

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

**Original Application No 93/2024 SZ  
(OA 770/2023 PB)**

*IN THE MATTER OF*

**SAJIMON JOSEPH: Applicant**

**Vs**

**State of Kerala & others: Respondents**

**REPORT OF THE JOINT COMMITTEE  
CONSTITUTED BY HONOURABLE NATIONAL  
GREEN TRIBUNAL IN COMPLIANCE WITH  
THE ORDER DATED 31/01/2024 IN OA NO.  
93/2024 (SZ)**



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**REPORT OF THE JOINT COMMITTEE  
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**1.0 Background**

Honourable National Green Tribunal (NGT), Principal Bench (PB), New Delhi, registered a grievance related to the alleged unlawful operation of a stone quarry received through email as an original application (OA) 770 of 2023 '*Suo Motu*'. The grievance was submitted by Shri. Sajimon Joseph regarding unlawful, illegal quarry mining operations and related activities carried out by Mr. Thankachan Sebastian *alias* Mathalikkunnel Thankachan at Koombara, Punnakkadavu , Koombara Bazar P.O, Koodaranhi Village, Thamarassery Taluk, Kozhikode District, Kerala State; Pin 673604.



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Hon'ble NGT vide order dated 31/01/2024, considered appropriate to constitute a Joint Committee to verify the factual position and take remedial action, and accordingly constituted a Joint Committee, comprising representatives of:

- Central Pollution Control Board (CPCB)
- Kerala State Pollution Control Board (KSPCB)
- The District Collector Kozhikode

The committee was directed to meet within two weeks, undertake visits to the site, look on to the grievances of the applicant, associate the applicant and representative of the concerned project proponent, verify the factual position and take appropriate remedial actions by following due course of law. KSPCB was made the nodal agency for coordination and compliance.

In pursuance to the Hon'ble NGT PB order dated 31/01/2024, a preliminary inspection was conducted on 25/03/2024 by the three-member committee for assessing the ground realities and to garner the details of allegations levelled against the quarry mining operations carried out by Mr. Thankachan Sebastian *alias* Mathalikkunnel Thankachan. The findings after preliminary site inspection by the Joint Committee was reported through an interim status report to the Hon'ble NGT vide ***Annexure -1***.

The matter was subsequently transferred to the Honourable NGT Southern Bench and re-numbered as OA No.93/2024(SZ) vide order dated 25/03/2024.



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During the preliminary site inspection and hearing of the representatives of the complainant, it was learnt that the allegations levelled against the proponent includes illegal quarrying outside the quarry area, unlawful transportation of quarried stones, encroachment of forest land for quarrying activities, altering the alignment of the panchayath road by the proponent and pollution from the quarrying activities. To verify the veracity of the above allegations, representatives from Department of Mining & Geology, Kerala, Forest Department, State Environmental Impact Assessment Authority (SEIAA) and from the concerned Village / Panchayath need to be co-opted into the joint committee.

In continuation to the Interim status report vide *Annexure- 1*, the course of actions in compliance to the Hon'ble NGT Order, by the Joint Committee are respectfully submitted herewith in the chronological order:

As per the decision of the Joint Committee, a request letter was submitted to the KSPCB Chairperson, by the nodal officer (Environmental Engineer, District Office of Kerala State Pollution Control Board, Kozhikode) on 30/04/2024, requesting to initiate necessary steps to request expert personnel from concerned departments to be co-opted as members in the Joint Committee, so as to have a thorough assessment of the related allegations and concern, in the complaint. A copy of the request



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letter submitted to the KSPCB Chairperson, dated 30/04/2024 is enclosed here with and marked as ***Annexure -2.***

Accordingly, a request letter No. KSPCB/611/2024-SEE1 had been issued by the Member Secretary, KSPCB on 09/05/2024, to the Director, Directorate of Mining & Geology, to the Member Secretary, State Environmental Impact Assessment Authority (SEIAA) and to the Chief Wildlife Warden, Forest Headquarters, to depute a competent officer to the Joint Committee formed in connection with OA 93 of 2024(SZ) urgently. A copy of the letter is produced here with and marked as ***Annexure -3.***

Vide letter dated 14/05/2024 by number DCKKD/7702/2023-09, the District Collector Kozhikode had nominated the Tehsildar, Thamarassery Taluk, as competent member to represent the District Collector in the Joint Committee. A copy of the nomination letter and its English translation are produced here with and marked as ***Annexure- 4.***

Vide letter No. 1068/EC2/2024/SEIAA dated 20/06/2024, the Administrator of State Environmental Impact Assessment Authority (SEIAA) had deputed Dr. Junaid Hassan, Environmental Officer, SEIAA, as co-opted member to the Joint Committee. A copy of the letter is produced here with and marked as ***Annexure -5.***

A reminder letter No. KSPCB/611/2024-SEE1 had been sent by the Chairperson, KSPCB to the concerned officials regarding the



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subject, on 08/07/2024. Copy of the letter is submitted herewith and attached as ***Annexure - 6.***

A request letter dated 18/07/2024 was submitted to the Kerala SPCB's standing counsel, intimating the follow up actions in the subject, and requesting a time extension for completion of actions. Copy of the letter is submitted herewith and attached as ***Annexure - 7.***

Further on 08/08/2024, Chairperson, KSPCB had sent a request letter (dated 01/08/24) to the Secretary Environment Department, requesting to initiate necessary action to nominate members from Department of Mining and Geology, and Forest Department to the Joint Committee at an earliest. Copy of the letter is produced here with and marked as ***Annexure- 8.***

In response to the request letter from the Member Secretary, KSPCB dated 09/05/2024, vide letter No. KFDHQ/4170/2024-CWW/WL12, dated 12/08/2024, the Additional Principal Chief Conservator of Forests (Administration) & Chief Wildlife Warden (in charge), Kerala, had nominated the Divisional Forest Officer Kozhikode as the representative from Kerala Forest Department, on behalf of himself, to the Joint Committee. A copy of the letter of nomination is produced here with and marked as ***Annexure -9.***

Vide letter No. DMG/1387/2024-M6, dated 09/09/2024, from the Director of Mining and Geology (DMG) had nominated Smt.



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Amritha V, Geologist, District Office, Kozhikode, as a representative of the Department of Mining and Geology, in the Joint Committee. A Copy of the letter is enclosed here with and marked as *Annexure -10*.

## 2.0 Joint Committee with co-opted members

In compliance with the Honourable NGT directions, the committee was constituted and further extended by co-opting members from other stakeholder State Departments & State agencies. The committee was extended with members/representatives as per nominations received from respective institutes/ organizations. Joint committee was constituted and extended with the following representatives:

Dr. Deepesh V, Scientist C, Central Pollution Control Board, RD, Bengaluru.	Member
Shri. Balarajan K, Tehsildar, Thamarassery Taluk, Kozhikode (Representing District Collector).	Member
Dr. Junaid Hassan, Environmental Officer, State Environmental Impact Assessment Authority, Kerala.	Co-opted Member
Shri. Ashiq Ali V, District Forest Officer, Kozhikode; Representing the Additional Principal Chief Conservator of Forests (Administration) & Chief Wildlife Warden (in charge), Kerala.	Co-opted Member
Smt. Amritha V, Geologist, District Geology Department, Kozhikode.	Co-opted Member
Smt. Sauma Hameed, Environmental Engineer, Kerala State Pollution Control Board, District Office, Kozhikode.	Member (Nodal officer)



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### ***2.1 Joint Committee: Site inspection/ field study***

It is respectfully submitted that, as all the requested representatives from necessary departments are nominated and co-opted as members of the committee, a Joint Committee meeting and site inspection/ field study was scheduled to be conducted on 11/10/2024. Accordingly, a letter of intimation dated 07/10/2024 was issued via e-mail to the complainant Sri. Sajimon Joseph, as well as the Quarry Owner Shri. Thankachan Sebastian, intimating the date and time of site inspection by the Joint Committee. Also, both complainant and the proponent were intimated through phone to ensure their presence. Copies of the letters of intimation given to both the petitioner and unit owner intimating the date of inspection are enclosed here with and marked as ***Annexure -11***.

It is humbly submitted that as decided, the Joint Committee members inspected the quarry owned by Mr. Thankachan Sebastian alias Mathalikkunnel Thankachan at Koombara, Punnakkadavu, Koombara Bazar P.O, Koodaranhi Village, Thamarassery Taluk, Kozhikode District; on 11/10/2024, 11 am.

The complainant Shri. Sajimon Joseph, his brother Shri. Joseph N. J, another complainant Shri. Harris and the quarry owner Shri. Thankachan Sebastian were present at the site. The attendance list of officials participated in the site inspection is produced here with and marked as ***Annexure - 12***. The photographs taken during the joint committee site inspection are produced herewith and marked as ***Annexure -13***.



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The following officials were present at the site during site inspection:

- Dr. Deepesh V, Scientist-C, Central Pollution Control Board, Regional Directorate, Bengaluru.
- Smt. Sauma Hameed, Environmental Engineer, Kerala State Pollution Control Board, District Office, Kozhikode.
- Dr. Junaid Hassan S, Environmental Officer, SEIAA, Kerala
- Shri. Ashiq Ali V, District Forest Officer, Kozhikode.
- Shri. Balarajan K, Tehsildar, Thamarassery Taluk, Kozhikode.
- Shri. Akhil S. Susheel, Assistant Geologist, District Mining & Geology Department, Kozhikode.
- Shri. K Komalangan, Village Officer, Koodaranhi Village, Kozhikode
- Shri. Rajesh M, Taluk Surveyor, Thamarassery Taluk, Kozhikode.
- Shri. Vimal P. Nath, Regional Forest Officer, Kozhikode
- Shri. Bijesh K, Assistant Engineer, Kerala State Pollution Control Board, District Office, Kozhikode.
- Smt. Badira Rahmath N, Assistant Engineer, Kerala State Pollution Control Board, District Office, Kozhikode.

The objective of the site inspection and joint committee meeting at site was to look in to the following aspects in detail:

  
  
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- a. Hearing the grievances of the complainant and others affected in the area.
- b. To conduct ambient air quality monitoring at the quarry premises and to assess the ambient particulate emission contributions from the quarry operations.
- c. To assess the ambient noise (sound level) monitoring at the quarry premises.
- d. To assess the water quality of the mine pit water samples from the quarry and nearby natural stream to verify the effect of quarrying on the nearby surface water bodies.
- e. To ascertain the compliance status of the conditions stipulated in the Environmental Clearance (EC) granted by SEIAA, Kerala.
- f. To verify the allegation of quarrying in the Ecologically Sensitive Area (ESA).
- g. To verify the alleged encroachment of forest area by the quarry proponent.
- h. To verify the veracity of allegations regarding the width of quarry road and alleged manipulation in the alignment of the Panchayath road.
- i. To verify the claims of illegal quarrying and unlawful transportation of quarry products without obtaining mandatory pass from the Department of Mining & Geology.

### **3.0 Hearing of the complainant and proponent**

The petitioner Shri. Sajimon Joseph, his brother Shri. Joseph N J and another complainant Shri. Harris was heard by the committee



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at the site. The petitioner Shri. Sajimon Joseph was heard in detail by the Joint Committee members during inspection. He had explained all his grievances, as he had already explained in his petition. Mr. Thankachan Sebastian alias Mathalikkunnel Thankachan, the quarry owner also disposed before the committee and he refuted the claims levelled against him. During the hearing, the committee could infer that there were issues between the complainant and the proponent in the past and the complainant specifically blames the proponent in the alleged change in the alignment of the road passing in front of their homes. It is alleged that the complainant's ancestor house is opposite to the proponent's house across the Panchayath road, and it is alleged that the proponent with influence has shifted survey stone of the road in the ancestral property of the complainant. During the hearing, it was decided that the Taluk surveyor would verify the claims as per the records available in their office.

#### **4.0 Ambient air quality and noise monitoring**

It was suggested that the field study essentially involves the assessment of noise and air pollutants, especially particulate matter generated during the course of quarry operations. Noise monitoring carried out using class 1, noise level meters as per the CPCB noise monitoring protocols. Air quality monitoring assessed for the particulate matter (PM 10) parameter. Monitoring done at upwind and downwind directions of the quarry zone. Locations fixed based on the predominant wind direction at the location.



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The ambient air monitoring equipment were deployed as per the siting requirements prescribed in the CPCB guideline (National Ambient Air Quality Series: NAAQMS/36/2012-13). Instruments were deployed to get a height of the sampler inlet at 3 - 10 m above the ground level. Actual deployment of samplers in the field was done at suitable distance from any direct pollution source and as per the siting criteria prescribed by CPCB. However, the study areas were invariably with undulating topography with towering quarry benches at different heights, rocky structures/ outcrops, buildings, plantations and trees extending above the height of the samplers.

As per the clause 7 (1) of the Noise Pollution (Regulation and Control) Rules 2000 which was amended in January 2010, complaints can be made to the authority if the noise levels exceed the ambient noise standards by 10 dB (A) or more in any area or zone. Thus the primary aim of this monitoring is to determine whether the noise contributed by any source is increasing the ambient noise level by 10 dB(A) or more. Therefore, the noise monitoring includes assessment of ambient noise level when the source is not contributing any noise and by the monitoring of ambient noise when the source is contributing/ producing noise. In this scenario, the source of noise is the operation of the stone quarry. Since, ambient noise is contributed by several sources, it is necessary to delineate other potential sources like road/ traffic noise and other specific noise sources in the vicinity of the monitoring location and ambient noise levels have to be assessed



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when the target source is not contributing noise. Type 1, integrating, averaging sound/ noise level meters with data logging functions (*CEL- 63x Environmental Noise Meter, Casella, Casella Measurements, Bedford, UK*) were used for this study. Monitoring was done to capture the ambient noise level in the area when the stone quarry is not operating (Ambient/background Noise), and ambient noise levels were assessed while the stone quarry was in operation.

Ambient air quality monitoring and noise monitoring were conducted on 11/10/2024, jointly by CPCB and KSPCB while the quarry was in operation. Monitoring started from 10.30 am and continued till 4.30 pm (6 hours) to assess the effect of quarry operation on the ambient air quality and noise levels. A background monitoring was again conducted on 25/10/2024 at the quarry site, from the same downstream position, to verify the background (ambient) levels of particulate matter (PM 10) while the quarry was not in operation.

#### ***4.1 Dust pollution***

Due to the undulating topography of the quarry the placement of instruments was challenging and the structures inside the quarry also act as barriers or deposition surfaces. Based on the assessment, the values of 6-hour PM-10 values obtained during the hours of quarry operation and the values obtained during background monitoring are not exceeding the prescribed limits applicable for industrial, residential, rural and other areas (Limiting Concentration in ambient air- 100 µg/ m<sup>3</sup>) as per the



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National Ambient Air Quality Standards (NAAQS) notified by CPCB dated 18 th November 2009 and also the values are within the limit of the Particulate matter (PM 10) standard (100µg/m3) imposed by KSPCB. A copy of the NAAQS dated 18 th November 2009 as well as the Kerala State Pollution Control Board's circular no. PCB/T4/115/97 dated 28/05/2015 which prescribes the standards for Particulate Matter in quarry operations are produced here with and marked as **Annexure - 14**.

Ambient air quality monitoring results in tabular form is given below:

Details of monitoring	Monitoring location	Weather	6-hour PM 10 values in (µg/ m <sup>3</sup> )
11/10/2024 Monitoring carried out while the <b>quarry was in operation.</b>	Upstream location	Cloudy condition	44.31
	Downstream location	with slight intermittent rain in the afternoon.	51.28
25/10/2024 Monitoring carried out while the <b>quarry was not in operation.</b>	Downstream location	Sunny, clear sky and hot atmosphere.	71.15



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It is observed from the results that the values obtained for PM-10 on both ambient as well during the operation of the quarry are below 100 µg/m<sup>3</sup>, ie, in both cases, the results obtained are within the limits.

However, the PM-10 value obtained during the background monitoring (while the quarry was not in operation) was more, compared to the result obtained while the quarry was in operation. This difference is due to the wet condition induced by intermittent drizzling/ rain on 11/10/2024. The micro weather conditions in the quarry area changes instantaneously and heavily influences the pollution transport phenomena, especially the particulate matter.

Therefore, the higher PM-10 value obtained during the background (ambient) monitoring could be attributed to the stark differences in the micro weather conditions of both the days. On the day of monitoring (11/10/2024) intermittent raining/ drizzling observed, inducing a wet condition wherein the ambient particulate matter tends to be washed-off/ settles down and hence curtails the natural dispersion in the air. In contrast, on the day of background monitoring (25/10/2024), the quarry in question was not in operation and the conditions were hot and sunny. Further, an adjacent quarry (M/s. Mary Matha Quarry) in the vicinity was working on the day of background/ ambient monitoring. Copies of the ambient air quality monitoring reports are submitted here with and marked as ***Annexure - 15***.



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#### ***4.2 Noise pollution***

On the day of inspection, due to intermittent rain and drizzling, ambient noise monitoring could be carried out only for 2.5 Hours and the background noise monitoring was also carried out for the same duration while the quarry was not in operation.

As it can be observed that the Equivalent Sound Level - Leq in dB A (Which quantifies the noise environment to a single value of sound level for any desired duration and is designed to represent a varying sound source over a given time as a single number from the noise levels recorded) is 56.58 dBA. Which is an increment of 2.08 dB A from the Leq in dB A of 54.50 obtained during the background monitoring.

Also, the increase in Equivalent Sound Level - Leq during the time of blasting is only 6.40 dB A from the background level of 54.50 dB A.

The exceedance in noise level (Equivalent Sound Level ) beyond allowable limit (55 dB A Leq for a residential area during day time), with respect to the Noise Pollution (Regulation and Control) Rules 2000, is here less than 10 dB. According to the said Rules, a complaint regarding noise pollution from any operation will persist only if the exceedance in noise level is at least 10 dB from the allowable limit. A copy of the relevant pages of Noise Pollution (Regulation and Control) Rules 2000 is produced here with and marked as ***Annexure -16***.

  
  
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Results of Noise monitoring in tabular form is given below:

Noise parameter	Ambient Noise (Background noise when quarry was not working)	During working of the quarry for two and half hours including one round of blasting.	Increase in noise/ violation
dB(A) L eqt (2.5 hours monitoring duration)	54.5	56.6	2.1 (Less than the 10 dB(A) L eqt)/ No violation.
dB(A) L eqt (0.5 hours monitoring duration during blasting)		60.9	Less than the 10 dB(A) L eqt when compared to the standard 55 dB(A) L eqt */ No violation.

*\*Ambient noise standard: 55 dB(A) L eqt during day time.*

### 5.0 Mine pit water quality

During the joint committee site inspection on 11/10/24, water samples were collected from four different locations to assess the effect of quarrying on surface water including nearby natural streams as one of the major allegations was with respect to water



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pollution. The quarry does not have any garland drains around the premise/ periphery to manage runoff water which ultimately end up in the mine pits.

Settling tank was provided adjacent to the quarry mine pit and the mine pit water was seen entering the settling tanks naturally. The partitions of the tank were made porous with gravel media for favouring filtration. Adequate residence time for the settling of the suspended particle is doubtful. The water from the final tank is directed to a natural stream flowing nearby.

Details of sample collected:

- i. WW 203: Before the settling tank, from the quarry pit.
- ii. WW 105: Before the settling tank, from the mine pit nearer to the settling tank intake point.
- iii. WW 106: At the point where the natural stream mixes settling tank outlet.
- iv. RW-1: Natural stream sample adjacent to the quarry.

A copy of the analysis report of the above-mentioned samples is produced here with and marked as ***Annexure -17***.

From the analysis result, settling of suspended solids found satisfactory for the quarry water before discharging into the natural stream. Quality of the natural stream is not liable to be deteriorated by mixing with the settling tank outlet from the quarry pit. Calcium and sodium levels in the mine pit water samples indicate the influence of quarrying. Total dissolved



A handwritten signature in green ink, appearing to read 'Sauma Hameed', written over a diagonal line.

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solids (TDS) and conductivity in mine pit water is slightly higher indicating the influence of quarrying. Sodium values seem slightly higher in the natural stream.

## **6.0 Mining from Ecologically Sensitive Area & Non-Compliance to EC Conditions**

Detailed field visit report is prepared by the expert co-opted member from SEIAA, Dr. Junaid Hassan and submitted to KSPCB, regarding the aspects under the jurisdictional purview of SEIAA, Kerala. A copy of the individual report submitted by the said expert member is produced here with and marked as ***Annexure - 18***, and the same is reiterated herewith as follows:

*“SEIAA had issued Environmental Clearance to Shri. Thankachan M.S with EC No. 212/SEIAA/KL/251/2014 dated 05/12/2014, for an area of 4.6963 Ha, at survey number 2442(pt), Koodaranhi village, Kozhikode, for a period of 5 years. Later an extension of EC application from the project proponent was received on 13/08/2019 and after due appraisal involving the site inspection, the same was granted in the 98th SEIAA meeting, for 5 years on 04/11/2019 and the validity expires on 04/12/2025, if considering the provision of notification, SO 221(E) dated 18/01/2021, by the MoEF & CC regarding the Covid -19 relaxation”.*

The site inspection commenced at 11am, with both the complainant Shri. Sajimon Joseph, and the Project Proponent, Shri. Thankanchan M.S present to provide their statements.



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During the inspection, the complainant raised several concerns related to the Environmental Clearance (EC) granted to the project proponent. The primary issues raised by the complainant are related to the malfunctioning of the settling tank, resulting in the direct discharge of stored water into a natural stream, slippery roads caused by excessive water sprinkling, obstruction of natural stream, and other environmental impacts. The complainant also mentioned that three residents had vacated their homes located on the southern side of the project site due to the quarry operations. Furthermore, he questioned the exclusion of Koodaranhi village from the list of Ecologically Sensitive Areas (ESA) by the Ministry of Environment, Forest and Climate Change (MoEF & CC). He also alleged that the project proponent is pumping water from the quarry pit to the natural stream during night time by blocking the outlet.

In response, the project proponent denied obstructing any natural streams as part of quarry operations and asserted that water sprinkling was being conducted regularly to control dust. He also denied the allegation of water pumping from the quarry pit during night time.

### ***6.1 Observation on the compliance of EC conditions***

- The Garland drain is not seen at the site, and water from the quarry pit was observed flowing directly into the settling tank, which then discharged through an approximately 8-inch pipe towards the natural stream on the northern site. During



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the inspection the quarry pit was filled with water up to the level of the settling tank.

- The site did not exhibit proper benches as prescribed in the Environmental Clearance (EC).
- Overburden (OB) dumping was observed on the elevated southern site, outside the designated quarry area, without safety measures and at angles exceeding 45 degrees.
- No approved Environmental Management Plan (EMP), imposed as the specific condition of EC was found submitted/implemented by the project proponent at the time of site inspection.
- Sprinklers have been installed at the project site.
- A natural stream was observed on the south side of the project area near the OB dump, flowing directly into the project area. It appeared that recent modifications had been made to this channel, diverting it towards the quarry pit.
- Access roads were found to be damaged in certain areas.

## ***6.2 Recommendations on the non-compliances observed***

- A gabion or reinforced concrete wall should be constructed to secure the OB dump on the southern side.
- Any over extraction of minerals should be assessed by the Department of Mining and Geology.



  
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- The project proponent should construct and maintain a garland drain, along with regular maintenance of clarifiers and the settling tank.
- An updated Environment Management Plan, including a budget and a summary of expenditures from previous years should be submitted to SEIAA in compliance with the EC issued on 04/11/2019.
- The access road should be properly maintained

## **7.0 Ground realities regarding the encroachment of forest area**

Regarding the allegation of encroachment of forest area, site study was conducted on 11/10/2024 along with all Joint Committee members, and later detailed site verification through boundary survey was conducted with the help of the surveyor, Thamarassery Range Forest Officer, and report had been submitted to the nodal officer vide letter No. KFDDO/55645/2024-DFOKKD/T dated 21/10/2024, by the DFO Kozhikode. A copy of the report submitted in Malayalam, along with its translation in English are submitted here with and marked as *Annexure - 19*.

### ***7.1 Findings on the alleged forest encroachment***

The important findings reported in the DFO's report are as following:

  
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The land comprising the quarry owned by Shri. Mathalikkunnel Thankachan is located in the V.F.C item no. 133 of the Maranchatti beat, under the Peedikappara section of the Thamarassery range, and it shares boundary with the survey no. 154 of the Punnakkadavu forest under Koodaranhi village. There are permanent boundary markers (*Jandas*) intact all along the forest boundary. The distance measured from the nearest survey point, to the points BP5 and BP6 of the current quarry area are 36.9 & 19m respectively. All other points of the quarry are at more than 50m distance from the nearest survey points. A review of previous records indicates that prior to the period of 2016-17 mining was conducted at distances of less than 50 meters adjacent to the forest edge on the eastern side of the currently working quarry. However, upon reviewing available past records, no evidence was found indicating that quarrying activities were carried out in the forest boundaries, in violation of norms, after the specific minimum distance criteria was set-forth from forest area, for conducting of quarrying activities.

The Kakkadampoyil forest boundary, which is a part of the proposed eco-sensitive area, is at 11 kilometres approximately from the existing quarry site. Also, Kumban Mala, which is a part of the Malabar Wildlife Sanctuary, an ecologically sensitive zone, is at approximately 26 Km from the existing quarry site. As stated above there are no recorded violations of the specified distance limits.

Permanent boundary markers (*Jandas*) and survey points are present at all forest boundaries. No anomalies were found after



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reviewing the forest sketches. However, in 2011, a case (OR 14/2011) was registered against Shri. Mathalikkunnel Thankachan in the Thamarassery Range, for trespassing into the forest boundary adjacent to the quarry, damaging boundary markers (*Jandas*) and constructing a road. Investigation was completed in this case, and charges were filed. Upon re-evaluation of the survey points, it was discovered that the markers were moved 5 meters towards the defendant's land from the original survey point. It was confirmed that a new boundary marker was erected at the newly re-evaluated survey point. Therefore, since there was no violation of the Forest Act, in relation to the case OR/2011, the matter was withdrawn from the Court.

### **8.0 Allegation regarding illegal quarrying and unlawful transportation of quarry products.**

Based on the joint committee site inspection, a preliminary assessment report has been submitted by the District Geologist on 26.10.2024. A copy of the said report along with its translation in English are submitted herewith and marked as *Annexure - 20*.

The details of the permit/ leases granted under the Kerala Minor Mineral Concession Rules 1967, and the Kerala Minor Mineral concession Rules 2015, as per the order number 105/2015-16/2846/M3/2015 dated 28.08.2015 of the Director of Mining & Geology includes the 3.38 hectares of land under survey number 2442 pt, in the Koodaranhi village,



  
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Thamarassery Taluk as well as the area adjacent to this land, which falls under the survey number “*Unsurveyed*” of the Koodaranhi village, Thamarassery Taluk are provided in tables in the *Annexure - 20* report.

Regarding the transportation of quarry products without obtaining mandatory pass, it is submitted by the District Geologist that transit passes are being issued through the department’s online portal, the KOMPASS portal, in accordance with the reference given in the report vide *Annexure - 20*.

In the said report, it was further submitted by the Geologist that, the measurement of granite stone mining conducted at the site have been documented in the sketch prepared by the department’s surveyor and a letter dated 06.09.2024 has been received from the Director, of the Mining and Geology department, to the District Geology office, and any illegal mining activities that had been conducted will be examined with reference to this sketch and report will be submitted without further delay.

A reminder letter had been issued to the District Geologist from this office regarding submission of a detailed report on 18.12.2024. A copy of the same is submitted herewith and marked as *Annexure - 21*. It is humbly submitted that the detailed report called for was submitted via email by the District Geologist on *06/01/2025* to the office of nodal officer, which is attached as the **last** annexure, *Annexure - 26* .





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As per annexure 26, an excess excavation of 63394.63 MT of granite building stone from the entire quarry area was reported and a show cause notice dated 05-11-2024 was issued by the Department.

### **9.0 Allegation regarding minimum width of quarry road and its Manipulations**

It is humbly submitted before the Hon'ble Tribunal that, in order to verify the genuineness of the allegation by the petitioner regarding the manipulations done in the quarry road by shifting of survey stones as well as allegation regarding violation of mandatory minimum width prescribed for the access road to quarries, a letter was sent to the Secretary, Koodaranhi Grama Panchayath on 15/10/2024 from the KSPCB, District office Kozhikode, requesting clarification on the matter. Accordingly, a reply in the form of a report was submitted by the Panchayath Secretary on 12/12/2024. Copy of KSPCB's direction letter as well as reply letter submitted by Panchayat Secretary along with necessary translation are submitted here with and marked as ***Annexure 22 (a & b)***.

It is most respectfully submitted that, as per the ***Annexure-22(b)*** report by the Panchayath Secretary, following facts are reported.

*“As per the Asset Register of the Koodaranhi Grama panchayath, the Koombara-Punnakkadavu Road has a width of 8 m. However, variations in width are observed in some sections, and the road does not consistently maintain an 8 m width throughout its length. According to the Kerala Building Rules,*



  
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*2019, the width of road leading to quarries has not been specifically defined. Additionally, the panchayath has not prescribed a minimum width for the roads used by the quarry vehicles.”*

Furthermore, it is reported by the Secretary in this report that it is based on a complaint lodged by Shri. N J Joseph (brother of the petitioner in OA 93 of 2024), regarding removal of survey stones along his property boundary, the District Survey Superintendent had conducted a site inspection, and based on the inspection report, it is confirmed that there has been no encroachment on the property of the complainant, which is currently having a width of 8.6 meters, which includes a portion of land voluntarily relinquished by Mr. Thankachan Mathalikkunnel, from his property located on the opposite side of the road. It is further reported that, considering the combined layout of the road, and the presence of curves in this area of the road, a width of 8.6 meters is deemed necessary and these observations had been recorded in the inspection report of the District Survey Superintendent. A copy of the proceedings (number DCKKD/5993/2023-J2, dated 01/03/2024) of the Kozhikode District Survey Superintendent, which was submitted as enclosure along with the report of Panchayath Secretary, and the necessary translations, are submitted here with and marked as ***Annexure - 22(c)***.



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It is most respectfully submitted that the *Annexure - 22(c)*, gives a clear picture of the past actions that had already been taken by the respective authorities, based on repeated complaints submitted by both the petitioner Shri. Sajimon Joseph, as well as his brother Shri. N J Joseph before the Hon'ble Chief Minister of Kerala through the Chief Ministers Public Grievance Redressal Portal (CMO Portal), before the District Collector, etc. and that the allegations on encroachment were observed as baseless allegations upon survey and site inspections.

Furthermore, during site inspection conducted by the Joint Committee on 11/10/2024, after hearing the allegation and grievances of the petitioner the Taluk Surveyor was entrusted by the Tehsildar, Thamarassery Taluk, (Representing District Collector in the Joint Committee) to conduct a survey and submit report on the width of the road under complaint. The report of the Tehsildar Thamarassery based on Joint Committee site inspection dated 11/10/2024 was submitted to KSPCB on 22/10/2024 and the report enclosed the sketch submitted by Taluk Surveyor as well as a report from the Village Officer, Koodaranhi village. A copy of the report submitted by the Tehsildar Thamarassery, along with necessary translations is submitted herewith and marked as *Annexure - 23(a to c)*.



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## 10.0 Findings of the Joint Committee

A summary of the findings and observations reported by the various committee members based on the Joint Committee Inspection is respectfully submitted as follows:

1. Based on the individual reports from the concerned State Departments, the following allegations of encroachment of forest land, quarrying in Ecologically Sensitive Area (ESA), violation of minimum width of the quarry road and encroachment of private property for the Koombara- Punnakkadavu road were observed to be baseless.
2. As per the ambient air quality monitoring, the 6 hour value for PM-10 of both background monitoring and while the quarry was in operation are less than the 24 hour limit of  $100\mu\text{g}/\text{m}^3$ . However, the value obtained during the background monitoring was more than the values obtained while the quarry was in operation. This anomaly is attributed to the weather conditions prevailing during the monitoring.
3. The noise monitoring revealed that the noise contribution from the quarry operations to the ambient noise level is insignificant and the incremental rise in ambient noise measured on the day of inspection is less than the 10 dB(A) increment.
4. Analysis of water samples collected by the joint committee also revealed that, there is no unusual pollutant load in the quarry pit water and the settling tank provided is effective in suppressing the suspended solid load. The water quality parameters are not exceeding permissible limits to raise a complaint against the unit on pollution.



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5. Certain violations were observed in conducting the quarry operations, with respect to the “Environmental Clearance” conditions as stipulated in the EC issued to the quarry owner by the State Environmental Impact Assessment Authority (SEIAA). Based on the findings, the expert member from SEIAA had suggested recommendations on remedial actions, as per the Annexure 16 report. The specific recommendations are:
- A gabion or reinforced concrete wall should be constructed to secure the overburden dump on the southern side.
  - Any over extraction of minerals should be assessed by the department of mining and geology.
  - The project proponent should construct and maintain a garland drain, along with regular maintenance of clarifiers and the settling tank.
  - An updated Environment Management Plan, including a budget and a summary of expenditure from previous years should be submitted to SEIAA in compliance with the EC issued on 04/11/2019.
  - The access roads should be properly maintained.
6. Committee observed several non-compliances with respect to the EC conditions and unscientific dumping of OB outside the quarry lease area in violation of EC conditions.
7. It is humbly submitted before the Hon’ble tribunal that, based on inspection findings SEIAA had issued a Show Cause Notice as well as STOP MEMO to the unit owner dated 02/11/2024, a copy of both were received at the office of the Nodal officer on 07/11/2024 from the Administrator, SEIAA. It is respectfully submitted that, as the ‘Consent to Operate’ to Quarry units are



  
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being granted from KSPCB based on the Environmental Clearance granted by SEIAA, based on the violations reported as well as the STOP MEMO issued by SEIAA, KSPCB also had issued a Show Cause Notice to the unit owner on 11/11/2024. A copy of the same is submitted here with and marked as **Annexure - 24**. The Quarry owner Shri. Thankachan Mathalikkunnel had submitted a reply to the Show Cause Notice on 27/11/2024, defending all the accusations in the notice. A copy of the reply letter by quarry owner is submitted herewith and marked as **Annexure -25**.

8. It is humbly submitted that based on the detailed site survey conducted by the geology department, on the violations with respect to excess mining and unlawful transportation of quarry products this committee is of the opinion that the penal actions and environmental compensation on account of the violation with respect to quarrying may be directly dealt by the Department of Mining & Geology. An excess excavation of 63394.63 MT of granite building stone from the entire quarry area was reported and a show cause notice dated 05-11-2024 was issued by the Department.

#### **11.0 Environmental Damage assessment due to unscientific overburden dump.**

During the inspection, the committee observed OB dumps outside the quarry lease area. A large dump on slopes of the southern boundary of the quarry near to the forest land was observed. The OB dumped in the slopes has a steep inclination/slope. On assessment, the dump is in the shape of a trapezoid



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prism with bases measuring 23 & 5 m, height of 5 m and length of 30m. The estimated volume is 4200 m<sup>3</sup>. On top of this dump there is another layer of OB which is 2m deep, 15 m wide and 30 m long. The volume of this rectangular prism is 900 m<sup>3</sup> The OB dump is very near to the forest boundary and is in the upper southern reaches of the quarry making the area vulnerable for landslides. This dump is in violation of the EC condition regarding the OB management within the quarry premises. The Bulk density of the overburden is 1.5 tonnes/ m<sup>3</sup>.

Overburden dumps cause soil degradation and can change the natural topography of the soil, making it difficult for plants to grow. OB when poorly managed can lead to soil erosion, dust pollution and can prevent the soil from retaining nutrients leading to nutrient loss in topsoil. More importantly, OB can impact the local biodiversity by affecting the growth of indigenous plants. Another risk associated with the OB is that it makes the land prone to landslides, which can endanger lives and properties.

The committee has referred to the World Bank document, “Methodology for calculating environmental damage assessment and relevant compensation” (World Bank, 2011) developed for the mining sector to calculate the environmental damages due to land deterioration due to unscientific dumping of overburden. The same was adopted in the matter of OA 76/2019 to assess the environmental damages due to unsustainable mining of back sand in Alappad, Kerala.



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### ***11.1 Land deterioration/ destruction due to OB dumping:***

The following formula is applied for calculating environmental damage to be caused to the surrounding environment because of the deterioration/ degradation/ land pollution with solid wastes:

$$D (GS) = Q \times M \times CF (SW)$$

*D (GS): Damage to be caused by land reserve destruction or land surface deterioration.*

*Q: Index of land reserve's relative value (0.3 for barren lands to 3.0 for land falling under ecologically sensitive zones).*

*M: Weight/ quantity of solid waste released (Tons/ year)*

*CF(SW): Damage to be caused by 1.0 ton of solid waste (Rs.)*

The land reserve's relative value can be taken as 0.5 for barren lands, 1.0 for grasslands/ recreational plots, 1.5 for agricultural lands, 2.0 for plantations, wetlands & coastal areas, 2.5 for forest lands and 3.0 for ecologically sensitive zones.

The amount of unit damage to be caused to the surrounding environment in the result of releasing 1.0 ton of solid waste into the environment can be expressed by the sum of the expenses on removal, detoxification, disposal charges, cost of land polluted, expenses on hygiene and environmental restoration measures.



  
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**11.2 Damage calculation due to land deterioration/ destruction due to OB dumping:**

Calculation for damage to be caused to the land environment because of the deterioration/ degradation of the ground surface with overburden:

M=Quantity of mine OB dumped (Tonnes)	7650
Q=Index of land reserve's relative value	2.0
CF (SW)= Damage to be caused by a tonne of OB (Rs.)	110
Damage in (Rs.) to be caused by land reserve destruction/ pollution $D (GS) = Q \times M \times CF (SW)$	<b>16,83,000/-</b>

For arriving at the environmental damages due to land deterioration/ destruction/ pollution due to improper management/ disposal of quarry overburden, following aspects accounted/ considered in the calculation:



*Signature*

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<i>No</i>	<i>Requirements</i>	<i>Particulars</i>	<i>Remarks/ justifications</i>
1	Q: Index of land reserve's relative value.	2.0 (the land is in proximity to protected forest land)	The land reserve's relative value can be taken as 0.5 for barren lands, 1.0 for grasslands/ recreational plots, 1.5 for agricultural lands, 2.0 for plantations, marine & coastal areas, 2.5 for forest lands and 3.0 for ecologically sensitive zones.
2	M: Quantity of overburden improperly disposed (Tonnes)	7650	As per the field assessment the volume of the OB mount is 900 & 4200 m <sup>3</sup> . Considering the density of the overburden (1.5 tonnes/m <sup>3</sup> ) the total quantity of improperly managed overburden is 7650 tonnes.



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3	CF(SW):Damage to be caused by 1.0 tonne overburden disposed unscientifically .	Rs. 110/tonne (For removal, transportation and eco-restoration/ replantation in the land)	In this scenario, unscientific management of OB and dumping outside the quarry premises are observed. The damage factors to be considered are the removal of the OB and the restoration/ reclamation of the private land adjoining the forest where it was disposed. In this context it is estimated that Rs.110/ tonne is required for the removal and transportation of OB to the designated storage area using earth moving machinery and the eco-restoration/ plantations required in the private land.
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Thus, the proponent is liable to pay environmental damages of **Rs. 16,83,000/- (Rupees sixteen lakh, eighty three thousand only)** on account of unscientific dumping of quarry overburden in an adjacent private land in proximity to the protected forest.

### **12.0 Recommendations of the Joint Committee**

Recommendations of the Joint Committee based on the findings/ observations are humbly submitted herewith:



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1. The committee observed violations on account of the conditions of Environmental Clearance (EC) stipulated by SEIAA, Kerala. Hence the quarry owner shall strictly follow all the recommendations on remedial actions suggested by the Expert member of SEIAA in this report. Besides, the quarry proponent should ensure that all the conditions stipulated in the statutory clearances are met, throughout the operation of the quarry.
2. The proponent shall take due care in conducting quarrying activities, that the natural resources are judiciously utilized whether it is the mining of the building stone or using water for sprinkling purposes in the vicinity of the quarry to prevent dust pollution.
3. SEIAA, Kerala shall assess the environmental compensation for the violations of EC conditions.
4. The Department of Mining and Geology shall initiate necessary penal action on over extraction of minerals and unlawful transportation of quarry products based on their detailed survey report dated 06-01-2025 (*Annexure-26*). An excess excavation of 63394.63 MT of granite building stone from the entire quarry area was reported and a show cause notice dated 05-11-2024 was issued by the Department.
5. The quarry proponent is liable to pay the environmental damages of **Rs. 16,83,000/-** (*Rupees sixteen lakh, eighty three thousand only*) on account of unscientific dumping of quarry overburden in a private land adjoining to the forest.



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**Environmental Engineer**

6. **Joint Committee Members:**

1 Dr. Deepesh V, Scientist D,  
Central Pollution Control Board, RD,  
Bengaluru

2 Shri. Balarajan K,  
Tehsildar, Thamarassery Taluk,  
Kozhikode (Representing District  
Collector).

3 Dr. Junaid Hassan,  
Environmental Officer, State  
Environmental Impact Assessment  
Authority, Kerala.

4 Shri. Ashiq Ali V,  
District Forest Officer, Kozhikode;  
Representing the Additional Principal  
Chief Conservator of Forests  
(Administration) & Chief Wildlife  
Warden (in charge) Kerala.

5 Smt. Manju. C. S,  
Geologist, District Geology  
Department, Kozhikode

6 Smt. Sauma Hameed,  
Environmental Engineer, Kerala State  
Pollution Control Board, District  
Office, Kozhikode.( Nodal Officer).



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**Dated: 09-01-2025**