

BEFORE THE HONOURABLE NATIONAL GREEN TRIBUNAL
SOUTH ZONE CHENNAI BENCH

Original Application no. 439 of 2013(SZ)
(THC) (W.P. (C) No. 3637/2012)

&

Original Application No. 456 of 2013 (SZ)
(THC) (W.P. (C) No. 1367/2011)

Chandran Pillai, Kollam and Anr. ... Applicant(s)
Versus

Union of India and Ors. ... Respondent(s)

&

Manushyavakasha Paristhithi Applicant(s)
Samarakshana Samithy ... Versus

Union of India and Ors. ... Respondents

REPORT FILED BY THE ENVIRONMENTAL ENGINEER, KERALA
STATE POLLUTION CONTROL BOARD, DISTRICT OFFICE, KOLLAM,
THE 3RD RESPONDENT IN APPLICATION NO. 439 of 2013(SZ)

**BEFORE THE HONOURABLE NATIONAL GREEN TRIBUNAL
SOUTH ZONE CHENNAI BENCH**

Application no. 439 of 2013(SZ) & 456 of 2013 (SZ)

Chandran Pillai, Kollam and Anr. ... Versus Union of India and Ors. ...	&	Applicant(s) Respondent(s)
Manushyavakasha Parishithi Samarakshana Samithy ... Versus Union of India and Ors. ...		Applicant(s) Respondents

**REPORT FILED BY THE ENVIRONMENTAL ENGINEER, KERALA
STATE POLLUTION CONTROL BOARD, DISTRICT OFFICE, KOLLAM,
THE 3RD RESPONDENT IN APPLICATION NO. 439/2013(SZ)**

I, Simi P., aged 39 years, D/o. T.V. Baby residing at Anizham, Maithanam, Varkala P.O., Thiruvananthapuram- 695141, Environmental Engineer, Kerala State Pollution Control Board, District Office, Kollam, do solemnly affirm and state as follows:

1. The Hon'ble NGT in its Order dated 13.07.2020 in OA 439 of 2013 (SZ) had directed the Board as follows:

“Kerala State Pollution Control Board is also directed to inspect the area in question and submit a status report showing the real state of affairs including the violation if any of non-implementation of provisions of the Solid Waste Management Rules, 2016 in Kollam Corporation and any damage has been caused on account of the negligence act of miss-management of legacy waste, assess environmental compensation and take steps to realize the same from the defaulter and submit a detailed report to this Tribunal.”

Accordingly this respondent had submitted detailed report dated 10.10.2020. When the matter was considered on 02.11.2020, the Hon'ble NGT observed that there is no considerable progress in the implementation of Solid



[Signature]
SIMIT P.
ENVIRONMENTAL ENGINEER

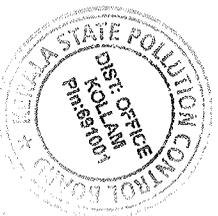
Waste Management Rules, 2016 by the Corporation. The Hon'ble NGT had directed the Board to submit further action taken report on the basis of the steps taken as mentioned in the report dated 10.10.2020.

2. As per the Order of the Hon'ble NGT, the Board had been conducting regular inspection in the Corporation area. There were certain hot spots near Kollam Port, on the banks of Kollam thodu, near Ashramam etc. where repeated incidents of waste dumping were noticed. The Secretary Kollam Corporation was issued notice regarding the same. From the recent inspections conducted by Board Officials it was noticed that though there is improvement with respect to decentralized and house hold level treatment systems, the implementation of the Solid Waste Management Rules, 2016 has not yet reached 100%. Waste dumping was noticed again on the banks of Kollam thodu, near Kollam Port etc. The matter of waste dumping was brought to the attention of the District Level Monitoring Committee (DLMC) in its monthly meeting and the District Collector (Chairman, DLMC) had directed the officials concerned to take urgent remedial action. The Board had also called for report from the Secretary, Kollam Corporation regarding the updated status of implementation of the Solid Waste Management Rules, 2016 and bio-mining of the legacy waste at Kureepuzha dump site. The Secretary had submitted the latest status report on 13.01.2021 regarding the progress of implementation of the SWM Rules and the status of bio-mining. The Report of the Secretary dated 13.01.2021 is produced herewith and marked as Annexure R3(a).

3. As per Annexure R3(a) report of the Secretary, non-biodegradable waste is collected from households and individual establishments by Haritha Karma Sena (HKS). Currently 182 HKS members work across 55 divisions of the Corporation. Number of members working per health circle ranges from 16 – 24. Most of the HKS members follow a monthly schedule for visiting households. The daily working hours are fixed as 9 am – 5 pm. Households are visited once a month and commercial establishments are visited twice a month. Till December 2020 user fee collected by the HKS is



SANJIV,
DISTRICT COLLECTOR



ENVIRONMENTAL ENGINEER

Rs.35,00,000/-. User fee collected is deposited in bank account (Micro Enterprise Group Account) monthly, which is the source of income of the HKS. Till December 2020, HKS had visited 83% of households and 70% of commercial establishment in KMC. To render the service of the HKS in a more systematic manner, each division was divided into clusters having 100-120 houses each. A cluster book is maintained by HKS in which the collection can be recorded. The households were also given a consumer card for their record. The new collection system has been able to ensure 100% collection of non-degradable waste within six months.

4. The collected non-biodegradable waste is stored at the collection point i.e.: material collection facilities setup at under zonal office. Around 250 mini MCFs are being installed in Kollam Corporation. From MCF, non degradable waste is transported to material recovery facilities(MRF) at Anchalumood, which is having a shredding machine and bailing machine. At the shredding unit run by Corporation, 4 staff are employed to segregate, bail and shred non-biodegradable waste. The final shredded plastics are sold to Clean Kerala Company. So far, 5 Tonnes of shredded plastic had been used in road tarring works by KMC itself. Moreover, in the bailing unit plastic bottles, PP cover, Milma cover etc. get bailed separately and are sold to Clean Kerala Company for recycling. The Secretary as per Annexure R3(a) had reported that the Corporation had conducted many drives for collecting hazardous wastes which were then sent to Clean Kerala Company. Further, one number of Resource Recovery Facility (RRF) is established and the another one is under implementation stage, each RRF has a floor area of 5000sqft to facilitate the segregation and preparation of recyclable materials for marketing to end-user manufacturers.



SIMIL P.
ENVIRONMENTAL ENGINEER

Details of non-degradable waste sold to clean Kerala Company is given below:

Quantity of Non- Degradable Waste sold to Clean Kerala Company	
Glass Waste	7T
Tube Light	5T
Bailed Plastic	14T
Shredded Plastic	15T(given to various Panchayats and Municipalities for road tarring works)
Rejects and Leather Waste	27T
Dumped Legacy Waste	263T
TOTAL	331 Tonnes

5. The Corporation had provided bio-degradable waste management facilities at source level like bio digesters, biogas plants, bio compost bins, pipe compost, ring compost etc. for households and commercial establishments. KMC is also providing bio compost bins at subsidised rate for achieving 100% conversion of biodegradable waste at the source itself. At community level, Kollam Corporation had provided de-centralised treatment systems viz., aerobic composting units and community based bio gas plants. An integrated solid waste management facility consisting of a waste to energy plant of 200TPD capacity is proposed by Government of Kerala at Kureepuzha. KSIDC is the nodal agency for the same.

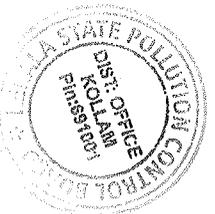


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ENVIRONMENTAL ENGINEER

The details of the solid management facilities existing in Kollam Corporation are as follows:

BIODEGRADABLE WASTE MANAGEMENT		
Treatment Facilities	Nos	Quantity treated (TPD)
Household Level		
Biogas Plants(HH)	2100	4.2
Pipe Compost(HH)	1750	2.6
Bio composter(HH)	6954	27.5
Vermicomposting(HH)	189	0.2
Ring compost(HH)	750	1.2
Compost pit(HH)	7025	10.50
Bucket compost(HH)	3200	4.8
Community Level(Decentralized Facility)		
Aerobic Composting Unit	27	1.30
Biogas Plants(Community Level)	13	5.60
Informal Waste Collectors (Hotels and Chicken Stall)		25.0
Total quantity of bio-degradable waste treated in facilities including those procured by individuals on their own		65.9TPD

6. With respect to the progress of the bio-mining of legacy waste, the Secretary as per Annexure R3(a) had reported that the L1 bidder for bio-mining, M/s. Zonta Infratech had expressed unwillingness to sign agreement with the Corporation as their payment terms were not approved by the State Govt. and hence, the Corporation Council had decided to implement the tender procedures for bio-mining in Kollam Corporation through Kerala



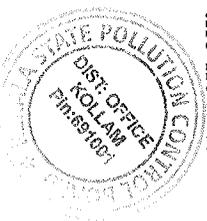
SHAIK P.
ENVIRONMENTAL ENGINEER

State Industrial Development Corporation (KSIDC), as the land having legacy waste includes the land assigned for establishing waste to energy plant and this land has been leased to KSIDC for the same. Further, KSIDC had also tendered for similar projects of bio-mining of legacy waste in Kochi, Kozhikode and Kannur Corporations.

7. As per Annexure R3(a) report, State Level Advisory Committee (SLAC) convened on 05.11.2020 had suggested to conduct a meeting chaired by the Principal Secretary (Urban Affairs) to decide the course of action to be taken to commence bio-mining before 19.01.2021 in compliance with the NGT order dated 02.11.2020. A preliminary meeting between KSIDC, Kollam Corporation and M/s. Zonta Infrotech was also convened by the Director of Urban Affairs on 18.11.2020, to discuss the matter. Also, on 18.11.2020 and 19.11.2020, the Principal Secretary had called for a meeting to resolve the issue. Further, on 24.11.2020 a meeting chaired by Principal Secretary (Urban Affairs) was called for to discuss the removal of legacy waste from the dump site at Kureepuzha and it was decided to avail the services of NIT, Calicut towards supervision of field survey for estimation of the legacy waste and monitoring its removal and related capping. And regarding payment to M/s. Zonta infrotech, it was decided that the same shall be made on a running bill basis monthly. Meanwhile, Kollam Corporation received willingness letter from NIT, Calicut through the Director Urban Affairs. Kollam Corporation had sent the project summary and details regarding the legacy waste to NIT Calicut. As per the instruction received from the Government, on 25.11.2020 the bio-mining file was handed over to the Director (Urban Affairs).

8. As per Annexure R3(a) report, in the meeting dated 10.12.2020 chaired by the Chief Secretary to discuss various Orders of the Hon'ble National Green Tribunal, it was conveyed that a final order will be issued regarding the bio-mining of legacy waste. On 22.12.2020, the Corporation received the file on bio-mining and a letter from the Principal Secretary to Government stating that the Corporation shall take necessary steps for re-tender immediately.

Also, it was suggested that the new tender document shall adhere to CVC

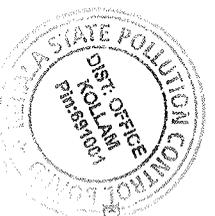


SECRETARY
ENVIRONMENTAL ENGINEER

guidelines and PWD manuals. Accordingly a letter was sent to Suchitwa Mission to prepare a new tender document, since the previous tender document was also prepared by Suchitwa Mission. Suchitwa mission had scrutinized the document and returned the document on 05.01.2021.

9. The Secretary as per Annexure R3(a) had reported that on 06.01.2021 after incorporating the corrections made by the Suchitwa mission, Kollam Municipal Corporation had floated tender for Bio-mining of the Legacy waste at Kureepuzha, Kollam. The tender opening date is 20.01.2021. In the pre-bid meeting conducted on 12.01.2021 three companies had participated. The Secretary had assured that after the selection of the successful bidder the work will commence at the earliest.

10. The Board officers had inspected the community level waste management facilities, RRF and various MCFs of the Corporation. Also as part of the survey conducted by Board Officers and in connection with the sanitation survey of Ashtamudi lake, a number of households were visited randomly and the existing waste management facilities were verified. The data was comparable with the report of the Corporation Secretary. There are 88332 houses and 9825 establishments in Kollam Corporation. The total quantity of waste generated in Kollam Corporation is 104.60TPD. The Corporation had engaged Harita Karma Sena having 182 members for door to door collection of dry waste. As per the latest quarterly progress report submitted by the Corporation, households having segregation at source and door to door collection by Harita Karma Sena for dry waste was 71168 and establishments having segregation at source and door to door collection by Harita Karma Sena was 4800. i.e. 80.6% of houses and 48.9% of establishments were covered under door to door collection of dry waste. Out of the 33.7 TPD of dry waste generated, 25.563 TPD is processed. Total dry waste processed is 75.85%. There is no door to door collection of wet waste.



STATE P.
ENVIRONMENTAL ENGINEER

13. The Hon'ble NGT had directed the Board to submit the report on further action on the basis of the steps taken as stated in the report dated 10.10.2020. Accordingly the Board verified the waste management facilities currently available in the Corporation and also the quarterly progress reports submitted by the Corporation in compliance of the Order of the Hon'ble NGT in O.A.No. 606/2018. Based on the current waste management capacity gap of 13.137 TPD, the Environmental Compensation applicable is Rs.3,44,76,600/- (Rupees three crore forty four lakh seventy six thousand six hundred only). The Board Chairman has issued notice dated 16.01.2021 to the Secretary, Kollam Corporation under section (5) of the Environmental Protection Act, 1986 prior to realization of EC. The copy of the notice dated 16.01.2021 is produced herewith and marked Annexure R3(c).

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

Dated this the 16th day of January 2021



ENVIRONMENTAL ENGINEER
3rd Respondent



SITAI P
ENVIRONMENTAL ENGINEER

Solemnly affirmed and signed by the deponent who is known to me on this the 16th day of January 2021.

**BEFORE THE HONOURABLE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE CHENNAI BENCH**

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(THC) (W.P. (C) No. 3637/2012)

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3.	Annexure R3 (b) - True copy of the report dated 23.12.2020 of the Project Director, KSIDC.	
4.	Annexure R3 (c) - Notice dated 16.01.2021 of the Board Chairman.	

Dated this the 16th day of January 2021.

APPENDIX

RESPONDENT'S ANNEXURES:

1. Annexure R3 (a) - True copy of the report dated 13.01.2021 of the Secretary, Kollam Corporation.
2. Annexure R3 (b) - True copy of the report dated 23.12.2020 of the Project Director, KSIDC.
3. Annexure R3 (c) - Notice dated 16.01.2021 of the Board Chairman.



Kollam Municipal Corporation
Corporation Office Kollam -691001

Phone : 0474-2742192, 2746193, 2741381, Fax : 0474-2742724

Email: secretarykollam@gmail.com

No:PCS/H1/20778/18

Date: 13/01/2021

From
The Secretary
Kollam Municipal Corporation

To
The Environmental Engineer
Kerala State Pollution Control Board (Dist. Office)
Kollam

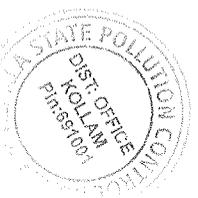
Sir,

Sub: Status of SWM in Kollam Corporation - Reg:-

STATUS REPORT OF BIO MINING OF LEGACY WASTE AT KUREEPUZHA

Kollam Corporation has plotted tender on 23-10-2019 for Bio-mining of Legacy waste dumped on 2.5 Acres; M/s Zonta infatech Pvt. Ltd. has been selected as the lowest bidder. After the selection process is over the lowest bidder had visited the site and put forth a suggestion that they want to re-verify the quantity of Legacy waste. Hence a survey team was called for by the lowest bidder and found out that there is a hike in the quantity, i.e.; there exists an additional quantity of 71,974m³ (including the legacy waste dumped on the land leased for KSIDC). The amount we had estimated for the project was Rs.3,82,85,000 which will increase to an amount of 10,66,60,300/-, if the total quantity of waste is cleared this is a threefold hike in both quantum and price. This has put a huge debt on the part of Kollam Corporation which is being fighting the COVID-19 pandemic with its own fund.

In the 35th State Level Advisory Meeting (SLAC) decided to share the draft agreement done by the Kerala State Industrial Development Corporation (KSIDC) for Kozhikode Municipal



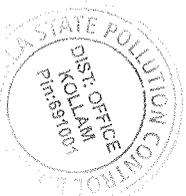
CHIEF
EXECUTIVE OFFICER

Corporation on 27.04.2020 and it was shared and verified by the officials found that M/s. Zonta has requested to sanction 25% of the contract value as mobilization advance and that the amount of performance guarantee (5%) to be remitted may be deducted from each of Running Amount bill at 2.5% of contract value which are not in tune with the Kerala Public Works Department (PWD) manual and prevailing Government orders. As the council being the decision-making authority of Kollam Municipal Corporation, decided to get approval from the government to sanction 25% of the contract value as mobilization advance and that the amount of performance guarantee (5%) to be remitted may be deducted from each of Running Amount bill at 2.5% of contract value as it is a mandate to get concurrence from the State Government if any such changes as requested is to be made in the agreement. As per the decision of the council a letter for approval from the council was sent to the Government. The agreement will be entered and bio mining work will begin once the approval from the government is received.

On 10/09/2020 Government of Kerala via letter stated that Kollam Corporation must not vary from the tender conditions and must follow the PWD manual (i.e., Security Deposit – 5%) while entering into contract with M/s Zonta infatech.

As per the clarifications received from Government of Kerala, on 11/09/2020 a letter was forwarded to M/s Zonta infatech to sign the contract agreement based on the tender conditions and to follow the PWD manual for security deposit. M/s Zonta infatech reverted their unwillingness to sign the contract adhering to aforementioned tender conditions. On 25/09/2020 the above matter was put forth before the Council. The Council had decided to implement the tender procedures for bio-mining in Kollam Corporation through KSIDC (Kerala State Industrial Development Corporation, as the land having legacy waste includes the land assigned to start waste to energy plant and this land has been leased to KSIDC to start waste to energy plant. And also KSIDC has tendered similar bio-mining of legacy waste in Kochi, Kozhikode and Kannur Corporation.

State Level Advisory Committee (SLAC) convened on 5/11/2020 had suggested to conduct a meeting chaired by Principal Secretary (Urban affairs) to decide the course of action to be taken to start bio-mining before 19/1/2021 (date as per NGT order dated 2/11/2020). A preliminary meeting between KSIDC, Kollam Corporation and Zonta infatech was convened by Director of Urban Affairs on 18/11/2020, to discuss this matter. Also, on the same day and the next day, Principal Secretary himself had called a meeting to discuss the same matter to resolve the issue. Further on 24/11/2020 a meeting, chaired by Principal Secretary (urban affairs) was called to discuss the removal of legacy waste at Kureepuzha Kollam. Decisions arrived at were to render services of NIT Calicut for directing and supervising field survey for estimation of the legacy



waste and monitoring its removal and related capping. And regarding payment to Zonta infatech, it will be made on a running bill basis monthly. Meanwhile, Kollam Corporation received a willingness letter from NIT Calicut through director urban affairs. Kollam Corporation has sent the summary about the project, details regarding the legacy waste to NIT Calicut. As per the instruction received from the Government, on 25/11/2020 bio mining file was handed over to director (urban affairs).

On 10/12/2020, a meeting was chaired by Chief Secretary to discuss various cases relating to National Green Tribunal, in that meeting it was conveyed that a final order will be issued regarding the implementation of bio mining of legacy waste. On 22/12/2020, the bio mining file and a letter from Principal Secretary to Government was received; the letter stated that Kollam Corporation must take necessary steps for re-tender immediately. Also, it was suggested that the new tender document must adhere to CVC guidelines and PWD manuals. A letter was sent to the Suchitwa Mission to prepare a new tender document, since the previous tender document was prepared by Suchitwa Mission. Suchitwa mission has scrutinized the document and returned the document back by 05/01/2021. On 06/01/2021 after incorporating the corrections made by the Suchitwa mission, Kollam Municipal Corporation has floated tender for Bio-mining of the Legacy waste at Kureepuzha, Kollam. The tender opening date is on 20/01/2021. Pre-bid meeting was conducted on 12/01/2021; three companies participated. After the selection of the successful bidder the work will commence soon.

STATUS OF SOLID WASTE MANAGEMENT IN KOLLAM CORPORATION

The Kollam Municipal Corporation (KMC) has taken imperative steps to facilitate door to door collection of non-biodegradable waste, segregation of bio-degradable and non-biodegradable waste at source, conversion of biodegradable waste into compost at source itself and proper recycle or utilisation of the non-biodegradable waste for commercial purposes.

NON-DEGRADABLE WASTE MANAGEMENT:

- Facilities provided by Kollam Corporation for the effective management of non-degradable waste are as follows:

Non-biodegradable waste collected from household and individual establishments by Haritha Karma Sena (HKS), an initiative of Govt. of Kerala and LSGD. Currently 182 HKS members work across 55 wards of KMC. Number of members working per health circle ranges from 16-24. Most of the HKS members follow a monthly schedule for visit to households, although the daily working 9 Am – 5 Pm. Households are visited once in a month and Commercial establishments are visited twice in a month. Till December user fee collected by the HKS is



S.M.P.
ENVIRONMENTAL ENGINEER

Rs.35,00,000/- . User fee collected is deposited in bank account (Micro enterprise group account) monthly, from which income is taken by HKS.

Till December, HKS status shows that they been able to visit 83% of households and 70% of commercial establishment in KMC. So HKS introduced to a more systematic work culture i.e.: Each ward was divided into clusters with each cluster having 100-120 houses. A cluster book is maintained by HKS in which the collection can be recorded. The households also given a consumer card for their record The, new collection system has been able to ensure 100% collection of non-degradable waste within six months.

A society of HKS will register within 3 months. A single point of contact for HKS is to be made by starting an Office for HKS. It can also serve as a point of sale for eco-friendly products. Also, a helpline number and an online portal must be made functional. The income generated now is only from user fee collected. But it will not sustain for a long run as the quantity of NBW is reducing by the introduction of new Government policies. Hence other income generating activities which include biodegradable waste management, compost/fertilizer repack and selling, cloth/paper bag production, Nursery/ farming etc. must be carried out. Haritha Karma Sena is trained to repair idle biogas plants in households, there will be a separate fee for it.

The collected non-biodegradable waste (NBW) is stored at the collection point i.e.: material collection facilities setup at each zonal. Around 250 mini MCF is being installed in Kollam Corporation. From MCF, non degradable waste is transported to material recovery facilities(MRF) at Anchalumood, which is having a shredding machine and bailing machine. At the Shredding Unit run by Corporation, 4 staff was employed to segregate, bale and shred non biodegradable waste. The final shredded plastics are sold to Clean Kerala Company, so far 5Tonne shredded plastic has been used in road tarring works by KMC itself. Moreover, in bailing unit plastic bottles, PP cover, Milma cover etc.. Get bailed separately and sold to Clean Kerala Company for recycling. Meanwhile, we had conducted many drives for collecting hazardous wastes which is then sent to Clean Kerala Company (details were given below). Furthermore, 1 RRF (Resource Recovery Facility) is established and the second one is under implementation stage, each one has a floor area of 5000sqft to facilitate the separation and preparation of recyclable materials for marketing to end-user manufacturers.

Haritha Karma Sena is also collecting, segregating other non-degradable wastes rather than plastic wastes like iron, PET bottles, aluminium, PVC items, brass items, cardboards etc.. from households and selling to scrap dealers thereby it generate extra revenue. **Out of the generated**

33.7 Tpd of Non-Degradable Waste, 25.563 Tpd is processed.



S.M.P.
ENVIRONMENTAL ENGINEER

Details of non-degradable waste sold to clean Kerala Company is given below

Quantity of Non- Degradable Waste sold to Clean Kerala Company	
Glass Waste	7T
Tubelight	5T
Bailed Plastic	14T
Shredded Plastic	15T (given to different panjyaths and municipalities for road tarring works)
Rejects and Leather Waste	27T
Dumbed Legacy Waste	263T
TOTAL	331 Tonne handed over to clean Kerala company for recycling




CHIEF
ENVIRONMENTAL ENGINEER

BIO-DEGRADABLE WASTE MANAGEMENT

Kollam Corporation has provided bio-degradable waste management facilities in source level like bio digesters, biogas plant, bio compost bins, pipe compost, ring compost) for treatment of biodegradable waste will be ensured at each household and commercial establishment. KMC has brought out provisions for availing subsidised bio compost bins for achieving 100% conversion of biodegradable waste at source itself. In community level Kollam Corporation has provided de-centralised treatment systems Viz, aerobic composting units, community based bio gas plants. An integrated solid waste management with a waste to energy plant of 200Tpd capacity was proposed by Government of Kerala at Kureepuzha.

The details of the Solid Management Facilities provided by Kollam Corporation (Subsidised) as well as procured by Individuals are furnished in the table below

BIODEGRADABLE WASTE MANAGEMENT		
Treatment Facilities	No's	Quantity (TPD)
Household Level		
Biogas Plants(HH)	2100	4.2
Pipe Compost(HH)	1750	2.6
Bio composter(HH)	6954	27.5
Vermicomposting(HH)	189	0.2
Ring compost(HH)	750	1.2
Compost pit(HH)	7025	10.50
Bucket compost(HH)	3200	4.8
Community Level(Decentralized Facility)		
Aerobic Composting Unit	27	1.30
Biogas Plants(Community)	13	5.60



S.M.P.
ENVIRONMENTAL ENGINEER

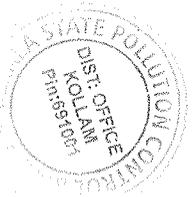
Level)		
Informal Waste Collectors (Hotels and Chicken Stall)		25.0
Total Quantity of Bio-degradable waste treated		65.9TPPD

The total quantity of waste generated in Kollam Corporation is 112.45TPPD. Of this 34 TPPD is processed at source with the facilities provided by Kollam Corporation (Subsidized) as well as procured by Individuals (data from field survey conducted by HKS and agency deputed by KMC for Property mapping); about 6.9 TPPD is processed at community level (decentralized facility); this facility is utilized by households (especially in slum areas) who are not having enough space for installation of source level treatment facilities. 25 TPPD of chicken waste and hotel waste were collected by informal waste collectors. Hence, total 65.9TPPD of biodegradable waste is treated out of 78.71TPPD of biodegradable waste. A total of 54674 households out of 88332 households were benefitted with the completion of current financial year projects ie., Kollam Corporation has allocated fund of Rs.4,95,00,000/- for 27500 No. of bio composter (6954 supplied) in household level , biogas plants (22220 no:s)- Rs.2,31,00,000/-; Ring compost (3018 no's- BPL families) Rs.75,45,000/- and 5500 compost pit(AUEGS fund). These projects are being in implementation stage; with the completion of above said projects within 31st March, 2021. The gap generated will be filled by implementing new waste management projects in the coming financial year (2020-2021).

Also an amount of Rs.8,84,46,250/- has been allotted to Kollam Corporation for waste management projects from Swatch Bharat Mission (Urban) . In this Aerobic composting units (10No's), Material Collection Facilities (250 no's), Resource recovery Facility of 5000 Sq ft (2 No's), 90% of work allocated under this project is completed.

With the advent of integrated solid waste management – Waste to Energy plant, Kollam Corporation is aiming to achieve the 100% management of Municipal Solid Waste. For this, Government of Kerala has selected Kureepuzha in Kollam Corporation to setup a Waste to Energy plant of 200Tpd with a Bio-Methanisation plant, Refuse Derived Fuel and a Landfill. For that 7.05 acres of land in Kureepuzha were leased to KSIDC (nodal agency) and Kollam Corporation has signed the concession agreement for the same.

Historically, the Kureepuzha dump site was once a night soil depot since the early 1940's, the



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land was having less value over the period. Nearly 3 acres of land used for night soil depot was then converted on 2nd of October 1982 by the then Kollam municipality for dumping of municipal solid waste. Due to space constraints, Kollam Municipal Corporation has acquired an addition of 14.00 acres of land for safe management of municipal solid waste. Municipal solid waste segregation and Windrow Composting plant (with trommel of different sieve sizes, collection and bagging unit, rejection collection units etc..) was being constructed along with office building , canteen building, weigh bridge system, compound and fencing. The project was established with the consent of Pollution Control Board and was given consent to operate the said plant and scientifically made landfill. The proposed plant and other projects were tendered for an amount of Rs.10 Cores; the project was stalled due to public protest and court order and had to be closed early after spending an amount of Rs.6.80 Cores. The proposed project was intended to scientifically manage the Municipal solid waste that is being generated within the area of Kollam Municipal Corporation; but due to the protest from the public the project was stalled and the plant and machineries are kept idle from the early 2012. Further dumping of waste too is stalled from 2012.

Kollam Corporation has put up health squads, for checking the unauthorised disposal of waste. Major disposal areas were identified; surveillance cameras installed. Based on the information fines were imposed. An amount of Rs.1,24,775/- Jan- Dec 2018, Rs.1,25,020/- Jan – Dec 2019, Rs.63,300/- from Jan- Dec 2020 were collected in the form of fines.

Kollam Corporation is planning to provide additional source level treatment facilities for those houses that are not included in current year projects: Due to the Pandemic situation prevailed the implementation of below mentioned projects was delayed for the Financial Year 20-2021; the newly members are elected in December 2020, they are trying to implement the projects in the current financial year itself. If not the remaining as well as the new projects will be implemented in the coming financial year



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Table: List of projects that is included in the financial year 2020-2021

SL NO:	NAME OF PROJECTS	NO:	AMOUNT	Remarks
1	Bio composter Bin	27500	Rs 4,95,00,000	6954 supplied and remaining 20546 will be distributed before 31 st March, 2021
2	Ring compost	3018	Rs 75,45,000	Implementation stage
3	Biogas plants	2200	Rs.2,31,00,000	Implementation stage
4	Plastic washing machine	1	Rs.3,50,000	Tendering stage
5	Napkin destroying machine	5	Rs.2,75,000	Tendering stage
6	Mini MCF	250	Rs.1,54,00,000	Completed
7	Bio mining and scientific closure of legacy waste at old dump site, Kureepuzha, Kollam	1	Rs,3,82,85,000	Tendered
8	Organic Waste Shredding Machine	1	Rs.4,90,000	Tendering stage
9	Safety Equipments and other equipments for HKS and Sanitation staffs		Rs.14,23,000	Completed
10	3 Wheeler vehicles for Door to Door Collection (Haritha Karma Sena)	1	Rs.24,75,000	Implementation Stage
11	Bio Toilet for Islanders(family)		Rs. 15,00,000	Beneficiary Selected
12	Aerobic Compost unit – Saktikulangara	2	Rs.10,42,000	




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13	Aerobic Compost unit – Kilikolloor	1	Rs.5,18,000	Completed
14	Aerobic Compost unit – Thrikkadavoor	2	Rs.10,42,000	1 Completed
15	Aerobic Compost unit – Central Zone 1	5	Rs.26,00,000	4 Completed
16	RRF at Kureepuzha	1	Rs.55,31,000	Completed
17	RRF at Mundalumoodu	1	Rs.55,31,000	Implementation stage
18	Aerobic Compost unit	10	Rs.85,00,000	8 Nos Completed
19	MCF	7	Rs.11,00,000	Completed

Action Plan for the Next Financial Year (2021-22)

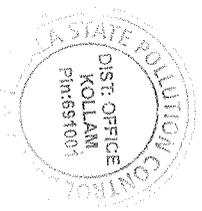
As per the directions received from Hon. National Green Tribunal, Kollam Corporation is planning to become a Zero Waste City with the implementation of the said projects and the planned projects.

Sl no	KEY ACTIONS			DEADLIN E
1	Door to door collection	Increasing and retaining door to door collection	June 2021	
		Promote and ensure Segregation at source	June 2021	
		Increase door to door collection from shops and establishments	June 2021	
		Ensure segregation at shops/ establishment	June 2021	
2	Chicken waste management	Implementing proper collection and management of Chicken waste via rendering plant	June 2021	
		Formation of Cluster monitoring committee for increasing compliance as per National Green Tribunal	March 2021	
3	Monitoring			



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4	IEC	Preparation of working draft and getting approval of the committee		March 2021
		Preparation of Handouts, audio/visual media		March 2021
		Conducting awareness Campaign: general public, stakeholders, Religious groups, Institutional level.		March 2021
5	Treatment of non biodegradable waste	Planning 2 more RRF at 2 points in city		March 2021
		Operation of already constructed RRF		February 2021
		Planning MCF at 144 Points in city		February 2021
		Implementation of MCF at 144 points		March 2021
		Operation of already installed MCF		February 2021
		Baling and Shredding machines (for RRF)		March 2021
		Weigh bridge (10 ton) (for RRF)		March 2021
		Bio Composter (25,000 Nos- Household level)		March 2021
6	Treatment of biodegradable waste	Biogas plant (10,000 Nos- Household level)		March 2021
		Compost Pit (10,000 Nos at Household level)		March 2021
7		Vehicle for waste collection -Tipper lorry		June 2021
8		Waste to Energy (Bio-Methanisation, RDF) Plant (200 Tpd) for Municipal Solid waste Management		Implementation stage

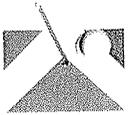


SRIJITH,
ENVIRONMENTAL ENGINEER

Secretary
Kollam Corporation

Kerala State Industrial Development Corporation Limited

Keston Road, Kowdiar, Thiruvananthapuram - 695 003, Kerala, India
Tel: +91-471-2318922 | Fax: +91-471-2315893
Email: enquiry@ksidemail.org | www.ksidc.org
CIN: U45309KL1961SGC001937



KSIDC

KSIDC/TVM/WE/2020/1704

23/12/2020

Environment Engineer
State Pollution Control Board
Kollam District Office
Ushus Building Big Bazar
Kollam - 691001

Sir,

Sub: Environment Department - Petition dated 21/11/2019 filed by Kerala
Sashtra Sahithya Parishith. Kollam District Committee

Ref: (i) Letter No PCB/KO/JEN/22/2020 dated 17/12/2020 from State
Pollution Control Board Kollam district office.

(ii) Government order No 82/2018/LSGD dated 11/06/2018

This has reference to the letter cited in reference (i) above regarding the
submission of details pertaining to waste to energy plant being implemented at
Kureepuzha in Kollam district.

State Government vide order cited in reference (ii) above accorded sanction
for the development of Integrated Solid Waste Management Project with a
Waste to Energy Plant at identified locations in Thiruvananthapuram, Kollam,
Tirichur, Palakkad, Malappuram, Kozhikode and Kannur districts through
DBFOT basis under Public Private Partnership mode. State Government also
appointed KSIDC as the nodal agency for the development of such projects in
collaboration with concerned Local Self Government Institutions.

In accordance with the directions contained in the Government Order, KSIDC
completed the tender process for the development of waste to energy project
in Kollam district. The Consortium led by M/s Zonta Infatech Pvt Ltd based
in Bangalore was the successful bidder in the tender process and as per tender
conditions the Consortium has incorporated Special Purpose Vehicle in the
name of M/s Venad Waste Management Pvt Ltd for the development and
operation of the project. M/s Venad Waste Management Pvt Ltd is the
Concessionaire and Concession Agreement has been executed for the project.



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11/12/2021

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report of
Petition of
Kerala Sahithya
Parishitha
Sasthra

As part of development of the project the Concessionaire carried out a detailed waste quantification and characterization study in the field and based on the study reports submitted the Detailed Project Report comprising capacity, mode of collection, segregation, and detailed technical plan etc. The Technical Committee including the representative from State Pollution Control Board evaluated the draft DPR and suggested a few modifications. The Concessionaire is now in the process of incorporating the modifications in the draft DPR and the final DPR for the project is expected to be submitted soon.

On approval of the final DPR, required applications along with final DPR will be submitted directly by the Concessionaire to State Pollution Control Board for Consent to Establish and other statutory clearances.

Thanking you

Yours faithfully

For Kerala State Industrial
Development Corporation Ltd


PROJECT DIRECTOR
PMU-W/E PROJECTS




D. S. P.
ENVIRONMENTAL ENGINEER

☎ General: 0471-2312910, 2318153, 2318154, 2318155 Chairman: 2318150 Member Secretary: 2318151
E-mail: ms.kspcb@gov.in/FAX: 0471 - 2318134, 2318152 Web: www.keralapcb.nic.in



KERALA STATE POLLUTION CONTROL BOARD
കേരളസംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

Patton P. O., Thiruvananthapuram – 695 004
പട്ടം പി.ഒ., തിരുവനന്തപുരം - 695 004

PCB/HO/SEE2/OA 515-2018/2019

Date: 16/01/2021

Regd. with A/D

SHOW CAUSE NOTICE UNDER SECTION 5 OF THE ENVIRONMENTAL PROTECTION ACT, 1986

Sub: Issue of notice for the non-compliance of the Solid Waste Management Rules, 2016

- Ref:
1. The Hon'ble NGT order dated 16/01/2019 in OA No. 606/2018.
 2. Letter No. PCB/HO/SEE2/RMC-Meeting/2018 dated 09.10.2018, 22.10.2018 and 24.10.2018
 3. Letter No. PCB/HO/SEE2/SWM-TVVM CORPN/2018 dated 09.01.2019
 4. Letter No. PCB/KO/G/51/09 dated 21/03/2019 from District Office, KSPCB, Kollam
 5. Letter No. PCB/RO/Kollam/MSW/2012 dated 26/03/2019 from Regional Office, KSPCB, Trivandrum
 6. Notice No. PCB/HO/EE4/NGT/SWM DIRECTIONS TO LB/2019 dated 17.04.2019
 7. The Hon'ble NGT order in OA No. 439/2013 and OA 456/2013 dated 09.10.2018, 07.01.2019, 11.12.2019 and 13.07.2020
 8. Letter No. PCB/KO/MSW/4/06 dated 04.09.2020 from Environmental Engineer, District Office, Kollam
 9. This office letter of even no. dated 24.09.2020

WHEREAS the Central Government notified the Environmental (Protection) Act, 1986 for the protection and improvement of environment and for matters connected therewith;

WHEREAS as per Section 3, 6, and 25 of the Environment (Protection) Act, 1986, the Central Government re-notified the Solid Wastes Management Rules, 2016 (herein after referred as SWM Rules) vide notification S.O. 1357(E) dated 8-4-2016;

WHEREAS as per Rule 22 (5) of the SWM Rules, door to door collection of segregated waste and its transportation in covered vehicles to processing or disposing facility shall be ensured by 8-4-2018;

WHEREAS as per Rule 22 (7) of the SWM Rules, solid waste processing facilities for the complete quantity of waste generated from the local body at 0.4 to 0.5 kg/person/day, shall be set up by 8-4-2018;

WHEREAS as per Rule 22 (6) of the SWM Rules, separate storage, collection and transportation of construction and demolition waste shall be provided by 08.04.2018;

WHEREAS repeated instructions were issued vide the communications read above, for the compliance of the SWM Rules vide ref. 2 to 5;





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WHEREAS it is noted that you have not fully complied with the above provisions of the Rules;

WHEREAS the Hon'ble National Green Tribunal, Principal Bench, New Delhi in the order dated 22.11.2018 in O.A. No. 353/2016 clarified that apart from prosecution, the statutory authorities under the Environment (Protection) Act 1986, the Air (*Prevention and Control of Pollution*) Act, 1981 and the Water (*Prevention and Control of Pollution*) Act 1974, must, in exercise of their incidental powers, prescribed scale of compensation to be collected from the polluters on the "Polluters Pay's Principle" in such scale which may be laid down at various levels, having regard to the local condition or as per direction in the hierarchy of the authorities. In various other application also, the Hon'ble NGT passed similar orders. For instance, in the Order dated 20.11.2018 in O.A. No. 117/2014, 499/2014 and 102/2014 the Hon'ble NGT noted as; "Needless to say that statutory authorities under the Environment (Protection) Act 1986, the Air (*Prevention and Control of Pollution*) Act, 1981 and the Water (*Prevention and Control of Pollution*) Act 1974 are entitled to assess and recover damages as "Pollution Pays Principle" in exercise of incidental powers to protect environment";

WHEREAS the Board has issued notice vide ref. 6 above in view of the NGT Orders and in view of the responsibility of the Board under the Rule 16(a) to enforce SWM Rules 2016;

WHEREAS the Hon'ble NGT vide order in OA No. 439/2013(s) dated 13.07.2020 directed the Kerala State Pollution Control Board to inspect the legacy waste dumping yard at Kureepuzha and submit a status report showing the real state of affairs including violations if any of non-implementation of provisions of the Solid Waste Management Rules, 2016 in Kollam Corporation and any damage that has been caused on account of the negligence, act of mismanagement of legacy waste and then to assess Environmental Compensation (EC), and take steps to realize the same from the defaulter.

WHEREAS based on the inspection conducted by the Board, environmental compensation was assessed for an amount of 889.28 lakhs for 665 days from 22/11/2018 to 17/09/2020 and the matter was informed vide ref. (9) above and hearing conducted vide Video Conference on 29/09/2020;

WHEREAS in the video conference conducted on 29/09/2020, it was instructed to submit action taken report for the treatment and disposal of both biodegradable and non-biodegradable waste from both households and establishments;

WHEREAS as per the order dated 02/11/2020 in OA No. 456/2013 (sz), and OA No. 439/2013 one more opportunity was given to Kollam Corporation to come up with corrected details;

WHEREAS based on the details submitted by the Secretary, Kollam Corporation, reassessment of environmental compensation was done from the District Office of the Board at Kollam and the assessment details are as follows;

Town	Kollam
Population (2011)	3,48,657



CHIEF,
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Class	Class I
Waste Generation (TPD)	104.60
Waste disposal as per Rules (TPD) (House hold level + Community level + informal waste collection)	65.9
Waste Management capacity Gap (TPD)	13.137
Calculated EC (capital cost component) in Lakhs Rs.	31.529
Minimum and Maximum values of EC (Capital cost component) recommended by the committee (lakhs Rs.)	Min. 100 Max 1000
Calculated EC (O&M component) in lakhs Rs. /Day	0.263
Minimum and Maximum values of EC (O&M cost component) recommended by the committee (lakhs Rs.)	Min. 0.1 Max. 1.0
Minimum and Maximum values of Environmental Externality recommended by the committee (lakhs Rs./Day)	Min. 0.05 Max. 0.10
EC to be collected (22/11.2018 to 13/01.2021) [782 days]	344.766

WHEREAS an amount of Rs. 344.766 Lakhs (Rupees Three hundred and forty four lakhs seven hundred sixty six thousand only) is assessed as environmental compensation from 22/11/2018 to 13/01/2021;

AND WHEREAS continued failure to comply with SWM 2016 shall incur Environmental compensation at rates that are multiples of the rates assessed above;

NOW THEREFORE, in exercise of the powers vested under section 5 of the Environment Protection Act, 1986, read with Government of India notification S.O. 327 (E) dated 10-4-2001 you are directed to show cause within 15 days as to why the Board shall not recover Environmental compensation for a period from 22/11/2018 to 13/01/2021 for the non compliance of the Solid Waste Management Rules, 2016;


CHAIRMAN

To

The Secretary,
Kollam Corporation

Copy to:

1. The Additional Chief Secretary
Local Self Government Department.
2. The District Collector, Kollam.
3. The Director, Urban Directorate.
4. The Chief Environmental Engineer, Regional Office, Thiruvananthapuram.
5. The Environmental Engineer, District Office, Kollam.




STATE
ENVIRONMENTAL ENGINEER