

**BEFORE THE NATIONAL GREEN TRIBUNAL,
SOUTHERN ZONE, CHENNAI**

Original Application no. 141/2021 (SZ)

State of Kerala & Others : Respondent(s)

**Report filed by the Chief Environmental Engineer,
Kerala State Pollution Control Board, Regional Office, Thiruvananthapuram
on behalf of the Kerala State Pollution Control Board,
in Original Application No. 141/2021 (SZ)**



Adv. Remasmrithi.V.K

ADDITIONAL STANDING COUNSEL

RESPONDENT No.5

**BEFORE THE NATIONAL GREEN TRIBUNAL,
SOUTHERN ZONE, CHENNAI**

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Tribunal on its own motion SUO MOTU
based on the News Item in Kerala Kaumudi
Newspaper, web edition dt: 06.06.2021,
“A New Ray of Life for Pallikkalar”.

Vs.

The Principal Secretary to Government of Kerala,
Department of Environment,
Thiruvananthapuram
and Ors

... Respondents

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Dated this the 12th day of December 2022.



Remasmrithi. V.K., Advocate
Additional Standing Counsel
Respondent No.5

**BEFORE THE HONOURABLE NATIONAL GREEN TRIBUNAL
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VERIFICATION

I, Sreekala S. , Chief Environmental Engineer, Kerala State Pollution Control Board, Regional Office, Thiruvananthapuram, The 5th respondent, do hereby verify on this the 12th day of December 2022, that all what is stated above are true and correct to the best of my knowledge, information and belief.



A handwritten signature in blue ink, appearing to be "Sreekala S.", written over a faint circular stamp.

SREEKALA S.
Chief Environmental Engineer
Sreekala S.
Chief Environmental Engineer
KSPCB

BEFORE THE HONOURABLE NATIONAL GREEN TRIBUNAL

SOUTH ZONE, CHENNAI

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Report filed by Chief Environmental Engineer, Kerala State Pollution Control Board, Regional Office, Thiruvananthapuram on behalf of The Kerala State Pollution Control Board, in Original Application No. 141/2021.

The report is filed in accordance with the order of the Hon’ble NGT dated 30/09/2022 in O.A.No.141/2021. The Board had submitted its report on 28/09/2022 with the finding that the Pallickal river is polluted mainly due to the presence of Total coliforms and fecal coliforms and the local bodies shall take necessary action to treat the sewage/sullage and also the municipal solid waste generation from their jurisdiction.

The Hon’ble NGT vide order dated 30/09/2022 in the above O.A. has suggested the Board to initiate appropriate action against the Panchayat for not establishing STP’s and also not removing the encroachments.




1 **SREEKALA S.**
Chief Environmental Engineer

The major portion of the river flowing through Kollam and Pathanamthitta districts and only 2 rivulets were identified in Alappuzha district. It was reported from Kollam District Office that the major problem is encroachment and dumping of solid waste and discharge of domestic effluent to the river. The survey and investigation of the Pallickal river in the Pathanamthitta district revealed that there are chances of discharge of sewage/sullage into the river due to the presence of Total coliforms and fecal coliforms.

In accordance with the order, in O.A. No. 141/2022 Board initiated action against the local bodies. The status is reported as follows.

- 1) It was reported from the District Office, Pathanamthitta, the sample analysis of Pallickal river at 10 locations during the period 2021 August to November showed the presence of coliforms which indicate the discharge of sewage into the river. Directions were issued vide letter dated 02/11/2022 to the Adoor and Ezhamkulam Panchayat from District Office to take action against the discharge of sewage into the river. Vide letter dated 09/11/2022, Adoor Municipality reported that there was sewage discharge into the river due to the leakage of septic tanks from three houses located near the bank of the river and that houses and their septic tanks were damaged during a natural calamity in 2021 and these tanks are relocated and at present there is no discharge of sewage into the river. Adoor Municipality submitted Action Plan including “City sanitation action plan for Toilets’ vide letter dated 07/12/2022. The letter and action plan received from the Adoor Municipality is submitted as **Annexure 1**. The letter received from Ezhamkulam Panchayat is submitted as **Annexure 2**.



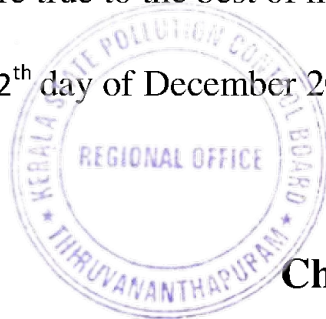
2

SREEKALA S.
Chief Environmental Engineer

- 2) It was reported from Kollam district that directions were given to Karunagappally Municipality, Sooranad, Thazhava, Thodiyoor, Mynagappally, Panmana, Thevalakkara and Poruvazhy Panchayats vide letter dated 08/11/2022 to ensure that no sewage is discharged to Pallickal river from houses as well as establishments. The action taken report from the local bodies is yet to be received.
- 3) Directions were also issued to the Environmental Engineer, District Office, Pathanamthitta, and Kollam to submit details of defaulting local bodies and action taken against them and also to take action including imposing of Environmental compensation to the local bodies for their non-compliance if noticed. Copy of the direction is submitted as **Annexure 3**. Necessary follow up action is being taken in this regard.

All that stated above are true to the best of my knowledge and belief.

Dated this the 12th day of December 2022.



A handwritten signature in blue ink, appearing to be "Sreekala S.", written over a faint circular stamp.

SREEKALA S.
Chief Environmental Engineer

Chief Environmental Engineer

KSPCB

Solemnly affirmed and signed by the deponent who is known to me on this
the 12th day of December 2022.

**BEFORE THE HONOURABLE
NATIONAL GREEN
TRIBUNAL (SZ)**

OA no. 141/2021 (SZ)

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Environmental Engineer,
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Adv. Remasmrithi.V.K

ADDITIONAL
STANDING COUNSEL
RESPONDENT No.5
9445782946

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Dated this the 12th day December 2022.

Remasmrithi V.K., Advocate
Additional Standing Counsel
Respondent No.5

“ മരണ ഭാഷ മാതൃ ഭാഷ ”



അടൂർ നഗരസഭാ കാര്യാലയം

Phone : Office:04734-228362 ; 228228
Email : secyadr@gmail.com
Website : www.aadoormunicipality.in

നമ്പർ : H₁- 83/2021

തീയതി : 09/11/2022

പ്രേഷകൻ

സെക്രട്ടറി
അടൂർ നഗരസഭ

സ്വീകർത്താവ്

പരിസ്ഥിതി എഞ്ചിനീയർ,
കേരളാ സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്,
ജില്ലാ ഓഫീസ്, ജനറൽ പോസ്-പിറ്റമിനു എതിർവശം,
കെ.കെ.നായർ റോഡ്, കുന്നിതോട്ടത്തിൽ ബിൽഡിംഗ്,
പത്തനംതിട്ട - 689645.

സർ,

വിഷയം : അടൂർ നഗരസഭ -ആരോഗ്യ വിഭാഗം - OA-141/2022-പള്ളിക്കണ്ടാറിന്റെ മലിനീകരണം സംബന്ധിച്ച്.

സ്വപന : താങ്കളുടെ 02/11/2022 ലെ PCB/PTA/TG/353/2021-ാം നമ്പർ കത്ത്.

അടൂർ നഗരസഭാ പരിധിയിലുള്ള പള്ളിക്കണ്ടാർ കടന്നു പോകുന്ന പുഴയോരത്ത് സ്ഥിതി ചെയ്യുന്ന മൂന്ന് റിപ്പുകളിലെ സെപ്റ്റിക് ടാങ്കിലെ ചോർച്ച മൂലം ഭയപ്പെട്ട് താലിനും പുഴയിലേക്ക് ഒഴുകിയെത്തിയിരുന്നതാണ്. 2021-ൽ ഉണ്ടായ ശക്തമായ മേഘ വിസ്മയം മൂലം തെങ്ങുകൾക്ക് പള്ളിക്കണ്ടാറിൽ ശക്തമായ ജലപ്രവാഹം ഉണ്ടാകുകയും ടി സെപ്റ്റിക് ടാങ്കുകൾ സ്ഥിതി ചെയ്തിരുന്ന സ്കന്റുടെ തീരത്തുള്ള റിപ്പുകൾ ഉൾപ്പെടെയുള്ള കെട്ടിടങ്ങൾക്ക് നാശനഷ്ടം ഉണ്ടാകുകയും ചെയ്തിട്ടുള്ളതാണ്. ടി കെട്ടിടങ്ങളുടെ നാശനഷ്ടങ്ങൾ പരിഹരിച്ച സമയത്ത് ടി സെപ്റ്റിക് ടാങ്കുകൾ മാറ്റി സ്ഥാപിക്കുകയും ചെയ്തിട്ടുള്ളതാണ്. നിങ്ങളിൽ കടന്നു മാലിന്യം ജലാശയ മലിനീകരണത്തിന് കാരണമാകുന്നില്ലായെന്നുള്ള വിവരം റിപ്പോർട്ട് ചെയ്യാനുള്ളതാണ്.

വിശ്വസ്തതയോടെ,

സെക്രട്ടറി



SREEKALA S.
Chief Environmental Engineer

H₁-83/2021

Dated: 09/11/2022

From

Secretary
Adoor Municipality

To

Environmental Engineer,
Kerala State Pollution Control Board,
District Office, Pathanamthitta

Sub: Adoor Municipality-Health department- OA-141/2021 Pollution
of Pallickalar -reg

Ref: Your letter no PCB/PTA/TG/353/2021 dated 02/11/2022

Madam,

Due to the leak in the septic tank of 3 houses located on the bank of Pallickalar, the toilet waste was being reached into Pallickalar which passes through Adoor Municipality. Due to a heavy cloud burst in 2011, strong water currents were formed in Pallickalar which damaged the buildings / houses on the banks of the river. The septic tank of these houses had been relocated during the maintenance work of the buildings. Currently it is reported that no toilet wastes is causing river water pollution.

Yours Sincerely

Sd/-

Secretary

Adoor Municipality




SREEKALA S.
Chief Environmental Engineer



MUNICIPAL OFFICE, ADOOR

Phone : Office:04734-228362 ; 228228

Email : secyadr@gmail.com

Website : www.adoormunicipality.in

No.H1-13255/22

Date : 07/12/2022

From,

Municipal Secretary

Adoor Municipality

To,

District Collector

Pathanamthitta/ Environmental Engineer PCB

Sir/Madam,


Sub:- Protection of Pallikkal river- demarcation of boundaries and to remove the unauthorized occupancies-reg.

Ref:- 1. OA No.141/2021 from NGT dated 11.11.2022.

Vide ref (1) to the OA dated 11.11.2022 from Hon'ble National Green Tribunal, the council of Adoor municipality have taken decision to instruct the Tahasildar to demarcate the boundary of Pallikkal river (Decision No.1 of 4/5/2022). As per the demand of the Tahasildar, Adoor municipality purchased survey stones through quotation and intimated the matter on 26.09.2022. Laying stones is pending with revenue department in Adoor Municipal area.

For the protection of Pallikkalriver and it's surroundings, continuous monitoring and surveillance has been arranged from the municipality side.

Yoursfaithfully


Municipal Secretary
Adoor

Enclosure : Action Plan copy




SREEKALA S.
Chief Environmental Engineer

2



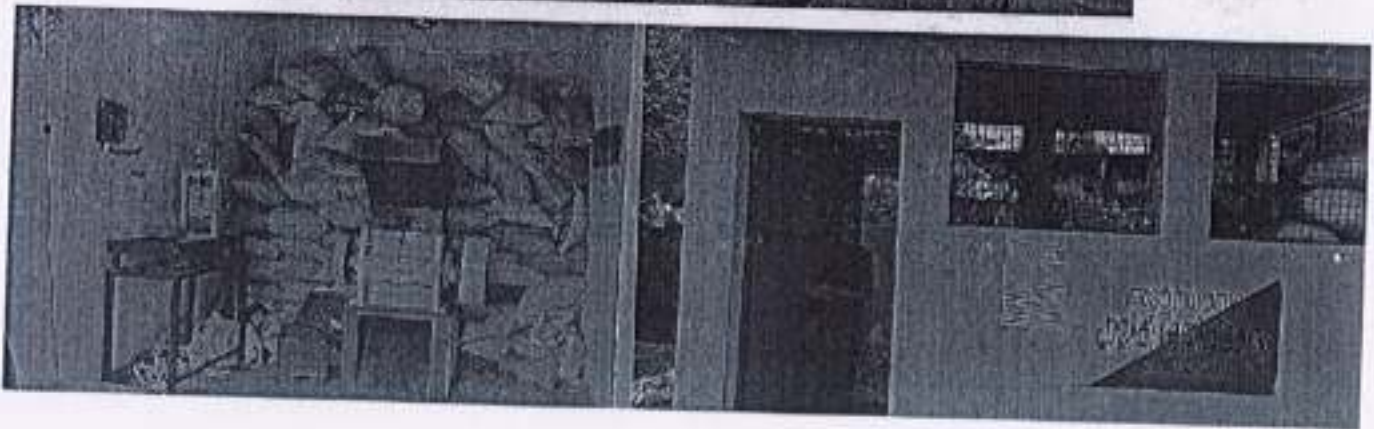
ADOOR MUNICIPALITY

Adoor is located in the south west end of the Pathanamthitta district and also in the center of South Kerala. The rivers of Achenkovil and Kallada pass through Adoor, with landlocked irrigating streams. To the west side of Adoor, Chengannur is located, to the east side Kottarakara is located, and to the south side Punalur is located and to the north side Kayamkulam is located. Adoor is part of the Pathanamthitta District and is a major town in Central Travancore. Geographically it is situated between Thiruvananthapuram and Ernakulum. Before the formation of the Pathanamthitta district in 1982, Adoor was in the Kollam district. Nearly 90% of population resides in the suburb regions and only 10% resides in the urban area.



सध्य है गार्वेन प्री शहर - प्रकानमंत्री श्री नरेद्र मेदी **SREEKALA S.** Chief Environmental Engineer

CITY SOLID WASTE ACTION PLAN (CSWAP)



सह्य है यावेज प्री शहर - प्रधानमंत्री श्री नरेद्र मोदी

SREEKALA S.
Chief Environmental Engineer



ANNEX 2: CITY SOLID WASTE ACTION PLAN (CSWAP)
(As referred in Chapter 2 and 6)

ULB's City Profile: (demographic and waste generation details)

1.	Name of the ULB:	ADOOR MUNICIPALITY																																			
2.	Name of the District, State/ UT:	PATHANAMTHITTA, KERALA																																			
3.	No. of Municipal Zones in ULB:	-----																																			
4.	No. of wards in the ULB:	28																																			
5.	Population & Households in the ULB as per 2011 Census:	<table border="1"> <tr> <td>Population (P₁₁)</td> <td>Households(HH₁₁)</td> </tr> <tr> <td align="center">29171</td> <td align="center">7911</td> </tr> </table>			Population (P ₁₁)	Households(HH ₁₁)	29171	7911																													
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6.	Population & Households in the ULB as per current scenario:	<table border="1"> <tr> <td>Population (P_c)</td> <td>Households(HH_c)</td> </tr> <tr> <td align="center">30756</td> <td align="center">8286</td> </tr> </table>			Population (P _c)	Households(HH _c)	30756	8286																													
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7.	Projected Population & Households in the ULB @2026	<table border="1"> <tr> <td>Population (P₂₆)</td> <td>Households(HH₂₆)</td> </tr> <tr> <td align="center">31365</td> <td align="center">8428</td> </tr> </table>			Population (P ₂₆)	Households(HH ₂₆)	31365	8428																													
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SREEKALA S.
 Chief Environmental Engineer



MSWM Service Level Benchmarks				
	Indicator	Benchmark	Before implementation of project(s)	After implementation of project(s)
1.	Household level coverage of SWM services	100%	78%	100%
2.	Efficiency of collection of municipal solid waste	100%	48.75%	100%
3.	Extent of segregation of municipal solid waste	100%	85%	100%
4.	Extent of municipal solid waste recovered	80%	28%	80%
5.	Extent of scientific disposal of municipal solid waste	100%	48.1%	100%
6.	Efficiency in redressal of customer complaints	80%	45%	80%
7.	Extent of cost recovery in SWM services	100%	11.26%	90%
8.	Efficiency in collection of SWM-related user charges	90%	16.09 %	90%
--	Notified User Fee for MSWM services (provide details)	YES	House Holds - Rs 60/Month Shops - Rs 100/kg	

Current MSWM Management:

1.	Current MSW total generation in TPD (A): 9.23	Per Capita generation in gms: 300 (A x 10 ⁶ / P ₁)				
2.	Total waste collected(TPD): 4.5 TPD					
3.	No. of wards & % of wards practicing source segregation:					
	<table border="1"> <thead> <tr> <th>No of wards</th> <th>% of wards</th> </tr> </thead> <tbody> <tr> <td>24</td> <td>85</td> </tr> </tbody> </table>	No of wards	% of wards	24	85	
No of wards	% of wards					
24	85					
4.	No. of wards & % of wards practicing 100% door to door waste collection:					
	<table border="1"> <thead> <tr> <th>No of wards</th> <th>% of wards</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>0</td> </tr> </tbody> </table>	No of wards	% of wards	0	0	
No of wards	% of wards					
0	0					
5.	Total quantity transported in TPD to:					
	<table border="1"> <thead> <tr> <th>Processing Plants</th> <th>SLF</th> </tr> </thead> <tbody> <tr> <td>4.5</td> <td>1.13</td> </tr> </tbody> </table>	Processing Plants	SLF	4.5	1.13	
Processing Plants	SLF					
4.5	1.13					



सत्य है गार्बेज फ्री शहर - प्रधानमंत्री श्री नरेंद्र मोदी

SREEKALA S.
Chief Environmental Engineer

6. Secondary collection points/Transfer Stations (TS) (only if TS is/ are existing, otherwise not applicable)

Waste stream	Number of TS	Capacity of TS (in TPD)
Wet waste	NA	NA
Dry Waste	NA	NA

7. On basis of Waste Characterization, quantity of segregated waste generated (in TPD), of given waste streams

MSW Waste Stream	Quantity in TPD	% of MSW
Wet waste	7.11	77%
Dry Waste	1.29	14%
Sanitary Waste	0.09	1%
Domestic Hazardous Waste	0.28	3%
Other wastes (Drain Silt & Inert)	0.46	5%
C&D Waste	Qty in TPD	% of MSW
Total C&D Waste generated	0.92	10% (expressed as % of A at row 1 above)

8. Total quantity of MSW currently processed (B) in TPD:- 4.5 TPD

9. Total design capacity* available of all types of processing plants in TPD: 5 TPD

*All existing, under construction, approved and defunct plants (defunct plants that have not been written off)

Note: This capacity will be equal to or greater than (B)

10. Operation & Maintenance and Recovery of SWM fees Issues

Prepare statement of previous 5 years O& M costs incurred in ULB for O&M and the collections of SWM use fees and analyses for sustainability of O&M

Operation & Maintenance and Recovery of SWM fees Issues For Last 5 Years:

Year	Income	Expenditure
2017	48000	485000
2018	52000	498000
2019	61000	545000
2020	64000	592000
2021	75000	666000

सत्य है सर्वज्ञ प्री शहर - प्रखणमंकी श्री नरेन्द्र मोदी

SREEKALA S.
Chief Environmental Engineer



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Assessment of requirement of processing plants/facilities:

A	Projected waste generation@2026 in TPD: 9.42
	Per capita generation for calculating waste generation:
	ULBs > 10 lakh population@550 gms/capita:
	ULBs 1 lakh -10 lakh (both included) population@450gm/capita:
	ULBs <1 lakh population@300gm/capita:-



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लक्ष्य है मार्बेज फ्री शहर - प्रधानमंत्री श्री नरेन्द्र मोदी


SREEKALA S.
Chief Environmental Engineer

Projected Waste generation 2026:

Waste stream	Fraction in MSW (indicative-can be changed as per actual in ULB)	Projected waste generation in TPD	% of MSW
Wet Waste	55%	7.25	77%
Dry Waste	35%	1.32	14%
Domestic Hazardous waste	Minor	0.38	4%
Other Waste(Drain Silt & Inert)	10%	0.47	5%
To SLF (not more than)	20%	1.13	12%

Other components of MSW Management

Sanitary Landfill (SLF) (Filling CELL for 5 years only)	
Waste sent to SLF restricted to 20% of total Municipal	1.13
SLF capacity for 5 years duly adding extra volume for daily cover, top cover etc. (as per Manual on MSWM) Tonnes/cum/day	2062

D Estimated cost for proposed components as per GAP

Waste Management Component	Total proposed requirement (gap projected @2025)	Estimated cost/ tonne (per machine for MRSs)	Proposed estimated cost
Wet waste processing	6.05	2500000	15125000
Dry waste processing	0.60	6000000	3600000
C&D waste processing (C&D waste collection points)	0.92	1100000	1012000
Dumpsite Remediation	0	0	0
Sanitary Landfill	0	0	0
Transfer Station	NA	NA	NA
Mechanical Road Sweepers (MRSs)	NA	NA	NA



Financing Planning of Fund Required for Addressing the GAPS (Rs. in Crore)

Waste management Item	Total Proposed Cost	ACA under SBM-U 2.0	State Govt. Fund	ULB fund	Other Fund (PPP & others)
1. For wet waste processing	1.5125	0.75625	0.499125	0.257125	
2. For Dry waste processing	0.36	0.18	0.1188	0.0612	
3. C&D waste processing (C&D waste collection points)	0.1012	0	0	0.1012	
4. For Dumpsite Remediation	0	0	0	0	0
5. For Sanitary Landfill	0	0	0	0	0
6. For Transfer Station	NA				
7. For Mechanical Road Sweepers	NA				
Grand Total	1.9737	0.93625	0.617925	0.419525	

Items not required/applicable in the particular ULB may be deleted



10

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SREEKALA S.
 Chief Environmental Engineer

Module 1: MSW Processing GAP analysis & Action Plan

M1.1 GAP Assessment for 100% processing of MSW at ULB level

Processing Facility proposals	Existing Plants Capacity (TPD)*	Status of Current Capacity- Deficit/ Surplus	GAP Projected @2025 (TPD)
Mixed Waste Processing Facility (continue to be used for either Wet OR Dry Waste) – Data taken for assessing capacities	NA	NA	No new mixed waste plant will be allowed
Composting Plants (for WET waste)	1.2	Deficit	6.05
Bio-methanation Plants (for WET waste)	NIL	NIL	-
Material Recovery Facilities MRF- (for DRY waste)	1.58	Deficit	0.60
Standalone RDF Plants (for DRY waste downstream of MRFs)(not part of composting plants)	-	-	-
Waste to Electricity (RDF based – only for ULBs > 10 lakh)	-	-	-
Others (describe the nature of plants, feed stock should be source segregated waste)	-	-	-
C&D waste collection points	0	Deficit	0.92

*(Operational/Under Constn. / In Tender Process, Non-Functional good condition)



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SREKHA S.
Chief Environmental Engineer

M1.2 ULB level Action Plan for achieving 100% scientific MSW Processing

Processing Facility proposals	Proposed Plant Capacity (TPD)	Estimated Cost	Plant Commissioning Date
<i>Composting Plants (for WET waste)</i>	6.05	15125000	31.12.2024
<i>Bio-methanation Plants (for WET waste)</i>	-	-	-
<i>Material Recovery Facilities MRF- (for DRY waste)</i>	0.60	3600000	31.03.2024
<i>Standalone RDF Plants (for DRY waste downstream of MRFs)(not part of composting plants)</i>	-	-	-
Waste to Electricity (RDF based – only for ULBs > 10 lakh)	-	-	-
Others (describe the nature of plants -feed stock should be source segregated waste)	-	-	-
TOTAL	6.65	18725000	
<i>Other Proposals part of MSW</i>			
C&D waste collection points	0.92	1012000	31.03.2024
Construction of SLF	-	-	-
Construction of TS, if required			
(ULBs >5lakh and haulage of fully loaded vehicles is > 15Km)	-	-	-
TOTALs	7.57	19737000	

M1.3 ULB commitment timelines for Certification under Garbage-free Cities Star Rating

S.No.	GFC Star Rating Certification	Committed Date
1.	1-Star GFC Rating Certification	APPLIED FOR 3-STAR GFC RATING
2.	3-Star GFC Rating Certification	Applied on 25 th March 2022 (mandatory before 31.3.2026)
3.	5-Star GFC Rating Certification	
4.	7-Star GFC Rating Certification	These Certifications are beyond the mandatory requirement under SBM 2.0. ULBs are encouraged to get these certifications.

M1.4 State/ UT – Consolidated Financial Action Plan for MSW Processing: Financials in Rs. Crore

	FY 2021-22	FY 2022-23	FY 2023-24	TOTAL (equal to SBM 2.0 SWM allocation, Processing part only)
Action Plan Amount				
No. of ULBs covered*				All ULBs in the State/ UT covered in APs by 2023-24

* Detailed ULB-wise, plant-wise Action Plan statement is to be furnished Action Plan approvals to be obtained by 31.3.2024 for all ULBs

M1.5 State / UT – Consolidated Certification- cum-Implementation Action Plan (only First time GFC Certifications to be considered)

Certification	Before SBM 2.0	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
No. of ULBs rated 1-Star				All ULBs to be 1-Star rated by 31.3.2023		
No. of ULBs rated 3-Star*						
No. of ULBs with 100% waste processing						

* All ULBs to become 3-Star GFC Rated before 31.3.2026



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Chief Environmental Engineer

Module 2: Legacy Waste Dumpsites Remediation Action Plan

M2.1 ULB's Dumpsite Remediation Plan (applicable only if ULB has an existing dumpsite(s))

Total quantity of existing legacy waste in tonnes	NIL
Land occupied by the dumpsite, Acres	
Proposed method for remediation*	
Action plan for recoverable material	
Indicative Uses/ Utilization of Segregated Material	
Land to be recovered, Acres (extent of land from which waste is completely removed)	
End uses of remediated dumpsite area	
Estimated Cost for Remediation	
Most likely date for complete remediation (not beyond 31.3.2023 for ULBs < 10 lakhs and 31.3.2024 for ULBs > 10 lakhs)	

* to be compliant with extant NGT and Court orders

M2.2 State/ UT – Consolidated Financial Action Plan for Dumpsite

Remediation: Financials in Rs. Crore

	FY 2021-22	FY 2022-23	TOTAL (equal to SBM 2.0 allocation for dumpsite remediation for the State/ UT)
Action Plan Amount			
No. of ULBs covered*			All ULBs in the State/ UT
Action Plan approvals to be obtained by <u>31.3.2022</u> for all ULBs <10 Lakh and by <u>31.3.2023</u> for all ULBs >10 lakh			
* Detailed ULB-wise, dumpsite-wise Action Plan statement is to be furnished			

M2.3 State/ UT – Consolidated Dumpsite Remediation Implementation Action Plan

Remediation	Before SBM 2.0 By 31.7.2022	By 31.3.2023	By 31.3.2024	TOTAL
No. of ULBs completing remediation				

All ULBs in the State/ UT to complete remediation by 31.3.2024



Module 3: C&D Waste Processing Action Plan (only for 154 non-complying (NCAP cities) and 5-lakh size ULBs)

M3.1 ULBs Gap Assessment for Processing of Construction and Demolition Waste (Applicable for ULBs > 5 lakh population and/or 154 Non-attainment cities)

Estimated C&D Waste generated @ 50gm/capita of total Municipal Solid Waste in TPD	NA
Add 25% extra for bulk C & D waste generators, depositing with ULB	
Add 20% over and above	
Total C&D waste currently generated in TPD	
Existing capacity of C&D waste processing plant available in TPD	
Proposed capacity in TPD for 2025	

M3.2 State/ UT – Consolidated Financial Action Plan for C&D Waste Processing: Financials in Rs. Crore

C&D Waste Processing	FY 2021-22	TOTAL (equal to SBM 2.0 allocation for C&D Waste Plants)
Action Plan Amount		Approvals to be obtained by 31.3.2022 for all the ULBs concerned in one go, thus prioritizing control of air pollution
Detailed Statement of ULB-wise C&D waste processing plant proposals are to be furnished		

M3.3 State/ UT– Consolidated C&D Waste Processing Plants Implementation Action Plan

Setting up C&D Waste Processing Plants	Before/ Outside SBM 2.0	By 31.7.2022	By 31.3.2023	TOTAL
No. of ULBs				All ULBs > 5lakh + NCAP ULBs in the State/ UT to complete the plants by 31.3.2023

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SRI LEKHA S.
Chief Environmental Engineer



Module 4: Mechanical Road Sweepers Action Plan (only for 154 non-complying (NCAP) and 5-lakh size ULBs)

M4.1 Mechanical Road Sweepers (Applicable only for ULBs > 5 lakh population and/or 154 Non-attainment cities) - Assessment for a ULB:

Length of road to be swept daily (Only those roads which are 4-lane or more lanes)	NA
Detailed calculation of mechanical sweeping required in Lane-KMs	
Proposed no. of Machines required to sweep the length	
No. of Machines currently operating /existing	
Current requirement of machines (nos)	

M4.2 State/ UT – Consolidated Financial Action Plan for Mechanical Road Sweepers: Financials in Rs. Crore

	FY 2021-22	TOTAL (equal to SBM 2.0 allocation for Mechanical Road Sweepers)
Action Plan Amount		Approvals to be obtained by 31.3.2022 for all the ULBs concerned in one go, thus prioritizing control of air pollution
Detailed Statement of ULB-wise Mechanical Road Sweepers proposals are to be furnished		

M4.3 State Government / UT Administration – Consolidated Mechanical Road Sweepers Implementation Action Plan

Equipping ULBs with Mech. Road Sweepers	Before/Outside SBM 2.0	By 31.7.2022	By 31.3.2023	TOTAL
No. of ULBs				

ALL ULBs > 5lakh + NCAP ULBs in the State/UT/UTFR complete procurement of MRSE by 31.3.2023

STATE/ UT ANNUAL ROADMAP

I. State/ UT Annual Action Plans (Financial)

(Aggregate of action plans mentioned at M1.4, M2.2, M3.2 and M4.2 above)

	FY 2021-22	FY 2022-23	FY 2023-24	TOTAL
Sub-Action Plans:				
MSW Processing				
Dumpsite Remediation				
C&D Waste Processing				
Mechanical Road Sweepers				
Cumulative Action Plan TOTAL				(equal to SBM 2.0 allocation)
No. of ULBs covered				All ULBs in the State/ UT are to be covered in Action Plans by FY 2023-24 leaving adequate time for implementation

II. Roadmap for Deliverables:

MSWM compliances	Before SBM 2.0	By 31.3.2022	By 31.3.2023	By 31.3.2024	By 31.3.2025	By 31.3.2026
No. of ULBs with -						
100% MSW processing						(All ULBs)
100% Dumpsite Remediation				(all ULBs concerned)	-----	-----
100% C&D Waste processing			(all ULBs concerned)	-----	-----	-----
Mechanical Road Sweeping			(all ULBs concerned)	-----	-----	-----
* All ULBs to become 3-Star GFC Rated before 31.3.2026						

III. Roadmap for Garbage Free City (GFC) Star Rating Certifications:

Certification	Before SBM 2.0	By 31.3.2022	By 31.3.2023	By 31.3.2024	By 31.3.2025	By 31.3.2026
No. of ULBs with GFC 3-Star Certification (mandatory under SBM 2.0) or higher certification	-	Applied for 3 star on 25.03.2022				(All ULBs)



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SREEKALA S.
Chief Environmental Engineer

ANNEXURE 1

(8.a - STATE POLICY ON SWM)

GOVERNMENT OF KERALA
KERALA GOAZETTI
EXTRAORDINARY
PUBLISHED BY AUTHORITY

GOVERNMENT OF KERALA
ORDER

The Solid Waste Management Rules, 2016 provide preparation of a clear policy and solid waste management strategy for the State or the Union Territory in consultation with stakeholders.



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Chief Environmental Engineer

7. NGT related registers
8. Register related to activities conducted based on government instruction.
9. Swachh Bharat Mission, Haritha mission Keralam etc.

HI inspects all public markets, public toilets regularly. HI also take necessary steps in the petitions received in the Health Section based on the reports of the concerned Jr Health Inspectors. HI also monitor the daily activities of Haritha Karma Sena (Green Task Force).

5. JUNIOR Health inspectors

JHI is in charge of municipal wards delegated by municipal secretary. JHI directly monitors and control the daily activities of workers. Inspects the petition received in municipality related to public nuisance & prepare notice to the concerned person based on the municipal Act. JHI inspects the field work of sanitation workers. They involve directly in the activities of HKS in all wards & conducts IEC activities to improve the performance of the HKS. Along with that they conduct classes in Kudumbashree units, schools, colleges, residential groups etc. to generate awareness among the public about waste management, sanitation etc. JHI gathers primary data for the details to submit before NGT, State Government etc.

6. Sanitary workers

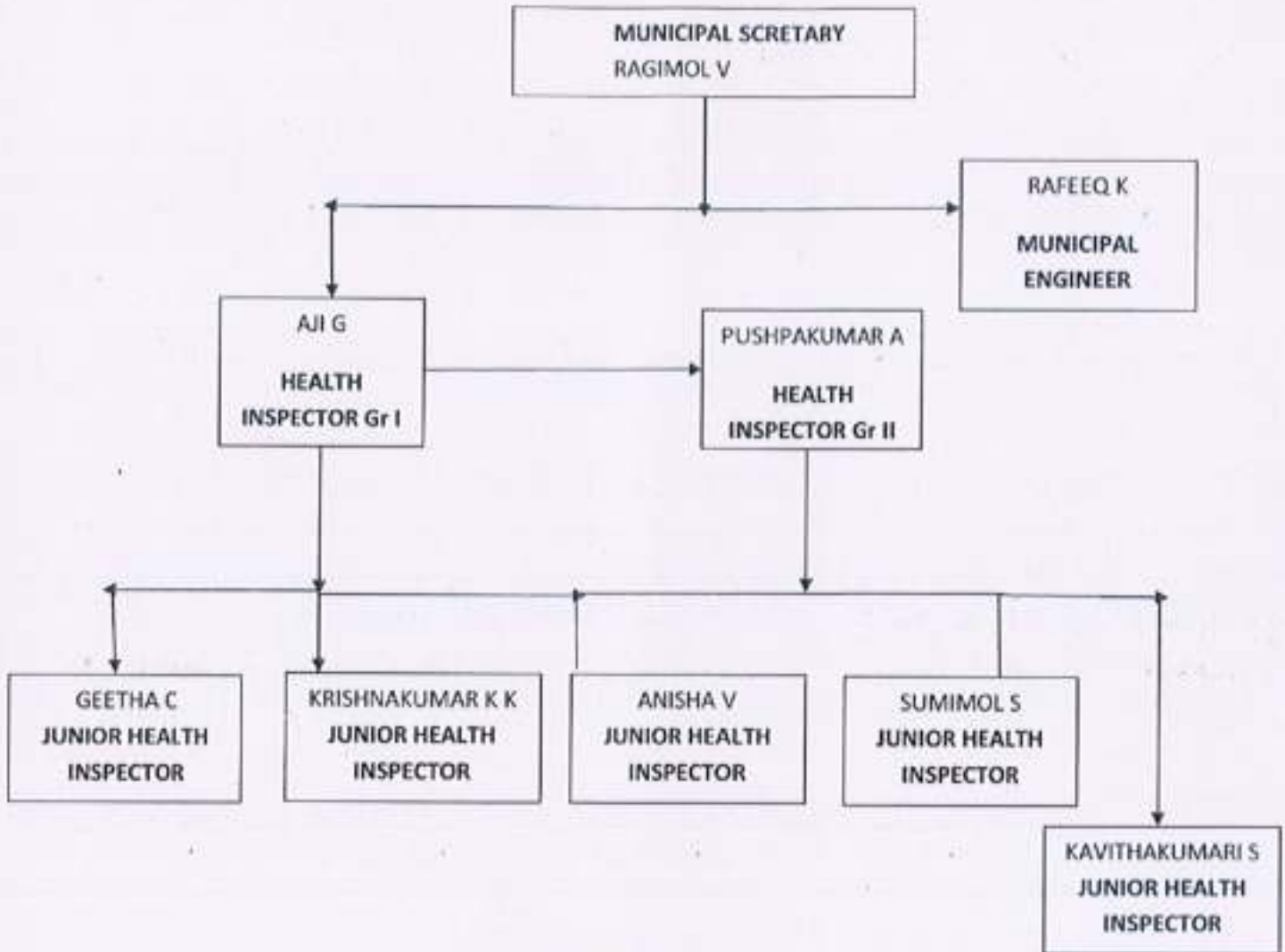
They are assigned with road sweeping, collection of waste, bush cutting etc. They are also deployed in anti-mosquito activities such as spraying, fogging etc. Apart from these duties they are assigned for the burial of dead bodies.

7. Harithakarma Sena

They have been assigned to collect non-biodegradable waste for households and institutions in the municipality.



PERSONS DEALING WITH MSWM



S
SREEKALA S.
Chief Environmental Engineer



**SBM URBAN 2.0
ACTION PLAN
ADOOR**



അയ്യ റെ ഗാർവ്വജ് മരി ഷഹർ - പ്രഗാനംനീ ശീ നരേദ്ര ശെരീ


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Chief Environmental Engineer

SWACHH BHARAT MISSION URBAN 2.0

ULB ACTION PLANS

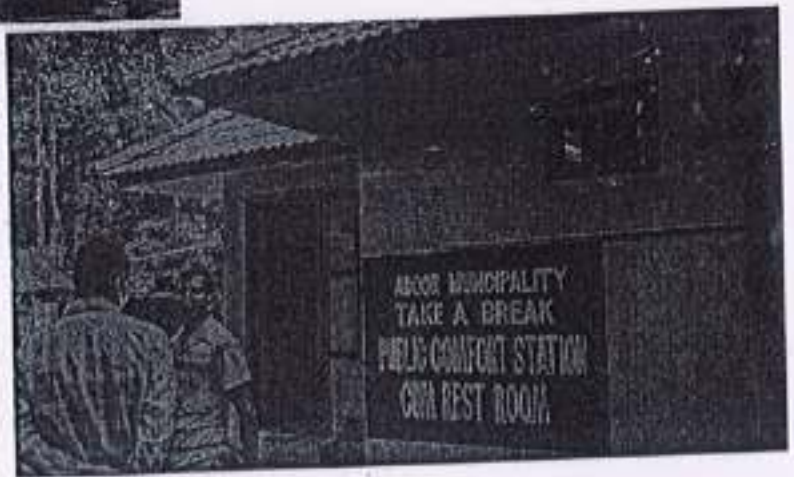
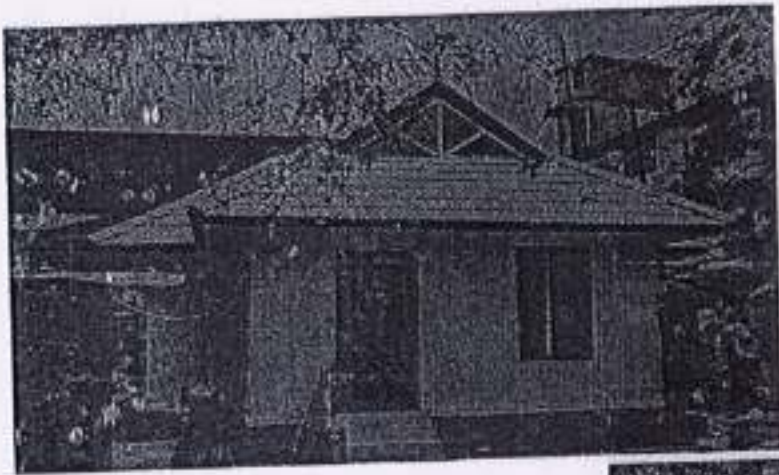
ADOOR MUNICIPALITY
KERALA
691523




SREEKALA S.
Chief Environmental Engineer



CITY SANITATION ACTION PLAN (CSAP): FOR TOILETS



CITY SANITATION ACTION PLAN (CSAP): FOR TOILETS

To sustain Open Defecation Free status in all wards of the ULB

The main components are:

- i. Construction of Individual Household Latrines (IHHL)
- ii. Construction of Public Toilet (PT) and Community Toilet (CT) seats
- iii. Construction of urinals, along with retrofitting of insanitary toilets




SREEKALA S.
Chief Environmental Engineer



ANNEX 3A: CITY SANITATION ACTION PLAN (CSAP): FOR TOILETS

(As referred in Chapters 2 and 7)

To be filled in by all ULBs

S. No	Description	Particulars	Detailed description	Remarks
GENERAL INFORMATION				
Location and Physical aspects				
I.a	Location	Name of the City, District, State	ADOOR MUNICIPALITY, PATHANAMTHITTA DISTRICT, KERALA	
I.b	Physical Aspects	Municipal Area in sq. km and Class of Town	20.82 sq.km CLASS- 3	
		Number of Ward	28	
		Geographical description -Hilly area, river, Environmental sensitive area etc.	<p>Adoor is located in the southern end of the Pathanamthitta district and also in the center of South Kerala. The rivers of Achenkovil and Kallada pass through Adoor, with landlocked irrigating streams. To the north side of Adoor, Chengannur is located, to the east side Kottarakara is located, to the south side Punalur is located and to the west side Kayamkulam is located. Adoor is part of the Pathanamthitta District and is a major town in Central Travancore. Adoor is one of the biggest producers of coconut, bananas and tapioca. Here mousambi is grown, including red coconuts and red bananas.</p> <p>The soil in Adoor is good for cultivation and is from the minerals given by the rivers Achenkovil and Kallada. A lot of aracknut palm trees are grown here</p>	
I.c	Maps	Map depicting administrative boundaries, roads and railways, water bodies, Important land- marks etc. (if not available, to be prepared)	ATTACHED	



(Signature)
A.J.C
Health Inspector, Adoor Municipality

ലക്ഷ്യം നേടുന്നതിനായി - പ്രധാനമന്ത്രി ശ്രീ നരേന്ദ്ര മോദി

(Signature)
SREEKALA S.
Environmental Engineer



		Topo-Sheet (ref: Survey of India, Scale - 1:50000)(if not readily available, get it)	ATTACHED	ANNEXURE 2
Demography and Growth pattern				
2.a	Population	Census data - Latest census data and previous census data (population projection for 2026, 2040 and 2055)	2011: 29171 2022: 30786 2026: 31365 2040: 33623 2055: 36187	
	Slum population	<ul style="list-style-type: none"> Population Households Density 	NIL	
	Non slum population	<ul style="list-style-type: none"> Population Households Density 	Population: 2011- 29171 2022- 30786 Household: 2011- 7911 2022- 8287 Density: 1401 per Sq. KM	
	Floating population	<ul style="list-style-type: none"> Population per day (if available from tourism department) 	1568	
	Decadal Population growth rate (in %)		4.9%	
Land Use information and Development				
3.a	Land Use pattern	Land use classification in the city- [Area under residential, commercial, Institutional, open areas, slums (available / not available)]	The land use pattern of the town depends on its population, size, function and location. Major part of the land is used for cultivation, mainly paddy fields and coconut trees. Nearly 33% land is residential area and over 4% land is covered with water bodies. The urban services have not been properly exploited in this area.	ANNEXURE 3
		Details of Population and projected growth	2011: 29171 2022: 30786 2026: 31365 2040: 33623 2055: 36187	
b	Maps	Map depicting the existing land use residential, commercial, Institutional, slums, green cover, open land etc. (available / not available)	ATTACHED	ANNEXURE 4



SREEKALA S.

Chief Environmental Engineer
 राज्य हे कार्बन फ्री शहर - प्रकल्पनी श्री नरेंद्र मोदी

(Signature)
 Health Inspector, Gr. I
 Adoor Municipality

(Signature)
 A.S.S. (Municipal)

B. TECHNICAL INFORMATION: Information regarding Sanitation infrastructure facilities		C. ACCESS TO Toilet (If not available, the same to be depicted)	
4.a	Individual Toilet	<ul style="list-style-type: none"> Number of Sanitary toilets Number of insanitary toilets (single pit, twin pit, insanitary, dry, pour flush) septic tank without soak away 	<p>6214</p> <p>450</p> <p>1410</p>
	Community toilet	<ul style="list-style-type: none"> Number of households dependent Number and Location of toilet blocks Number of seats per block Functional status Septic tank without soak away 	NIL
	Public toilet and urinals	<ul style="list-style-type: none"> Number and Location of toilet & urinal blocks Number of seats per block Functional status Septic tank without soak pit 	<p>9</p> <p>All the toilets are functional</p>
	Open defecation	<ul style="list-style-type: none"> Location of OD spots 	NIL
4.b	Operation and maintenance	Notified rates of User charges (Rs)	NIL
		<ul style="list-style-type: none"> For community toilets For public toilets 	<p>PT Urinal- Rs. 2</p> <p>Toilet - Rs. 5</p>
		Responsible agency for O&M [By in-house arrangement or outsourced]	IN HOUSE ARRANGEMENT
	Complaint redressal system	Every toilet within the ULB has been placed with a feedback book, in which users can remark their feedback about the toilets. Apart from that ULB has provided a contact number in order to address any kind of issues related with the public toilets.	
4.c	Service Level Benchmark (100%)	Access to toilet (% coverage)	100%
4.d	Maps	Map depicting the Location of public and community toilets (if not available, the same to be depicted)	Attached

ANNEXURE 5



[Signature]
 A.J.T. G.
 Health Inspector, Gr. 1
 Adoor Municipality

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[Signature]
 SREEKALA S.
 Environmental Engineer

C INSTITUTIONAL AND GOVERNANCE				
5 Institutional framework				
5.a	Regulatory Framework	Whether Municipal Sanitation Bye Laws notify tariff for sanitation services. (details)	Not available	31.08.2022
		State Sanitation Strategy (available / not available)	Available	
5.b	Institutional Arrangement	Roles and Responsibilities for dealing with sanitation services.	Yes. Attached	ANNEXURE 7
5.c	Governance and Reforms -	Implementation of e-governance in ULBs (available / not available)	Available	

D CAPACITY ENHANCEMENT				
6 Capacity Management				
6.a	Human Resource Development	Details of the personnel engaged in sanitation services along with roles and responsibilities.	Attached	ANNEXURE 7
		Outsourcing of staff and services (available / not available)	Available	
E GAP ANALYSIS:				
7.a		Analyze the projected requirement of sanitation infrastructure/facilities in 2026,	IHHL-8428 PT- 40 URINALS- 35	
7.b		Identify the available infrastructure in good condition	IHHL- 8278 PT- 20 URINALS- 18	
7.c		Analyze the gap in various areas and suitably club as part of a project/DPR • IHHL/CT/PT/Urinals	IHHL- 150 seats IHHL (insanitary to sanitary)- 450 PT- 5 Nos (20 Seats) Urinals- 17 Aspirational Toilet- 3 seats	



S
-SREEKALA S.
Chief Environmental Engineer

സംസ്കരണ വകുപ്പിന്റെ നിയമനടപടി

AJG
A.J. G.
Health Inspector, Gr. I
Adoor Municipality

Raji
Raji
2024/08/28

Funding requirement				
Total fund required	Central share	State share	ULB share	Others (pl specify)
13354000	4547000	3017220	5789780	


A.J.I. G.
Health Inspector, Gr. I
Adoor Municipality

गावेल प्री शहर - प्रधनमंती श्री नरेद्र मोदी




SREEKALA S.
Chief Environmental Engineer

Cost Estimate for Toilets- ADOOR ULB

Overall Cost for Toilets for the GAP identified

Sl. No	Infrastructure requirements as per GAP analysis	Unit	Quantity required	Estimated Cost per unit in INR	Amount in Rs
1	Number of IHHL	No. of households	150	154000	2310000
2	Conversion from Insanitary to Sanitary		450	15000	6750000
3	Construction of PT	No. of seats	20	150000	3000000
4	Construction of CT	No. of seats	0		
5	Aspirational toilet	No. of seats	3	250000	750000
6	Urinals	No. of seats	17	32000	544000
Total					13354000

Fund Requirement and Share Divisions

Sl. No	Infrastructure requirements as per GAP analysis	Quantity required	Total Amount in Rs	Central share	State share	ULB share
1	IHHL	150	2310000	600000	400050	1309950
2	IHHL- Conversion from Insanitary to Sanitary	450	6750000	1800000	1200150	3749850
3	Construction of PT	20	3000000	1500000	990000	510000
4	Construction of CT.	0				
5	Aspirational toilet	3	750000	375000	247500	127500
6	Urinals	17	544000	272000	179520	92480
TOTAL			13354000	4547000	3017220	5789780

Funding Requirement

Total fund required as per the GAP analysis	Central share	State share	ULB share	Others (please specify)
13354000	4547000	3017220	5789780	



SREEKALA S.
Chief Environmental Engineer

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32

A.J.C
Health Officer
Municipality

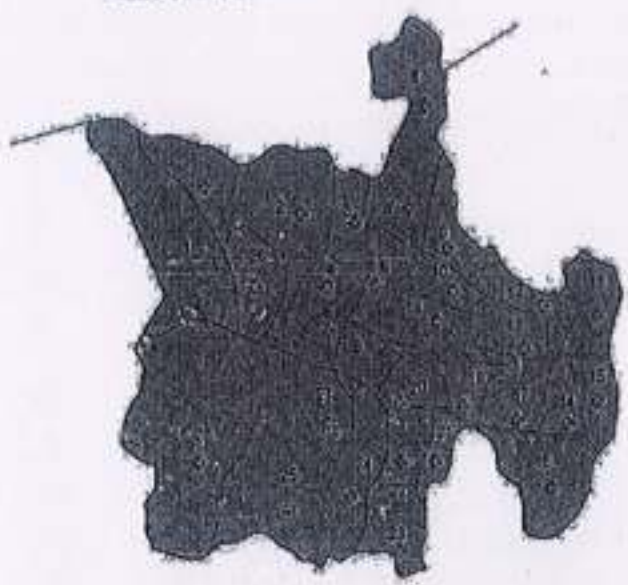
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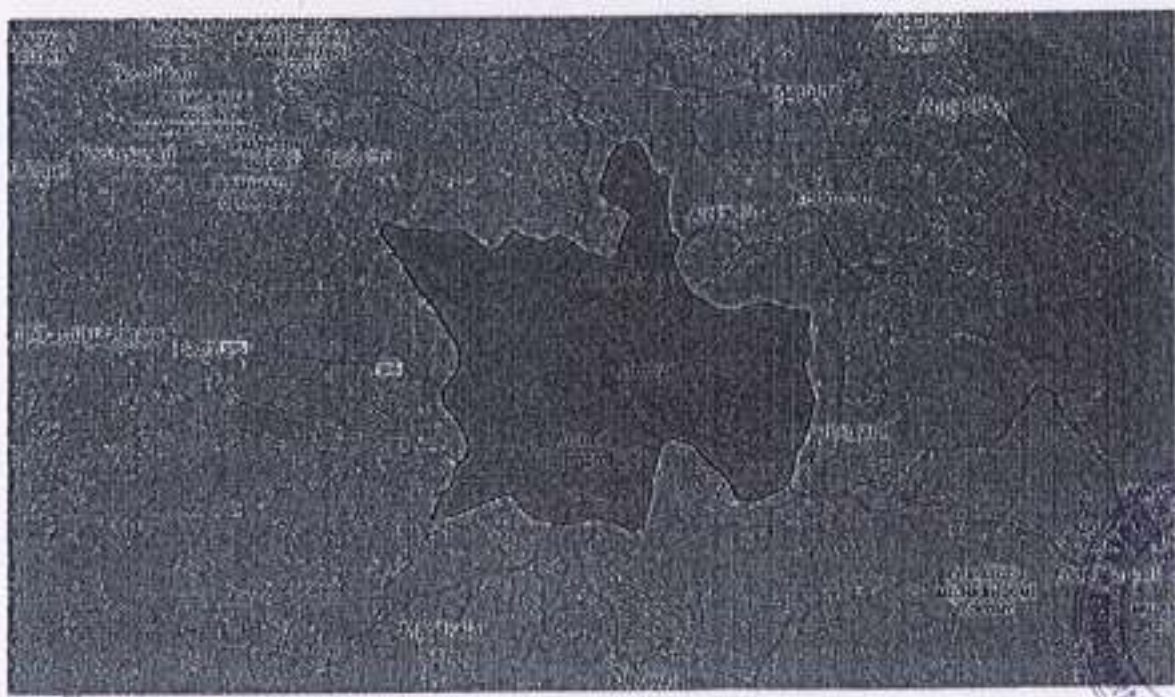
ANNEXURE 1

ADOOR MUNICIPALITY MAP

Pandalam Block



Patakkode Block



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AJI. G.
Health Inspector. Gr. I
Adoor Municipality

Raj
SPECIALIST
POLLUTION CONTROL

S
SREEKALA S.
Chief Environmental Engineer

ANNEXURE 3

Land Use Information

Sl.No	Land use	Area in Ha	% of total Area
1	Residential	686.35	33.14
2	Commercial	21.19	1.5
3	Public	39.76	1.92
4	Industrial	1.73	0.18
5	BUS stands	1.05	0.05
6	Road	141.49	6.85
7	Park and open space	2.44	0.12
8	Cemetery	0.5	0.02
9	Hobby	1.02	0.04
10	Coccolite	2.57	0.12
11	Mixed area	201.18	9.88
12	Rubber	757.83	36.95
13	Pond	9.6	0.46
14	Water body	82.81	4.05
15	Waste	4.32	0.21
16	Waste	22.95	1.11



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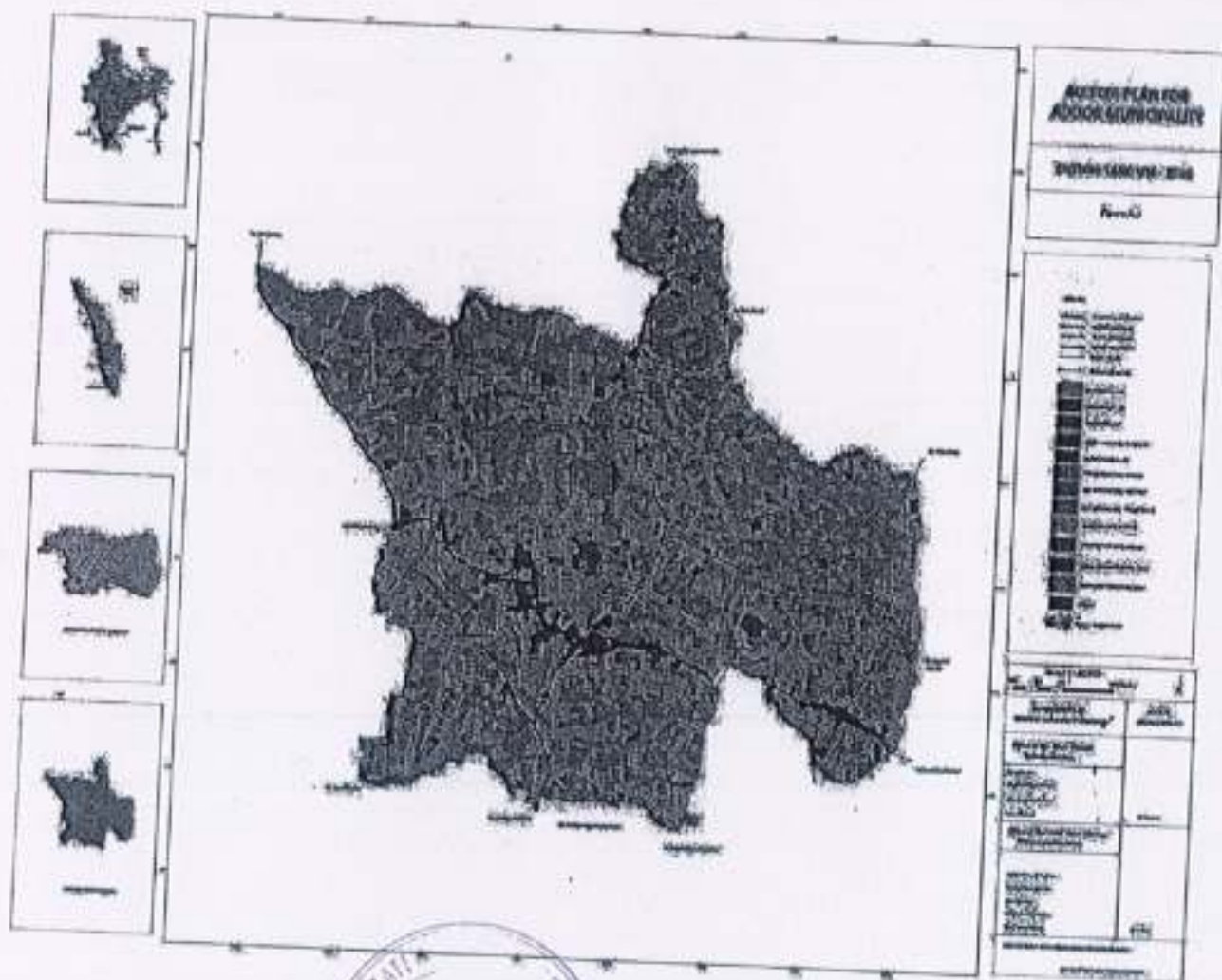
AJL. G.
Health Inspector. Gr. 1
Municipality

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Municipality

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Chief Environmental Engineer
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ANNEXURE 4

LAND USE MAP OF ADOOR MUNICIPALITY



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Environmental Engineer

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Signature
30/11/2018

Signature
A.J. G.
Health Inspector, G. Health
Municipality

ANNEXURE 5

<i>Details of public Toilets Location</i>				
SL NO	Location	GPS Co-ordinates	Status (proposed/work ongoing/completed)	Functional/non-functional
1	New private bus stand		Completed	Non Functional
2	Old private bus stand	9.15658, 76.7308	Completed	Functional
3	KSRTC bus stand	9.15312, 76.73286	Completed	Functional
4	Parakkode public toilet	9.14772, 76.7626	Completed	Non Functional
5	Yamuna fuel station, Adoor	9.15244, 76.73598	Completed	Functional
6	Prathish fuels, Adoor	9.15057, 76.7340	Completed	Functional
7	Reliance pump	9.15276, 76.7425	Completed	Functional
8	Hindustan petroleum	9.14913, 76.7556	Completed	Functional
9	Ramachandran fuels	9.14739, 76.7626	Completed	Functional
10	Gourilekshmi fuels, Parakkode		Completed	Functional



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Health Inspector, Gr. 1
Municipality

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13

Sreekala S.
Chief Environmental Engineer

ANNEXURE 7

(Roles and Responsibilities for Dealing with Sanitation Services)

ROLES AND RESPONSIBILITIES

1. Municipal Secretary

SHE OR HE is the Head of the ULB and overall control of the municipality staffs. Municipal secretary administrates all activities related to SWM, NGT etc.

2. Municipal Engineer

He or She is the Head of the Engineering section. Secretary delegate power to municipal engineer to control the engineering section. He or she is in the charge of implementing construction related SLWM projects in the municipality.

3. Health Supervisor

He or She is the Head of the Health section. Secretary delegate power to health supervisor to control the Health section. He or she is in the charge of implementing health related projects under the municipality. Apart from that they also supervise the daily activities of all health staff including Health inspectors, JHIs, Harithakarma Sena etc.

4. Health Inspectors

Health Inspector (HI) supervises and controls the daily activities of Junior Health Inspectors (JHI). HI is also the in charge of keeping the mandatory registers and records in Health section, such as

1. Casual leave register of workers.
2. Attendances register.
3. Work distribution registers
4. Stock registers
5. Tourist registers
6. Register related



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Municipality

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Raji
20/11/2018

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Chief Environmental Engineer

7. NGT related registers
8. Register related to activities conducted based on government instruction.
9. Swachh Bharat Mission, Haritha mission Keralam etc.

HI inspects all public markets, public toilets regularly. HI also take necessary steps in the petitions received in the Health Section based on the reports of the concerned Jr Health Inspectors. HI also monitor the daily activities of Haritha Karma Sena (Green Task Force).

5. JUNIOR Health inspectors

JHI is in charge of municipal wards delegated by municipal secretary. JHI directly monitors and control the daily activities of workers. Inspects the petition received in municipality related to public nuisance & prepare notice to the concerned person based on the municipal Act. JHI inspects the field work of sanitation workers. They involve directly in the activities of HKS in all wards & conducts IEC activities to improve the performance of the HKS. Along with that they conduct classes in Kudumbashree units, schools, colleges, residential groups etc. to generate awareness among the public about waste management, sanitation etc. JHI gathers primary data for the details to submit before NGT, State Government etc.

6. Sanitary workers

They are assigned with road sweeping, collection of waste, bush cutting etc. They are also deployed in anti-mosquito activities such as spraying, fogging etc. Apart from these duties they are assigned for the burial of dead bodies.

7. Outsourced Agency staffs



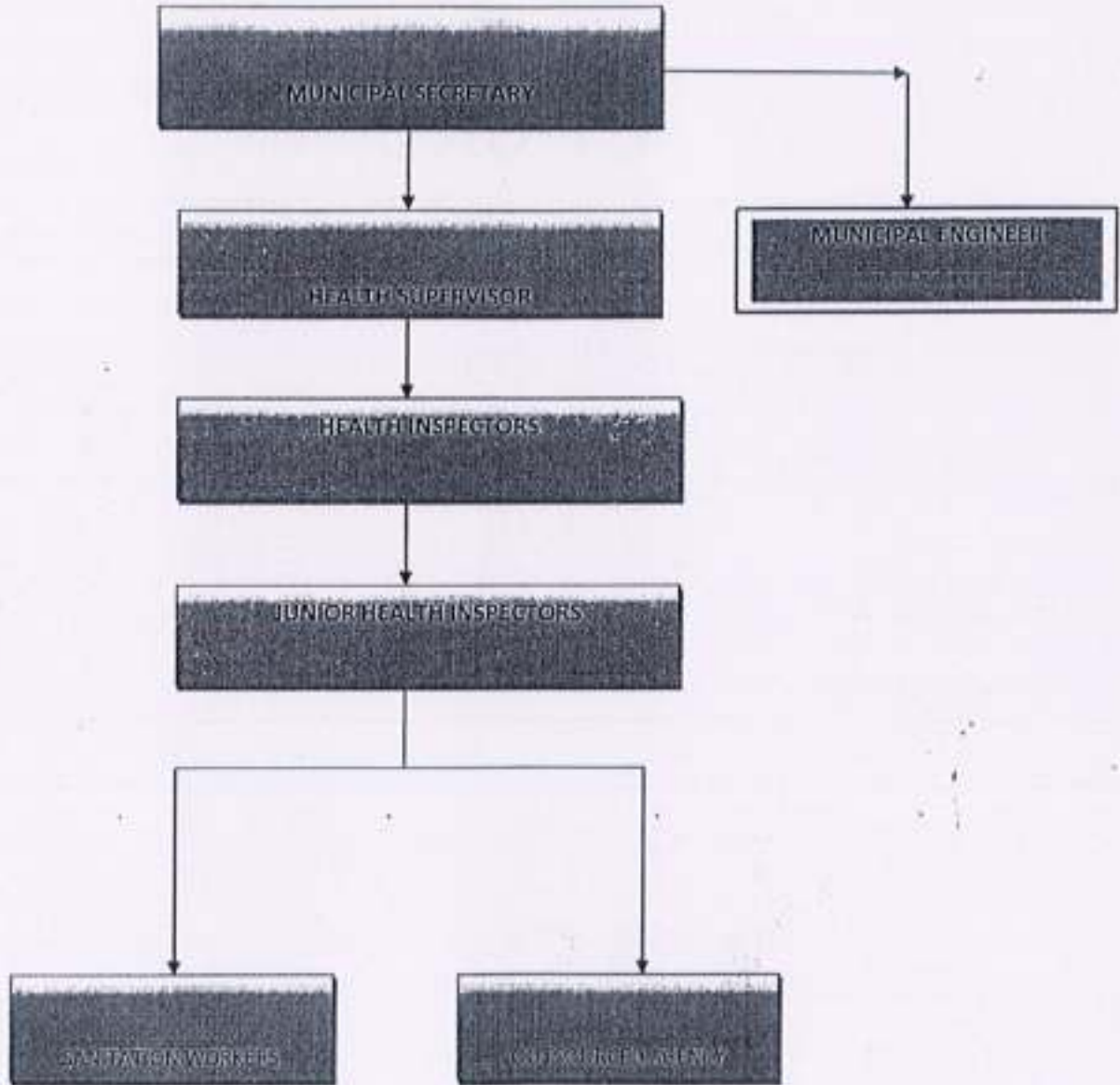
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SREEKALA S.
Chief Environmental Engineer

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A.J.I.
Health Inspector, Gr. I
Kollam Municipality

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A.J. G.
Health Inspector, Gr. I
Adoor Municipality

സംസ്ഥാന പരിസ്ഥിതി - പ്രകൃതി സംരക്ഷണ വകുപ്പ്

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IEC ACTION PLAN



S/S

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Chief Environmental Engineer

Infrastructure requirements as Per GAP Analysis	Unit	Quantity Required	Estimated cost per unit in INR	Population to be covered
Sewer pipe network including pump station	Sewer network - per capita	31395	6000	31395
Storm water drain network	Drain length - per capita	31395	3000	31395
Total Estimated cost and share from centre and state				
Total Central share				
Total State share				
Total Maximum funds can be availed for UWM from Central Gov.				
Total population	Total amount can be availed	Estimated cost for UWM interventions in INR for Class III town	Total amount available in INR	
31395	50% from Central share	2000	31395*2000*0.5 = 31395000	
Funding Requirement for UVM				
Total fund required as per GAP analysis	Central share	State share	ULB share	Others (pl specify)
60297260	30148630	19898095.8	10250534.2	



AJL. G.
AJL. G.
 Health Inspector. Gr. I
 Adoor Municipality

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SREENALA S.
SREENALA S.
 Chief Environmental Engineer

Sl No	Infrastructure requirements as Per GAP Analysis	Unit	Quantity Required	Estimated cost per unit in INR	Population to be covered	Amount in INR	% age Share	Total amount as per funding available in INR
ii Central and State share as per Table - Estimated per capita Costing and funding pattern in %age								
3	Machines for septic tank desludging	4 KLD Trucks in Nos.	1	2000000	31395	2000000	Central 50 State 33 ULB 17	1000000 660000 340000
4	STP cum FSTP	Capacity in MLD	3.39	11000000	31395	37297260	Central 50 State 33 ULB 17	18648630 12308095.8 6340534.2
5	I&D system (including Interception structure, pump station and diversion network to STP)	Diversion structure / Pump station in MLD in Numbers	1	5000000	31395	5000000	Central 50 State 33 ULB 17	2500000 1650000 850000
		Diversion sewer network in Km	4	4000000	31395	16000000	Central 50 State 33 ULB 17	8000000 5280000 2720000
	Total Estimated cost and share from centre and state					60297260.00		
	Total central share							60297260
	Total state share							30148630
	Total ULB share							19898095.8
								10250534.2



SREEKALA S.
Chief Environmental Engineer

AJI. G.
Health Inspector. Gr 1
Adoor Municipality

ANNEXURE 5

GAP Analysis - Used Water Management

Sl No	Infrastructure requirements as Per GAP Analysis	Unit	Quantity Required	Estimated cost per unit in INR	Population to be covered	Amount in INR	Remarks
i State share completely							
1	Sewer pipe network including pump station	Sewer network - per capita	31395	6000	10883	65298000	
2	Storm water drain network	Drain length - per capita	31395	3000	20512	61536000	
ii Central and State share as per Table - Estimated per capita Costing and funding pattern in %age							
3	Machines for septic tank desludging	4 KLD Trucks in Nos.	1	2,000,000	31395	2000000	
4	STP cum FSTP	Capacity in MLD (2 Nos)	3.39	11,000,000	31395	37297260	
5	I&D system (including Interception structure, pump station and diversion network to STP)	Diversion structure / Pump station in MLD in Numbers	1	5,000,000	31395	5000000	
		Diversion sewer network in Km	4	4,000,000	31395	16000000	

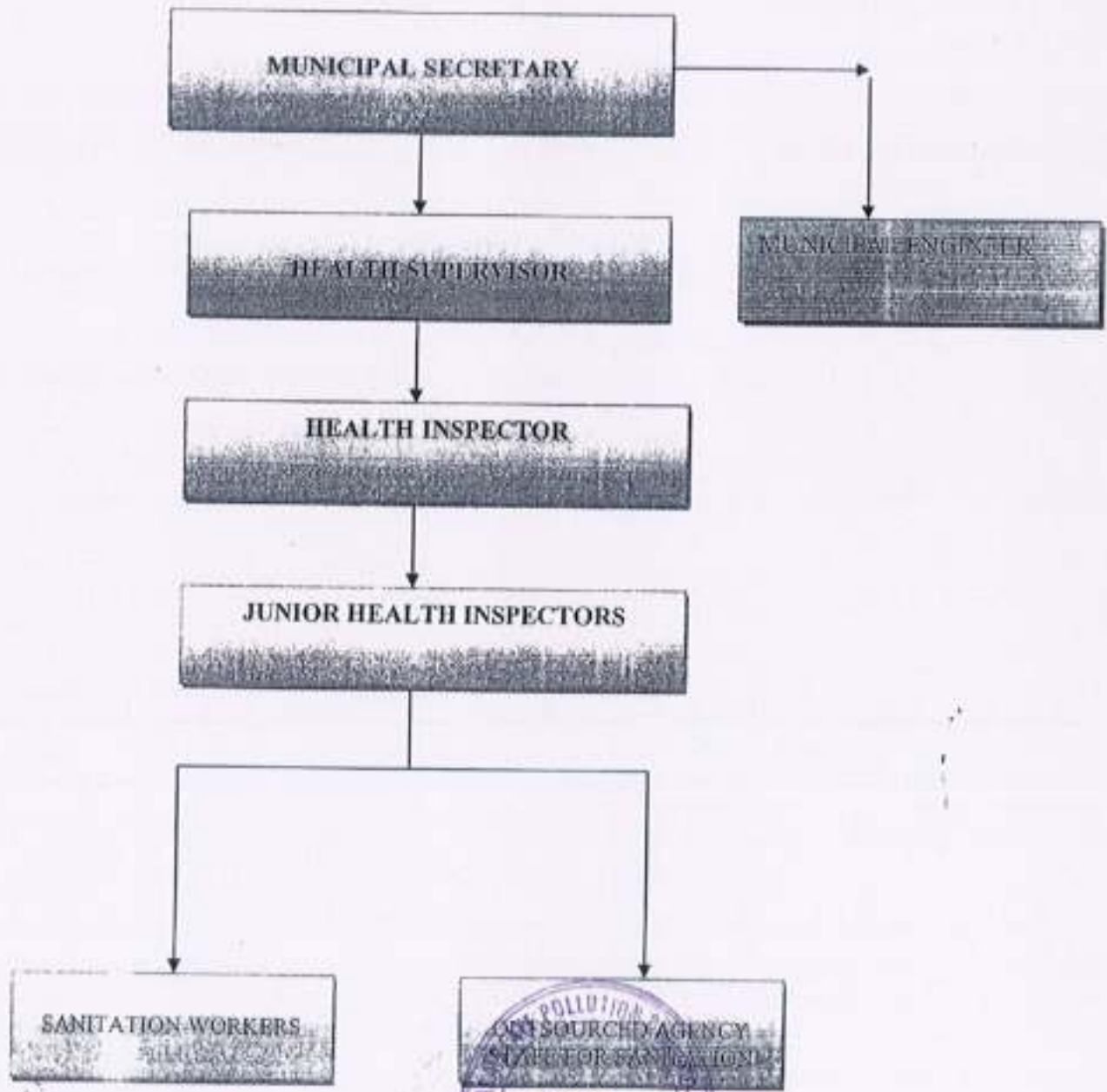
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REGIONAL OFFICE
 THIRUVANANTHAPURAM

SREEKALA S.
 Regional Engineer

45

STAFF PATTERN



SREEKALA S.
Chief Environmental Engineer

AJG
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Health Inspector, Gr. I
Adoor Municipality

സത്യം തന്നെയാണ് വിജയം - പ്രധാനമന്ത്രി ശ്രീ നരേന്ദ്ര മോദി

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6/12/2021
കെ.പി.എ. മന്ദിരം

HI inspects all public markets, public toilets regularly. HI also take necessary steps in the petitions received in the Health Section based on the reports of the concerned Jr Health Inspectors. HI also monitor the daily activities of Haritha Karma Sena (Green Task Force).

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SREEKALA S.
Chief Environmental Engineer


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Adoor Municipality

ANNEXURE 4

(Roles and Responsibilities for Dealing with Sanitation Services)
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2. Attendances register.
3. Work distribution registers
4. Stock registers
5. Tourist registers
6. Register related to govt activities
7. NGT related registers
8. Register related to activities conducted based on government instruction.
9. Swachh Bharat Mission, Haritha mission Keralam etc.



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AMS 48
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Health Inspector. Gr. 1
Municipality

ANNEXURE 3

LAND USE MAP OF ADOOR MUNICIPALITY

MASTER PLAN FOR
ADOOR MUNICIPALITY

EXISTING LAND USE - 2018

Figure 4.2

Legend

- Water bodies
- Open spaces
- Public spaces
- Public buildings
- Public utilities
- Public services
- Public facilities
- Public infrastructure
- Public amenities
- Public services
- Public facilities
- Public infrastructure
- Public amenities
- Public services
- Public facilities
- Public infrastructure
- Public amenities

Scale: 1:10000

North

ADOOR MUNICIPALITY

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SREEKALA S.
Chief Environmental Engineer

A.J.I. G.
A.J.I. G.
Health Inspector, Gr. 1
Adoor Municipality

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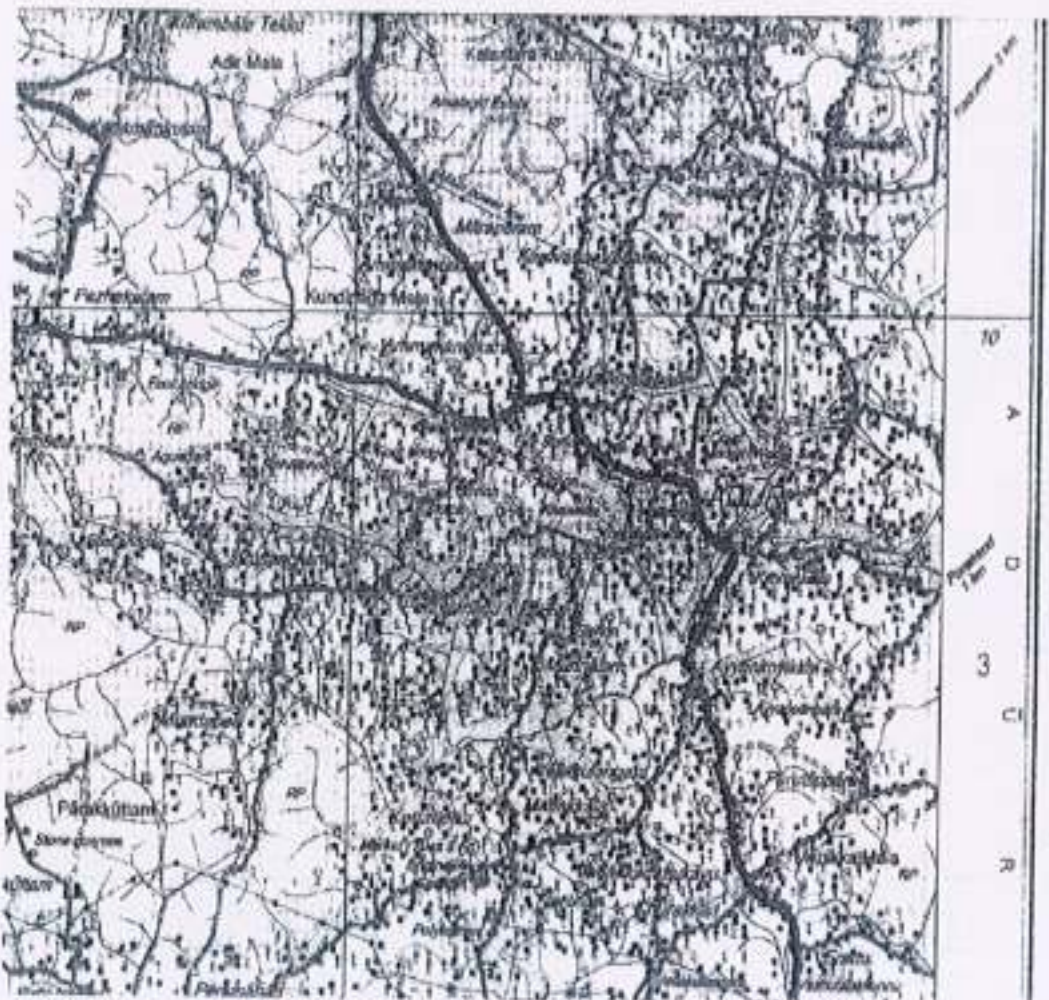
ANNEXURE 2

Part of the **OPEN SERIES MAP**

No. C43Q12
Scale 1:50,000

C43Q7	C43Q11	C43Q15
C43Q8	C43Q12	C43Q16
C43Q9	C43Q13	C43Q17

THIRUVANANTHAPURAM, KERALA



CONVENTIONAL SYMBOLS

Water (open sea)	Blue wavy lines
Sea level	Blue wavy lines with '0'
Coastline	Blue wavy line with '0'
Beach	Blue wavy line with '0' and dots
Shoreline	Blue wavy line with '0' and dots
Island	Blue wavy line with '0' and dots
Islet	Blue wavy line with '0' and dots
Rocky shore	Blue wavy line with '0' and dots
Shoals	Blue wavy line with '0' and dots
Reefs	Blue wavy line with '0' and dots
Breakers	Blue wavy line with '0' and dots
Breaker waves	Blue wavy line with '0' and dots
Breaker waves (high)	Blue wavy line with '0' and dots
Breaker waves (low)	Blue wavy line with '0' and dots
Breaker waves (medium)	Blue wavy line with '0' and dots
Breaker waves (small)	Blue wavy line with '0' and dots
Breaker waves (very small)	Blue wavy line with '0' and dots
Breaker waves (tiny)	Blue wavy line with '0' and dots
Breaker waves (micro)	Blue wavy line with '0' and dots
Breaker waves (nano)	Blue wavy line with '0' and dots
Breaker waves (pico)	Blue wavy line with '0' and dots
Breaker waves (femto)	Blue wavy line with '0' and dots
Breaker waves (atto)	Blue wavy line with '0' and dots
Breaker waves (zepto)	Blue wavy line with '0' and dots
Breaker waves (yotta)	Blue wavy line with '0' and dots
Breaker waves (nona)	Blue wavy line with '0' and dots
Breaker waves (deca)	Blue wavy line with '0' and dots
Breaker waves (hecto)	Blue wavy line with '0' and dots
Breaker waves (kilo)	Blue wavy line with '0' and dots
Breaker waves (mega)	Blue wavy line with '0' and dots
Breaker waves (giga)	Blue wavy line with '0' and dots
Breaker waves (tera)	Blue wavy line with '0' and dots
Breaker waves (peta)	Blue wavy line with '0' and dots
Breaker waves (exa)	Blue wavy line with '0' and dots
Breaker waves (zetta)	Blue wavy line with '0' and dots
Breaker waves (yotta)	Blue wavy line with '0' and dots



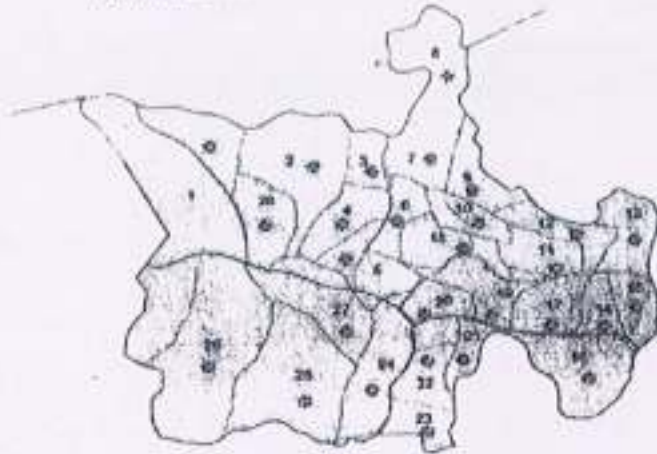
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SREEKALA S.
Chief Environmental Engineer

(Signature)
A.J. G.
Health Inspector, Gr. 1
Adoor Municipality

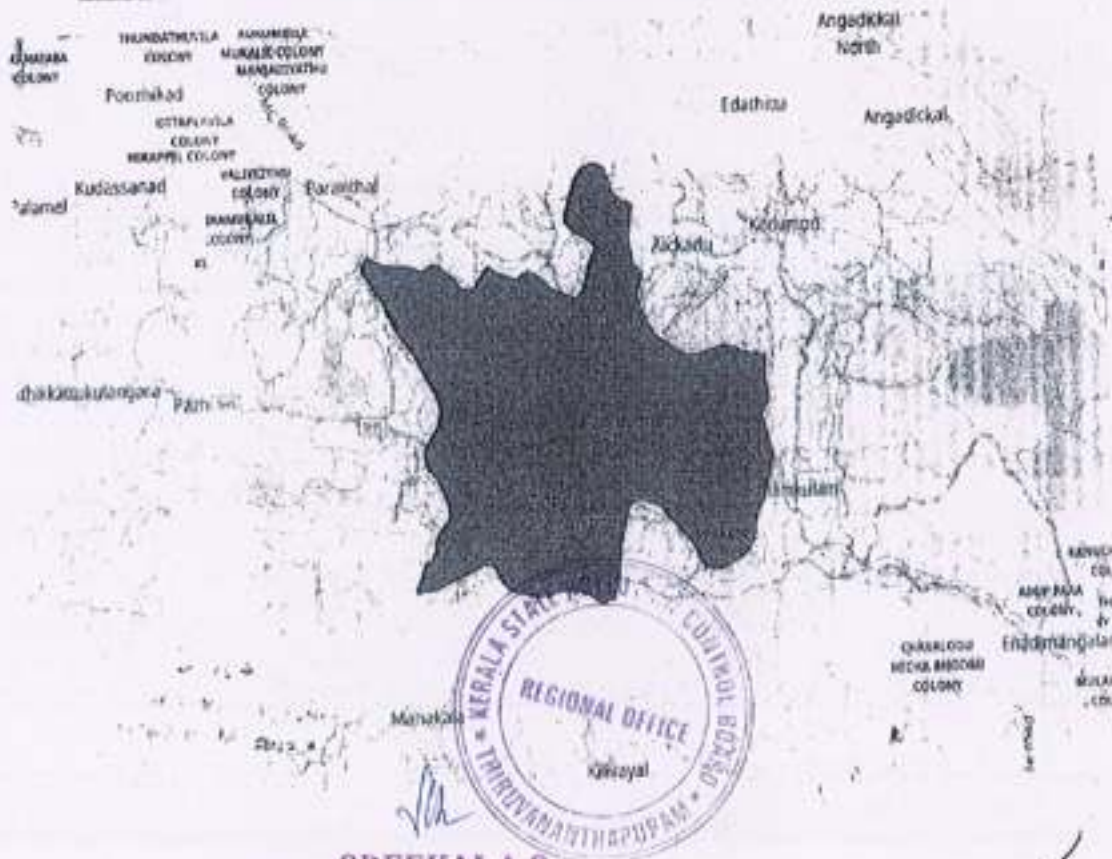
ANNEXURE 1

ADOOR MUNICIPALITY MAP

Pandalam Block



Parakkode Block



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-Adoor Municipality



Total fund required	Central share	Funding requirement		
		State share	ULB share	Others (pl specify)
60297260	30148630	19898095.8	10250534.2	

Roadmap for achieving Mission outcomes

Target/Year	2021-22	2022-23	2023-24	2024-25	2025-26	Remarks
Cities ODF++					ODF++	
Cities Water+						



Sr

SREEKALA S.
Chief Environmental Engineer

AJG
AJ. G.
Health Inspector. Gr. I
Adoor Municipality

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C INSTITUTIONAL AND GOVERNANCE				
Institutional framework				
6.a	Regulatory Framework	Whether Municipal Sanitation Bye Laws notify tariff for sanitation/sewage services (details)	No	
		State Sanitation Strategy (available / not available)	Available	
6.b	Institutional Arrangement	Roles and Responsibilities for dealing with sanitation/ sewage services.	Documents attached	Annexure 4
6.c	Governance and Reforms	Implementation of e-governance in ULBs (available / not available)	Available	
D CAPACITY ENHANCEMENT				
Capacity Management				
7.a	Human Resource Development	Details of the personnel engaged in sanitation services along with roles and responsibilities.	Documents attached	Annexure 4
		Outsourcing of staff and services (available / not available)	Available	
E GAP ANALYSIS				
8.a		Analyze the projected requirement of used water infrastructure/facilities in 2026,	STP-3.39MLD	Annexure 5
8.b		Identify the available infrastructure in good condition	STP-0 Sewer Network-0	
8.c		Analyze the gap in various areas and suitably club as part of a project/DPR <ul style="list-style-type: none"> Sewer network Septage conveyance STP cum FSTP Recycle and reuse potential 	Sewer Network-System does not exist (Gap-100%) STP cum FSTP- System does not exist (Gap-100%)	
F	CONCLUSION	On above lines identify various DPRs/ plan for projects related to <ul style="list-style-type: none"> I&D and STP cum FSTP Sewer network Storm water drainage system Recycle and reuse projects Gap in human resources for execution and O&M etc. 	STP cum FSTP- 3.39MLD I&D-6 km coverage with 2 pumping stations	

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SREEKALA S.

Chief Environmental Engineer

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AJI.G
AJI. G
Health Inspector, Gr. I
Adoor Municipality

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53

5.e	Service Level Benchmark - Present	Indicators	Benchmark	Before implementation of project	After the implementation of project
		Coverage of Sewerage Network	100%	0%	100%
		Collection efficiency of Sewerage Network	100%	0%	100%
		Adequacy of Sewage Treatment Capacity	100%	0%	100%
		Quality of sewage treatment	100%	0%	100%
		Extent of Reuse and Recycling of Sewage	20%	0%	20%
		Extent of cost recovery in sewage/ used water management	100%	0%	100%
		Efficiency in redressal of customer complaints	80%	0%	80%
		Efficiency in Collection of sewage / used water Charges	90%	0%	90%
		Access to toilets	100%	0%	100%
		Scheduled desludging	100%	0%	100%
		Notified tariff for desludging		No	
5.f	Maps	Map depicting the coverage of existing sewer network coverage and onsite system			NA
		Access to toilets			NA
		Scheduled desludging			NA
		Notified tariff for desludging			NA

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 Health Inspector. Gr. 1
 Adoor Municipality



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SREEKALA S.
 Chief Environmental Engineer



B. TECHNICAL INFORMATION: Information regarding used water infrastructure facilities

1. Details of existing sewage infrastructure				
4.a		Brief description of existing sewage infrastructure in the town:		
		(i) TPs	0	
		(ii) FSTPs	0	
		(iii) Existing sewers	0	
		(iv) Drains	0	
		(v) Number of cesspool tankers (govt./private)	0	
		(vi) Funding Agencies & amount	0	
5. Sewage Management				
5.a	Sewage Generation	<ul style="list-style-type: none"> Estimated sewage generation (in MLD for 2026, 2040, 2055) 	2026- 3.39MLD 2040- 3.63MLD 2055- 3.90MLD	
5.b	Collection and Conveyance	NETWORK COVERAGE <ul style="list-style-type: none"> Present population covered with sewer- age network Present population uncovered with sewerage network 	0 100	
		SEPTAGE <ul style="list-style-type: none"> Status of scheduled desludging (by ULB/ Licensed operator) 	NA	
		Drainage <ul style="list-style-type: none"> Number of drains with length & material of construction etc. (width more than 75 cm) carrying sewage into the surface water body or open land Status of drains with or above 75 cm width (covered/uncovered) Number of outfall locations along with estimated quantity of sewage (dry weather) being discharged into surface water body or open land 	0 0 0	
		Outfall location <ul style="list-style-type: none"> Mention the location of outfall points (river/ Natural drain/surface water body/ open land) 		

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AJL. G
 Health Inspector. Gr. I
 Adoor Municipality

ലക്ഷ്യം നേടാനുള്ള പദ്ധതി - പ്രധാനമന്ത്രിയുടെ നരേന്ദ്ര മോദി

Rajji

SREEKALA S.
 Chief Environmental Engineer



Demography and Growth pattern

2.a	Population	Census data - Latest census data and previous census data (population projection for 2026, 2040 and 2055)	Population projection for 2026: 31395	
			Population projection for 2040: 33623	
			Population projection for 2055: 36187	
		Slum population • Population • Households • Density	NIL	
		Non slum population • Population • Households • Density	29171 7911 1422	
	Floating population • Population per day (if available from tourism department)	1568		
	Decadal Population growth rate (in %)	4.9%		

3 Land Use Information and Development

3.a	Land Use pattern	Land use classification in the city- [Area under residential, commercial, Institutional, open areas, slums (available / not available)]	<p>The land use pattern of the town depends on its population, size, function and location. Major part of the land is used for cultivation, mainly paddy fields and coconut trees. Nearly 33% land is residential area and over 4% land is covered with water bodies. The urban services have not been properly exploited in this area.</p> <p>Existing land use analysis is done by conducting field survey and is shown in the table below.</p>	
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Details of Population and projected growth	2011 - 29171 PROJECTED 2022 - 30786 2026 - 31395
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3.b	Maps	Map depicting the existing land use - residential, commercial, Institutional, slums, green cover, open land etc. (available / not available)	ATTACHED	ANNEXURE 3
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SREEKALA S.
 Chief Environmental Engineer

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ANNEX 3B: CITY SANITATION ACTION PLAN (CSAP): FOR USED WATER MANAGEMENT

(As referred in Chapters 2 and 7)

(To be filled in only for Cities below 1 Lakh Population, as referred in Chapters 2 and 6)

S.No.	Description	Particulars	Detailed description	Remarks
A	GENERAL INFORMATION			
1	Location and Physical aspects			
1.a	Location	Name of the City, District, State	ADOOR, PATHANAMTHITTA, KERALA	
1.b	Physical Aspects	Municipal Area in sq. km and Class of Town	20.82 sq.km	
		Number of Wards	28	
		Geographical description -Hilly area, river, Environmental sensitive area etc.		
		GEOGRAPHICAL DESCRIPTION		
		<p>Adoor is located in the southern end of the Pathanamthitta district and also in the centre of South Kerala. The rivers of Achenkovil and Kallada pass through Adoor, with landlocked irrigating streams. To the north side of Adoor, Chengannur is located, to the east side Kottarakara is located, to the south side Punalur is located and to the west side Kayamkulam is located. Adoor is part of the Pathanamthitta District and is a major town in Central Travancore. Adoor is one of the biggest producers of coconut, bananas and tapioca. Here mousambi is grown, including red coconuts and red bananas. The soil in Adoor is good for cultivation and is from the minerals given by the rivers Achenkovil and Kallada. A lot of aracknut palm trees are grown here.</p>		
1.c	Maps	Map depicting administrative boundaries, roads and railways, water bodies, Important landmarks etc. (if not available, to be prepared)	ATTACHED	ANNEXURE 1
		Topo-Sheet (ref. Survey of India, Scale - 1:50000) (if not readily available, get it)	ATTACHED	ANNEXURE 2



A.J. G.
Health Inspector, Gr. I
Adoor Municipality

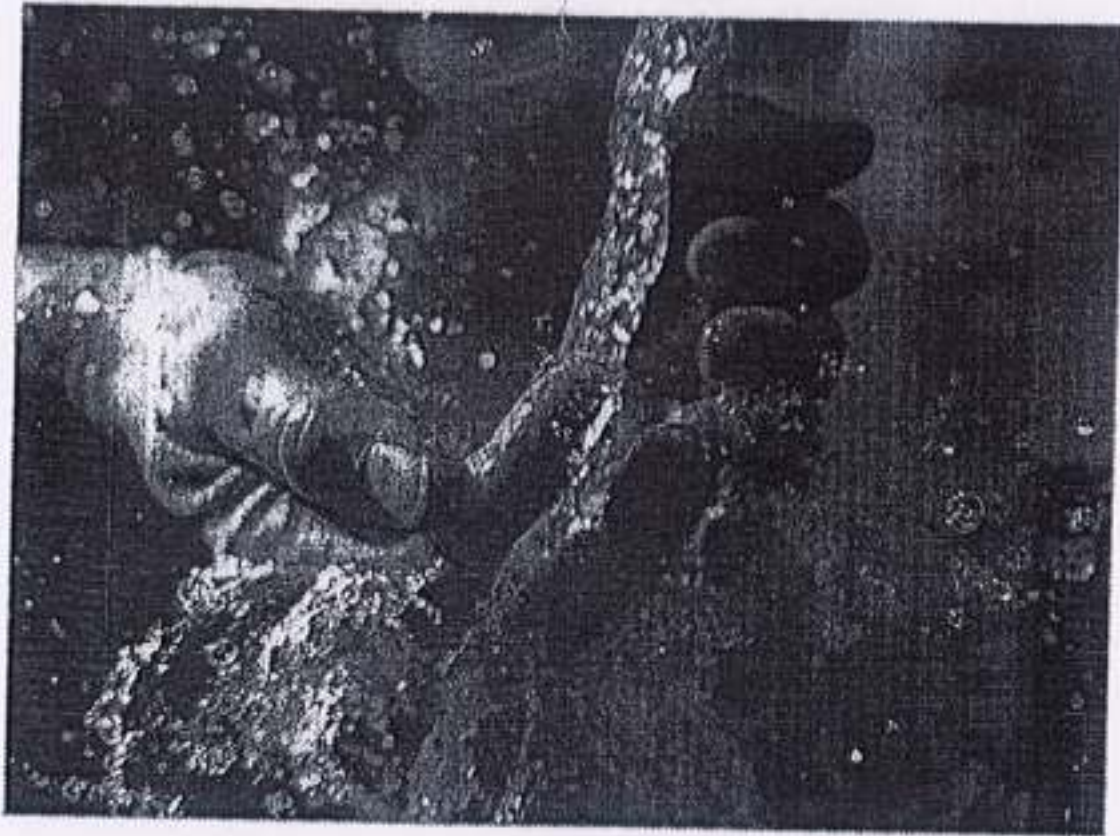
कस्य हे गावेज श्री शहर - प्रणालमंती श्री नरेड मोदी

Raji

SREEKALA S.
Chief Environmental Engineer

3

CITY SANITATION ACTION PLAN (CSAP): FOR USED WATER MANAGEMENT



SREEKALA S.
Chief Environmental Engineer



Ministry of Urban Development
Government of India



SUCHITWA MISSION
Water Management and Conservation



SBM URBAN 2.0 ACTION PLAN ADOOR



SREEKALA S.
Chief Environmental Engineer

लक्ष्य है गाँवज श्री शहर - प्रधानमंत्री श्री नरेद्र मोदी

DATA COLLECTION TEMPLATE FOR RIVER POLLUTION PREVENTION ACTION PLAN FOR LSGI						
	LSGI NAME	ADOOR MUNICIPALITY				
	NAME OF RIVER	PALICKAL RIVER				
Potential river/stream polluters in an LSGI						
A1	Liquid waste (discharged directly into river/streams)					
1	Individual Households					
	No. of houses discharging grey water into rivers/streams	3				
	No. of houses discharging black water into rivers/streams	0				
	No. of houses discharging both grey water & black water into rivers/streams	0				
2	Residential Colonies	Colony no.1	Colony no.2	Colony no.3	Colony no.4	Colony no.5
	No. of houses in the colony	NIL				
	No. of houses discharging grey water into rivers/streams	NIL				
	No. of houses discharging black water into rivers/streams	NIL				
	No. of houses discharging both grey water & black water into rivers/streams	NIL				
	Location details including GPS location of the colony	NIL				




SREEKALA S.
 Chief Executive Officer/Engineer

3	Apartment complexes	Complex no.1	Complex no.2	Complex no.3	Complex no.4	Complex no.5
	Type of discharge (mention whether grey water, black water or both grey and black water)	NIL				
	Total No. of occupants	NA				
	Location details including GPS location	NA				
4	Hospitals/Health Care Establishments (HCE)	Hospital/ HCE no.1	Hospital/ HCE no.2	Hospital/ HCE no.3	Hospital/ HCE no.4	Hospital/ HCE no.5
	Type of discharge (mention whether grey water, black water or both grey and black water)	NIL				
	Number of beds					
	Location details including GPS location					
5	Educational institutions	Institution no.1	Institution no.2	Institution no.3	Institution no.4	Institution no.5
	Type of discharge (mention whether grey water, black water or both grey and black water)	NIL				
	No. Of students	NIL				
	Accommodation facility available (No of students)	NA				
	Location details including GPS location	NA				



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Chief Executive Engineer

02-013 SAMPLE DATA

6 Commercial establishments		Mall no.1	Mall no.2	Mall no.3	Mall no.4	Mall no.5
a	Shopping malls					
	Type of discharge (mention whether grey water, black water or both grey and black water)	Grey Water				
	Approximate no. of person visiting the mall per day					
	Location details including GPS location					
b	Restaurants/cafe	Pepino	Restaurant/ cafe no.2	Restaurant/cafe no.3	Restaurant/cafe no.4	Restaurant/cafe no.5
	Type of discharge (mention whether grey water, black water or both grey and black water)	Grey Water				
	No. of seats	25 seat				
	Location details including GPS location	9.152764 76.741657				
c	Business complex/office units	Complex/Unit no.1	Complex/Unit no.2	Complex/Unit no.3	Complex/Unit no.4	Complex/Unit no.5
	Type of discharge (mention whether grey water, black water or both grey and black water)	NIL				
	No. Of staffs	NIL				
	Location details including GPS location	NIL				
d	Hotels/lodges/resorts/hostel	Unit no.1	Unit no.2	Unit no.3	Unit no.4	Unit no.5
	Type of discharge (mention whether grey water, black water or both grey and black water)	NIL				
	No of inmates	NIL				
	Location details including GPS location	NIL				



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Chief Environmental Engineer

Chief Environmental Engineer

6 Other Commercial Units		Unit no.1	Unit no.2	Unit no.3	Unit no.4	Unit no.5
Type of discharge (mention whether grey water, black water or both grey and black water)		NIL				
No. Of person using the facility per day		NIL				
Location details including GPS location						
7 Religious institutions		Institution no.1	Institution no.2	Institution no.3	Institution no.4	Institution no.5
Type of discharge (mention whether grey water, black water or both grey and black water)		NIL				
Whether having ootupura attached		NA				
No. Of person visiting/day		NA				
Location details including GPS location						
8 Fish, meat & vegetable markets		Unit no.1	Unit no.2	Unit no.3	Unit no.4	Unit no.5
Type of market		NIL				
Type of discharge (mention whether grey water, black water or both grey and black water)		NA				
No. Of person using the facility/day		NA				
Location details including GPS location						
9 Septage						
Whether cases of septage deposited into/near water bodies reported		NIL				
Location details including GPS location of disposal sites						



[Signature]

SREEKALAS.

30/6

Action Plan to prevent river/stream pollution from liquid and solid waste

Step 1: Data Collection

Sl No	Action point/Activity	Action by	Timeline
1	Inventory development by identification of all points where liquid waste flows into rivers or streams and identification of all solid waste garbage dumps on river or river banks. It is proposed to collect the GPS coordinates of all polluting sources to map the river/stream pollution.	LSGI	15/12/2021
2	A data collection template to be developed for the above purpose	SM	Done

Step 2: Evaluation

Sl No	Action point/Activity	Action by	Timeline
1	A template for evaluation of the data collected in the above step is to be developed as a part of this action plan	SM	Done
2	Using this template, the quantity of discharge fed into the river/streams can be calculated	SM	2 weeks after receiving the filled data from the LSGI
3	Using the collected GPS coordinates, the river polluting points can be mapped over the course of the river	SM	2 weeks after receiving the filled data collection template form from the LSGI

Step 3: Intervention and Remediation Measures



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Chief Environmental Engineer

- a. Intervention strategies to address the issues identified and quantified in above steps are proposed here
- b. **3 stage intervention and remediation** measures are proposed in this action plan. The polluting sources are categorized into 3 (small, medium and large) and priority wise remediation measures are proposed for each source. The proposed intervention/remediation strategies are as below:

SI No	Proposed Intervention/remediation strategy	Action by	Timeline
1	Individual households/Colonies		
a	Bringing down the grey water & black water discharge into river/streams to 75% of the current discharge	LSGI	First stage 30/11/2021
b	Bringing down the grey water & black water discharge into river/streams to 50% of the current discharge	LSGI	Second stage 15/12/2021
c	Bringing down the grey water & black water discharge into river/streams to less than 25% of the current discharge	LSGI	Third stage 30/12/2021
2	Apartment complexes, Hospitals/Health Care Establishments, Educational institutions, Commercial establishments		



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a	Interventions to manage the discharge from large category units	LSGI/PCB	First stage 30/11/2021
b	Interventions to manage the discharge from medium category units	LSGI/PCB	Second stage 15/12/2021
c	Interventions to manage the discharge from small category units	LSGI/PCB	Third stage 30/12/2021

Liquid Waste management			
Sl No	Action point/Activity	Action by	Timeline
1	Household latrines		
a	New toilets for no latrine households and provision of septic tank systems for those which are discharging directly into water bodies/ drains leading to water bodies.	LSGI	31/12/2022
b	Community toilets to be provided wherever necessary with scientific septic tank system	LSGI	31/12/2022
c	Leach pits to be replaced by septic tanks	LSGI	31/12/2022
d	Retrofitting of old septic tanks to improve treatment efficiency.	LSGI	31/12/2022



SREENILAS 67
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2	Installation of common STP and ETP to ensure that only treated wastewater reaches the natural streams.	SM,PCB,LSGI	30/03/2022
3	Drain interception works- In case, black water is entering any drains, storm drains etc., and connecting the lake or river or any type of water bodies, appropriate action by intercepting the drains and diverting it to either the sewerage system or STP.	LSGI	30/03/2022
4	Cleaning of storm water drains (small streams, creeks leading into the river) periodically.	LSGI	30/03/2022
5	Procurement of sewer cleaning machines and equipment maintenance	LSGI	30/03/2022
6	Propagation of vegetative cover in watersheds will reduce river pollution due to soil erosion and enhance percolation of rain water into the subsurface. In downstream stretches where the river is saline, propagation of mangroves are essential.	LSGI (Through MGNREGS)	30/03/2022
7	Installation of CCTV cameras and fencing at critical areas. Installation of night vision surveillance cameras at priority sites.	LSGI	30/03/2022
8	Continuous monitoring of river banks and public places involving the participation of school students may be considered to prevent waste dumping.	LSGI	30/03/2022
9	Maintaining minimum environmental flow of river by ensuring entry of rain water and rain water recharging to all natural streams and drains.	LSGI	30/03/2022
10	Awareness programme & capacity building a. Awareness for residence association:	SM,LSGI	30/03/2022



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Chief Environmental Engineer


	Suchitwamission/LSGD/Corporation b. SWM training to children, youth, Asha workers and other stakeholders c. Follow up systems: Capacity building of community groups, monitoring system and active involvement of residents associations is necessary.		
11	For the treated effluents being discharged into the river/streams, the treated effluents complying with the discharge standards prescribed by the State PCB need to be ensured.	KSPCB	
12	The riverine stretches are to be monitored periodically at identified locations for water quality assessment	KSPCB	
13	Fertilizers and chemicals application in agricultural lands are to be strictly under technical expertise.	Agricultural Dept/Soil conservation	
14	Eco tourism and water tourism projects are to be organized under the strict monitoring of concerned authorities in such a way that it does not induce any types of pollution to the water body.	DTPC	



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Chief Environmental Engineer

The intervention strategies to prevent the pollution of river/streams from solid wastes are listed below:

Solid waste management

SI No	Action point/Activity	Action by	Timeline
1	<p>Biodegradable waste</p> <p>a. For decomposition of biodegradable waste at its origin; pipe composting compost, biogas plants shall be implemented at all residential units.</p> <p>b. Rendering plant for poultry waste management</p>	SM.LSGI	30/03/2022
2	<p>Non-Biodegradable waste management</p> <p>a. Door to door waste collection</p> <p>b. Mini Material Collection Facility, Material Collection Facility & Resource Recovery Facility have already started functioning at many locations for the management of non-biodegradable waste, the same shall be widely implemented to meet the waste generation demand.</p> <p>c. Implement Green Protocol effectively in local self governments. Prohibit littering of plastics in the area. Plastic wastes shall be strictly handled as per the provisions of Plastic Waste (Management and Handling) Rules, 2018.</p> <p>d. Installation of plastic shredding units for managing the plastic waste generated and thereby prevent its entry into water bodies</p>	SM.LSGI	<p>RRF നിലവാരം 30/03/2022 ൽ പൂർത്തീകരിക്കും</p> <p>30/03/2022</p> <p>മുഴുവൻ പ്രദേശങ്ങളിലും തുടർച്ചയായി പ്രവർത്തിക്കുന്നു</p>
3	Construction of retaining wall with HDPE liner at existing waste	SM.LSGI	 <p>30/03/2022</p>

S. N. V. A. S.
Chief Environmental Engineer

	dumping yards in order to prevent the leachate discharge from the yard to rivers/streams	
--	--	--

Step 4: Enforcement and Regulatory Measures

Sl No	Action point/Activity	Action by	Timeline
1	Continuous surveillance for protecting the waterbody. Installation of additional continuous online River water monitoring stations	KSPCB	Continuous activity
2	Enforcement & Penal provisions	KSPCB	Continuous activity
3	Identification of the establishments/commercial complexes/flats/houses/hotels etc who is discharging the sewage to the public drain and to collect fine based on polluter pay principle	KSPCB	Continuous activity
4	Periodical inspection in the STP/ETP, Industries, Flats, hotels, monitoring of STP,ETP.	KSPCB	Continuous activity



Prof



Atreyan
Health Inspector, C.I.
Adoor Municipality

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SREEKALA S.
Chief Environmental Engineer

ANNEXURE C

LIQUID WASTE MANAGEMENT FORMAT FOR REVIEW to be filled by LSG

Name of District		PATHANAMTHITTA	
Block Name			
LSG Name		ADOOR MUNICIPALITY	
LSG Type (tick whichever is applicable)			
1	LWM data collection template submitted? (tick whichever is applicable)	YES	
2	LWM action plan submitted? (tick whichever is applicable)	YES	NO
3	Retrofitting of toilets		
3.1	Whether retrofitting of old insanitary toilets included in Janakeeyasutrana Plan Projects		NO
3.2	Amount allocated by the LSGI in the budget for retrofitting of toilets	FY:2020-21 5652751	FY:2021-22 5902751
3.3	Amount spent by the LSGI for retrofitting of toilets	FY:2020-21 NIL	FY:2021-22 NIL
3.4	No. of toilets planned for retrofitting	FY:2020-21 NIL	FY:2021-22 NIL
3.5	No. of toilets retrofitted	FY:2020-21 NIL	FY:2021-22 3



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SREERAMA S.
Chief Environmental Engineer

		Drain Interception			
		IHHL	FY:2020-21	FY:2021-22	
4			NIL	NIL	
4.1	How many notices served for discharging wastewater into public drains/water bodies	Residential units	FY:2019-20 NIL	FY:2020-21 NIL	FY:2021-22 NIL
		Commercial establishments	FY:2019-20 2 Nos.	FY:2020-21 3 Nos.	FY:2021-22 NIL
		Institutional buildings	FY:2019-20 NIL	FY:2020-21 NIL	FY:2021-22 NIL
		Others	FY:2019-20 NIL	FY:2020-21 NIL	FY:2021-22 NIL
		Residential units	FY:2019-20 NIL	FY:2020-21 NIL	FY:2021-22 NIL
		Commercial establishments	FY:2019-20 2 Nos.	FY:2020-21 3 Nos.	FY:2021-22 NIL
		Institutional buildings	FY:2019-20 NIL	FY:2020-21 NIL	FY:2021-22 NIL
		Others	FY:2019-20 NIL	FY:2020-21 NIL	FY:2021-22 NIL
		Residential units	FY:2019-20 NIL	FY:2020-21 NIL	FY:2021-22 NIL
		Commercial establishments	FY:2019-20 3260	FY:2020-21 15000	FY:2021-22 NIL
		Institutional buildings	FY:2019-20 NIL	FY:2020-21 NIL	FY:2021-22 NIL
		Others	FY:2019-20 NIL	FY:2020-21 NIL	FY:2021-22 NIL
4.2	No. of cases where fine imposed for discharging wastewater into public drains/water bodies	Residential units	FY:2019-20 NIL	FY:2020-21 NIL	FY:2021-22 NIL
		Commercial establishments	FY:2019-20 3260	FY:2020-21 15000	FY:2021-22 NIL
		Institutional buildings	FY:2019-20 NIL	FY:2020-21 NIL	FY:2021-22 NIL
4.3	Amount collected as fine for discharging wastewater into public drains/water bodies	Residential units	FY:2019-20 NIL	FY:2020-21 NIL	FY:2021-22 NIL
		Commercial establishments	FY:2019-20 3260	FY:2020-21 15000	FY:2021-22 NIL
		Institutional buildings	FY:2019-20 NIL	FY:2020-21 NIL	FY:2021-22 NIL
	How many illegal drains discharging	Residential units	FY:2019-20 NIL	FY:2020-21 NIL	FY:2021-22 NIL
		Commercial establishments	FY:2019-20 NIL	FY:2020-21 NIL	FY:2021-22 NIL
		Institutional buildings	FY:2019-20 NIL	FY:2020-21 NIL	FY:2021-22 NIL



SREERAKHA S.
Chief Environmental Engineer

4.4	wastewater into public drains/water bodies sealed	Institutional buidings	FY:2019-20 NIL	FY:2020-21 NIL	FY:2021-22 NIL
		Others	FY:2019-20 NIL	FY:2020-21 NIL	FY:2021-22 NIL
Soakpits					
5		No.of new soakpits provided		FY:2020-21 NIL	FY:2021-22 NIL
5.1		Number of identified houses where new soakpit works are to be completed			NIL
5.2		Timeline to complete above soakpit works			NIL
5.3					



Ahoyan
19/11/21
A.J. G.
Health Inspector, Gr. I
Adoor Municipal
REGIONAL OFFICE



Reef

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S/S
SREEKALA S.
Chief Environmental Engineer

02-013 SAMPLE DATA

6

Animal/bird farms	Unit no.1	Unit no.2	Unit no.3	Unit no.4	Unit no.5
Type of farm	NIL				
No. Of animals/birds in the facility					
Location details including GPS location					
11 Miscellaneous Sources	Unit no.1	Unit no.2	Unit no.3	Unit no.4	Unit no.5
Type of source	NIL				
Type of discharge (mention whether grey water, black water or both grey and black water)					
Other details if any					
Location details including GPS location					
A2 Liquid waste (from various sources discharged indirectly into river/streams)					
1 Drains/canals carrying untreated waste water from various sources					
Quality of waste water flowing in the drain/canal (highly polluted, medium, low)	Drains near Muslim Jamat near Adoor				
Type of discharge (continuous/intermittent)					
Location details including the GPS location of the discharge point into rivers	9.153056 76.734452				
Individual sources discharging waste water into the drains leading to rivers may be found out in next stage using the above template (A1)					



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(P.T.O)

S
SREEKALA S.
 Chief Environmental Engineer

B Solid waste	
1 SW dumping site	
No. Of dumping sites within 50m from the river bank	NIL
Approx area of dump site	NA
Location details including GPS location	NA



[Signature]
 Health Inspector, Gr. I
 Keerthi Nagar Municipality



[Signature]

SREENIVA S,
 Chief Environmental Engineer



Ezhamkulam Grama panchayat Office

Parakode P.O .691554, Phone :04734 240637

Pathanamthitta District

No.SC2-231/2022

Date: 07/12/2022

FROM,

Secretary

TO,

Environmental Engineer

KSPCB, Pathanamthitta

Sir,

Sub: Ezhamkulam Gramapanchayat-pallickal River Protection activities-Detailed Action plan submitting

reg

Ref: letter No.DDP-PTA 979279/2022-G2 dtd 02.11 2022

383
12/12/23

AES

Q
1/2/23

your kind attention is invited to the reference cited above Theorign of river pallickal is from Ezhamkulam Gramapanchayat, it runs only a small portion through its territory. At the same time it forms the geographical boundary of both adoer municipality and Gramapanchayat. this Gramapanchayat have taken many steps to ensure its free flow of water by clearing water logs, removing mud and debris by deepening activities. Since then no complaints received regarding spoiling eaters. Ezhamkulam Gramapanchayat have ensured periodical vist of the health inspector over the whole area the workers of MGNREGS have included the deepening and cleaning activities in their respective action plan for the year 2021-22 and the work is almost complete. Ezhamkulam Gramapanchayat is very eager to keep the river free from any type of hindrance.

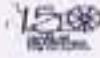


Yours Faithfully

SREEKALA S.
Chief Environmental Engineer



കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്
KERALA STATE POLLUTION CONTROL BOARD
 REGIONAL OFFICE, THIRUVANANTHAPURAM
 Phone: 0471-248850 www.kspcb.org
 PATTOM P.O., THIRUVANANTHAPURAM, PIN: 695 004.



PCB/RO/GEN/OA 141/2021

Dated: 02/12/2022

From
 To The Chief Environmental Engineer

Very Urgent

The Environmental Engineer
 District Office,
 Kollam/Pathanamthitta

Sub: O.A. 141/2021 - Pollution of Pallickal river - reg.

- Ref: 1. Report filed before Hon'ble NGT on 28/09/2022(Copy emailed on 28/09/2022).
 2. Order of the Hon'ble NGT in O.A. 141/2021 dated 30/09/2022.
 3. This office letter of even no. dated 20/10/2022, 09/11/2022.

Madam,

Attention is invited to the subject matter. Vide ref. 3 you were requested to submit the details regarding the defaulting local bodies discharging sewage directly into the river and the action taken if any by the local bodies in controlling/ stopping such activity.

You are requested to take immediate action against such local bodies including imposing Environmental Compensation, if the local bodies have not responded/submitted action plan for preventing the discharge of sewage to the Pallickal river. Environmental Compensation shall be calculated and submitted to Head Office for issuing notice in this regard. Necessary action shall be taken and reported before 7/12/2022 for filing report in O.A. 141/2021. Please treat this as most urgent.

Yours faithfully

Sreekala S.
Chief Environmental Engineer

for CHIEF ENVIRONMENTAL ENGINEER

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