

# Checklist for Assessment of STPs for Co-treatment of Fecal Sludge

**Assessment objective:** This assessment aims to determine the feasibility of using unused capacity at sewage treatment plants to treat FS along with sewage. A separate assessment of decanting facility capacity and performance is also being undertaken to understand the feasibility of co-treatment in each city.

**Assessment Target:** ULBs with sewage treatment plant. If there is more than one STP per town, please use separate checklist for each of the STP.

**Assessment Information:** The assessment will be carried out by the ULB officers, and findings from the same should be shared with the respective ULB.

I. CITY DETAILS	
1.	Name of Corporation/Municipality
2.	District Name
3.	Name of Assessor
4.	Designation of Assessor
5.	Name of Authorizing Officer
6.	Designation and Contact information of Authorizing Officer
7.	Mobile No.
8.	Email id
9.	Office address
10.	Date of Assessment
	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <input type="text"/> <input type="text"/> Date         </div> <div style="text-align: center;"> <input type="text"/> <input type="text"/> Month         </div> <div style="text-align: center;"> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> Year         </div> </div>

II. DESIGN OF SEWAGE TREATMENT PLANT		
1.	Name of the STP	
2.	Geo-coordinates of the STP	a) Lat : b) Long :
3.	Design capacity of the STP (in MLD)	<input type="text"/> <input type="text"/>
4.	Treatment technology used at the STP (TICK IN THE BOX GIVEN AGAINST THE OPTIONS)	a) Conventional Activated Sludge <input type="checkbox"/> b) Waste Stabilisation Pond <input type="checkbox"/> c) UASB <input type="checkbox"/> d) SBR <input type="checkbox"/> e) Others (Specify) <input type="checkbox"/> -----

II. DESIGN OF SEWAGE TREATMENT PLANT		
5.	Design inlet BOD and TSS levels (in mg/l)	a) BOD: <input type="text"/> <input type="text"/> b) TSS: <input type="text"/> <input type="text"/>
6.	Total area and estimated population served by the STP	a) Area: b) Population:
7.	No. of connections (HSCs) connected to the UGD network	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
8.	Year of construction	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

III. LOCATION AND ACCESS DETAILS		
1.	Distance of the STP from the SPS? (in km)	a) <input type="checkbox"/> <input type="checkbox"/> b) No pumping station <input type="checkbox"/> (Go to Q.3)
2.	What areas within the city are served by the STP?	
3.	What type of neighbourhood is the STP located in? (TICK IN THE BOX GIVEN AGAINST THE OPTIONS)	a) Largely residential <input type="checkbox"/> b) Densely populated <input type="checkbox"/> c) Near market area <input type="checkbox"/> d) Outskirt/periphery areas <input type="checkbox"/> e) Others (Specify) <input type="checkbox"/> -----

III. LOCATION AND ACCESS DETAILS		
4.	What is the distance to the nearest residence from the STP? (TICK IN THE BOX GIVEN AGAINST THE OPTIONS)	a) < 100 m <input type="checkbox"/> b) 100 – 300 m <input type="checkbox"/> c) 300 – 500 m <input type="checkbox"/> d) >500 m <input type="checkbox"/>
5.	Does the access road pass through areas of habitation? (TICK IN THE BOX GIVEN AGAINST THE OPTIONS)	a) Yes <input type="checkbox"/> (Continue) b) No <input type="checkbox"/> (Go to Q.7)
6.	Will there be challenges in passage of vehicle through residential areas/ markets etc? (TICK IN THE BOX GIVEN AGAINST THE OPTIONS)	a) Yes <input type="checkbox"/> b) No <input type="checkbox"/>

III. LOCATION AND ACCESS DETAILS		
7.	Type of external access- roads to the STP (TICK IN THE BOX GIVEN AGAINST THE OPTIONS)	
	<b>a) Type</b>	<b>b) Width</b>
	i. Single lane <input type="checkbox"/>	i. <3 m <input type="checkbox"/>
	ii. Two lane-undivided <input type="checkbox"/>	ii. 3-4.5m <input type="checkbox"/>
	iii. Two lane-divided <input type="checkbox"/>	iii. 4-7m <input type="checkbox"/>
	iv. Multi-lane <input type="checkbox"/>	iv. >7m <input type="checkbox"/>
	v. Others (Specify) <input type="checkbox"/>	
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		<b>c) Condition</b>
		i. Paved and in good condition <input type="checkbox"/>
		ii. Paved but road condition requires improvement (eroded / potholes) <input type="checkbox"/>
		iii. Unpaved road <input type="checkbox"/>
		iv. Others (Specify) <input type="checkbox"/>
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IV. STP PERFORMANCE		
1.	Current average daily flow received at the STP? (in MLD)	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
2.	Describe the treatment train (treatment units) at the STP (Individual units, and their capacities)	
	<b>a) Individual Units</b>	<b>b) Capacity</b>
	Unit 1	
	Unit 2	
	Unit 3	
3.	Actual sewage characteristics at inlet to the STP? (Measured after commissioning or during O&M of the STP) (in mg/l)	a) BOD: <input type="text"/> <input type="text"/> b) TSS: <input type="text"/> <input type="text"/> c) COD: <input type="text"/> <input type="text"/>

IV. STP PERFORMANCE						
4.	If available, provide monthly average BOD & TSS at the inlet and outlet of each process unit in mg/l as analysed for the last 2 years:					
	<b>Sewage characteristics</b>	<b>Unit 1</b>	<b>Unit 2</b>	<b>Unit 3</b>	<b>Unit 4</b>	<b>Unit 5</b>
	a) BOD					
	b) TSS					
5.	Average effluent quality parameters at the STP? (in mg/l)		a) BOD: <input type="text"/> <input type="text"/> b) TSS: <input type="text"/> <input type="text"/> c) COD: <input type="text"/> <input type="text"/>			
6.	Type of receiving body/ environment for disposal of the treated wastewater (TICK IN THE BOX GIVEN AGAINST THE OPTIONS)		a) River <input type="checkbox"/> b) Stream <input type="checkbox"/> d) Land <input type="checkbox"/> e) Irrigation <input type="checkbox"/> f) Others (Specify) <input type="checkbox"/> -----			

V. FINAL DISCHARGE/REUSE OF TREATED WATER		
1.	Process adopted for sludge treatment (drying beds/mechanical dewatering/anyother method) with capacity details	
	a) Process	
	b) Capacity	
2.	Is treated water reused for any purpose? (TICK IN THE BOX GIVEN AGAINST THE OPTIONS)	a) Yes <input type="checkbox"/> (Continue) b) No <input type="checkbox"/> (Go to Q.6)

V. FINAL DISCHARGE/REUSE OF TREATED WATER		
3.	If <b>YES</b> , please provide details	a) Irrigation <input type="checkbox"/> b) Sale to industry <input type="checkbox"/> c) Sale to commercial establishments <input type="checkbox"/> d) Others (Specify) <input type="checkbox"/> -----
4a.	Are there specific water quality criteria that are required to be met by the STP? (TICK IN THE BOX GIVEN AGAINST THE OPTIONS)	a) Yes <input type="checkbox"/> (Continue) b) No <input type="checkbox"/> (Go to Q.6)
4b.	If, <b>YES</b> please describe the same	
5.	List of non compliances if any reported by the Pollution control board/court if any:	
6.	List out any structural damages & malfunctioning of process units /equipment.	
7a.	Is there concern of odor from the STP in its current state of operation? (TICK IN THE BOX GIVEN AGAINST THE OPTIONS)	a) Yes <input type="checkbox"/> (Continue) b) No <input type="checkbox"/> (GO TO SECTION VI)
7b.	If <b>YES</b> , please specify if specific units are a concern.	

**SECTION VI SEEKS INFORMATION ON THE FOLLOWING:**

- **Co-treatment at STP**
- **Availability of space within the STP including internal access**
- **Existing STP infrastructure**

VI. AVAILABILITY OF SPACE AND EXISTING INFRASTRUCTURE		
1.	Does the STP currently receive fecal sludge for co-treatment?	a) Yes <input type="checkbox"/> (Continue) b) No <input type="checkbox"/> (Go to Q.5)
2.	If <b>YES</b> , since when (Year) has the STP been receiving fecal sludge?	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
3.	On an average, how many trucks empty fecal sludge in a day at the STP?	<input type="text"/> <input type="text"/>
4.	What is the average capacity of the trucks that empty fecal sludge at the STP? (in litres)	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
5.	Average volume of fecal sludge received in a week (in MLD)	<input type="text"/> <input type="text"/>
6.	What are challenges faced by the STP in receiving fecal sludge? For example, poor external and internal access, odour, lack of human resource, etc	
7.	Is the internal access road to STP wide enough for the septage truck (3.5 m width, 9 m length, dimensions to be confirmed) movement? (TICK IN THE BOX GIVEN AGAINST THE OPTIONS)	a) Yes <input type="checkbox"/> b) No <input type="checkbox"/>
8.	Is there enough space within the STP premises for a septage truck (3.5 m width, 9 m length, dimensions to be confirmed) to enter, turn around and exit? (TICK IN THE BOX GIVEN AGAINST THE OPTIONS)	a) Yes <input type="checkbox"/> b) No <input type="checkbox"/>
9.	Is there a point such as collection well etc. in which the septage trucks can empty septage/ fecal sludge/ sewage from ground level (TICK IN THE BOX GIVEN AGAINST THE OPTIONS)	a) Yes <input type="checkbox"/> (Go to Q.11) b) No <input type="checkbox"/> (Continue)
10.	If the response ' <b>NO</b> ' to above question, can a simple ramp be constructed for the trucks to empty? (TICK IN THE BOX GIVEN AGAINST THE OPTIONS)	a) Yes <input type="checkbox"/> (Go to Q.12) b) No <input type="checkbox"/> (Go to Q.12)

VI. AVAILABILITY OF SPACE AND EXISTING INFRASTRUCTURE		
11.	(OPTIONAL) If <b>YES</b> , approximate cost of the ramp in Rs. Lakhs:	
12.	Existing Infrastructure for Pre-treatment	
	<b>A. Type</b>	<b>B. Availability</b>
		<b>C. If Yes in 'B', current working condition</b>
	i. Coarse screen	Yes <input type="checkbox"/> No <input type="checkbox"/>
		Working <input type="checkbox"/> Needs major refurbishment <input type="checkbox"/>
	ii. Fine screen	Yes <input type="checkbox"/> No <input type="checkbox"/>
		Working <input type="checkbox"/> Needs major refurbishment <input type="checkbox"/>
	iii. Grit removal	Yes <input type="checkbox"/> No <input type="checkbox"/>
		Working <input type="checkbox"/> Needs major refurbishment <input type="checkbox"/>
	iv. Screening disposal arrangements	Yes <input type="checkbox"/> No <input type="checkbox"/>
		Working <input type="checkbox"/> Needs major refurbishment <input type="checkbox"/>
	v. Others (Specify) ----- -	Yes <input type="checkbox"/> No <input type="checkbox"/>
		Working <input type="checkbox"/> Needs major refurbishment <input type="checkbox"/>
13.	What is the total built area available at the STP? (in m <sup>2</sup> )	<input type="text"/> <input type="text"/>

VI. AVAILABILITY OF SPACE AND EXISTING INFRASTRUCTURE		
14.	What is the total unbuilt area available at the STP? (in m <sup>2</sup> )	i. Area covered by trees <input type="text"/> <input type="text"/> ii. Area covered by shrubs, grass <input type="text"/> <input type="text"/> iii. Parking space <input type="text"/> <input type="text"/> iv. Others (Specify) <input type="text"/> <input type="text"/> -----
15.	What is the size of the discharge mains from the STP?	<input type="text"/> <input type="text"/>
16.	Is there existing room/space for operators? (TICK IN THE BOX GIVEN AGAINST THE OPTIONS)	a) Yes <input type="checkbox"/> b) No <input type="checkbox"/>



VI. AVAILABILITY OF SPACE AND EXISTING INFRASTRUCTURE			
17.	Is there access to water supply at the STP? (TICK IN THE BOX GIVEN AGAINST THE OPTIONS)	a) Yes	<input type="checkbox"/>
		b) No	<input type="checkbox"/>
18.	Is there access to toilet and washroom facilities at the STP? (TICK IN THE BOX GIVEN AGAINST THE OPTIONS)	a) Yes	<input type="checkbox"/>
		b) No	<input type="checkbox"/>
19.	Feasibility for construction of additional infrastructure for STP		
	i. Is there space to construct an underground storage tank to receive fecal sludge? (TICK IN THE BOX GIVEN AGAINST THE OPTIONS)	a) Yes	<input type="checkbox"/>
		b) No	<input type="checkbox"/>
	ii. If an operator room does not exist, Is there space to construct one? (TICK IN THE BOX GIVEN AGAINST THE OPTIONS)	a) Yes	<input type="checkbox"/>
		b) No	<input type="checkbox"/>

VII. CO-TREATMENT RECEIVING INFRASTRUCTURE			
1.	Access roads to the STPs (TICK IN THE BOX GIVEN AGAINST THE OPTIONS)		
	<b>a) Type</b>	<b>b) Width</b>	<b>c) Condition</b>
	i. Single lane <input type="checkbox"/>	i. <3 m <input type="checkbox"/>	i. Paved and in good condition <input type="checkbox"/>
	ii. Two lane-undivided <input type="checkbox"/>	ii. 3-4.5m <input type="checkbox"/>	ii. Paved but road condition requires improvement (eroded / potholes) <input type="checkbox"/>
	iii. Two lane-divided <input type="checkbox"/>	iii. 4-7m <input type="checkbox"/>	iii. Unpaved road <input type="checkbox"/>
	iv. Multi-lane <input type="checkbox"/>	iv. >7m <input type="checkbox"/>	iv. Others (Specify) <input type="checkbox"/>
	v. Others (Specify) <input type="checkbox"/> -----		-----

VIII. STAFF			
1.	Are there dedicated staff for receiving fecal sludge at the STP? (TICK IN THE BOX GIVEN AGAINST THE OPTIONS)	a) Yes	<input type="checkbox"/> (Continue)
		b) No	<input type="checkbox"/> (Go to Q.1b)
1a.	If <b>YES</b> , give details of their designation and role		
	<b>Designation</b>	<b>Role</b>	
a.			
b.			



<b>VIII. STAFF</b>		
c.		
1b.	If <b><u>NO</u></b> , from the existing staff who additionally handles the fecal sludge that is received at the STP? MENTION THE DESIGNATION AND THEIR ROLE	
	<b>Designation</b>	<b>Role</b>
a.		
b.		
c.		

Signature of the Assessor:

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