

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

IN

ORIGINAL APPLICATION NO 12/2020 (SZ)

Applicant(s) : Tribunal on its own motion "SuoMotu"
based on the News item in
Mathrubhumi, Malayalam Newspaperdt:
19.01.2020, "The removal of debris in
Maradu not according to Norms –
National Green Tribunal".

Versus

Respondent(s) : The Chief Secretary, Kerala& others

**REPORT FILED BY THE CHIEF ENVIRONMENTAL ENGINEER,
REGIONAL OFFICE, ERNAKULAM FOR AND ON BEHALF OF THE
KERALA STATE POLLUTION CONTROL BOARD IN
COMPLIANCE WITH THE ORDER DATED 01.11.2023**



Adv. Rema Smrithi.

ADDITIONAL STANDING COUNSEL FOR THE RESPONDENT: 2

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

IN

ORIGINAL APPLICATION NO 12/2020 (SZ)

Applicant(s) : Tribunal on its own motion "SuoMotu" based on the News item in Mathrubhumi, Malayalam Newspaper dt: 19.01.2020, "The removal of debris in Maradu not according to Norms – National Green Tribunal".

Versus

Respondent(s) : The Chief Secretary, Kerala & others

VOLUME 1

Index

Sl.No	Description	Pages
1	Report filed by the Chief Environmental Engineer, Regional Office Ernakulam for and on behalf of Kerala State Pollution Control Board in compliance with the order dated 01.11.2023 .	1- 2

Dated this the 29th day of November 2023

Rema Smrithi, Advocate
ADDITIONAL STANDING COUNSEL FOR THE RESPONDENT

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

IN

ORIGINAL APPLICATION NO 12/2020 (SZ)

Applicant(s) : Tribunal on its own motion "SuoMotu" based on the News item in Mathrubhumi, Malayalam Newspaper dt: 19.01.2020, "The removal of debris in Maradu not according to Norms – National Green Tribunal".

Versus

Respondent(s) : The Chief Secretary, Kerala & others

**REPORT FILED BY THE CHIEF ENVIRONMENTAL ENGINEER,
REGIONAL OFFICE, ERNAKULAM FOR AND ON BEHALF OF THE
KERALA STATE POLLUTION CONTROL BOARD IN
COMPLIANCE WITH THE ORDER DATED 01.11.2023**

I, Baburajan P K, 52 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 here under are true and correct to the best of my knowledge,




BABURAJAN P.K.
Chief Environmental Engineer

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. Vide Order dated 01.11.2023 in the OA No. 12 of 2020 (SZ), Hon'ble NGT had directed Kerala State Pollution Control Board (KSPCB) to come up with report on the Environmental Compensation (EC) for the improper management of Construction & Demolition waste, subsequent to the controlled implosion of four high-rise buildings at Maradu Municipality, Ernakulam, Kerala.

2. I may humbly submit that the Kerala State Pollution Control Board had approached the Central Pollution Control Board (CPCB) for alternative methodology to be adopted for calculation of EC as the EC calculated by the KSPCB was NIL and the Hon'ble NGT had directed to recalculate the EC. Two meetings were conducted on 21.09.2023 and 10.11.2023 by the KSPCB with CPCB and also with Maradu Municipality in connection with the issue. Board and Maradu Municipality furnished the details sought by the CPCB for the calculation of E.C.

3. It is respectfully submitted that in compliance with the order of the Hon'ble National Green Tribunal dated 01.11.2023, the CPCB has submitted an EC calculation report. As per the report, the EC is 480.94 lakhs. The report provided by CPCB is attached herewith and marked as **Annexure 1**. It is also respectfully submitted that necessary actions will be taken to realize the EC amount from the Maradu Municipality.

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

Dated this the 29th November 2023.




BABURAJAN P.K.
Chief Environmental Engineer

CHIEF ENVIRONMENTAL ENGINEER

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

IN

ORIGINAL APPLICATION NO 12/2020 (SZ)

Applicant(s) : Tribunal on its own motion "SuoMotu"
based on the News item in
Mathrubhumi, Malayalam Newspaperdt:
19.01.2020, "The removal of debris in
Maradu not according to Norms –
National Green Tribunal".

Versus

Respondent(s) : The Chief Secretary, Kerala& others

VOLUME 2

Annexures

Sl.No	Description	Pages
1	Annexure 1	1- 13

Dated this the 29th day of November 2023


Rema Smrithi, Advocate
ADDITIONAL STANDING COUNSEL FOR THE RESPONDENT 2

Illustration of Environmental Compensation calculation with respect to the Construction & Demolition waste management subsequent to the controlled implosion of four high rise buildings at Maradu Municipality, Ernakulam, Kerala.
(OA 12/2020)

1.0 Background:

OA No. 12/2020 case has been taken *Suo Motu* by the Honourable National Green Tribunal on 22.01.2020 on the basis of the report published in Mathrubhumi Daily dated 19.01.2020 under the caption of “*The removal of debris in Maradu not according to Norms - National Green Tribunal*” Monitoring Committee Chairman, Justice A.V.Ramakrishna Visits Maradu.” After considering the report of State Level Monitoring Committee (SLMC) and the Joint Committee, Honourable NGT in the order dated 18.03.2020 observed that:

“Though there was certain direction given by the committee to suppress the air pollution and possible contamination of the Kayal water, no serious steps have been taken either by the Maradu municipality or by the service provider. It appears that Maradu municipality is not interested in carrying out the directions given by the committee, instead they were sticking on to the recommendations made by the technical committee which was appointed by the Government earlier for the purpose of supervising the demolition of the building as directed by the Hon’ble Supreme Court”.

Central Pollution Control Board (CPCB) was not a party in this matter during the pre- demolition planning, during the demolition and debris management post demolition of the buildings. Based on the submission of Kerala State Pollution Control Board (KSPCB) that there is no yardstick for assessing Environmental Compensation for violations of the provisions of the Construction and Demolition (C&D) Waste Management Rules, 2016 notified under the Environment (Protection) Act, 1986, CPCB was *Suo Motu* impleaded in this matter as per the Honourable NGT order dated 04.10.2021 in the matter along with another connected matter (OA No. 206 of 2021).

CPCB submitted a detailed affidavit on 09.12.2021, that non-compliances with respect to Construction and Demolition Waste Management Rules, 2016 has been dealt in another matter by levying environmental compensation from the defaulters in line with the methodology already adopted for Solid Waste Management. This has already been demonstrated in the report dated 18.01.2021 submitted by the two-member Joint Committee in which CPCB is a committee member

in the matter of *Sarang Yadwadkar and others Vs. Pune Municipal Corporation and others* in the O.A. No. 49 of 2019 (WZ).

Honourable National Green Tribunal directed Kerala State Pollution Control Board (KSPCB) to impose Environmental Compensation for the improper management of Construction & Demolition waste, subsequent to the controlled implosion of four high-rise buildings at Maradu Municipality. KSPCB submitted a report on the calculation of Environmental Compensation as “NIL” which was not accepted by the Honourable NGT, SZ, Chennai. Further, KSPCB submitted before the Honourable NGT, SZ, Chennai that they shall seek CPCB assistance for the re-assessment of the environmental compensation in respect of the management of C&D Waste resulted from demolition of four high rise buildings in Maradu, Kochi, Kerala in compliance to Honourable Apex Court orders.

2.0 Action taken by CPCB:

With respect to the guidance sought by KSPCB vide letter dated 26.07.2023, CPCB held detailed online meetings with the officials of KSPCB, officials of Maradu Municipality and the legal counsel of the local body. In the meeting held on 21.09.2023, CPCB reviewed the issues and sought clarifications from KSPCB and Maradu Municipality. As there were several gaps in the information provided, CPCB specifically requested KSPCB & Municipality the details regarding C&D waste management. Subsequently, another meeting was conducted by KSPCB to discuss on the shortfalls in providing relevant data on 10.11.2023. Based on the details provided by KSPCB and Maradu Municipality following shortfalls were noticed:

1) Estimated total quantity of C & D waste generated with justification.

As per the email dated 30.09.2023 from the Regional Office, KSPCB, Ernakulam, the four unauthorized buildings demolished in accordance with the order of the Honourable Supreme Court of India are (a) Holy Faith H2O, (b) Alfa Serene Twin Towers, (c) Jain Coral Cove and (d) Golden Kayaloram. As reported by the Maradu Municipality, the preliminary estimated quantity of C&D waste is 76300 tonnes. However, the actual quantity of debris removed as per the weekly vehicle log was 69606 tonnes. As per the financial bid document of M/s. Prompt Enterprises, one of the conditions is to ascertain the quantity of debris and the estimate of 76300 Tonnes may be made by the contractor. <i>The municipality has not ascertained the post-demolition C&D waste standard methods engaging experts or agencies.</i>

2) Details of phased disposal of C & D waste along with location details, quantities disposed
--

or stored at temporary storage yards, mode of disposal of generated C & D waste.

A weekly log of vehicle loads prepared by the contractor indicating type of truck, number of loads, cumulative tonnage of waste and place of disposal was provided by the Municipality. The weekly log shows the cumulative quantity of concrete debris removed (69606 Tonnes) by the service provider and disposal methodology adopted at each site was not provided. The log provided is only about the truck transportation details, with destination and it seems to be a rough estimate of tonnage (not derived from the weighing bridge records) of each load. **There are no details available on the temporary stocking yard and mode of ultimate disposals.** There are no action plans prepared by the Municipality anticipating post demolition C&D waste as per the provisions of the rules.

3) Agency entrusted with disposal and to verify whether the waste generated was disposed in line with the relevant rules or not.

It is learnt from the reports submitted by the Municipality, M/s. Prompt Enterprises was selected for the removal of debris from the buildings to be demolished. The agency was selected based on the highest bid (Offered Rs. 35,13,000/- all four buildings) for the removal of debris (loading, unloading and conveyance) and there are no conditions for the disposal as per the provisions of the C&D waste rules, 2016. The municipality generated revenue of Rs. 35,13,000/- from the contract to remove debris from the flat locations.

4) Total cost spent towards disposal and the cost recovered from the violators if any.

The cost incurred for the demolition of the four buildings is not furnished. The amount received by the Maradu Municipality from the agency M/s. Prompt Enterprises towards the removal of waste (loading, unloading and conveyance) from M/s. Prompt Enterprises is as follows: (Rs. 1236000) Holy Faith H2O, (Rs. 685000) Alfa Serene Twin Towers, (Rs.1236000) Jain Coral Cove and (Rs.356000) Golden Kayaloram. However, there are no details on the penalty if any assigned to the realtors/ builders of the project.

It is presumed that the local authorities selected the highest bidder to remove the debris and there was no intention to comply the provisions of the Construction and Demolition (C&D) Waste Management Rules, 2016 notified under the Environment (Protection) Act, 1986. Later when the lacunas in debris management were highlighted by SLMC and the joint committee, the agency submitted action plan and the observation of the joint committee extracted from page 20 of the Honourable NGT order dated 18.03.2020 is reproduced below:

“Prompt Enterprises who are engaged in the removal of concrete debris has pointed out a site at Kumbalam for setting up C & D waste processing facility. The KSPCB has already issued an authorization vide RULES/VOL.II/17/19 dated 28.01.2019. However, a verification on 09.01.2020 revealed that no such plant is installed and no waste is seen deposited there. On the other hand, Annexure -1(A)(2) in Appendix-X6 reveals that the concrete debris were taken to four other sites viz., Varappuzha, Anachal, Choondamala and Pallipuram”.

The above observation shows that the waste was ill managed and the ultimate disposals were not in accordance to the provisions of the rules. The quantum of C&D waste disposal claims made by the agency and endorsed by the Municipality is tabulated below.

<i>Period</i>	<i>Quantity (MT)</i>	<i>Destination</i>	<i>Claims of Municipality / Agency</i>	<i>Remarks on the disposal/ reprocessing claims</i>
Pre-demolition	11250	Chandiroor, Alleppey.	Road formation and basement filling at Kerala State Industrial Development Corporation (KSIDC) Pallipuram.	<ul style="list-style-type: none"> • KSIDC informed CAG Audit that they had not given any sanction to the agency for dumping of demolition waste in their jurisdictional area. • No proofs furnished by the ULB/ agency in proof of the quantum of waste transported to the locations or method of re-processing or disposal.
27-01-20 to 06-02-20 Post demolition (Week 1)	10132	Varapuzha Anachal KSIDC, Pallipuram RM Crusher	Road formation and basement filling at KSIDC Pallipuram.	<ul style="list-style-type: none"> • KSIDC informed CAG Audit that they had not given any sanction to the agency for dumping of demolition waste in their jurisdictional area. • Concerned Gram Panchayath Authorities informed CAG Audit that

		Chundamala Crusher		<p>they had not given any sanction to the agency for dumping of demolition waste in their jurisdictional area.</p> <ul style="list-style-type: none"> • No proofs/ information on the C&D waste processed/ recycled at crushers. • Purpose/ disposal route of waste to other sites not provided.
07-02-20 to 13-02-20 Post demolition (Week 2)	8032	Varapuzha Anachal KSIDC, Pallipuram RM Crusher Chundamala Crusher Irumpanam Panangad	Road formation and basement filling at KSIDC Pallipuram.	<ul style="list-style-type: none"> • KSIDC informed CAG Audit that they had not given any sanction to the agency for dumping of demolition waste in their jurisdictional area. • Concerned Gram Panchayath Authorities informed CAG Audit that they had not given any sanction to the agency for dumping of demolition waste in their jurisdictional area. • No proofs/ information on the C&D waste processed/ recycled at crushers or used for jetty restoration site at Irumpanam. • Purpose/ disposal route of waste to other sites not

				provided.
14-02-20 to 21-02-20 Post demolition (Week 3)	8088	Varapuzha Anachal KSIDC, Pallipuram RM Crusher Chundamala Crusher Irumpanam Panangad	Road formation and basement filling at KSIDC Pallipuram.	<ul style="list-style-type: none"> • KSIDC informed CAG Audit that they had not given any sanction to the agency for dumping of demolition waste in their jurisdictional area. • Concerned Gram Panchayath Authorities informed CAG Audit that they had not given any sanction to the agency for dumping of demolition waste in their jurisdictional area. • No proofs/ information on the C&D waste processed/ recycled at crushers or used for jetty restoration site at Irumpanam. • Purpose/ disposal route of waste to other sites not provided.
22-02-20 to 28-02-20 Post demolition (Week 4)	7772	Varapuzha Anachal (Malikampeedika) KSIDC, Pallipuram RM Crusher	Road formation and basement filling at KSIDC Pallipuram.	<ul style="list-style-type: none"> • KSIDC informed CAG Audit that they had not given any sanction to the agency for dumping of demolition waste in their jurisdictional area. • Concerned Gram Panchayath Authorities informed CAG Audit that they had not given any

		<p>Chundamala Crusher,</p> <p>Irumpanam</p> <p>Panangad</p> <p>Palluruthy</p> <p>Paravoor</p> <p>Edayar (CMRL)</p>		<p>sanction to the agency for dumping of demolition waste in their jurisdictional area.</p> <ul style="list-style-type: none"> • No proofs/ information on the C&D waste processed/ recycled at crushers, used for jetty restoration site at Irumpanam or at Edayar site. • No proofs furnished by the ULB/ agency in proof of the quantum of waste disposed/ reused in construction.
<p>29-02-20 to 07-03-20</p> <p>Post demolition (Week 5)</p>	8169	<p>Anachal (Malikampeedika)</p> <p>KSIDC, Pallipuram</p> <p>RM Crusher</p> <p>Chundamala Crusher,</p> <p>Irumpanam</p> <p>Palluruthy</p> <p>Paravoor</p>	<p>Road formation and basement filling at KSIDC Pallipuram.</p> <p>No information on the C&D waste processed/ recycled at crushers. Jetty restoration site at Irumpanam. Purpose of waste to other sites not provided.</p>	<ul style="list-style-type: none"> • KSIDC informed CAG Audit that they had not given any sanction to the agency for dumping of demolition waste in their jurisdictional area. • Concerned Gram Panchayath Authorities informed CAG Audit that they had not given any sanction to the agency for dumping of demolition waste in their jurisdictional area. • No proofs/ information on the C&D waste processed/ recycled at crushers, used for jetty

				<p>restoration site at Irumpanam, etc.</p> <ul style="list-style-type: none"> • No proofs furnished by the ULB/ agency in proof of the quantum of waste disposed/ reused in construction.
08-03-20 to 14-03-20 Post demolition (Week 6)	10657	Anachal (Malikampeedika) KSIDC, Pallipuram RM Crusher Chundamala Crusher Kaloor (KMRL site)	Road formation and basement filling at KSIDC Pallipuram. No information on the C&D waste processed/ recycled at crushers. For Metro (KMRL) site at Kaloor. Purpose of waste to other sites not provided.	<ul style="list-style-type: none"> • KSIDC informed CAG Audit that they had not given any sanction to the agency for dumping of demolition waste in their jurisdictional area. • Concerned Gram Panchayath Authorities informed CAG Audit that they had not given any sanction to the agency for dumping of demolition waste in their jurisdictional area. • No proofs/ information on the C&D waste processed/ recycled at crushers, used for jetty restoration site at Irumpanam, etc. • No proofs furnished by the ULB/ agency in proof of the quantum of waste disposed/ reused in construction.
Work halted due to COVID pandemic from 18-03-2020 and shifting resumed on 12-05-2020.				
12-05-20 to 24-	5506	KSIDC,	Road formation and	<ul style="list-style-type: none"> • KSIDC informed CAG

05-20 Post demolition (Week 7)		Pallipuram Edayar Varapuzha	basement filling at KSIDC Pallipuram. Purpose of waste to other sites not provided.	Audit that they had not given any sanction to the agency for dumping of demolition waste in their jurisdictional area. <ul style="list-style-type: none"> • Concerned Gram Panchayath Authorities informed CAG Audit that they had not given any sanction to the agency for dumping of demolition waste in their jurisdictional area. • No proofs/ information on the C&D waste used at Edayar.
Total	69606			

3.0 Observations of Comptroller and Auditor General (CAG) of India on Construction & Demolition Waste Management by Maradu Municipality.

The improper disposal of demolition waste was pointed out in the Report No. 9 of the year 2022 - ***Report of the Comptroller and Auditor General (CAG) of India on Waste Management in Urban Local Bodies.*** Under section 5.4.3 (page 68-69) of Chapter V – Management of Plastic Waste, Bio-medical Waste, E-Waste and Construction and Demolition Waste, CAG of India observed the following:

“Audit noticed that the agreement executed between the ULB and selected agency did not specify the locations to which the waste was to be transported or the proposed method for reuse/recycle/disposal of waste. Consequent upon receipt of direction from NGT Monitoring committee, the agency submitted a plan of action indicating 11 sites in Ernakulam and Alappuzha districts to which waste would be transported. Though Maradu Municipality stated that major part of the demolition waste (37,441 tonnes) was transported to Kumbalam and Varapuzha Grama Panchayats and KSIDC, Pallipuram, the GPs/ KSIDC replied to Audit that they had not given any sanction to the agency for dumping of demolition waste in their jurisdictional area. No records were furnished to Audit by the ULB/agency in proof of the quantum of waste transported to the

locations cited or method of processing and disposal of the massive quantity of the C&D waste resulting from the first major demolition activity undertaken in the State”.

The above CAG performance report was sent to the Govt. of Kerala on 09-02-2023 and it was tabled on 14-09-2023 with the relevant finding that Kerala is yet to establish facility for processing, recycling and disposing Construction and Demolition waste.

4.0 Findings & Observations

When the details of disposal were called upon, the Municipality could only provide the weekly vehicle log prepared by the contractor. The log consists of only names of the site and number of loads. After the intervention of the Chairman, SLMC; the joint committee prepared an action plan to address the lacunas in managing C&D waste. Several recommendations were given to the Municipality/ contractor to manage the debris removal, dust emission / noise and water pollution. However, most of the recommendations were not complied by the Municipality/ contractor.

As already observed by the Honourable NGT and SLMC there is a gross violation of the provisions of the Construction and Demolition Waste Management Rules, 2016. The Municipality has not honoured the responsibilities entrusted in them to manage the C&D waste generated from the controlled implosion of four building illegally build with the building permits issued by them in violation of the CRZ regulations. C&D waste generated in this case was literally sold to a private agency and the weekly log of the conveyance prepared by the agency is the only document provided in support of the disposal claims. Municipality ignored their responsibility to transport the waste sites/ facilities for safe disposal/ reprocessing as per the rules. The same has been highlighted in the CAG report of 2022 *“No records were furnished to Audit by the ULB/ agency in proof of the quantum of waste transported to the locations cited or method of processing and disposal of the massive quantity of the C&D waste resulting from the first major demolition activity undertaken in the State”.*

The above reveals that there have been violations of provisions of Rule 6 of the Construction and Demolition Waste Management Rules, 2016. There are no records available with the Municipality on the safe disposal/ proper reprocessing of the C&D waste as per the provisions of the rules. In the above circumstances, the entire quantity of waste (69,606 MT) may be considered as illegally disposed in violations of the provisions stipulated under section (6) *Duties of local authority* as in the Construction and Demolition Waste Management Rules, 2016. The post-demolition debris management was done in violation of the Guidelines on Environmental Management of

Construction & Demolition (C & D) Wastes (Prepared by CPCB in compliance of Rule 10 sub-rule 1(a) of C & D Waste Management Rules, 2016). Thus, environmental compensation (EC) may be imposed in line with the methodology followed in the matter of *Sarang Yadwadkar and others Vs. Pune Municipal Corporation and others* in the O.A. No. 49 of 2019 (WZ).

Illustration of factors to be considered for Environmental Compensation (EC) calculation

<i>Descriptors</i>	<i>Factor/ value</i>	<i>Reference</i>
<i>1) Capital Cost Factor:</i>	<i>0.1</i>	Referring to CPCB's "Report of the CPCB In-house Committee on Methodology for Assessing Environmental Compensation and Action Plan to Utilize the Fund", Capital cost factor is considered as 0.1.
<i>2) Marginal Average Cost for Waste Management:</i> Capital cost of C&D waste processing plant to be installed (in Lakh Rupees) /Capacity of the proposed C&D waste processing plant (in Tonnes per day).	<i>Rs 49 Lakhs/ 250 TPD = 0.196</i>	As there is no C&D waste processing facility in Maradu Municipality and not even in Kochi, City this value is considered from the CPCB Report in the matter of OA No. 49/2019 (WZ).
<i>3) O&M Cost Factor</i>	<i>1.0</i>	Referring to CPCB's "Report of the CPCB In-house Committee on Methodology for Assessing Environmental Compensation and Action Plan to Utilize the Fund", Capital cost factor is considered as 1.0.
<i>4) Marginal Average O&M Cost:</i> O&M cost of the C&D waste processing plant, including labour, transportation, etc. (in Lakh Rupees per day) / C&D waste processed in the plant in Tonnes per day (TPD).	<i>Rs.1.675 Lakhs / 250 TPD = 0.0067</i>	As there is no C&D waste processing facility in Maradu Municipality and not even in Kochi City, this value is considered from the CPCB Report in the matter of OA No. 49/2019 (WZ).
<i>5) Per Day Waste Generation:</i> In this matter, the question is the disposal of 69,606 Tonnes of C&D waste subsequent to the controlled implosion of for illegal apartment built in violation of CRZ violation.	<i>69,606 Tonnes/1361 Days = 51.14 Tons/Day</i>	The C&D waste was generated instantaneously due to controlled implosion of four apartments, which must be managed in accordance with provisions under the C&D Waste Management Rules, 2016. Thus the total quantity reported by the Municipality is treated as per day

		generation considering the fact that the waste was not managed as per the provisions of rules till date. The total violation days as on 27-11-2023 is 1361 days.
6) Per day waste disposed as per the Rules:	0.0 Tonnes	In this matter, it is observed that 69,606 Tonnes of waste disposed is not as per the rules and the Municipality failed to produce any proof/ records in support of its claim.
7) Environmental Externality:	0.01	Referring to CPCB's "Report of the CPCB In-house Committee on Methodology for Assessing Environmental Compensation and Action Plan to Utilize the Fund", the Capital cost factor is considered as 0.01.
8) Number of days of violation (N):	1361 Days	Immediately after the demolition (13-01-2020) to the date of receipt of the completion report (18-06-2020) by Kerala SPCB. That is 158 days and the activities were disrupted for 54 days due to COVID pandemic lockdowns in three phases (25-03-2020 to 17-05-2020). From the CAG report on the improper management of Maradu demolition waste, it is learnt that, KSIDC informed CAG Audit that they had not given any sanction to the agency for dumping of demolition waste in their jurisdictional area. Concerned Gram Panchayath Authorities informed CAG Audit that they had not given any sanction to the agency for dumping of demolition waste in their jurisdictional area. No proofs/ information on the C&D waste processed/ recycled at crushers. Purpose/ disposal route of waste to other sites not provided. Thus, the record reveals that the C&D waste has been mismanaged and not properly disposed as per rules. Hence, the total number of days of violation have been considered to date i.e. 27.11.2023. Therefore, total number of

		violation days is: 1415 days - 54 days (activity disrupted due to COVID) =1361 Days.
<i>Environmental Compensation (EC) in Lakhs of Rupees</i>	480.94 Lakhs	

5.0 Environmental Compensation (EC)

$$= \{0.1 \times 0.196 \times (51.14 - 0.0) + 1.0 \times 0.0067 \times (51.14 - 0.0) \times 1361 + 0.01 \times 1361\} \text{ Lakhs}$$

$$= 480.94 \text{ Lakhs}$$

Since, Kerala State Pollution Control Board (KSPCB) submitted that they shall seek CPCB assistance for the re-assessment of Environmental compensation (EC), KSPCB may follow the above calculation and proceed for imposing EC as per the illustration provided above for violation of the C & D Waste Management Rules, 2016.