

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI**

IN

ORIGINAL APPLICATION No. O A 77 of 2021(SZ)

IN THE MATTER OF

Suo Motu proceedings initiated

based on letter received

From Justice A.V. Ramakrishna Pillai,

Former Judge, High Court of

Kerala, Chairman,

SLMC, Kerala.

:

Applicant(s)

Verses

The Chief Secretary,

Government of Kerala,

Thiruvananthapuram and Others

:

Respondent(s) And

ORIGINAL APPLICATION No. O A 442/2013(SZ)

Applicant(s) : Jith Kumar, Muthedathu

Versus

Respondent(s) : The State of Kerala & others

And

ORIGINAL APPLICATION No. O A 20 / 2017(SZ)

Abdul Basheer

Versus

Kochi Municipal Corporation & Others

ORIGINAL APPLICATION No. O A 276/2017(SZ)

Lawyers Environmental Awareness Forum

Versus

SEIAA, Thiruvananthapuram

REPORT FILED BY THE CHIEF ENVIRONMENTAL ENGINEER,
REGIONAL OFFICE, ERNAKULAM FOR AND ON BEHALF OF THE
KERALA STATE POLLUTION CONTROL BOARD



Dated this the 31st day of July 2023

Adv. Rema Smrithi,

ADDITIONAL STANDING COUNSEL FOR THE RESPONDENT No.4

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI**

IN

ORIGINAL APPLICATION No. O A 77 of 2021(SZ)

IN THE MATTER OF

Suo Motu proceedings initiated

based on letter received

From Justice A.V. Ramakrishna Pillai,

Former Judge, High Court of

Kerala, Chairman,

SLMC, Kerala.

:

Applicant(s)

Versus

The Chief Secretary,

Government of Kerala,

Thiruvananthapuram and Others

:

Respondent(s)And

ORIGINAL APPLICATION No. O A 442/2013(SZ)

Applicant(s) : Jith Kumar, Muthedathu

Versus

Respondent(s) : The State of Kerala & others

And

ORIGINAL APPLICATION No. O A 20 / 2017(SZ)

Abdul Basheer

Versus

Kochi Municipal Corporation & Others

ORIGINAL APPLICATION No. O A 276/2017(SZ)

Lawyers Environmental Awareness Forum

Versus

SEIAA, Thiruvananthapuram

VOLUME 1

Index

Sl.No.	Description	Pages
1	Report filed by the Chief Environmental Engineer, Regional Office, Ernakulam for and on behalf of the Kerala State Pollution Control Board	1-6

Dated this the 31st day of July 2023

Adv. Rema Smrithi,

ADDITIONAL STANDING COUNSEL FOR THE RESPONDENT

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI**

**IN
ORIGINAL APPLICATION No. 77 of 2021(SZ)
IN THE MATTER OF**

**Suo Motu proceedings initiated
based on letter received**

From Justice A.V. Ramakrisna Pillai,

Former Judge, High Court of

Kerala, Chairman, SLMC, Kerala : Applicant(s)

Verses

The Chief Secretary, Government of Kerala,

Thiruvananthapuram and Others : Respondent(s)

And

ORIGINAL APPLICATION No. O A 442/2013(SZ)

Applicant(s) : Jith Kumar, Muthedathu

Versus

Respondent(s) : The State of Kerala & others

And

ORIGINAL APPLICATION No. O A 20 / 2017(SZ)

Abdul Basheer

Versus

Kochi Municipal Corporation & Others

And

ORIGINAL APPLICATION No. O A 276/2017(SZ)

Lawyers Environmental Awareness Forum

Versus

SEIAA, Thiruvananthapuram

REPORT FILED BY THE CHIEF ENVIRONMENTAL ENGINEER,
REGIONAL OFFICE, ERNAKULAM FOR AND ON BEHALF OF THE
KERALA STATE POLLUTION CONTROL BOARD

I, Baburajan P K, 53 years, S/o. Late P.A. Kuttappan, now working as the Chief Environmental Engineer, Regional Office, Kerala State Pollution Control Board, Ernakulam. I am competent to and duly authorized to represent the Board. I know the facts and circumstances of the cases. The factual submissions made hereunder are true and correct to the best of my knowledge, information and belief. In these circumstances, it is just and necessary that this Hon'ble Tribunal may be pleased to accept the accompanying report on file and it is so humbly prayed in the interests of justice in this case.

1. The Hon'ble National Green Tribunal as per the order dated 29.03.2023 directed the Kerala State Pollution Control Board and the Kochi Corporation to join hands to study the scientific method at the earliest to segregate the burnt plastics/burnt waste and the ashes under the burnt plastic to avoid water pollution during monsoon and possible air pollution during segregation. Kerala State Pollution Control Board was also directed to quantify the burnt waste and unburnt waste lying now in the dump site and fix realistic timelines for bio-mining along with suggestions on how the bio-mining can be expedited. In compliance with the above order, the Board has entrusted CSIR-NIIST to carry out the study as directed by the Hon'ble NGT and the study report was submitted before Hon'ble NGT. The Hon'ble NGT vide order dated 08.05.2023 & 17.05.2023 in OA No.77/2021 directed LSGD to take urgent measures for mitigating the risk posed by the burned ash due to fire incident at Brahmapuram entering the nearby water body and food chain in




BABURAJAN P.K.
Chief Environmental Engineer

wake of onset of monsoon. In consideration to the remediation work at Brahmapuram, Kerala PCB has released an amount of Rs.1.408 crore to Kochi Corporation from Environment Protection Fund for the construction of barrier to prevent flow of toxic ash mixed with water to nearby water body. Accordingly, following actions are reported to be completed by the Kochi Corporation.

- In order to prevent seeping of rainwater into the burnt waste heaps, it was covered over using properly weighted down tarpaulin. 50,000 m² area is covered for channelizing the rainwater accumulated. The flow of rainwater accumulated from the after mentioned tarpaulin sheet is collected in earthen trenches around areas, channelized to the lower points and cumulatively collected into collection tank for restricting and collecting floated debris after which it is regulated into the restraining bund.
- Two bunds were constructed to restrain the flow of toxic ash mixed with rainwater to downstream of Chitrapuzha River. The first is the primary clarifier with restraining bunds for sedimentation of burnt ash particles and collection of floating objects. The second is constructed on the downstream of first one and exposed to phytoplasmic plant that will filter dissolved ashes, heavy metals etc to further purify the water, before letting the same to river. The area of primary clarifier is 1482 m² and secondary clarifier is 800 m². The piles were constructed by driving down coconut piles of suitable depth.
- Regarding bio-mining, for reclaiming 70 acres of land accumulated with approximately 7 lakhs of legacy waste, biomining procedure have been proposed. The RFP have been invited and last date for receipt of tender is on 22.07.2023. The pre bid meeting for the same have been completed.




BABURAJAN P.K.
Chief Environmental Engineer

2. It is submitted that during the inspection conducted by the Board official on 22.06.2023, it was noticed that the construction of collection tanks and bund was progressing. Hence a letter was issued to the Secretary reminding to report the weekly progress of the work implementation. On 26.07.2023, the Kochi Municipal Corporation reported that the works to prevent the ash from the Brahmapuram Dumping Yard was completed. Copy of the letter submitted by the Kochi Municipal Corporation is produced herewith and marked as **Annexure 1**. The Board conducted inspection at Brahmapuram on 29.07.2023 and noticed that they have covered the burnt plastic waste area with tarpaulin sheets, one sheet overlapping the other sheet and sand bags are put on them to prevent flying away of the sheets.
3. Kochi Corporation carried out following activities to prevent any further fire outbreaks within the plant, which mandated the requirement of safety fire precautionary measures and emergency measures to be taken which ensure proper dealing in case of fire flare. Kochi Municipal Corporation have carried out certain works, based on the suggestion put forth by the collector vide order No. D1-648/2023/DLEKM dated 28.03.2023 on war foot basis.
- a) The area where plastic waste and legacy waste was accumulated was divided into different heaps with circumferential path of 10 m on all 4 sides. This ensures easy access to fire lenders, proper watering and proper aeration in order to prevent methane emission. This procedure easily converts methane to CO₂ and water. The work was satisfactorily completed in 40 acres of land, 24 acres sector 1 A & 1 B and 18 acres in fresh plastic zone area. Total cost incurred was 71.80 lakhs.
- b) For manual inspection and proper monitoring of the entire premises, a watch tower was constructed at the top most counter near the septage




BABURAJAN P.K.
Chief Environmental Engineer

treatment plant. This will ensure better view of the plastic site. The tower height is 6 m from base. The structure is mainly steel in weld up section having base area 2 m x 2 m. Total cost ensured is 9.0 lakhs.

- c) For ensuring timely availability of water in case of unexpected circumstances due to fire ablaze, concrete platforms of size 1.2 m x 1.2 m with suitable lighting facility was installed. Total 10 nos. was constructed. The platform was constructed for installing firefighting pump in case of fire outbreak. The total cost incurred is 7 lakhs.
- d) For ensuring direct feeding of water to hydrant without priming, a 50000 m² static open tank was constructed near hydrant pump of size 6.5 x 3.7 m with height of 2.7 m. The structure was properly piled with coconut for stabilization, mat foundation to prevent differential settlement and RCC side wall to arrest lateral thrust. The cost incurred is 15 lakhs.
4. The Corporation is having 74 wards consisting of 22 Health Circles. Eight hundred Haritha Karma Sena are engaged for collecting door to door plastic waste. Out of the 74 wards, M/s. Clean Kerala Company Limited collects plastic waste from 34 wards. Seven agencies authorized by the Corporation are reported to be engaged for collecting waste from the remaining wards. Non-biodegradable waste is disposed to recyclers/ cement plant/ road tarring. Regarding sanitary waste, one TPD of sanitary waste generated from Corporation is collected through authorized service providers of Kochi Corporation and is being handed over to the CBMWTF operated by M/s. Kerala Enviro Infra Structure Limited. (KEIL). All gated communities are directed to provide onsite facilities for biodegradable waste. About 50 TPD biodegradable waste is being collected and treated in




BABURAJAN P.K.
Chief Environmental Engineer

existing windrow compost plant at Brahmapuram. Steps are also taken to provide a new windrow composting facility of 100 TPD as proposed.

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

Dated this the 31st day of July 2023




CHIEF ENVIRONMENTAL ENGINEER
BABURAJAN P.K.
Chief Environmental Engineer

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI**

IN

ORIGINAL APPLICATION No.O A 77 of 2021(SZ)

IN THE MATTER OF

SuoMotu proceedings initiated

based on letter received

From Justice A.V. Ramakrishna Pillai,

Former Judge, High Court of

Kerala, Chairman,

SLMC, Kerala.

:

Applicant(s)

Verses

The Chief Secretary,

Government of Kerala,

Thiruvananthapuram and Others

:

Respondent(s)And

ORIGINAL APPLICATION No. O A 442/2013(SZ)

Applicant(s) : Jith Kumar, Muthedathu

Versus

Respondent(s) : The State of Kerala & others

And

ORIGINAL APPLICATION No.O A 20 / 2017(SZ)

Abdul Basheer

Versus

Kochi Municipal Corporation & Others

ORIGINAL APPLICATION No.O A 276/2017(SZ)

Lawyers Environmental Awareness Forum

Versus

SEIAA, Thiruvanathapuram

VOLUME 2

Index

Sl.No.	Description	Pages
1	Annexure 1: Copy of the letter submitted by the Kochi Municipal Corporation	1-2
2	Translation of Annexure 1	3

Dated this the 31st day of July 2023

Adv. RemaSmrithi,

ADDITIONAL STANDING COUNSEL FOR THE RESPONDENT



കൊച്ചി മുനിസിപ്പൽ കോർപ്പറേഷൻ

ഫോൺ 2369007, 2369196
2369143, 2369149
2369197, 2369069
ഫാക്സ് 91484-2369023

കോർപ്പറേഷൻ ഓഫീസ്
പി.ബി നമ്പർ 1016
എറണാകുളം, കൊച്ചി 682 011

ISO/MOE2A/017352/2023

തീയതി :26.07.2023

പ്രേഷിതൻ

സുപ്രണ്ടിംഗ് എഞ്ചിനീയർ
കൊച്ചി മുനിസിപ്പൽ കോർപ്പറേഷൻ

സ്വീകർത്താവ്

മുഖ്യ പരിസ്ഥിതി എഞ്ചിനീയർ
കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്
മേഖല ഓഫീസ്, ഗാന്ധിനഗർ
എറണാകുളം -682020

സർ,

വിഷയം : കൊച്ചി മുനിസിപ്പൽ കോർപ്പറേഷൻ - എഞ്ചിനീയറിംഗ് വിഭാഗം - ബ്രഹ്മപുരം പ്ലാന്റ് - Toxic Ash - ചിത്രപ്പുഴയിലേക്ക് കലരുന്നത് തടയുന്നതിനുള്ള നടപടികൾ -സംബന്ധിച്ച്.

സൂചന : 1)ബഹു. ജില്ലാ കളക്ടറുടെ 15/05/2023ലെ DC Ekm/648/2021 D1 നമ്പർ ഉത്തരവ്.

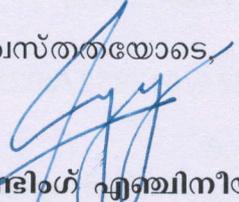
2)KSPCB മുഖ്യ പരിസ്ഥിതി എഞ്ചിനീയറുടെ 8/7/2023ലെ PCB/RO-Ekm/GEN-258/2019 നമ്പർ കത്ത്.

ബഹു. കേരള ഹൈക്കോടതിയുടെയും ബഹു. ദേശീയ ഹരിത ട്രിബ്യൂണലിന്റെയും നിർദ്ദേശപ്രകാരം മൺസൂൺ ആരംഭിക്കുന്നതിന് മുൻപായി ബ്രഹ്മപുരത്ത് തീപിടുത്തത്തെ തുടർന്ന് രൂപപ്പെട്ടിട്ടുള്ള Toxic Ash - സമീപത്തെ ജലാശയത്തിലേക്ക് കലരുന്നത് തടയുന്നതിന് സൂചന (1) പ്രകാരം താഴെ പറയുന്ന പ്രവൃത്തികൾക്കായി ടെക്നിക്കൽ സാൻഷൻ ലഭിക്കുകയും ക്വട്ടേഷൻ നടപടികൾ പൂർത്തിയാക്കി കരാറുകാർക്ക് വർക്ക് നൽകിയിട്ടുള്ളതാണ്. ആയതിന്റെ സ്റ്റാറ്റസ് ചുവടെ ചേർക്കുന്നു.

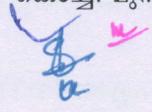
Sl.No	Name of work	Name of Contractor	Status
1	Construction of Collection and retention tank with drain for channeling to collect and restrict the floating debris plastics etc.	Yesudas	Work Completed Three collection tanks of 12mx12m area with depth 3m formed. Earthen Trenches for regulating the water to and from this tank to the clarifier are formed Bill passed

2	Providing bund inside the river branch for preventing ash flow to Kadambrayar .	Akbarsha	Work Completed Area of primary clarifier - 1482 sqm. Area of secondary clarifier - 800 sqm.
3	Covering the burnt heaps with weighed down Tarpaulin Sheets at Brahmapuram	Ajas M.A.	Work Completed About 50000 sqm covered using Bill passed

വിശ്വസ്തതയോടെ,



സുപ്രണ്ടിംഗ് എഞ്ചിനീയർ
കൊച്ചി മുനിസിപ്പൽ കോർപ്പറേഷൻ




ss/07/2023

ISO/MOE2A/017352/2023

26/07/2023

From,

Superintendent Engineer

Kochi Municipal Corporation

To,

The Chief Environmental Engineer

Kerala State Pollution Control Board

Regional Office, Gandhinagar

Ernakulam-682020

Sir,

Subject: Kochi Municipal Corporation-Engineering Section-Brahmapuram plant-Toxic Ash- Measures to prevent mixing into Chitrapuzha river- Reg

Reference: 1) Order No.DC EKM/648/2021 Dated 15/05/2023 from District Collector

2)Letter No. PCB/RO/EKM/GEN-258/2019 Dated 8/08/2023 from Chief Environmental Engineer KSPCB

As directed by the Hon'ble Kerala High Court and the Hon'ble National Green Tribunal, technical approval has been received for the following works as per reference (1) to prevent the toxic ash formed due to fire in Brahmapuram from mixing into the nearby water bodies , prior to the onset of the monsoon and the quotation process has been completed and the work has been given to the contractors. The status is attached below.

Sl No	Name of work	Name of Contractor	Status
1	Construction of Collection and retention tank with drain for channeling to collect and restrict the floating debris Plastics etc.	Yesudas	Work Completed Three collection tanks of 12 mx12 m area with depth 3m formed. Earthen Trenches for regulating the water to and from this tank to the clarifier are formed Bill passed
2	Providing bund inside the river branch for preventing ash flow to Kadambayar.	Akbarsha	Work Completed Area of primary clarifier - 1,482 sqm. Area of secondary clarifier - 800 sqm"
3	Covering the burnt heaps with weighed down Tarpaulin Sheets at Brahmapuram	Ajas M.A.	Work Completed About 50000 sqm covered using Bill passed