coverage of the gap assessed under AMRUT.

## 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.

Question: What are sources of funds?

Ans: State Govt. fund/ Govt. of India fund

Question: Has projects been converged with other program and schemes?

Ans: Yes

Question: Has projects been prioritized based on "more with less" approach?

Ans: Yes.

Question: Has the universal coverage approach indicated in AMRUT guidelines followed for prioritization of activities?

Ans: 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.

Ans: Govt land has been identified and available. Environmental clearance applied and other clearances / NOC are under process.

## 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.

Ans: The proposed project under AMRUT and ongoing/ sanctioned would be built in to ensure environmentally sustainable sewerage scheme. Also Odisha State Pollution Board requirements shall be adhered to.

## 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, projects proposed include O&M for 5 years. O&M shall be integral part of the execution contract so that the agency/contractor who develops the assets shall be responsible for post asset creation O&M for 5 years. The O&M cost for Water Supply shall be borne by the OWSSB (Odisha Water Supply and Sewerage Board).

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

Yes, the financial plan is based on 50 % Central grant and 50% state grant.

- **Does it include financial convergence with various ongoing projects?**

Yes, it includes convergence with various ongoing projects under different schemes supported by both Central & State grant.

- **Does it provide year-wise milestones and outcomes?**

Yes, it has been provided as per detailed furnished at table 8.1

Details in financial plan shall be provided as per Table 8.1, 8.2, 8.3, 8.4 and 8.5. These tables are based on AMRUT guidelines tables 2.1, 2.2, 2.3.1, 2.3.2, and 2.5.

**Table 8.1 Master Plan of Sewerage Projects for Mission period**

Sr. No.	Project Name and Code <sup>6</sup> (list all projects to achieve universal coverage in the City separately for water supply and sewerage	Infrastructure Improvement			
		Change in Service Levels			Estimated Cost (Amount in Rs. Cr.)
		Priority number	Year in which to be implemented	Year in which proposed to be completed	
1	Sewerage System for Balasore , Zone 1 – Sewer network AMRUT/OD/BALASORE /SG/01	2	2016-17	2018-19	250.8
2	Sewerage System for Balasore, Zone 1 – STP & Pumping Stations. AMRUT/OD/BALASORE /SG/02	3	2016-17	2018-19	24.14
3	Sewerage System for Balasore, Zone 2 – Sewer network AMRUT/OD/BALASORE /SG/03	4	2016-17	2018-19	261.38
4	Sewerage System for Balasore, Zone 2– STP & Pumping Stations. AMRUT/OD/BALASORE /SG/04	5	2016-17	2018-19	29.03
5	Septage Management works for Balasore AMRUT/OD/BALASORE /SG/05	1	2015-16	2015-16	0.89
<b>Grand Total</b>				<b>Total AMRUT</b>	<b>566.24</b>
				on going	0

**Table 8.2: Master Service Levels Improvements during Mission Period**

(As per Table 2.2 of AMRUT guidelines)

Sl. No.	Project Name and code7	Infrastructure Improvement				
		Physical components	Change in Service Levels			Estimated Cost (Amount in Rs. Cr)
			Indicator	Existing	After	
				(As-is)	(To-be)	
1	Sewerage System for Balasore , Zone 1 – Sewer network AMRUT/OD/BALASORE /SG/01	Sewer network & house connection	a .Coverage b. Collection efficiency	0%	100%	250.8
2	Sewerage System for Balasore, Zone 1 – STP & Pumping Stations. AMRUT/OD/BALASORE /SG/02	STP, Pumping main and Pumping Stations	Sewage treatment & disposal	0%	100%	24.14
3	Sewerage System for Balasore, Zone 2 – Sewer network AMRUT/OD/BALASORE /SG/03	Sewer network & house connection	a .Coverage b. Collection efficiency	0%	100%	261.38
4	Sewerage System for Balasore, Zone 2– STP & Pumping Stations. AMRUT/OD/BALASORE /SG/04	STP, Pumping main and Pumping Stations	Sewage treatment & disposal	0%	100%	29.03
5	Septage Management & ID works for Balasore AMRUT/OD/BALASORE /SG/05	FSM & ID work	Collection & Treatment	0%	100%	0.89
	Total					566.24

**Table 8.3 Annual Fund Sharing Pattern for Sewerage Projects**

(Rs. in Cr.)

Sector	Total Project cost	Share				
		Gov	State	ULB	Others (OUIDF)	Total in Cr
Sewerage and Septage management						
Proposed Projects						
Sewerage System for Balasore , Zone 1 – Sewer network AMRUT/OD/BALASORE /SG/01	250.8	0	0			0
Sewerage System for Balasore, Zone 1 – STP & Pumping Stations. AMRUT/OD/BALASORE /SG/02	24.14	0	0			0
Sewerage System for Balasore, Zone 2 – Sewer network AMRUT/OD/BALASORE /SG/03	261.38	0	0			0
Sewerage System for Balasore, Zone 2– STP & Pumping Stations. AMRUT/OD/BALASORE /SG/04	29.03	0	0			0
Septage Management & ID works for Balasore AMRUT/OD/BALASORE /SG/05	0.89	0.445	0.445			0.89
Total						0.89

**Table 8.4: Annual Fund Sharing Break-up for Sewerage Projects**

Sr. No.	Project	Gol	State			ULB			Convergence	Others	Total in Cr
			14 <sup>th</sup> FC	Others	Total	14 <sup>th</sup> FC	Others	Total			
1	Sewerage System for Balasore , Zone 1 – Sewer network AMRUT/OD/BALASORE /SG/01	0.00		0.00	0.00					0.0	
2	Sewerage System for Balasore, Zone 1 – STP & Pumping Stations. AMRUT/OD/BALASORE /SG/02	0.00		0.00	0.00					0.00	
3	Sewerage System for Balasore, Zone 2 – Sewer network AMRUT/OD/BALASORE /SG/03	0.00		0.00	0.00					0.00	
4	Sewerage System for Balasore, Zone 2– STP & Pumping Stations. AMRUT/OD/BALASORE /SG/04	0.00		0.00	0.00					0.00	
5	Septage Management & ID works for Balasore AMRUT/OD/BALASORE /SG/05	0.445		0.445	0.445					0.890	
	Total									0.890	

**Table 8.5: Year wise Plan for Service Levels Improvements**

(As per Table 2.5of AMRUT guidelines)

Proposed Projects	Total Project Cost in Cr	Indicator <sup>8</sup>	Baseline <sup>9</sup>	Annual Targets (Increment from the Baseline Value)						
				FY 2016 / 2015-16		FY 2017	FY 2018	FY 2019	FY 2020	
				H1	H2					
Ongoing Sewerage Project	0									
Sewerage and Septage Management	566.24									
		1. Coverage of latrines (individual or community)	81%	83%	86%	95%	100%	100%	100%	
		2. Coverage of sewerage network services	0%	0%	0%	0%	50%	100%	100%	
		3. Efficiency of Collection of Sewerage	0%	0%	0%	0%	50%	100%	100%	
		4. Efficiency in treatment	0%	0%	10%	10%	40%	100%	100%	

# Urban Transport

# Mission Management Information System

## SECTOR WISE SLIP TEMPLATE: URBANTRANSPORT

Under AMRUT Mission, Urban Transport components which are admissible are; Side-walks, Foot-over bridges, Non-motorized transport (NMT), Buses, BRTS, Multi-level parking, Waterways Ferry vessels Ferries and Waterways. (AMRUT Guidelines; para3).

### 1. Service Level Gaps Assessment

#### SERVICE LEVEL STATUS

Assess the existing transportation situation and service levels gaps for indicators urban to achieve service level benchmarks. (AMRUT Guidelines Table.1.4 & Table2.5). Service Level gaps will be analyzed as per indicators prescribed in Service Level Benchmarks (SLBs) for urban transport of MoUD, GoI. Please provide information in 200 words responding to the following questions;

**1. Question:** What is the baseline information available for improvement city transportation? Whether City has prepared City Mobility Plan? If yes then, Does CMP includes NMT, Ferries, water-ways?

**Answer:**

A City Development Plan (CDP) has been prepared and is in the finalization process. A Detailed Project Report (DPR) for City bus services has been prepared which elucidates the future requirement of the city bus fleet and all other infrastructure required. The present rolling stock structure for the City has been identified through the DPR. There is no other respective document that studies the city transportation situation. There is a proposal for preparing a City Mobility Plan (CMP) in the near future which includes the study of NMT but not the study of Waterways or ferries..

There are four Levels of Services (LOS) which will be calculated considering various indicators as LOS1, LOS2, LOS3 and LOS4 correspond to adequacy and quality of city's available transportation services. The summary of the service level gap and performance should be presented as per illustrative Table

Table: Service level Benchmark

Sl. No	Indicators	Levels of Service as per SLB, MoUD		Present Service Level
		Level of Service	Range	
1	Service Coverage of urban transport in the city	1	$\geq 1$	4
		2	0.7-1	
		3	0.3-0.7	
		4	$< 0.3$	

2	Availability of urban transport per 1000 population	<table border="1"> <thead> <tr> <th>Level of Service</th> <th>Range</th> </tr> </thead> <tbody> <tr> <td>1</td> <td><math>\geq 0.6</math></td> </tr> <tr> <td>2</td> <td>0.4-0.6</td> </tr> <tr> <td>3</td> <td>0.2-0.4</td> </tr> <tr> <td>4</td> <td><math>\leq 0.2</math></td> </tr> </tbody> </table>		Level of Service	Range	1	$\geq 0.6$	2	0.4-0.6	3	0.2-0.4	4	$\leq 0.2$	3
		Level of Service	Range											
		1	$\geq 0.6$											
		2	0.4-0.6											
		3	0.2-0.4											
4	$\leq 0.2$													

**Question:** Have level of services (LOS) been calculated based on the indicators prescribed in the SLB for urban transport by Ministry of Urban Development? As per MoUD SLB for urban transport, there are four Levels of Services (LOS) which will be calculated considering various indicators as LOS1, LOS2, LOS3 and LOS4 correspond to adequacy and quality of city's available transportation services.

**Answer:**

Yes

**Question:** While assessing the above indicators, also analyze following aspects as an outcome of the broad components of urban transport under AMRUT;

**a) Non-Motorised Transport Facilities**

1. % of network covered
2. Encroachment on NMT roads by vehicle parking (%)
3. NMT parking facilities at interchanges (%)

**Answer:**

**No NMT Parking facilities available in Balasore.**

**b) Parking:** Availability of parking spaces

**Answer:**

**Authorised municipal parking spaces:** New Bazar, Cinema Chowk & Fandy Chowk.

**Unauthorized parking spaces:** Railway Station, Station Square, District HQ Hospital, Collectorate, Police Line, Fakirman Golei, Central School Chowk, Golapakhri Chowk.

**Development of parking areas:** At present, Balasore does not have proper parking lot in any of the commercial or institutional area. There is need to develop ten off-street parking spaces near the commercial and institutional areas during the period of 25 years. These parking lots can be developed on PPP mode.

**Question:** Have specific issues for the city been identified and addressed including issues with the existing traffic, NMT, parking / transport environment?

**Answer:**

**Encroachments on roads:** Encroachment by street vendors, hawkers, shop keepers and parking lots are responsible factors for reduction in the effective width of the roads. Most of the

major arteries of the city are congested not only in the peak hours but throughout the day due to encroachments. Some of the roads namely OT Road, I G Marg, Station Road, Kutcheri Road, etc are facing this issue.

Main Roads with high traffic of HOVs is observed but the road width is considerably less which became a burden to regular traffic.

Encroachment has been removed on the IG road, Fandy Chowk – Cinema Chowk road for the purpose of the road widening. With this, the footpath has also been removed to provide enough space for regular traffic.

### **Sidewalks, Foot-over bridges and NMT**

**Question:** Do you think city roads are safe for pedestrians? If no then, which section of roads needs immediate attention?

**Answer:**

No. the city roads are rather narrow and there are insufficient footpaths available for pedestrians to walk. There are few proposals that are identified to improve pedestrianisation in Balasore City:

Requirement of Pedestrian Walkways:- 20 kms

- 1) Balasore Bypass Road, 2) Fakirmohan Golei to Chadiapola, 3) Police Line to Padhuanpada 4) ITI to Hemkapada 5) Statin to Station Chhak

**Question:** What type of Non-Motortised Vehicle (NMV) infrastructure available in the city?

1. Lanes reserved for NMV
2. Footpath allocated for both pedestrian and NMV
3. Area allocated to NMV parking

**Answer:**

No lanes or infrastructure available for NMT

**Question:** Has budget provision for NMT included in the transportation projects in the city?

**Answer: No**

### **Buses and BRTS**

**Question:** Have city initiated feasibility of BRTS?

**Answer: No**

**Question:** What kind of public transport is available in the city? Please mention Number of public transport vehicles operating in the city.

**Answer:** City Bus Services has been initialized and 30 city buses have been procured. And existing 4 town buses.

**Question:** What is the total length of public transport corridor in the city limits?

**Answer:** 147 kms (Full cluster). 48 kms in city (approx.)

### **Multi-level parking**

**Question:** Whether city has designated parking spaces? If yes, provide list of

**Answer:**No

**Question:** What is the total available on street paid parking spaces on Arterial, sub arterial roads?

**Answer:**3 on street paid parking spaces available

### **Availability of paid parking spaces**

Total available on street paid parking spaces = (a) = 3

Total available on street Parking Spaces = (b) = 8

Availability of paid parking spaces =  $(a/b) * 100 = (3/8)*100 = 37.5\%$

**Question:** Whether parking supply inventory is available for the city including; Types of on-road and off road parking restrictions (time)

**Answer:** No

**Question:** Whether parking facilities available for bicycles, auto rickshaw, goods delivery.

**Answer:** Parking facilities are not available for bicycles. But the authorized parking spaces at New Bazar, Cinema Chouk & Fandy Chowk have provision for auto rickshaw parking.

**Question:** Is private sector involved in parking?

**Answer:** Yes, Authorised parking spaces which at New Bazar, Cinema Chouk & Fandy Chowk are being operated and managed by separate agencies every year.

**Question:** Whether adopted parking bans/restrictions on major roads .

**Answer:** Yes, Motiganj Market and Front road of District HQ Hospital (DHH)

### **Waterways and Ferry vessels**

If city has waterways system then provide following questions;

**Question:** Whether city has inland waterways system?

**Answer:**No Waterway System in available.

**Question:** Who is managing and operating the ferry system? if any

**Answer:**Ferry System in not available.

**Question:** Provide number of ferry vessels

**Answer:**Ferry System in not available.

## **Institutional Set Up**

Describe the institutional framework including role and responsibilities in terms; administration and Policy making, planning, Vehicle Registration, public transportation operators including Private operators and overall traffic management.

Role and Responsibilities of all the agencies shall be provided in the illustrative table No. 2

Table: Role and responsibility of agencies involved in management of City transport

Sl. NO	Agencies	Responsibilities
1	BRIT	Planning
2	BBUTT (SPV)	City Bus Services
3	RTO	Vehicle Registration
4	SP (Police)	Traffic Management
5	GA & LEGISLATION DEPARTMENT	Administration and Policy making

Please provide information in 200 words responding to the following questions;

**Question:** Who is responsible for management of urban transport in the city?

**Answer:** Police/RTO/Municipal Authority, Balasore-Bhadrak Urban Transport Trust (BBUTT)

**Question:** Is there enough provisions for enforcement of traffic rules for pedestrian safety on roads?

**Answer:**No. There are proposals for Pedestrian walkways. There are several vending zones that have been created to decongest the identified roads.

**Question:** How are you planning for execution of transport related projects for AMRUT, whether, present role and responsibilities lying with these organizations is capable to implement projects under AMRUT?

**Answer:**There is insufficient capacity to implement the projects. Most importantly, there is no sufficient ROW of roads to propose the urban transport projects which needs to be overlooked.

### **1.2 Status of On-going Projects**

Critically examine the existing and ongoing projects for improvement of urban transport as to be filled in illustrative Table No.3

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Project/Sector	Approved Cost (Rs. Lakhs)	Status of projects	Expenditure (Rs. Lakhs)	Scheme
Road Improvement/ Widening	2670.68	In Progress	338.71 (12.68%)	ULB Plan Scheme

Road Improvement/Widening	399.96	In Progress	134.15 (33.54%)	ULB Non-Plan Scheme
Purchase of City Buses under MoUD Scheme	30.51	In Progress		State Govt.
Non motorized Transport	Nil			
Street Parking	Nil			
Multi Level Parking	Nil			
Others	Nil			

**Question:** which are the incentives taken for the implementation of NMT facilities in the city? Please list out initiatives undertaken in different ongoing programs and projects to address these gaps

Answer: None

**Question:** Whether convergence with other ongoing Central and State and Local Government Programs/Schemes can be done at this stage.

Answer: Yes

**Question:** Whether ongoing scheme and projects has been critically reviewed? Please explain what is the extent of convergence to bridge the gaps?

Answer: No

## 2. Bridging the Gap

### Demand Gap Assessment

Despite the fact, non-motorized modes and public transit account for a significant proportion of travel activity of a city. The city needs to pursue different strategies and programs for bridging the gap on transportation facilities where the city is and where it wishes to go in future.

Please provide information in 200 words responding to the following questions

**Question:** What steps can be taken to bridge these gaps? Please explain in 200 words,

**Answer:**

**Road Construction:** for the future development and in new areas 71 km of road construction is required. Identify the stretches and areas where roads at present do not exist and or have poor connectivity.

**Road up-gradation:** Total 8 km of roads need to be upgraded from kutchha to pukka surface road. .

**Up-gradation of bus stand:** Up-gradation of the bus stand with additional bus bay facilities and commercial shopping complexes.

**Development of Truck Terminal:** There is need to construct four rail over bridges, one river bridge and one flyover.

**Development of Auto and Rickshaw Stands:** There is need to develop ten auto stands and ten rickshaw stands in different parts of the city particularly near the commercial markets.

**Development of parking areas:** There is need to develop ten off-street parking spaces near the commercial and institutional areas during the period of 25 years. These parking lots can be developed on PPP mode.

Whether present level gaps as identified through SLB indicators will be achievable by 2021 as compare with the present level of gap and demand?. (Table)

Table: Bridging the gap- Demand Assessment

Sl. No	Benchmark	Levels of Service as per SLB, MoUD		Present Service Level	Current Gap	Demand/ Target by 2021
1	Service Coverage of urban transport in the city	<b>Level of Service</b>	<b>Range</b>	4		
		1	$\geq 1$			
		2	0.7-1			
		3	0.3-0.7			
		4	$< 0.3$			
2	Availability of urban transport per 1000 population	<b>Level of Service</b>	<b>Range</b>	3		
		1	$\geq 0.6$			
		2	0.4-0.6			
		3	0.2-0.4			
		4	$\leq 0.2$			
	<b>Other indicators</b>					
3	Percentage of City Covered by footpaths wider than 1.2m	-				
4	Non Motorised Transport Facilities including;					
a)	% of network covered	-				
b)	Encroachment on NMT roads by vehicle parking (%)	-				
c)	NMT parking facilities at interchanges (%)	-				
5	Availability of On-street paid public parking spaces (%)	<b>Level of Service</b>	<b>Range</b>	3		
		1	$\geq 75$			
		2	50-75			
		3	25-50			
		4	$< 25$			
6	Water ways and Ferries	-				

### 3. Objectives

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).

Please provide information in 200 words responding to the following questions;

**Question:** How will you define your overall goal to improve city transport?

**Answer:** The vision of the City Public Transport is “**To provide safe, efficient and cost effective multi modal transportation system accessible to all the citizens and compatible with future land use of Balasore.**”

**Sector Goals:**

- Development of easily available and affordable public transport.
- Encourage non-motorised transport by developing the pedestrian friendly road infrastructure.
- Development of traffic management and monitoring system.
- Existing road improvement and construction of new roads to provide city wide linkages.
- Development of terminals along the radial roads to decongest the inner city area.
- Development of grade separation facility.

**Question:** What possible strategies envisaged to achieve various LoS to improve the transportation components under AMRUT?

**Answer:**

**Short term action plan** aimed at road widening by removal of encroachment from the major roads.

**Medium term action plan** aimed at development of transport infrastructure over a perspective plan period of 5-10 years to bring about coordinated development among different components. These measures typically will include various infrastructure projects, which will be directed at network improvements such as parallel roads, link roads, slip roads and underpass. The phase will also include the improvement of bus terminals and development of truck terminal.

**Long-term action plan** aimed at development of structure plan for the urban area with transit as one of the lead components which will direct the urban growth so as to bring about a structural fit between transit infrastructure and urban growth. This will also examine a comprehensive multi-modal public transit system to bring about the most

**Question:** How well does goals and objective for developing efficient urban transportation facilities can articulate the use of NMT options and parking facilities to improve the quality of life of local citizens?

**Answer:**

At present, Balasore has a total of about 8% of land area under traffic and transportation. The share of transportation is comparatively low than other similar size of town where the share ranges from 15% - 20% of total area. It has been envisaged that the land area under transportation should be increased to 10% by the year 2020 and further increased to 15% by 2040.

**Development of NMT infrastructure:** Unless there is enough space for roads in the city limits, implementation of non-motorised vehicles is not plausible. As estimated, unless the roads in the city while having the ROW with sufficient lane width supposed for NMT can be implemented. As there are proposals for 5 lanes that need immediate attention, it is high time to improve road conditions and storm water scenario inside the city to make way for safe movement of pedestrians.

**Development of parking areas:** At present, Balasore does not have proper parking lot in any of the commercial or institutional area. There is need to develop 3 off-street parking spaces near the commercial and institutional areas till the year 2021. These parking lots can be developed on PPP mode.

**Question:** How identified each objective can evolve considering bridging the gap with present level of services as to achieve SLB indicators.

**Answer:** each identified objective needs to be assessed carefully and proposed with respect to citizen and stakeholder consultation. The present level of service of every transport component is inadequate and to enhance the same requires lot of funding and land availability. As there is enough land for implementing off street parking and depots/terminals for City Bus Services, land need to identified to widen the most important roads so to ply the buses and increase efficiency and accessibility to citizens.

**Question:** How objectives can be framed ensuring sustainable mobility solutions and creating city-wide NMT facilities for pedestrians and cyclists.

**Answer:**

The objectives need to be framed in such a manner so to provide safe and secure way to promote walkability and mobility to citizens. Improving main road structure and enforcing the most congested and crowded zones of the city such as markets, mandis, old city areas, railway station etc to convert them to NMT zones.

**Development of Rickshaw Stands:** There is absence of any kind of rickshaw stand in the city. All the public transport vehicles are parked on the road resulting into narrow width of the road and traffic jam. There is need to develop ten rickshaw stands in different parts of the city particularly near the commercial markets.

**Question:** How objectives for improvement of NMT facilities integrate with other modes of transport.

**Answer:**

Presently, there is a provision of 30 buses under City Bus Services connecting several important areas. But still the demand would not be met for the overall citizens in the city. As we know there is no existing NMT facility for the city, 5 proposed pedestrian tracks should in future be integrated to the existing CBS so to achieve the first and last mile connectivity.

## 4. Alternate Activities to Meet Objectives

Evolve overall objective is to ensure that mobility solutions for the city that are sustainable and create city-wide NMT facilities for pedestrians and cyclists and integrate them with other modes of transport. Suggest possible strategies and options to achieve each objective with estimate cost of alternate solutions as per table 1 & Table 2

Table1: Possible Strategies to meet objectives

Sl. No	Objectives	Possible Activities	Financing Source
1	NMT	Pedestrian walkways, footpaths, cycle tracks, parks and open spaces	PWD(R&B), Municipality
2	Parking	Multi level parking	Municipality
3	City Bus Services	Augmentation and Network increasing	PWD(R&B)
4	City Mobility Plan	DPR	State Govt & AMRUT
5	Road Widening	Widening of RoW for Sub Arterial roads	State Govt.

Table2: Estimated Cost for various possible activities (till 2019)

Sl. No	Projects	Unit	Quantity	Total Cost (in Crores)
1	Construction of Street Parking (AMRUT/OD/BALASORE/UT/01)	Sq ft	3	25.00
2	Preparation of DPR on City Mobility Plan (CMP) (AMRUT/OD/BALASORE/UT/02)	No.	1	0.50
3	Augmentation of City Bus fleet (AMRUT/OD/BALASORE/UT/03)	No. of Buses	40	10.00
4	Pilot Project - Pedestrianisation (AMRUT/OD/BALASORE/UT/04)	No.	2	1.50
5	Construction of Bus Depots/Truck terminal (AMRUT/OD/BALASORE/UT/05)	Sq ft	2	7.00
6	Development of Transport Nagar (AMRUT/OD/BALASORE/UT/06)	Sq Ft	1	10.00
7	Construction of Foot Over Bridges (AMRUT/OD/BALASORE/UT/07)	No.	5	3.00

While addressing alternate solution to achieve these objects, please provide information in 500 words responding to the following questions:

**Question:** How realistic and feasible urban transport strategies are to be evolved to address key challenges, priorities as an outcome of the citizen consultation

**Answer:**With respect to the citizen and stakeholder consultation, there are several actions that need to be addressed to improve the city wide transportation scenario. Mostly improving/widening/upgradation of roads, improved network of CBS, installation of NMT facilities at congested areas, development of truck terminal, parking areas and rickshaw areas etc

**Question:** What alternative innovative solution can be adopted for improving the service delivery by creating

**a:** Citizen friendly provision of barrier free pedestrian facilities including, footpaths, road marking and signages

**Answer:**Vehicle tracking System, automatic pedestrian crossing facility,

**b: pathways**

**Answer:**Urban planning with built-in street design,

**c: Parking**

**Answer:** Multilevel parking spaces, Zoning near the congested areas to promote NMT

**d: traffic management using ITS**

**Answer:** Vehicle tracking System, Surveillance System, and GIS based traffic analysis

**Question:** What strategic intervention is required in the implementation of above projects?

**Answer:** Special Purpose Vehicles (SPVs), Traffic Management Committees or agencies etc appointed to overlook and undertake the specific tasks related to the transport criteria

**Question:** Whether alternative modes of transport such as cycling can be provided in major roads

**Answer:** No.

**Question:** Whether non-Motorised Transport (NMT) facilities corridor suggested with dedicated NMV, Cycle track and Signalized Intersection count.

**Answer:** No

**Question:** How innovative solutions for alternative modes of transport including NMT such as cycling, pedestrian and public transportation system will address the overall transportation issue of the city?

**Answer:** this would shape the future city transportation in such a way to improve mobility of the city with barrier free pedestrian movement and enhanced levels of safety and security.

**Question:** What will be the source of funding for identified project?

**Answer:** Central, State, ULB and community Participation and funding from other development agencies through pooling of resources.

**Question:** Whether convergence with other scheme has been made. Please explain each identified projects and their source of funding such as AMRUT, 14th FC and also converge with other schemes.

**Answer:** No

## **5. Citizen Engagement**

Each alternative will be discussed with citizens and activities to be taken up will be prioritized to meet the service level gaps. The section will summarize the Citizens priorities for adoption of alternate solution of urban mobility, drawing on SLIP preparation.

Please provide information in 200 words responding to the following questions:

**Question:** Have all stakeholders including residents (RWAs), Transporters, RTOs, Traffic Police attended the citizen consultation?

**Answer:** Yes.

**Question:** Has alternate proposed crowd sourced?

**Answer:** Yes. Crowd and stakeholder sourced.

**Question:** What is feedback on the suggested alternatives and innovations?

**Answer:** the most important criteria for citizens is enhancing the public transport which can cater to almost all the areas of the city. Secondly, to designate various parking spaces so to decongest the main roads.

**Question:** Has alternative taken up for discussions are prioritized on the basis of consultations?

**Answer:**Yes

**Question:** What methodology adopted for prioritizing the alternatives?

**Answer:** Studying the entire area and identifying the loopholes in the service provision.

**Question:** How citizen has been exposed best practices and smart solutions in order to generate citizen-driven solutions for urban mobility?

**Answer:** Through presentations and seminars.

**Question:** Please examine whether identified solutions are addressing citizens requirement

**Answer:** Yes

**Question:** Whether ULB have adequate resources to implement prioritized alternate solutions?

**Answer:** No.

**Question:** How innovative alternate options of NMT facilities examined and shared with citizens?

**Answer:** Yes. Through presentations and study material.

## 6. Prioritization of projects

Based on the citizen engagement, ULB will prioritize these activities and their scaling up based on the available resources to meet the respective objective. (AMRUT Guidelines; para 6.6, 6.7 & 7.2). Please provide information in 200 words responding to the following questions:

**Question:** Are innovative solution prioritized based on the available resources and demand of citizens?

**Answer:**Yes.

**Question:** Has source of funding considered while prioritizing the project?

**Answer:**Yes

**Question:** Whether project has been prioritized considering last mile connectivity?

**Answer:**No

Table1:Possible Strategies to meet objectives

Priority No	Project (till 2030)	Cost (in Cr.)	Financing Source
1	Construction of Street Parking (AMRUT/OD/BALASORE/UT/01)	25.00	State/AMRUT
2	Preparation of DPR on City Mobility Plan (CMP) (AMRUT/OD/BALASORE/UT/02)	0.50	State/AMRUT
3	Augmentation of City Bus fleet (AMRUT/OD/BALASORE/UT/03)	10.00	State/AMRUT
4	Pilot Project - Pedestrianisation (AMRUT/OD/BALASORE/UT/04)	1.50	State/AMRUT
5	Construction of Bus Depots/Truck terminal (AMRUT/OD/BALASORE/UT/05)	7.00	State/AMRUT
6	Development of Transport Nagar (AMRUT/OD/BALASORE/UT/06)	10.00	State/AMRUT
7	Construction of Foot Over Bridges (AMRUT/OD/BALASORE/UT/07)	3.00	State/AMRUT

## 7. Out of Box Solution Used

Please provide information in 200 words responding to the following questions:

**Question:** What are the out of box thinking on alternative and new innovative solutions for the following;

a: Citizen friendly provision of barrier free pedestrian facilities including, footpaths, road marking and signages,

**Answer:** Escalators and underpasses for pedestrian movement, solar lighting and panels for signages and road marking.

**b: pathways**

**Answer:** Escalators and travelators, automated Subway Systems for pedestrian movement

**c: parking**

**Answer:** Automated Valet System, Mobile integrated citizen info systems, parking line alarms,

**d: traffic management using ITS**

**Answer:** Real Time Vehicle tracking using Satellite imagery

**Question:** Whether solution provided to improve the safety of vulnerable groups such as old age/handicapped/children

**Answer:** Yes

## 8. Conditionalities Fulfilled and Resilience Built-in

First and foremost condition is to identify the availability of land for projects such as parking, widening of roads for pedestrian, cycle tracks and hawkers zone. Further, agencies need to be brought on board for any new initiatives as part of convergence process and necessary approval and permissions.

Please provide information in 200 words responding to the following questions:

**Question:** Whether described the conditionalities of each project in terms of availability of land parking, widening of roads for pedestrian, cycle tracks and hawkers zone?

**Answer:** Yes, Government lands are available.

**Question:** How these projects will be funded? Are projects being implemented through own sources or borrowing then which is the commitment in this regard.

**Answer:** Both sources are considered. This can be done through Central, State, ULB and community Participation and funding from other development agencies through pooling of resources.

**Question:** Has environmental obligation such as clearances and NOC required? Please suggest action and initiatives need to be taken in this regards

**Answer:**No

## **9. Financial Plan**

Prepare Financial Plan for the complete life cycle of the prioritized development. The financial plan will include percentage share of different stakeholders (Centre, State, ULBs and) including financial convergence with various ongoing projects. Describe briefly the institutional arrangement), leveraging potential partnerships, convergence with other Government Schemes, monitoring and evaluation and also provide year-wise milestones and outcomes.

- **How the proposed finance plan is structured for transforming and creating infrastructure projects? Explain in 200 words how these institutional arrangements are leveraging partnership and converge with government scheme and provide list of individual projects which is being financed by various stakeholders.**

The financial plan is made considering 50 % Central grant and 50% state grant. Since the ULB do not have the financial capability, no share has been considered from ULBs.

- **Has financial plan prepared for identified projects based on financial convergence and consultation with funding partners?**

Yes, the project identified here does not include the ongoing projects which are covered under other scheme. Therefore, financial convergence from other schemes has not been planned for projects listed under this scheme. Since all the identified projects are funded under AMRUT on 50: 50 basis. Consultation with other funding partners is not required. However, consultation for involving other funding partners will be explored to achieve the objective of the mission.

- **What are the different sources of funding being tapped for this project.(75 words)**

Own Source, PPP mode and CSR source of funding will be tapped

- **Is the proposed financial structure is sustainable? If so then whether project has been categorized based on financial considerations (100 words)**

Yes, the financial structure proposed is sustainable. The state govt. is committed to contribute required funds for completing the projects. However, the O&M cost for these projects will be met from internal resources including collection of user charges. The projects have been categorized based on gap analysis identified for universal coverage as required under AMRUT scheme.

- **Have the financial assumptions been listed out? Please provide the list. (100 words)**

Yes, the financial assumption has been listed to work out the operational sustainability.

## 10. Finalization of Master Service Level Improvement Plan

**Question:** Discuss Draft Master Service Level Improvement Plan with citizen. Based on the final citizen consultations, prepare final Master Service Level Improvement Plan. Annual Plan will be prepared as an application for monitoring the improvement in achieving the service level indicators as targeted in the Service level improvement plan. (AMRUT Guideline; Table 2.1, 2.2, 2.3., 2.4 and 2.5) and Annual Plan (AMRUT Guidelines; Annexure-2, 3, 4, 5& 6)

**Answer:**

Details in financial plan shall be provided as per table 8.1, 8.2, 8.3, 8.4 and 8.5. These tables are based on amrut guidelines tables 2.1, 2.2, 2.3.1, 2.3.2, and 2.5.

### MASTER SERVICE LEVELS IMPROVEMENTS DURING MISSION PERIOD

(As per Table 2.2 of AMRUT guidelines) (Amount in Rs. Cr)

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Sl. No	Project Name	Physical Components	Change in Service Levels			Estimated Cost (in lakhs)
			Indicator	Existing	Proposed	
1	Road Improvement to Indra Gandhi Marg (ITI Chhak to Hemkapada)	Road Width, Average Speed	>30	25	40	424.82
2	Road Improvement from Mission Field Chhak to Central School Chhak via Circuit House such as Widening and Strengthening from 0-1.5 km	Road Width, Average Speed	>30	25	40	390.95
3	Road Improvement from railway station to church chhak via Zilla School such as widening & strengthening from 0 to 1.5kms	Road Width, Average Speed	>30	25	40	367.69
4	Road Improvement from Balasore bypass Road and (NUninjodi) to F.M. College Chhak Via Chunavati such as widening and strengthening from 0 to 3 kms	Road Width, Average Speed	>30	25	40	815.00
5	Road Improvement from FM Golei to Town P.s Chhak Via FandiChhak from 0 to 2.75kms	Road Width, Average Speed	>30	25	40	673.04
6	Road Improvement to DavChhak (Settlement office) to PadhuanpadaChhak Via Police line Chhak From 0/0 to 1/700km under ULB	Road Width, Average Speed	>30	25	40	460.58
UNDER ULB NON PLAN SCHEME						
7	Road Improvement from Banka KhajuriChhak to Sinduri such as widening and strengthening from 0/0 to 0/600 kms	Road Width, Average Speed	>30	25	40	140.70
UNDER STATE PLAN						
8	Improvement to Balasore bypass Road such as widening and strengthening from 6/400 to 8/740 km	Road Width, Average Speed	>30	25	40	399.96
Other Proposals						
10	Augmentation of CBS	Bus Fleet	80	30	50	2.40
11	Street Parking	Off Street Parking, MLP			3	15.00
12	Development of Transport Nagar			0	1	5.00
13	Over Bridges				9	15.00

14	Bus Depots and Truck terminal			0	2	7.00
15	DPR on City Mobility Plan	DRP to study feasibility of NMT, CBS etc	1	0	1	0.50

### ANNUAL FUND SHARING PATTERN FOR TRANSPORT PROJECTS (2020)

Sl. No	Name of Project	Total Project Cost (crores)	Share				
			Govt (50%)	State (50%)	ULB	Others	Total
1	Construction of Street Parking (AMRUT/OD/BALASORE/UT/01)	25.00	12.5	12.5	-	-	
2	Preparation of DPR on City Mobility Plan (CMP) (AMRUT/OD/BALASORE/UT/02)	0.50	0.25	0.25			
3	Augmentation of City Bus fleet (AMRUT/OD/BALASORE/UT/03)	10.00	5.0	5.0			
4	Pilot Project - Pedestrianisation (AMRUT/OD/BALASORE/UT/04)	1.50	0.75	0.75			
5	Construction of Bus Depots/Truck terminal (AMRUT/OD/BALASORE/UT/05)	7.00	3.5	3.5			
6	Development of Transport Nagar (AMRUT/OD/BALASORE/UT/06)	10.00	5.0	5.0			
7	Construction of Foot Over Bridges (AMRUT/OD/BALASORE/UT/07)	3.00	1.5	1.5			
Total		57.00	28.5	28.5			

### ANNUAL FUND SHARING BREAK-UP FOR TRANSPORT PROJECTS

(As per Table 2.3.2 of AMRUT guidelines)

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Sl. No	Project	Govt	State			ULB			Convergence	Others	Total
			14th FC	Others	Total	14th FC	Others	Total			
1	Construction of Street Parking (AMRUT/OD/BALASORE/UT/01)	12.5			12.5					25.00	
2	Preparation of DPR on City Mobility Plan (CMP) (AMRUT/OD/BALASORE/UT/02)	0.25			0.25					0.50	
3	Augmentation of City Bus fleet (AMRUT/OD/BALASORE/UT/03)	5.0			5.0					10.00	
4	Pilot Project - Pedestrianisation (AMRUT/OD/BALASORE/UT/04)	0.75			0.75					1.50	
5	Construction of Bus Depots/Truck terminal (AMRUT/OD/BALASORE/UT/05)	3.5			3.5					7.00	
6	Development of Transport Nagar (AMRUT/OD/BALASORE/UT/06)	5.0			5.0					10.00	
7	Construction of Foot Over Bridges (AMRUT/OD/BALASORE/UT/07)	1.5			1.5					3.00	
		28.5			28.5					57.00	



# Urban Transport

## Mission Management Information System

The objective of this template is to assist ULBs in preparation of SLIP for Green Space and Parks component for rejuvenation of at least one park in each of the 500 Urban Local Bodies (ULBs) involving creation and upgradation of basic elements, especially for the youth, children and the elderly. Rejuvenation also includes involving local citizens and groups in the maintenance and upkeep of the park in order to make the development sustainable. Cost of this component will be met from the 2.5 per cent annual allocation for development of parks under the Mission and used in accordance with its Guidelines. (Refer AMRUT Guidelines: Section 5.1 Sr.No.6, 6.7 & Annexure-1 Sr.No.4) SLIP would involve write up on following sections:

### 1. Assess the Service Level Gap

First and foremost aspect of SLIP is to assess the existing situation and service levels gaps for organised Green Space and Parks based on standards prescribed in URDPFI Guidelines (Refer AMRUT Guidelines; Para 3.1.6 & 6.2). This shall also include describing existing institutional framework vis-à-vis development and maintenance of organised green space/ parks. In order to assess the service level gap the City shall have to review all policies, plans; scheme documents etc., hold discussions with concerned officials and citizens, as per the requirement and conduct physical assessment of city parks to understand the current status (Refer Indicative Parks Assessment Tool as given in Annex-1 of this document). The city should undertake overall assessment of Parks and Open/ Green Space in terms of a) Physical Activities Resources, b) Family Facilities including child friendly play equipment's, c) Available General Services and Facilities, and, d) Aesthetics and other

While discussing about the existing status of the organised green space in your city make a sincere effort to analyze the proportion of area under the categorization of parks as per URDPFI Guidelines eg: Housing Area Park (HAP), Neighbourhood Park (NP) Community Park (CP), District Park (DP), and Sub-City Park (SCP). Also focus on qualitative aspects of existing parks like geographical distribution across the city, encroachments, child and elderly friendly features; staffing, maintenance & equipment issues; and maintenance by RWAs/ Corporates under their CSR Activities etc.

Please respond to the questions given below (Word Limit: 800 words).

#### **Question: What are the available data sources/ plans/ reports/ schemes that exist as regards development and maintenance of parks?**

Balasore municipality has done elementary tabulation of the existing parks such as name of the park, area, O&M costs and brief description about the parks apart from this there are no special plans or reports prepared for this sector. But the existing parks are developed with the help of state government and maintenance of the parks is covered in the municipal expenditure

#### **Question: Review the recommendation on open/ green space as per Master Plan/ Development Plan and map existing green cover against the same. Identify the areas where there is deficiency of open/green space**

There are two referring documents CDP and DRAFT Master Plan which provide the landuse % and stating that green spaces have to be developed in the city but there is no document where the deficiency of open/green spaces identified to fill the gap but there is a map showing the existing green space locations for the city.

**Question: Does the ULB follow URDPFI Guidelines to categorize its organized greens/ parks/ open space or follow its own categorization? If ULB follow its own categorization, what is the rationale and how well they are interlinked to development of parks?**

Baleswar municipality does not categorize the parks and open spaces as per the hierarchy of organized green spaces based on population and area criteria as prescribed by URDPFI guidelines it only categorizes parks in developed and undeveloped category .

**Question: What is the per person open space availability in the city in general and within built-up areas?**

1.03 hectares is the cumulative area of developed parks in the Balasore town apart from this there are many open spaces and playgrounds spread over the city for children’s to play and elders to take a fresh walk in the morning but these play grounds and not equipped with any amenities.

**Service Level Status**

Sr. .No	Indicators	Present Status	Benchmark	Source	Reliability Factors
1	Per person open space in plain areas as per URDPFI guidelines	0.09	10 -12 Sq. m	Municipality	C

Source: URDPFI–2014&AnalysisofULBLevelData

**Question: Have the ULB/ City prepared park wise inventory of facilities and amenities? (ULB should identify some of the quick-win parks, which could be developed with minimal intervention that can attract good number of citizens)**

Balasore municipality has done elementary tabulation of the existing parks such as name of the park, area, O&M costs and brief description about the parks apart from this they identified few parks for renovation which can attract a lot of people to use the parks and enhancing children friendly features identified by the municipality will make tem quick-win parks.

**Question: How is the physical condition of parks in the city? Do they have boundary wall, fenced area, facilities of public conveniences, tube well, dustbins etc. (Mention in proportions, if possible)**

Parks in Balasore municipality are in good physical condition overall , nevertheless two parks namely FAKIR MOAN CHILDREN PARK and SHANTIKANAN PARK lack in toilet facility and park furniture is not in a good shape .

**Question: Whether parks have well planned play area encouraging physical activity? Are they equipped with child friendly play equipments, snack/ ice cream parlours/ kiosks etc. (Mention in proportions, if possible)**

Except SHANTIKANANPARK rest two have dedicated play area but then no park is equipped with kiosks

**Question: How well aesthetics component have been built in parks of your city? Are they well illuminated, landscaped – manicured with water bodies/ fountains etc. wherever possible? (Mention proportions, if possible)**

Parks in Balasore municipality are in decent aesthetic condition overall, nevertheless SHANTIKANAN PARK has shortage of landscape and park furniture is not in a good shape

**Question: Are there some running schemes/ projects – Central/ State/ Donor funded in the city as regard development of parks/ open spaces? Or else ULB is funding park development of parks/ green space out of its own budget?**

Development of open spaces, green spaces and parks in Balasore are done with the help of state government and maintenance of the parks is covered by the municipal fund

**Question: Explain the process how a park/ open space is normally shortlisted for development? Does the city have rationale for park selection for development or it is done on ad-hoc basis.**

Balasore municipality shortlists the parks/open spaces in a unique process as follows

1. Identification of government lands in the city
2. Gap analysis based on the existing parks coverage
3. Initial prioritization based on the size and coverage of the park
4. Stakeholder consultation by the municipal engineers
5. Citizen consultation and enlightening them with the facts
6. Finally considering all the above aspects the chairperson and counsellors shortlists parks for development

**Question: List the organizations/ authorities/ private sector firms etc. and describe their roles and responsibilities in development of city parks/ open space along with green area under their jurisdiction.**

No such private sector firms /organizations are involved in the development or maintenance of any park in the city, all the parks are under the municipal authority and they operate and maintain.

**Question: Where can new parks be developed in the future; how much space may be available.**

Balasore municipality has identified few government lands in the municipal jurisdiction where there is a need for parks but the land is under the state body which has to be transferred to the municipality so that they can plan and execute the projects

**Question: How much is allocated under Parks/ Open/ Recreational space as per the DP or Master Plan for new areas?**

DP and DRAFT Master Plan which provide the land use and stating that green spaces have to be developed in the city but there is no allocated under Parks/ Open/ Recreational space as per the DP or Master Plan for new areas.

**Question: Who manages the parks in the city? How much delegation of responsibility has been given to RWAs and/or NGOs?**

Parks are undertaken by the municipality, no NGO's delegation of responsibility has been given.

**Question: Which parks have uneasy accessibility issues or get flooded/water logged etc.?**

All the existing parks are easy to access and there is no such problem of flooding/water logging etc transpired in the parks.

**Question: Does the ULB have any guidelines for providing safe and secure access to parks for children and elders?**

Private architects are hired for designing the parks and then the plans are reviewed by the internal technical experts with regard to safety, security and universal accessibility measures taken in the design and then finalize the plan for execution which makes parks in Balasore safe and secure for all age groups.

**Question: Is there a system for preventing the entry of animals into parks?**

All the existing parks in the BALASORE municipality are with the boundary wall so there is not even a single event occurred in the past few years that the animals entering the parks.

**Question: Does the city have any guidelines for horticulture; types of trees and plants, etc?**

City has not specifically followed any guidelines for horticulture or selecting type of trees or plants .the plan given by the landscape architect is followed and implemented on field because of shortage if capacity in that sector.

Table2:Jurisdiction wise–Allocation of Green Space and Parks

Sr. No	Jurisdiction	No. of Parks	Area of Parks (in hec)	Proportion (in Percentage)
1	ULB	3	1.03 hec	100
2	Development Authority	0	0	0
3	Private Ownership - Corporate/NGO's	0	0	0
	Total	3	1.03	100

Table3:Hierarchy of Organised Greens in the City (As per URDPFI-2014)

Sr. No	Category	Nb. of Parks	Area under the category (in hec)	% Area under parks and open spaces
1	Housing Area Park (HAP) (Less than 5000 Sq.m.)	3	1.03 hec	0.6 % as per CDP
2	Neighbourhood Park (NP)(5000 - 10000 sq.m.)	0	0	0
3	Community Park (CP) (10000 - 50000 sq.m)	0	0	0
4	District Park (DP) (50000 – 250000 Sq.m.)	0	0	0
5	Sub-City Park (SCP) (2,50,000sq.m. & above )	0	0	0

**2. Bridge the Gap**

Once the gap between the existing Service Levels is computed, list out initiatives undertaken in different ongoing programs/ projects/ master – development plans to address these gaps. While bridging the gaps convergence with other ongoing Central, State and Local Government Programs/ Schemes will also be looked into. Based on above, objectives will be developed to bridge the gaps (AMRUT Guidelines; Para 6.3, Annexure-2; Table 2.1). Each of the identified objectives will be evolved from the outcome of physical assessment of parks using “Assessment Tools for Parks” (Refer Annex-1 of this document) and meeting the opportunity to bridge the gap.

As per para 5.1 (Sr.No.6) of AMRUT guidelines all projects involving development of green spaces & parks shall have to make special provision for child friendly components and establish a system of maintenance with local residents participation. At least one park from each of the 500 ULBs under AMRUT would be taken up for developing facilities for Children, Youth and Elderly.

Assessment of the current status of City parks/ open spaces would clearly bring out the gap/ dearth of open spaces in terms of area allocation, having inadequate citizen friendly features and issues pertaining to its maintenance. And these will lead to formulation of three broad objectives. Please respond to the following questions in not more than 500 words

**Question: Have the city took physical assessment of city parks? (ULB's may refer Annex-1 indicative procurement of this document)**

**Question: Estimate the demand gap of open/green space in the city**

**Question: Explain how the city plans to fill the gap in green cover and progressively enhance green cover within City to 15% over next 5 years. ?**

Balasore municipality has done elementary tabulation of the existing parks and decided to construct a park every year and renovate the existing facilities so that they can fill the gap in green cover and within next decade green cover in te city will be close to 15 %.

**Question: Assess and describe, if requisite provisions as per Master Plan and other State legislation have already been made?**

No requisite provisions as per Master Plan and other State legislation have already been made

**Question: Explain the city's action plans to make special provisions for installing child friendly components in the city parks as per AMRUT Guidelines. ?**

SHANTIKANAN PARK which is birth place of fakir mohansneapati lacks in child friendly components s the municipality is planning to renovate the park apart from that all the new proposed parks are with child friendly components.

**Question: Provide details of the initiatives undertaken in different ongoing programs and projects to address the gaps in enhancing the green cover and rejuvenation/ development of parks. Provide information in Table 4.**

There are no ongoing projects in this sector as the city is concerned

Tabel4: StatusofOngoing/Sanctioned/Committed Projects

Sr. No.	Name of the Project	Scheme Name	Cost in Rs. Lakhs	Month of Completion	Status (as on dd mm 2015)

## OBJECTIVES

Based on above, objectives will be developed to bridge the gaps. While developing objectives following question shall be responded so as to arrive at appropriate objective.

**Question: Please provide a set of 2-3 objectives to meet the gap in not more than 100 words.**

1. Installation of child friendly equipment
2. Image of wild life to be conserved
3. Urban greenery in prioritization through plantation on both sides of all pivot routes
4. Identification of huge vacant lands in the city to build parks

### 3. Examine Alternatives and Estimate Cost

**Suggest alternatives/ options to complete the ongoing projects pertaining to developing parks and green spaces. Identify quick-win parks and open space which can also have play area and associated facilities for Children, Youth & Elderly. Also identify & describe the prevailing models of parks development & maintenance in your city? Any new model your city wishes to adopt? (Word Limit: 200 Words)**

City is trying to incorporate the industries surrounded by to take reasonability and develop parks as part of corporate social responsibility to compensate the pollution created by tm in the city .these are in the stages of discussion but under implementation

Tabel 4: Cost Estimates for Park Development

Sr. No.	Component	Rate	Amount in Rs.
Grand Total			3804900

As per AMRUT guidelines half of Rs. Cr. may be sought from Government of India under the scheme and balance could be explored and converged from other sources like 14th Finance Commission, State Government (Park Development Fund) and CSR Activities of Corporate Groups active in the City.

### 4. Citizen Engagement

ULBs will organize and conduct city level citizen consultation and receive feedback on the suggested alternatives and innovations. Each alternative pertaining to development and maintenance models for parks 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. (Refer AMRUT Guidelines; Para 6.6, 6.7 & 7.2). Please explain following questions detailing out the needs, aspirations and wishes of the local people. (Word Limit: 250 Words)

**Question: Has all relevant stakeholders groups been involved in the consultation?**

Private architects are hired for designing the parks and then the plans are reviewed by the internal technical experts and then the discussions are carried out to the all relevant stakeholders groups

**Question: Explore option for O&M Contracts including PPPP with (RWAs/ Citizens Groups/ Corporate Groups – CSR, Selling advertisement rights etc.).**

City is trying to incorporate the industries surrounded by to take reasonability and develop parks as part of corporate social responsibility to compensate the pollution created by tm in the city .these are in the stages of discussion but under implementation

**Question: Explain how the city plans to establish a system of maintenance with active citizen's engagement as per AMRUT Guidelines.**

**Question: Has ward/ zone level consultations held in the city**

Ward level consultations are done after the stakeholder consultation and they are used for prioritization of the projects

**Question: Has alternatives explored are crowd sourced?**

No

**Question: What is feedback on the suggested alternatives and innovations?**

3 times consultation programs were held under the chairmanship of collector Balasore for development of Balasore town all the feedbacks and suggestions are considered in planning the parks

**Question: Has alternative taken up for discussions are prioritized on the basis of consultations?**

No it is not done based on consultation initially, all the technical aspects are considered by engineers & the chair person

**Question: What methodology adopted for prioritizing the alternatives?**

Balasore municipality prioritizes the parks/open spaces in an exclusive process as follows

1. Gap analysis based on the existing parks coverage
2. Initial prioritization based on the size and coverage of the park
3. Citizen consultation and enlightening them with the facts and ask their priorities
4. Finally considering all the above aspects the chairperson and counsellors prioritizes parks for development

## **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 (Word Limit: 100 Words)

**Question: What are the sources of funds?**

**The funds are divided into three parts**

1. **Construction of parks 50% from AMRUT(GOI)**
2. **Construction of parks 50% from STATE GOVERNMENT**
3. **O&M cost by ULB 100%**

**Question: Has projects been converged with other program and scheme**

No

**Question: Has projects been prioritized based on "more with less" approach?**

YES the projects undertaken are prioritized based on "more with less" approach in such a way that we spend less money and coverage is more

## 6. Conditionalities

**1.1 Describe the Conditionality's of each project in terms of availability of land, environmental & social obligation and clearances, required NOC, financial commitment, approval and permission needed to implement the project. Required approvals will be sought from competent authority and organizations. (Word Limit: 100 words)**

Balasore municipality has identified few government lands in the municipal jurisdiction where there is a need for parks but the land is under the state body which has to be transferred to the municipality so that they can plan and execute the projects if provided funds on time by the state & central government, and approval of DPR by the apex committee

## 7. Resilience

The resilience factor would be built in to ensure environmentally sustainable, safe and secured park development schemes. Ensure use of rust free sturdy steel structures for child and elderly friendly features. (Word Limit: 100 words)

Plans are reviewed by the internal technical experts with regard to safety, security and universal accessibility measures taken in the design and then finalize the plan for execution which makes parks in Balasore safe and secure for all age groups. And the materials used considering there sustainability in mind

## 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 (Word Limit: 100 words)

- **How the proposed finance plan is structured for transforming and creating infrastructure projects?**

The financial plan is made considering 50 % Central grant and 50% state grant.

- **List of individual project which is being financed by various stakeholders?**

All the projects listed are planned under AMRUT on the basis of 50 % Central grant and 50% state grant.

- **Has financial plan prepared for identified projects based on financial convergence and consultation with funding partners?**

Yes, the project identified here does not include the ongoing projects which are covered under other scheme. Therefore, financial convergence from other schemes has not been planned for projects listed under this scheme. Since all the identified projects are funded under AMRUT on 50: 50 basis. Consultation with other funding partners is not required. However, consultation for involving other funding partners will be explored to achieve the objective of the mission.

- **Is the proposed financial structure is sustainable? If so then whether project has been categorized based on financial considerations?**

Yes, the financial structure proposed is sustainable. The state govt. is committed to contribute required funds for completing the projects. However, the O&M cost for these projects will be met from internal resources including collection of user charges. The projects have been categorized based on gap analysis identified for universal coverage as required under AMRUT scheme.

- **Have the financial assumptions been listed out?**

Yes, the financial assumption has been listed to work out the operational sustainability.

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

Yes, the financial plan takes care of both CAPEX and OPEX costs to ensure sustenance throughout the life cycle of all projects identified in SLIP.

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

Yes, the financial plan is based on 50 % Central grant and 50% state grant.

- **Does it include financial convergence with various ongoing projects?**

Yes, it includes financial and physical convergence with various ongoing projects under different schemes supported by both Central & State grant.

- **Does it provide year-wise milestones and outcomes?**

Yes, it has been provided

Details in financial plan shall be provided as per Table 2.7, 2.8, 2.9, 2.10 and 2.11. These tables are based on AMRUT guidelines tables 2.1, 2.2, 2.3.1, 2.3.2, and 2.5.

## MASTER SERVICE LEVELS IMPROVEMENTS DURING MISSION PERIOD

(As per Table 2.2 of AMRUT guidelines) (Amount in Rs.Cr)

(Amount in Rs. Cr)

Sr. No.	Project Name	Physical Components				Estimated Cost (Cr)
			Indicator	Existing (As-Is)	After (To-be)	
1	Construction Park Infront of Balangi College, Backhua in Balasore - AMRUT/OD/Balasore/PR/01					1.20
2	Construction of Digrohnia Pond Side Park in Balasore - AMRUT/OD/Balasore/PR/02					0.40
3	Construction of Kalyan Nagar Park at Angargadia in Balasore - AMRUT/OD/Balasore/PR/03					0.24
4	Construction of park in Balasore at Sovarampur - AMRUT/OD/Balasore/PR/04					0.20
5	Construction of park in Balasore near Chandmari Padia - AMRUT/OD/Balasore/PR/05					0.20
6	Construction of Shantikanan Park in Balasore - AMRUT/OD/Balasore/PR/06					2

## ANNUAL FUND SHARING PATTERN FOR PARKS AND GREEN SPACE PROJECTS

(As per Table 2.3.1 of AMRUT guidelines)

(Amount in Rs. Cr)

Sr. No.	Name of the Project	Total Project Cost (Cr)	Fund Source				Total (in Cr)
			GOI	State	ULB	Other	
1	Construction Park Infront of Balangi College, Badkhua in Balasore - AMRUT/OD/Balasore/PR/01	1.20	0.6	0.6			1.20
2	Construction of Digrohnia Pond Side Park in Balasore - AMRUT/OD/Balasore/PR/02	0.40	0.20	0.20			0.40
3	Construction of Kalyan Nagar Park at Angargadia in Balasore - AMRUT/OD/Balasore/PR/03	0.24	0.12	0.12			0.24
4	Construction of park in Balasore at Sovarampur - AMRUT/OD/Balasore/PR/04	0.20	0.10	0.10			0.20
5	Construction of park in Balasore near Chandmari Padia - AMRUT/OD/Balasore/PR/05	0.20	0.10	0.10			0.20
6	Construction of Shantikanan Park in Balasore - AMRUT/OD/Balasore/PR/06	2	1.00	1.00			2

## ANNUAL FUND SHARING BREAK\_UP FOR PARKS and PLAY GROUND PROJECTS

(As per Table 2.3.2 of AMRUT guidelines)

Sr. No	Project	GOI	State			ULB			Convergence	others	Total
			14th Fc	Others	Total	14th Fc	Others	Total			
1	Construction Park Infront of Balangi College, Badkhua in Balasore - AMRUT/OD/Balasore/PR/01	0.6			0.6					1.20	
2	Construction of Digrohnia Pond Side Park in Balasore - AMRUT/OD/Balasore/PR/02	0.20			0.20					0.40	
3	Construction of Kalyan Nagar Park at Angargadia in Balasore - AMRUT/OD/Balasore/PR/03	0.12			0.12					0.24	
4	Construction of park in Balasore at Sovarampur - AMRUT/OD/Balasore/PR/04	0.10			0.10					0.20	
5	Construction of park in Balasore near Chandmari Padia - AMRUT/OD/Balasore/PR/05	0.10			0.10					0.20	
6	Construction of Shantikanan Park in Balasore - AMRUT/OD/Balasore/PR/06	1.00			1.00					2	

## YEAR WISE PLAN FOR SERVICE LEVELS IMPROVEMENTS

(As per Table 2.5of AMRUT guidelines)

Proposed Project	Project Cost	Indicator	Baseline	Annual targets (Increments from the baseline value)					
				FY 2016		FY 2017	FY 2018	FY 2019	FY 2020
				H1	H2				
Construction Park In front of Balangi College, Badkhua in Balasore - AMRUT/OD/Balasore/PR/01	1.20								
Construction of Digrohnia Pond Side Park in Balasore - AMRUT/OD/Balasore/PR/02	0.40								
Construction of Kalyan Nagar Park at Angargadia in Balasore - AMRUT/OD/Balasore/PR/03	0.24								
Construction of park in Balasore at Sovarampur - AMRUT/OD/Balasore/PR/04	0.20								
Construction of park in Balasore near Chandmari Padia - AMRUT/OD/Balasore/PR/05	0.20								
Construction of Shantikanan Park in Balasore - AMRUT/OD/Balasore/PR/06	2								

Annex-1: Indicative Assessment Tools for Parks (Indicative – ULBs can have its own assessment tool as per the requirement or customize this tool to suit its need)