

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

**Original Application No. 142 of 2020**

BETWEEN

Renny Jacob George  
S/o. George Mathai,  
Ovumannil House, Noorommavu P.O.,  
Anicadu, Pathanamthitta District 689 589

.... Applicant

AND

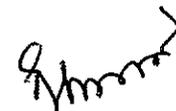
Kerala State Pollution Control Board,  
Pattom P.O., Thiruvananthapuram – 695 004  
Rep by its Chairman and 7 others

... Respondents

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Dated at Chennai on this 15<sup>th</sup> day of June 2021



**E.K. KUMARESAN**  
**Counsel For Respondents 3,4,6 & 7**

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AND

Kerala State Pollution Control Board,  
Pattom P.O., Thiruvananthapuram – 695 004  
Rep by its Chairman and 7 others

... Respondents

To  
The Registrar  
National Green Tribunal-Southern Bench  
Chennai.

**JOINT COMMITTEE REPORT FILED AS PER ORDER DATED 7.8.2020, BEFORE  
THE HONOURABLE NGT(SZ) IN OA NO.142/2020**

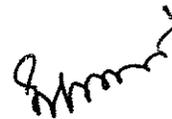
It is most humbly submitted that:

1. This Hon'ble Tribunal has constituted a joint committee vide order dated 07.08.2020 and directed the Committee to inspect the area in question and submit a status as well as action taken report in respect of violation of mining lease and mining closure plan committed by the 8<sup>th</sup> Respondent and further directed that if any violation is found, the environmental damage to be recovered from 8<sup>th</sup> respondent has to be assessed and if any excess mining has been done after the Hon'ble High Court had declared that the operation of the 8<sup>th</sup> Respondent quarry was illegal, then that also will have to be taken note of the committee for the purpose of fixing the environment compensation to be recovered for excess mining and the 7<sup>th</sup> Respondent was appointed as Nodal Agency.
2. The Director, Mining and Geology/7<sup>th</sup> Respondent has filed an interim inspection report dated 01.12.2020 and sought a further extension of 3 months' time to comply the order of this Hon'ble National Green Tribunal in the interest of justice.
3. The interim inspection report dated 01.12.2020 was filed before the Hon'ble Tribunal on 04.12.2020.

4. That further to obedience to the order dated 7.8.2020 of this Hon'ble Tribunal in the present application; the Joint committee report has been filed herewith as directed against the 8<sup>th</sup> Respondent.

On the foregoing circumstances stated above, it is most humbly prayed that this Hon'ble Tribunal may be pleased to consider final Joint committee report on record and pass suitable order and thus render justice.

Dated on this 15<sup>th</sup> day of June, 2021.



**E.K. KUMARESAN**  
STANDING COUNSEL FOR STATE OF KERALA  
NATIONAL GREEN TRIBUNAL (SZ)  
GOVERNMENT OF KERALA  
COUNSEL FOR RESPONDENTS 3,4,6 & 7

1

No.6916 /M2/2020

Directorate of Mining & Geology  
Kesavadasapuram, Pattom. P.O  
Thiruvananthapuram-4  
Tel/Fax: 0471-2556790  
E-mail:director.dir.dmg@Kerala.gov.in  
www.dmg.kerala.gov.in  
Date: 20.04.2021

From

Deputy Director I

To

The Registrar  
National Green Tribunal  
SZ-Chennai

Sir,

Sub:- Government of Kerala- Department of Mining & Geology – Order dated 7/8/2020 of the Honourable National Green Tribunal in OA – 142/2020(SZ) – joint inspection- action taken report- submission of-reg

- Ref:-
1. Order dated 7/8/2020 of Honourable NGT (SZ) in OA No. 142/2020
  2. This office letter of even number dated 8/10/2020 to NGT (SZ)
  3. This office letter of even number dated 01/12/2020 to NGT (SZ)
  4. Lr. No. A3-3240/19 dt.04.01.2021 from Tahsildar, Mallappally
  5. This office letter of even number dated 23/11/2020 to District Fire Officer, Fire & Rescue Services, Pathanamthitta

Kind attention is invited to the references cited above.I am submitting here with the final report of the joint committee constituted as per ref-I in OA No. 142/2020 for kind perusal. The report on environmental damage assessment is also submitted along with the joint report.

Encl:as above

Yours faithfully



Deputy Director I

**Final report submitted before the Honourable National Green Tribunal by the joint committee constituted as per order dated 7/8/2020 of the Honourable NGT (SZ) in OA No. 142/2020**

**Background**

I may inform that in obedience to the Order dated 7/8/2020 of the Honourable National Green Tribunal in OA 142/2020(SZ) filed by Shri. Renny Jacob George, a joint committee comprising of 1) The District Collector, Pathanamthitta District 2) Senior Officer/Scientist from State Environment Impact Assessment Authority (SEIAA) Kerala (3) The then Director, Directorate of Mining & Geology and 4) Senior Officer from Kerala State Pollution Control Board was constituted to inspect the area in question and submit a status as well as action taken report in respect of violation of mining lease and mining closure plan committed by the 8<sup>th</sup> respondent. The Honourable NGT has further directed that if any violation is found, the environmental damage to be recovered from 8<sup>th</sup> respondent has to be assessed and if any excess mining has been done after the Honourable High Court had declared that the operation of the 8<sup>th</sup> respondent quarry was illegal, then that also will have to be taken note of the committee for the purpose of fixing the environment compensation to be recovered from him apart from the royalty, if any, to be recovered from him for excess mining. The Director, Directorate of Mining & Geology was appointed as the Nodal agency for co-ordinating the same.

Accordingly a site inspection was conducted on 7/10/2020 after intimating all the committee members and the applicant vide letter dated 22/9/2020.(Copy attached as Annexure1). The officers nominated from State Environment Impact Assessment Authority (SEIAA), Kerala, and the Kerala State Pollution Control Board (KSPCB), and the applicant, Sri. Renny Jacob George could not attend the joint site inspection due to

unavoidable reasons. The District Collector was represented by the Tahsildar, Mallappally along with the Taluk Surveyor. The Tahsildar, Mallappally Taluk, entrusted the Taluk surveyor to assess the mined out area within and outside the permitted lease area.

At the time of site inspection on 7/10/2020, the Tahsildar, Mallappally informed that the survey team may require at least two weeks for submitting the survey sketch after completing the survey works. The Director of Mining & Geology deputed an Assistant Geologist from the Directorate, to assist the District Geologist, Pathanamthitta and the Taluk Surveyor in the assessment works done by the Survey team.

The Honourable NGT had ordered the Joint Committee to submit the report within 19/10/2020, but under the present situation of COVID-19 pandemic the Joint committee was unable to submit the report to the Honourable National Green Tribunal in the stipulated time, and a two months extension of time was sought vide this office letter no. 6916/M2/2020 dated 8/10/2020 to NGT (SZ). As there was delay in obtaining survey sketch from Tahsildar, Mallappally, this office sought a three months extension from the Honourable NGT vide this office letter no. 6916/M2/2020 dated 1/12/2020 to NGT (SZ). This office on 20.10.2020 requested District Collector, Pathanamthitta to issue strict instructions to Tahsildar, Mallappally to complete the survey and to submit the sketch and report within 30/10/2020 (Copy attached as Annexure 2). Since there was no response from the survey team, a DO letter was sent to the District Collector, Pathanamthitta (Shri. P.B. Nooh IAS) requesting him to look into the matter personally and do the needful. The copy of the said DO letter is attached as Annexure 3. Tahsildar Mallappally handed over the survey sketch of the area vide letter no. A3-3240/19 dated 04.01.2021 via post, which this office received only on 23.01.2021. Copy

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of Survey map produced by the survey team of Taluk Office, Mallappally countersigned by Tahsildar and Taluk Surveyor of Mallappally is enclosed as Annexure 4. Meanwhile vide letter no. 6916/M2/2020 dated 23/11/2020 to District Fire Officer, Fire & Rescue Services, Pathanamthitta, this office had requested the help of Fire & Rescue Services to determine the depth of two water-filled pits in the averred quarry. On 13.01.2021, a joint site inspection comprising of Geologist, Pathanamthitta, a Geologist from Directorate of Mining and Geology and officers from Fire & Rescue Services, Pathanamthitta was conducted to determine the depth of the water column in the quarry pits. A copy of the site Mahazzar of the said inspection is attached as Annexure 5.

As survey works and depth measurement in the quarry was completed, it was decided to convene another joint site inspection of the averred quarry on 23.01.2021. All committee members, quarry owner and the applicant were intimated about the site inspection (Copy of the letter is attached as Annexure 6). Accordingly a joint site inspection of all committee members in the presence of the quarry owner and applicant was carried out on 23.01.2021. The copy of the site Mahazzar prepared during the joint inspection is attached as Annexure 7. During the joint inspection, SEIAA and KSPCB members were entrusted with the estimation of environmental damage, if any, and submit report on the cost of environmental degradation which occurred due to quarrying.

#### **Description of the quarry site**

Shri. Naveen Mathew Philip, Thekkenedumplakkal, Mallappally West was granted quarrying permits and two quarrying leases for Granite Building stone from the District Office of Mining and Geology, Pathanamthitta. Quarrying operations were conducted in the area of both the leases from 2006-07 till 2015-16 financial year, based on RMCU registration granted to the crusher unit situated in the same premises. On

perusal of the office records of the District Office of Mining and Geology, Pathanamthitta, it is seen that no mining plan and no mine closure plan was approved for the two leases and no environmental clearance was obtained for the same.

On preliminary examination itself it was obvious that the quarry was subjected to over extraction of Granite Building Stone from inside the lease area and illegal extraction of Granite Building Stone from outside the lease area. Two quarry pits were seen in the averred area, the first pit being mostly covered with water and the second pit fully covered with water. The first pit fall in survey nos, 325/1,2,3, 326/2, 327/1(2.0320 Ha), 305/10,11,12, 325/1,2,3, 306/5, 326/2,5, 327/1(1.6210 Ha), 305/12, 306/5, 325/3, 326/5(0.3740 Ha) totaling to an area of 4.027 Ha and the second pit fall in survey nos. 327/1, 328/6, 329/9,10 totaling to an area of 1.0160 Ha. In addition to this the area was subjected to extraction of ordinary earth which was transported outside the averred quarry. A crusher is also situated in the quarry premises. On top of the quarry a worship place of the local tribes can be seen. Area is hilly with exposed rocks and vegetation is meagre. The area has rich deposits of Granite Building Stone.

#### **Methodology**

Three inspections were conducted by the then Director of Mining and Geology along with the committee members. An Assistant Geologist from the Directorate of Mining and Geology, Thiruvananthapuram, was posted in the quarry site to support Geologist, Pathanamthitta and the survey team. Besides this the Director of Mining and Geology conducted two site visits to coordinate the survey works and during these visits necessary instructions were given to Geologist, Pathanamthitta regarding the assessment of the averred quarry. Photographs of the quarry site are attached with the report.

For estimation of the excavated quantity of granite Building Stone from the averred area, total station survey was conducted by the survey team in Taluk office, Mallappally, Pathanamthitta. Through this survey the quantity of Granite Building Stone extracted above the water table from the averred area was determined. Depth of the two water logged pits was determined by averaging the cross sectional depths of the respective pits. SEIAA and KSPCB members were entrusted with the estimation of environmental damage, if any, and submit report on the cost of environmental degradation which occurred due to quarrying.

On 30.01.2021 the quarry owner, Shri. Naveen Mathew Philip was intimated to submit details of all documents/records like previous permits/leases/movement permits/transit passes/demand notices issued to him and details of the amount already compounded by him, if any, in the averred area within 10 days, to prove the quantity of Granite Building Stone he has legally extracted from the area. (Copy of the letter is attached as Annexure 8). But the quarry owner has not responded or submitted any substantial document so far.

The Director of Mining and Geology & Nodal agency for co-ordination of the joint committee had submitted an interim report before the Honourable National Green Tribunal on 1.02.2021 delineating the progress made by the joint committee in evaluating the extent of illegal mining that had taken place in the lease area of the 8<sup>th</sup> respondent.

**Assessment of penalty for illegal extraction of minor minerals**  
(Based on rule 108(1) & (2) of Kerala Minor Mineral Concession Rules, 2015)

Volume of the extracted quantity of Granite Building Stone in the quarry derived by the survey team is given below:

Pit No.1

Excavated quantity from lease area above the water table  
seen as water logged } = 345440 m<sup>3</sup>=863600 MT  
(Specific Gravity of rock=2.5 tonnes per cubic meter)

Excavated quantity from lease area below the water table  
seen as water logged } = 262534 m<sup>3</sup>=656335 MT  
(Average depth below water table=12.92 m)

Excavated quantity from lease area excluding water  
logged area } = 275570 m<sup>3</sup>=688925 MT

Excavated quantity from outside lease area = 44880 m<sup>3</sup> = 112200 MT

Total quantity excavated from Pit No.1 in metric tons = 23,21,060 MT

Pit No.2

Excavated quantity from lease area above the water table  
seen as water logged } = 81280 m<sup>3</sup>=203200 MT

Excavated quantity from lease area below the water table  
seen as water logged } = 202184 m<sup>3</sup> = 505460 MT  
(Average depth below water table=19.9 m)

Total quantity excavated from Pit No.2 in metric tons = 7,08,660 MT

Total quantity excavated from Pit No. 1 & 2 in metric tons = 30,29,720 MT

As per records available in District Office, Pathanamthitta, from the year 2004-05 to 2015-2016 the quarry owner was issued transit passes to transport 11,72,266 Metric Tons of Granite Building Stone (GBS).

Thus,  
 Quantity of GBS legally extracted from the lease area = 1172266 MT  
 Quantity of GBS illegally extracted from within and outside the permitted lease area } = 1857454 MT  
 (3029720-1172266)

Penalty for illegal extraction of 1857454 MT of GBS (Royalty+ price+ compounding fee) } = Rs.13,42,36,688/-  
*(Rupees Thirteen Crore forty two lakh thirty six thousand six hundred and eighty eight only)*

In addition to this the survey conducted by the survey team of Taluk Office, Mallappally, has revealed that a total quantity of 10175 m<sup>3</sup> (20350 MT) of ordinary earth was excavated from survey nos. 305/7, 305/9, 326/2,3,4 and transported outside the quarry site.

Penalty for illegal extraction of 20350 MT of Ordinary Earth } = Rs. 12,21,000/-  
*(Rupees twelve lakh twenty one thousand only)*

The Geologist, District Office, Pathanamthitta shall be instructed to serve the 8<sup>th</sup> respondent with notice demanding payment of the above mentioned penalty for illegal mining of Granite Building stone and Ordinary Earth done covertly by misusing the mineral concessions granted to the 8<sup>th</sup> respondent.

**Estimation of Environmental Damage**

Members of the joint committee from SEIAA and KSPCB submitted the report on environmental damage assessment on 31.03.2021. Copy of the consolidated report is attached along with the joint report as Annexure 9. The total interim environmental damage assessed for illegal mining activity by the 8<sup>th</sup> respondent in OA 142/2020 is Rs. 158,99,95,103/-. Expenses with respect to long term restoration/rehabilitation plan can be made only after the preparation of an effective Environment Management Plan as per the EIA guidelines.

### Total Interim Environmental Damages Assessed

I.A	<b>Total cost of land lost due to illegal mining activities Rs</b>	Rs 10,086,000/-
I.B	<b>Land plot damage</b> Total damages on agricultural loss (Rs) for the period of 8yrs	Rs 218,317,520/-
I.C	<b>Total ecologic-economic assessment of water funds (Rs.).</b>	Rs 3,433,920/-
I.D	<b>Interim Damage assessed for illegal mining</b>	Rs1,358,157,663/-
	<b>Total Interim Environmental damage assessed</b>	Rs 1,589,995,103/-

### Suggestions of the committee

1. Illegal extraction of minor minerals from the averred sited has taken place without regard to existing rules and regulations thereby causing loss to exchequer.
2. Such large scale illegal mining activity happens due to lack of continuous monitoring of each quarry site. The Department of Mining and Geology has a single office in each district headed by one Geologist and supported by one/two Assistant Geologist. Heavy work load and insufficient staff prevent the district offices from conducting regular periodical checking of each quarry site. Strengthening of the Department of Mining and Geology by establishing a District Mineral Squad for each district shall curb illegal mining to a large extent. In addition to this local self-government offices should also be given responsibility to report rampant illegal mining activity to the authorities concerned.
3. Damage caused to environment through such unscrupulous mining activity is likely to be a permanent irreparable damage. Hence steps to prevent illegal mining are to be executed rather than looking into new measures of reclamation and restoration. Preventing unregulated mining can help ensure that all mining is bound by the same environmental standards.

- 4. The reclamation of the total damaged area of 5.0430 hectares by filling the pits with ordinary earth is not feasible. Hence water in the pits may be used for domestic/irrigation purposes of the locality.
- 5. A comprehensive Environment Management Plan is required to be made in this case for effective and long-term restoration of the affected site.

1. District Collector, Pathanamthitta  
(Represented by the Tahsildar, Mallappally)



**TAHSILDAR  
MALLAPPALLY**

2. Senior Officer/Scientist, SEIAA

3. Deputy Director I,  
for Director of Mining and Geology,  
Thiruvananthapuram

4. Environmental Engineer,  
Pollution Control Board,  
Pathanamthitta

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5. A comprehensive Environment Management Plan is required to be made in this case for effective and long-term restoration of the affected site.

1. District Collector, Pathanamthitta  
(Represented by the Tahsildar, Mallappally)
2. Senior Officer/Scientist, SEIAAA 
3. Deputy Director I,  
for Director of Mining and Geology,  
Thiruvananthapuram
4. Environmental Engineer,  
Pollution Control Board,  
Pathanamthitta

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(Represented by the Tahsildar, Mallappally)
  2. Senior Officer/Scientist, SEIAA
  3. Deputy Director I,  
for Director of Mining and Geology,  
Thiruvananthapuram
  4. Environmental Engineer,  
Pollution Control Board,  
Pathanamthitta

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5. A comprehensive Environment Management Plan is required to be made in this case for effective and long-term restoration of the affected site.

1. District Collector, Pathanamthitta  
(Represented by the Tahsildar, Mallappally)

2. Senior Officer/Scientist, SEIAA

3. Deputy Director I,  
for Director of Mining and Geology,  
Thiruvananthapuram

4. Environmental Engineer,  
Pollution Control Board,  
Pathanamthitta



( V. SUCHITRA )

14

ANNEXURE 1

No.6916/M2/2020

Directorate of Mining and Geology,  
Kesavadasapuram, Pattom Palace P.O.,  
Thiruvananthapuram - 695004.  
Tel./Fax : 0471-2447429.  
e-mail : [director.dir.dmg@kerala.gov.in](mailto:director.dir.dmg@kerala.gov.in)  
[www.dmg.kerala.gov.in](http://www.dmg.kerala.gov.in)

Dated : 24.9.2020

From

The Director of Mining and Geology

To

1. The District Collector,  
Pathanamthitta
2. Dr. Jayachandran. K,  
SEIAA Member,  
Thiruvananthapuram
3. Smt. Suchithra. V,  
Environmental Engineer,  
KSPCB District Office, Pathanamthitta

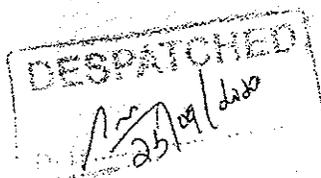
Sir,

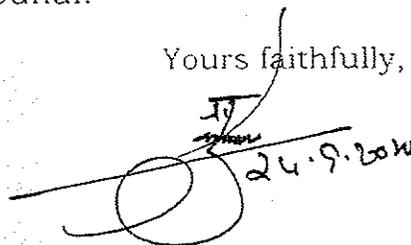
Sub: OA No. 142/2020 filed by Renny Jacob George - site inspection - intimation - reg

- Ref:
1. This office letter of even number dated 11.9.2020
  2. Order No.1872/A1/2020/SEIAA dated 16.9.2020 of SEIAA, Kerala
  3. Letter No. PCB/HO/EE4/OA No.142/2020 (SZ) dated 15.9.2020 of KSPCB, Thiruvananthapuram
  4. Order dated 7.8.2020 of the Hon'ble NGT

Kind attention is invited to the references cited above. In this context, I would like to inform that the joint committee is planning to inspect the area on **07.10.2020 at 11 am**. You are therefore requested to be present at the averred quarry site of Shri. Naveen Philip Mathew, Anicadu Village, Mallappally Taluk for carrying out the inspection as directed by Hon'ble National Green Tribunal.

Yours faithfully,



  
24.9.2020

Director of Mining and Geology (i/c)

Copy to :

1. The Chairman,  
Kerala State Pollution Control Board,

For kind information

2. The Administrator,  
SEIAA Kerala,  
KSRTC Terminal Complex,  
Thampanoor,  
Thiruvananthapuram

For kind information

3. The Geologist,  
District Office,  
Pathanamthitta

(You are hereby instructed to contact the concerned Village Officer, Taluk surveyor for their assistance in the joint site inspection and also instructed to prepare a report on details of mineral concessions and details of the said quarry and also instructed to accompany the joint committee

4. Shri. Renny Jacob,  
Ottumanni house,  
Nooromman P.O.,  
Anicad,  
Pathanamthitta 689589

You are hereby instructed to be present at the site with the necessary document

5. Shri. Naveen Mathew Philip,  
Thekkenedumpackal,  
Mallappally West,  
Pathanamthitta 689 501

ending

## ANNEXURE 2

No.6916/M2/2020

Directorate of Mining & Geology  
Kesavadasapuram, Pattom Palace.P.O.  
Thiruvananthapuram - 4.  
Tel/Fax : 0471-2447429  
e-mail : director.dir.dmg@kerala.gov.in  
www.dmg.kerala.gov.in

Date: 20/10/2020

From

The Director of Mining & Geology (i/c)  
Government of Kerala

To

The District Collector  
Pathanamthitta

Sir,

Sub:- Government of Kerala- Department of Mining and Geology-  
Order dt.07/08/2020 of the Hon'ble National Green Tribunal in OA-  
142/2020(SZ)- -reg:

Ref:- 1) This office letters of even number dt. 11/09/2020 and 22/09/2020

2) This letter of even number dt.08/10/2020 to NGT, Chennai (SZ)

Kindly see the above cited references Vide Order dt.07/08/2020 of the Hon'ble National Green Tribunal in OA-142/2020(SZ) filed by Sri. Renny Jacob George, a joint committee comprising of 1) The District Collector, Pathanamthitta District, 2) Senior Officer/Scientist from State Environment Impact Assessment Authority (SEIAA) Kerala, 3)The Director, Directorate of Mining & Geology, and 4) Senior officer from Kerala State Pollution Control Board was constituted to inspect the area in question and submit a status as well as action taken report in respect of violation of mining lease and mining closure plan committed by the 8<sup>th</sup> respondent and if there is any violation found, to assess the environmental damage to be recovered from him and if any excess mining has been done after the Hon'ble High Court had declared that the operation of the 8<sup>th</sup> respondent was illegal, then that also will have to be taken note of by the committee for the purpose of fixing the environmental compensation to be recovered from him apart from the royalty, if any, to be recovered from him for excess mining. The Director, Directorate of Mining & Geology was appointed as the nodal agency for co-coordinating the same. This was intimated to you vide letter dt.11/9/2020 as cited in reference (1).

Accordingly a site inspection was fixed on 07/10/2020 after intimating all the committee members vide letter dt.22/09/2020 (ref 1). The officer nominated from State Environment Impact Assessment Authority (SEIAA), Kerala, could not attend the inspection due to non- availability

of transportation and the nominated member from the Kerala State Pollution Control Board was under quarantine due to COVID-19. Though he was already intimated, the applicant, Sri. Renny Jacob George did not attend the joint site inspection. The District Collector, Pathanamthitta was represented by the Tahsildar, Mallappally along with the Taluk Surveyor. The Tahsildar, Mallappally entrusted the Taluk Surveyor, Mallappally Taluk, to assess the area mined for Granite Building Stone and Ordinary earth, which comes under the lease areas and also the area that was mined outside the lease area, if any. The Hon'ble NGT had ordered the joint committee to submit the report within 19/10/2020. Since, under the present situation the joint committee is unable to submit the report to NGT in the stipulated time, a two months extension was sought to NGT vide ref 2 (copy enclosed).

At the time of site inspection on 7/10/2020, the Tahsildar, Mallappally said that the survey team may require at least two weeks for completing the survey works including the sketch. The Director of Mining & Geology deputed an Assistant Geologist from the Directorate to assist the District Geologist, Pathanamthitta and the Taluk Surveyor in the assessment works done by the Survey Team. But it has come to the notice of this office that survey works in the averred area has not yet been initiated by the Tahsildar, Mallappally and his survey team. Only on completion of the survey works can the Joint Committee comprising of all the members make another site inspection and submit report to NGT. If the report is not submitted in time, it may invite contempt of the order of NGT. Hence it is requested to give strict instructions to Tahsildar, Mallappally to complete the survey and submit the sketch and report within 30/10/2020.

Enclosure-Letter to NGT

Yours faithfully

  
Jale

The Director of Mining & Geology (i/c)

DESPATCHED  
Jale  
20/10/2020

ANNEXURE 3



Department of Mining and Geology  
Government of Kerala  
Keezhaadappuram  
Pattom Palode P. O.  
Thiruvananthapuram-695 004

Phone { Office : 0471-2447429  
          Fax : 0471-2447429  
          Mobile : 9447047429

Website : [www.dmg.kerala.gov.in](http://www.dmg.kerala.gov.in)  
E-mail : [director.dmg@kerala.gov.in](mailto:director.dmg@kerala.gov.in)

Date: 29.12.2020

No. 6916 /M2 /2020

Dear Mr.P.B Nooh, <sup>IAS.</sup> District Collector, Pathanamthitta

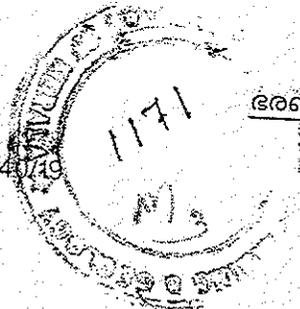
As you are aware the Hon'ble National Green Tribunal, SZ Chennai, in the order dated 7-8-2020 in the matter of OA 142/2020 has directed to constitute a joint committee comprising of the undersigned as nodal agency along with your goodself and senior officials from Kerala State Pollution Control Board and State Environment Impact Assessment Authority for submitting a status report in respect of the quarry of Sri Naveen Mathew Philip, Thekkenedumpackal House, Mallappally West, Pathanamthitta in the property comprised in Block 31 Survey no.326/2 etc. of Anicadu Village of Mallappally Taluk of Pathanamthitta District. In order to comply with the order of Hon'ble NGT, I had sent communications on 11/9/2020, 22/9/2020 and 20/10/2020 but survey formalities are yet to be finalized. I am concerned that any delay in finalizing the survey may lead to initiation of contempt of court proceedings against the officials in the joint committee. I request you to personally look into the matter and do the needful at the earliest.

Yours sincerely,  
*[Signature]*  
29/12/20

Director of Mining and Geology (i/c)

DESPATCHED  
760  
Date: 30/12/2020

23/1/2021 ANNEXURE 4



ഭരണഭാഷ - മാതൃഭാഷ

നം. എ 3- 3240/19

താലൂക്ക് ഓഫീസ്, മല്ലപ്പള്ളി,  
ഫാക്സ് നം/ഫോൺ നം. 0469 - 2682293  
Email - [tahsildarmallappally@gmail.com](mailto:tahsildarmallappally@gmail.com)  
തീയതി : 04/01/2021

തഹസീൽദാർ,  
മല്ലപ്പള്ളി.

ഡയറക്ടർ,  
മൈനിംഗ് & ജിയാളജി,  
കേശവദാസപുരം,  
പട്ടം പാലസ് പി.ഒ,  
തിരുവനന്തപുരം.

23/01/2021

സർ,

വിഷയം :- മല്ലപ്പള്ളി താലൂക്കിൽ ആനിക്കാട് വീല്ലേജിൽ പുളിക്കാമല ഫിലിപ്പ് ഗ്രാനോ പ്രൊഡക്ടേഴ്സിന്റെ കാനിയിൽ നിന്നും ഖനനം ചെയ്തിട്ടുള്ള പാറയുടേയും, പച്ചമണ്ണിന്റെയും അളവ് തിട്ടപ്പെടുത്തി സ്പെച്ച് സമർപ്പിക്കുന്നത് - സംബന്ധിച്ച്.

- സൂചന :- (1) ബഹു. ജിയാളജി ഡയറക്ടറുടെ 07/10/2020-ലെ സംയുക്ത സ്ഥല പരിശോധനയിലെ തീരുമാനം..
- (2) താലൂക്ക് സർവ്വേയർ തയ്യാറാക്കിയ സ്പെച്ച്.

\*\*\*\*\*

സൂചനയിലേക്ക് അങ്ങയുടെ ശ്രദ്ധ ക്ഷണിച്ചുകൊള്ളുന്നു. സൂചന (1) പ്രകാരമുള്ള തീരുമാന പ്രകാരം താലൂക്ക് സർവ്വേയർ പരിശോധന നടത്തി തയ്യാറാക്കിയ സ്പെച്ച് സാക്ഷ്യപ്പെടുത്തി ഇതോടൊപ്പം ഉള്ളടക്കം ചെയ്യുന്നു.

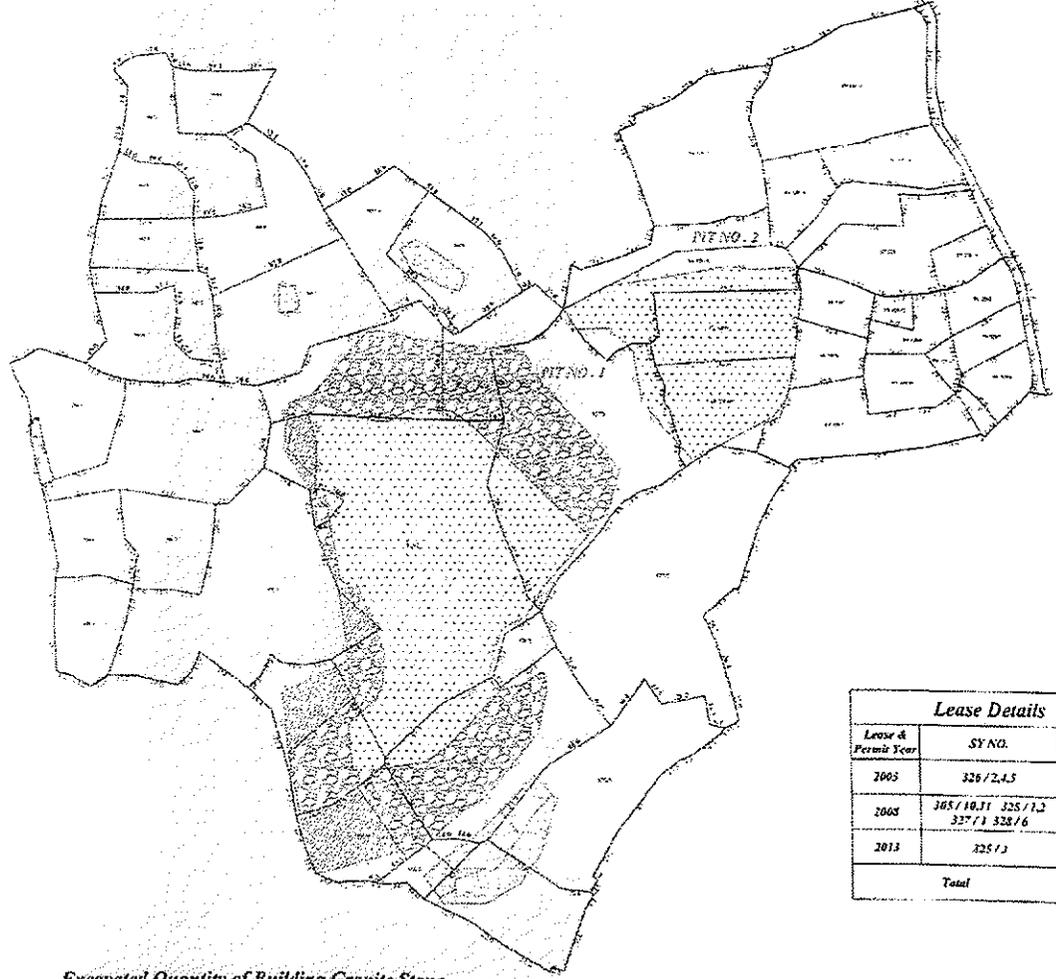
വിശ്വസ്തയോടെ,  
  
തഹസീൽദാർ

District : Pathanamthitta  
 Taluk : Mallappally  
 Village : Anicadu  
 Block No : 31

**Details of Excavated Granite Building Stone Quantity from the Quarry of Sri.Naveen Mathew Philip at Anicadu Village as on November 2020**



- LEGEND**
- Lease Area (2005,2008) and Permit Area (2013) - 6.4398 Ha
  - Excavated Area seen Water Logged in Lease Area (Pit 1 & 2) - 3.0480 Ha
  - Balance Excavated Area from Lease Area excluding Water Logged Area - 1.6210 Ha
  - Excess Area Excavated from outside of Lease Area - 0.3740 Ha
  - Total Excavated Area of Granite Building Stone from Quarry - 5.0430 Ha
  - Excavated Area of Ordinary Earth - 0.3570 Ha



**Lease Details**

Lease & Permit Year	SY NO.	AREA
2005	326/2,4,5	1,0183 Ha
2008	365/10,31 325/1,2 327/1 328/6	5,1962 Ha
2013	325/3	0,2255 Ha
<b>Total</b>		<b>6,4398 Ha</b>

**Excavated Quantity of Building Granite Stone**

PIT NO. 1				
DESCRIPTION	SY NO.	AREA	AVERAGE HEIGHT (approx)	Volume (approx)
Excavated Quantity from Lease Area seen as Water Logged	3330,2,3 3262 3270	2,0320 Ha	17 m	34540 Cu.M
Excavated Quantity from Lease Area excluding Water logged Area	145-10,11,12 3251,2,4 146,5 3262,3 3270	1,6210 Ha	17 m	27850 Cu.M
Excavated Quantity from Outside Lease Area	145/11, 306/5 115/1, 326/7	0,3740 Ha	12 m	4488 Cu.M
PIT NO. 2				
Excavated Quantity from Lease Area seen as Water Logged	157/1, 326/4 326/5,11	1,0160 Ha	8 m	81280 Cu.M

**Excavated Quantity of Ordinary Earth**

SY NO.	AREA	AVERAGE HEIGHT (approx)	Volume (approx)
305/7	0,0170 Ha	1,5 m	255 Cu.M
305/9	0,0360 Ha	2,5 m	1400 Cu.M
326/2,3,4	0,2840 Ha	3 m	8520 Cu.M
<b>Total</b>	<b>0,3570 Ha</b>		<b>10175 Cu.M</b>

Scale 1 Cm = 20 M

*(Signature)*  
 TASHLADAR  
 MALLAPPALLY

*(Signature)*  
 TALK SURVEYOR  
 MALLAPPALLY

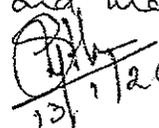
## ANNEXURE 5

SITE MAHAZAR

This site inspection, mahazar is prepared by Sreejith S, Geologist, Pathanamthitta, Department of Mining & Geology as per the direction of the Director of Mining & Geology (i/c) and nodal agency for coordinating the Joint Committee constituted as per order dated 7/8/2020 of the Hon'ble National Green Tribunal, Chennai in OA.No. 142/2020 (SZ) on 13/01/2021 at 12.15 pm at Pulikkamala, Neosamavu P.O., Anakkad, Mallappally, Pathanamthitta, Kerala. This inspection was made in order to ascertain the depth of water logged position of the quarry (Two quarry pits). At the time of inspection, Mallappally taluk Surveyor, Sri Sujith R.S, Smt Gita S.R, Geologist, Directorate of Mining & Geology, representing the Director of Mining & Geology, Sri. P. B. Venkuttan, Station Officer, Fair Resue Station, Thiruvalla and Sri Navin Mathew Philip, Quarry and Crusher owner of Philippine Goano Products were present. The depth of the first pit area having an area of 2.0320 Ha was taken at five points and the depths taken

## ANNEXURE 5

were 4.4m, 13.10m, 15.30m, 15.90m and 15.90m, averaging to 12.92m. After the completion of the measurement of the first pit the Quarry owner, Sri Sri Navan Mathew Philip left the site saying he is unwilling to sign the mahozar. The depth of the second pit having an area of 1.0160H was taken at two different points and the depths were 17.9m and 21.9m averaging to 19.9m. The mahozar was completed at 2.15 pm. Depth measurements in this mahozar were taken using air filled rescue boat of Kerala Fire and Rescue station Thiruvalla using a rope tied to a weight and measuring tape.

  
13/1/2021  
Sreejit S.  
Geologist

Witness.

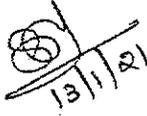
- 1) Sri P.B. Venukuttan  
Station Officer  
Fire & Rescue Station  
Thiruvalla.
- 2) Gita S.R.  
Geologist  
Directorate of Mining & Geology  
Thiruvananthapuram.

  
13/01/2021

  
13/1/2021

## ANNEXURE 5

Attendance of the site inspection  
 Conducted on 13/01/2021 based on  
 the order of the Hon'ble National  
 Green Tribunal, Chennai (Order dated  
 7/8/2020 in OA No. 142/2020).

- ① Sreejith S.  
 Geologist, Palanamthitta  
 Dept of Mines & Geology.   
 13/1/21
- ② Gite S.R.  
 Geologist  
 Directorate of Mines & Geology   
 13/1/21
- ③ Sri Sujith R.S.  
 Taluk Surveyor  
 Malappally Taluk.   
 13/1/2021
- ④ P. B Venukuttan  
 Station Officer,  
 Fire and Rescue Station  
 Haruvalla.   
 13/01/2021

No. 6916/M2/2020

SIGNED 10/1

## ANNEXURE 6

Directorate of Mining & Geology  
 Kesavadasapuram, Pattom Palace P.O  
 Thiruvananthapuram-4  
 Tel/Fax: 0471-2447429  
 e.mail:director.dir.dmg@kerala.gov.in  
 www.dmg.kerala.gov.in  
 Dated: 16/01/2021

The Director of Mining &amp; Geology.

- 1) District Collector,  
Pathanamthitta.
- 2) Dr. Jayachandran,  
SKIAA Member, SEIAA Kerala, KSRTC Terminal Complex,  
Thampanoor, Thiruvananthapuram.
- 3) Smt. Suchithra.V,  
Environmental Engineer,  
Kerala State Pollution Control Board,  
District Office, Pathanamthitta.

Sir,

Sub:- O.A. No. 142/2020 filed by Renny Jacob George - site inspection  
intimation - reg.

- Ref:- 1) Order dated 07/08/2020 of Hon'ble NGT.  
2) This office letter of even dated 24/09/2020.

Kind attention is invited to the reference cited above. The joint committee is planning to inspect the area on 23/01/2021 at 11.30 am . You are therefore requested to be present at the quarry site of Shri. Naveen Mathew Philp, at Anicaudu Village Mallappally Taluk for carrying out the inspection as directed by Honorable NGT.

Yours faithfully,

*[Signature]*  
16.1.2021  
Director of Mining & Geology (i/c)

Copy to:-

1. The Chairman,  
Kerala State Pollution Control Board,  
Pattom, Trivandrum - 4.
2. The Administrator,  
SEIAA Kerala  
KSRTC Terminal Complex,  
Thampanoor, Thiruvananthapuram.
3. The Geologist,  
District Office,  
Pathanamthitta.
4. Shri. Renny Jacob,  
Ovvumannil (House),  
Noorumavu.P.O,  
Anicadu, Pathanamthitta - 689 589.
5. Shri. Naveen Mathew Philip,  
Thekkenedumplackkal,  
Mallappally W, Pathanamthitta -689 501.

cs. 16/01/2021 c3

*[Signature]*

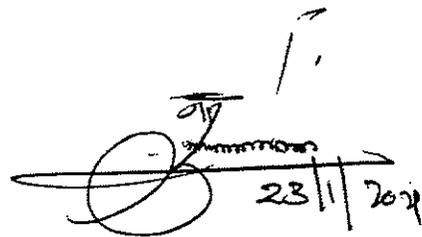
16/1/2021

## ANNEXURE 7

SITE MAHAZAR

This site mahazar is prepared by Dr. C. K. Bajju, Director (i/c), Mining & Geology and Nodal Agency for coordinating the Joint Committee constituted as per order dated 7/8/2020 of the Hon'ble National Green Tribunal, Chennai in OA No. 142/2020 (SZ) on 23/1/2021 at 11.30 am Pulikkandam Noosamaav P.O., Anikkad, Mallappally, Pathanamthitta, Kerala. This site mahazar is prepared consequent to site inspections already held on 7/10/2020 and 13/01/2021. At the time of site inspection, Tahsildar Mallappally representing the District Collector, Pathanamthitta, nominated member from SEIAA, Dr. Jayachandran, the nominated member from Kerala State Pollution Control Board, District Office, Pathanamthitta, Smt. Suchikā V., District Geologist, Mining & Geology, Pathanamthitta, Smt. Gita SR, Geologist, Directorate of Mining & Geology, Thiruvananthapuram, Quarry owner Sri Naveen Mathew Philip represented by Sri Aswin Abraham Mathew and the applicant Sri Remy Jacob George were present. The Director, Mining & Geology who is the also the Nodal agency explained to the Joint Committee members regarding the

Inspection works so far carried out. It was explained to the Committee members that the assessment of our extraction of Granite Building Stone was completed and report regarding the arrears in royalty will be finalised soon. The SEIAA member and the KPCB officers were asked to submit report on the cost of environmental degradation occurred due to quarrying within one week. The mahagan was concluded on 23/1/2021 at 12.10 pm.

  
23/1/2021

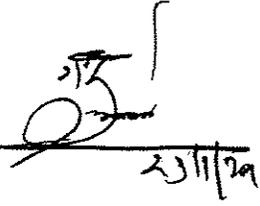
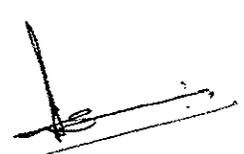
Dr. C. K. Baiju  
Director (i/c)  
Mining & Geology

Witnesses

1. Dr. Jayachandran  
SKIAB Member, SEIAA, Kerala  
KSRTC Jesuraj Complex  
Thamparoor, Thuvananthapuram.
2. Smt. Suchita V.  
Environmental Engineer  
Kerala State Pollution Control Board  
District Office, Pathanamthitta



Attendance of the site inspection conducted on 23/01/2021 based upon the order of the Honorable National Green Tribunal, Chennai, order dated 7/8/2020 on OA No. 142/2020.

1. Dr. C. K. Baiju  
Director of Mining & Geology (I/c)  
Thiruvananthapuram.  23/1/21
2. District Collector represented by  
Tahsildar, Mallappally.  
(Sri John Varghese) 
3. Smt. Suchitza V.  
Environmental Engineer,  
Kerala State Pollution Control Board  
District Office, Pattanamatta. 
4. Dr. Jayachandran  
SKIAA Member, SEIAP, Kerala,  
KSRTC Terminal Complex,  
Thamparoor, Thiruvananthapuram.  23/01/21
5. Sri Naveen Mathew Philip,  
Philip's Spare Products represented  
by. Sri Aswin Abraham Mathew 

6. Renny Jacob George  
Ovumand House  
Noosamaavu P.O.  
Anicad, Patheramuttu

Per  
G

## ANNEXURE 8

No. 6916/M2/2020

Directorate of Mining & Geology  
Kesavadasapuram, Pattom. P.O  
Thiruvananthapuram-4  
Tel/Fax: 0471-2556790  
E-mail:director.dir.dmg@kerala.gov.in  
www.dmg.kerala.gov.in  
Date: 30.01.2021

Director of Mining &amp; Geology

Shri. Naveen Mathew Philip  
Thekkenedumplackkal  
Mallappally W, Pathanamthitta-689501  
e-mail: naveen.peege@gmail.com

Sir,

Sub:- Mines & Minerals- Department of Mining & Geology - Order dated 7/8/2020 of the Hon'ble National Green Tribunal in OA - 142/2020(SZ) -joint inspection- action taken report- relevant records sought-reg

Ref:- 1. Order dated 7/8/2020 of Hon'ble NGT (SZ) in OA No. 142/2020  
2. Site inspections conducted on 07.10.2020, 13.01.2021 and 23.01.2021  
by the joint committee

Kind attention is invited to the references cited above. You are aware that, in obedience to the Order dated 7/8/2020 of the Hon'ble National Green Tribunal in OA 142/2020(SZ) filed by Sri. Renny Jacob George, a joint committee comprising of 1) The District Collector, Pathanamthitta District 2) Senior Officer/Scientist from State Environment Impact Assessment Authority (SEIAA) Kerala (3) The Director, Directorate of Mining & Geology and 4) Senior Officer from Kerala State Pollution Control Board was constituted to inspect the area in question and submit a status as well as action taken report in respect of violation of mining lease and mining closure plan committed by the 8<sup>th</sup> respondent, Shri. Naveen Mathew Philip. Three inspections were conducted by the Director of

Mining and Geology in the averred quarry site along with the committee members. The total quantity of Granite Building Stone excavated from, the lease/permit area allotted to you and area outside the lease/permit area has been computed. Details of all documents/records like previous permits/leases/movement permits/transit passes/demand notices issued to you and details of the amount already compounded by you, if any, in the averred area may be submitted **within 10 days from today**, to prove the quantity of Granite Building Stone you have legally extracted from the area. In case of non-submission of relevant records within the stipulated time limit, the committee shall go ahead with the submission of final report before the Honourable National Green Tribunal based on the data available with the committee.

Yours faithfully

*[Signature]*  
30/1/2021  
Director of Mining & Geology (i/c) *[Signature]*

*[Signature]*  
30/1/2021

31





POCO  
SHOT ON POCO F1



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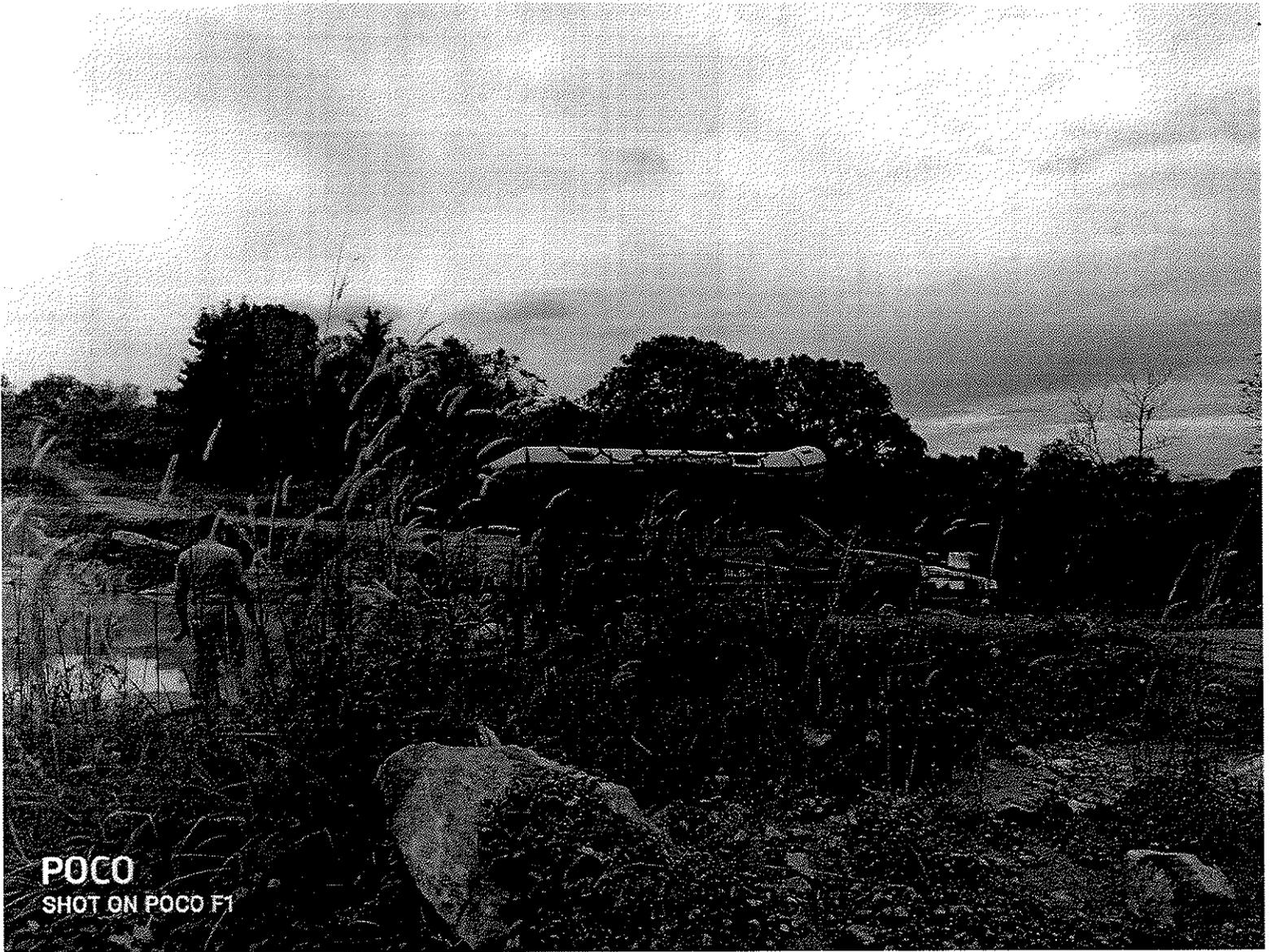
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37



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PHOTO SHOT ON POCO F1

Annexure -9**ENVIRONMENTAL DAMAGE ASSESSMENT AS PER 142/20 NGT****1. Background of the Damaging Activity**

The issue for consideration in O.A. 142/2020 is the violation of mining lease and mining closure plan committed by the 8th respondent in Anicad Village, Mallappilly Taluk, Pathanamthitta. The honorable NGT has directed to constitute a joint committee to ascertain the present status and environmental damages due to quarrying conducted by 8<sup>th</sup> respondent. It was also directed to assess the environmental damage to be recovered from the 8<sup>th</sup> respondent in case of violations.

Accordingly Joint committee was constituted with Dr. Baiju K., Director of Mining and Geology as nodal officer, the District Collector, Pathanamthitta, Dr. Jayachandran K., SEIAA member and Suchitra V., Environmental Engineer as members.

The 8th respondent was conducting 2 granite quarries in Anicad Village, Mallappilly Taluk, Pathanamthitta and the Consent to Operate was issued from the Kerala State Pollution Control Board for the two quarries as detailed below

Name	Sy. Nos.	Area in hectares	Consent to Operate issued		
			Consent No.	Date	Validity
Quarry 1	328/6, 329/9, 329/10, 327/1, 325/1, 325/2, 305/10, 305/11	5.1962	QCO/PTA/24/2008	12.06.2008	30.04.2011
			QCO/PTA/24/R1/2013	29.05.2013	30.04.2014
			QCO/PTA/24/R2/2014	11.11.2014	30.04.2017
Quarry 2	326/2, 326/4, 326/5.	1.0183	QCO/PTA/148/2013	29.05.2013	30.06.2015
			QCO/PTA/148/R1/2014	01.17.2015	30.06.2018

Copy of the Consents to Operate issued are enclosed herewith as Annexure (1) and (2) respectively.

Quarrying operation came under the purview of the Board in 2006. At that time Consent was issued to Quarries meeting distance criteria under Water Act and Air Act only. As per the then siting criteria, there shall not be any residential buildings, public roads, public buildings, rivers, bridges etc within 100 m distance from the boundary of the quarrying area and the entrepreneur shall have mining lease / permit from the Mining & Geology Department. The unit was surrounded by plantations on all sides and there were no residential buildings within 100 m of the quarry boundary. Consent was issued based on letter of indent, Lease/permit issued from Mining & Geology. The 8<sup>th</sup> respondent possessed valid lease from the Mining & Geology Department. Later based on various Hon'ble NGT & Hon'ble

High Court Orders, Board insisted Environmental Clearance for considering issuance of Consent from the Board for all quarrying activities. True copy of the Board's circular dated 09.09.2015 insisting Environmental Clearance for all quarrying activities is enclosed herewith and marked as Annexure (3).

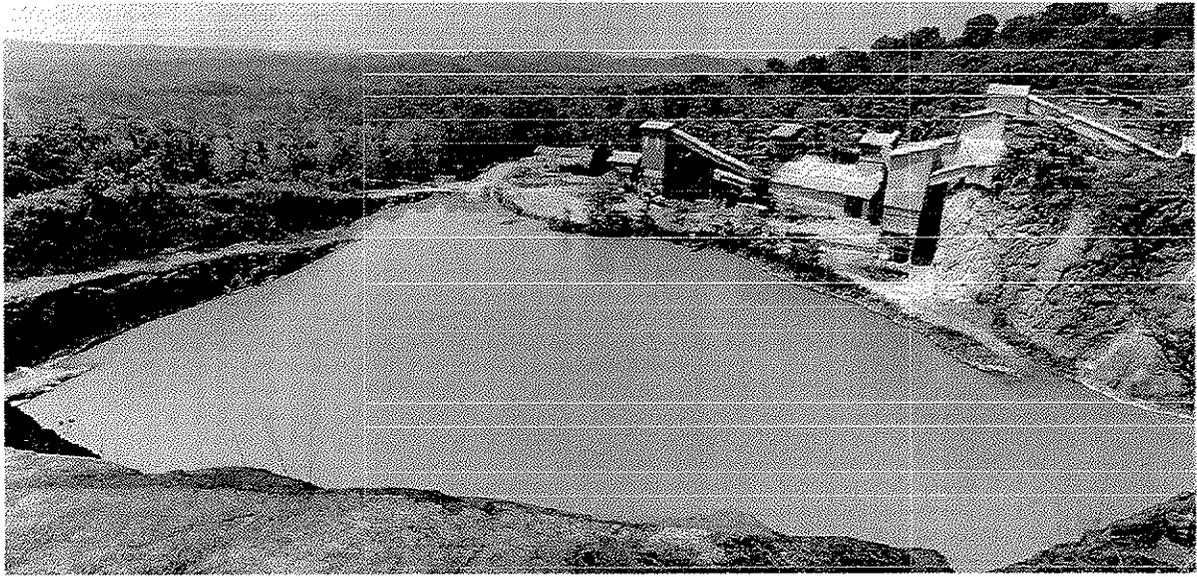
**2. Site Visit and Sample analysis details**

As decided in the joint inspection of the committee members on 23.01.2021, Board officials (the second respondent) inspected the quarry on 4/2/2021 for a detailed survey of water availability ,quality and environmental damage assessment. Water samples were collected from the quarry pits and nearby wells for analysis.

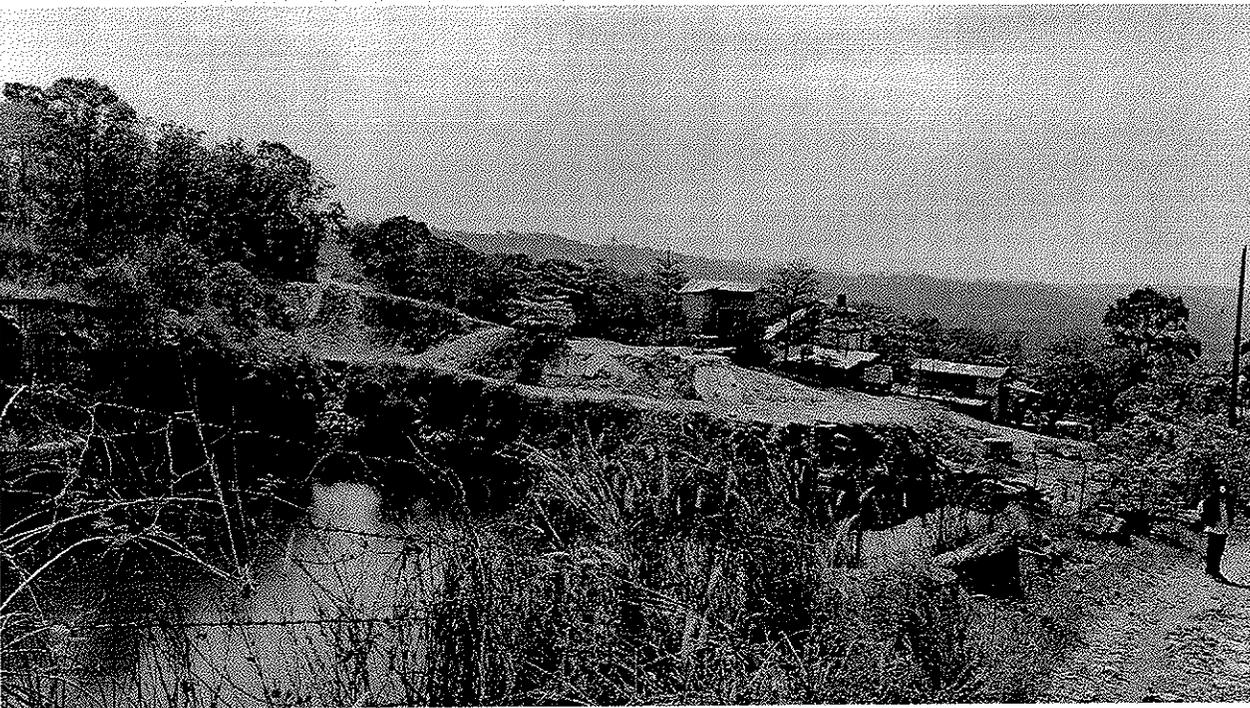
Satellite view of quarry pits



QUARRY I:



QUARRY 2:



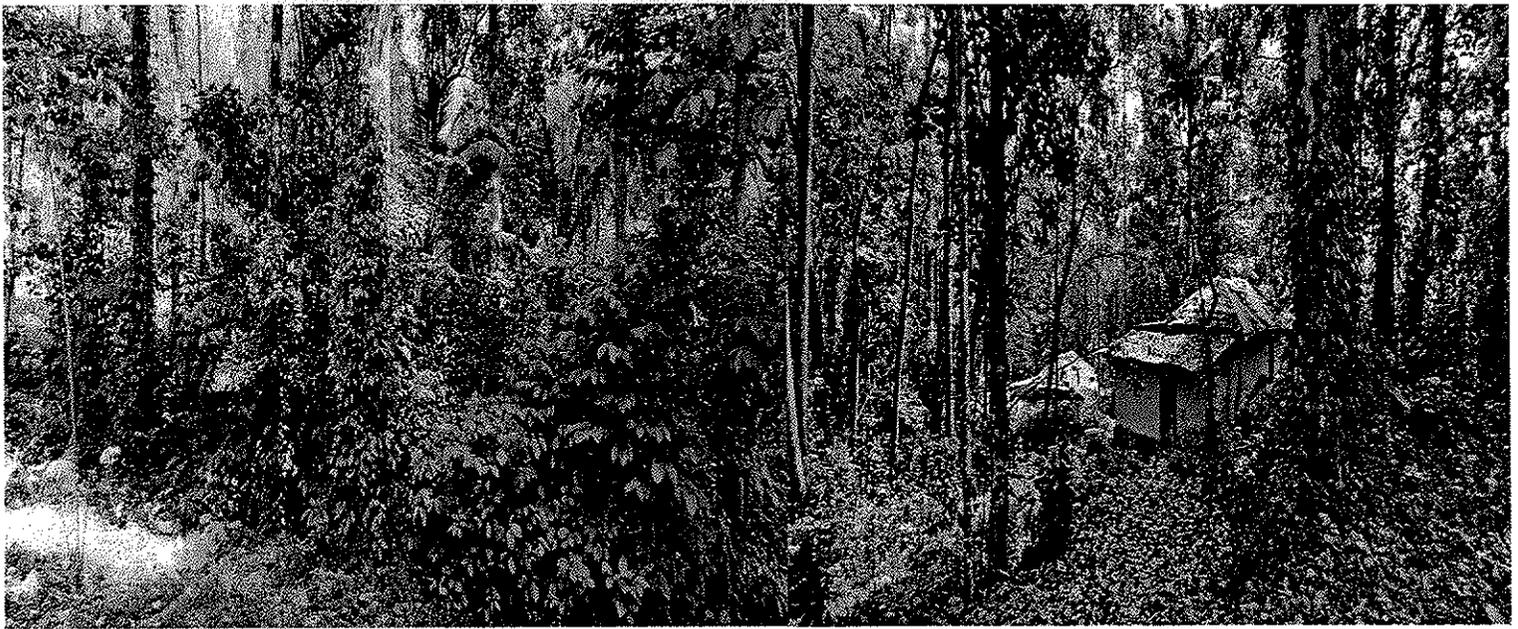
## 2.Environmental Damages observed

### 2.a.Observations

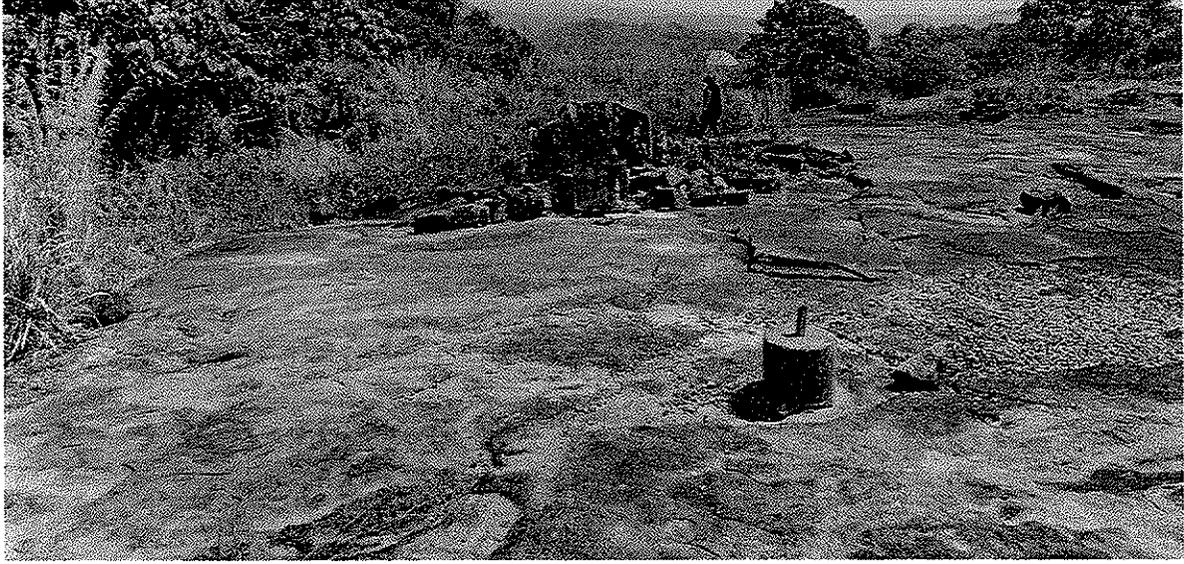
1. There was no mining operation in the site. Crusher unit adjacent to the quarry no.1 was working. Quarry pits 1&2 were filled with water. Water from pit no.1 is used for operations in the crusher unit. Fish farming is carried out in the quarry pits.
2. The terrain is hilly with a large amount of exposed rocks. No residences within 200m radius of quarry and crusher unit except their staff quarter.
3. Rubber plantations were seen around the pits. Other plantations or vegetation noticed in the site includes teak, coconut, mango, jackfruit, pepper, coffee, tapioca etc. Some area in the premises of the 8<sup>th</sup> respondent were seen vacant or uncultivated. On local enquiry with a senior citizen, reported that no significant change in crops occurred during the last 25 years. The person opined that people change the type of crops according to their wish. Rubber Plantations are seen more in the locality.
4. There was no water in the Mannathuthodu during the time of inspection. It is a natural drain starting from somewhere in the upper side of the locality and flowing through the front side boundary of the 8<sup>th</sup> respondent towards the downward direction. The 8<sup>th</sup> respondent has provided protection walls to the thodu in front of their boundary to some extent . The runoff from the area and overflow from the quarry pond during the rainy season may reach the canal. During the time of inspection time any deposit of quarry waste in the thodu was seen.
5. The Malankottukara Devasthanam tribal temple is situated towards eastern side of the quarry pit 1 and at a distance of 10 m from the boundary. The temple has no permanent structure. A stone in place of idol and lamp made of stone is placed on the top of the rock. There is no daily pooja in the temple. Any damage to the temple due to mining activities were not noticed. A name board is displayed in the premises.



**Mannathodu & drainage built by the unit**



**Plantations in the property of 8<sup>th</sup> respondent**



**Malankottukara Devasthanam tribal temple**

**2.b.Results of analysis**

The analysis reports of the samples collected on 04.02.21 are attached herewith as **Annexure 4**. No significant quality change in the wells except presence of turbidity beyond limits as per drinking water standards as per IS 10500:2012. The well water owned by Sri. Rajan Mathew is located near to the Mannathu thodu. The analysis reports are tabulated below.

Distance from quarry	50m from quarry 2	103 m from quarry 1	116 m from quarry 1	128 m from quarry 1	143 m from quarry 1	137 m from quarry 1	234 m from quarry 1	Limit
Parameter	Well of Sujith kumar	Well of Philip-	Well of Philip-	Well of Philip	Well of Murali dharan	Well of George	Well of Rajan Mathew	
pH	5.9	5.7	6.8	6.8	7.1	6.0	5.7	6.5-8.5
Total Dissolved Solids (mg/l)	48	30	100	118	140	122	126	500
Biochemical oxygen demand (mg/l)	1.4	1.1	1.3	1.9	0.7	0.8	1.5	-
Hardness(mg/l)	28	16	18	18	20	14	16	200
Chloride(mg/l)	20	14	12	16	16	12	26	250
Turbidity(NTU)	1.2	1.6	3.9	4.3	6.2	5.7	5.3	1
Total Coliform CFU/100 ml	90	Nil	Nil	190	Nil	Nil	100	0
Fecal Coliform CFU/100 ml	30	Nil	Nil	60	Nil	Nil	30	0

**Tabulated results of well water analysis**

The turbidity of all the well water samples collected are beyond the permissible limits of the drinking water standards as per IS 10500:2012 .Turbidity is comparatively less in the samples collected from the wells nearby the quarrying area . Low pH and presence of coliform were noted in some samples. pH may be low because of soil being acidic and presence of coliform due to sewage contamination.

Sl.No.	Parameter	unit	Quarry No.1				Quarry No.2		limit
			Point1	Point2	Point3	Point4	Point1	Point2	
1	pH	-	7.3	7.2	7.3	7.3	7.2	7.2	6.5-8.5
2	Dissolved Oxygen	mg/l	6.7	6.4	6.7	6.8	5.8	7	-
3	Biochemical oxygen	mg/l	1.9	2	1.9	1.8	0.9	0.7	-

	demand								
4	Conductivity	µmhos/cm	169.9	173.5	169.9	187.4	85.58	70.08	
5	Turbidity	NTU	17.5	19	17.5	18.8	1.8	1.6	1
6	Total Dissolved Solids	mg/l	166	192	166	206	30	26	500
7	Total Suspended Solids	mg/l	149.5	179.8	149.5	193.1	18	15.5	
8	Total Coliform	CFU/100 ml	Nil	Nil	Nil	Nil	Nil	Nil	0
9	Faecal Coliform	CFU/100 ml	Nil	Nil	Nil	Nil	Nil	Nil	0

#### Tabulated results of analysis of water from quarry pits

With respect to drinking water standards (IS 10500:2012), turbidity of all the water samples collected from quarry pits no. 1 are beyond the limit. Mixing of dust and sand with the water occurs due to proximity of sand production in the crusher unit.

#### 2. c. Environmental damages due to mining operation

Expected damages due to the quarry mining activities are damages due to over extraction of granite building stone, damage to the crops, ground water depletion/ contamination, soil texture change, land damages, quality deterioration of the area etc. Based on these assumptions, in order to assess the damages, letters were sent to the Agriculture Department, Soil conservation Department, Ground water department, Irrigation department and Village office for collection of data from the past. Letters sent to the various departments and the reply are enclosed herewith as **Annexure 5 and 6** respectively.

- 1) Quarrying operations in the property of 8th respondent started from 2006-07 and continued upto 2015-16. No mining plan and mining closure plan was approved for both the quarries. It was reported by the Department of Mining and Geology that there was over extraction of granite building stone in the in and out of lease area. In addition to this over extraction of ordinary earth was also done.
- 2) Ordinary earth was removed from an area of 0.357 Ha. The vegetation from this is lost and records regarding this is available. Rubber plantations are mostly seen in the area with a few teak, coconut, mango, jackfruit, pepper, coffee, tapioca etc.
- 3) Run off during rainy season from the premises of the 8<sup>th</sup> respondent may have reached Manimalayar through Mannathu Thodu. Executive Engineer, Minor Irrigation, Pathanamthitta

has reported several complaints regarding discharge of waste into the Mannaththodu and air pollution existed.

4) No significant change in soil texture occurred during the period from 2006-2021 as per report submitted by the Assistant Director ,Soil Survey ,Pathanamthitta.

5) Water availability in the locality is seasonal and impact of water stored in the quarry pits is not reflected in the wells of surrounding area as per the report of District officer, Ground water Department, Pathanamthitta. The locality comes under safe block.

6) Turbidity in the well water samples collected in and around the quarrying area is beyond the limits prescribed by drinking water standards (IS 10500:2012). Turbidity is high in the water stored in the quarry pit No.1. Presence of turbidity is more probable to be resulted from operation of crusher unit than quarrying operations. Mining Operations has not affected water quality significantly .

### **3.Environmental Damage Assessment**

Human beings are only one among the hundreds of species living on this earth. But consistently it has been observed that many of the anthropogenic activities are bringing irreparable damage to the environment. Any kind of this damage once happened brings severe changes in the delicate balance of the ecosystem. Even though there exist scientific strategies to find out the damage, assess the damage, compensate the damage and repair the damage, none of these approaches can bring the affected part of the environment back into its original structure. It is understandable that comfortable existence of human life is not possible without making some disturbances to the nature. However as responsible citizens of the nation it is the primary responsibility of each individual to go ahead in his life without making much damage to the environment so that at least the same is retained in good condition for future generations. EIA 2006 rules definitely provide a strong platform for the progressive developmental approach and environmental protection hand in hand. Any violation of EIA 2006 is to be seriously dealt with and should be addressed with ultimate concern. It is also to be mentioned that preservation of the nature as per EIA rules is to be imposed on a strict basis rather than putting damage assessment and compensation strategies after making any kind of permanent damage to the environment.

Any kind of mining activity is sure to bring environmental damage on a wide variety of aspects such as on land, soil, water, air, vegetation etc. Hence all mining activities are to be carried out as per the existing rules and regulations which gives room for addressing the challenges that is being caused in the environment. Illegal mining without exploring the

impact assessment and without making the Environment Management plan is sure to bring irreparable damage to the environment as happened in the present case.

As the ecosystem represent quite complicated conception it is considerably challenging to assess the cost of the damage happened to the environment by human activities and to estimate the cost of environmental restoration. In the present case of OA.No 142/2020 procedures to be adopted for damage assessment and compensation are further challenged as this unsustainable mining has happened for eight years from 22-02-2008 to 16-03-2016. It is to be noted that thereafter the 2018 major flood and the 2019 minor flood came and the area under study, Anicadu village was much affected by these challenges.

However an attempt has been made using the equivalency analysis method to assess the environmental damage that has happened and subsequently the compensation for the same as per the NGT case 142/2020.

Environmental damage assessment and estimation of compensation generally involve

**Stage 1-Interim damage assessment and compensation for temporary restoration activities**

**Stage II- Expenses with respect to long term restoration /rehabilitation plan**

**Stage III- Cost associated with all studies, investigations and reviews associated with damage assessment and restoration activities**

**STAGE I**

The first step of Interim damage assessment and compensation for temporary restoration activities in this case involve

**I A. Land lost due to unsustainable mining activities**

**I.B. Land plot damage -Lost opportunities**

**I.C. Damage to water funds**

**I .D. Damage due to unsustainable/illegal extraction of minerals.**

## STAGE 1

### I.A. Land lost due to the illegal /unsustainable mining activities

This assessment considers the cost of land area if it has been left undisturbed. The unsustainable operation conducted in the site has resulted in the formation of two quarry pits.

#### Details of Land lost

Area of Mine pit No1= 4.027 Ha

Area of Mine pit No .2= 1.0160 Ha

The total area of the land lost due to unsustainable mining activity-5.0430 Ha  
ie 504.30 Are

Cost of land as per Kerala State Land Revenue record- Rs.20000/Are (Annexure 7)

Total cost of land lost due to unsustainable mining activities	= 504.30 x 20000 = Rs 10,086,000/-
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### I.B. Land plot damaged due to the illegal /unsustainable mining activities

Land plot damage is calculated on account of lost opportunities to utilize the land for other purposes, if it was not damaged by the unsustainable mining activities. The lost opportunities can be loss in agriculture, loss in recreation activities, cultural activities, fisheries etc.

In the present case as the area falls in the interior region of the Anicadu village the major lost opportunity can be loss in agriculture. There is very less chance of loss in recreational activities, cultural activities and fisheries in this area.

As per the letter dated 4-03-2 from the Assistant Director, Agriculture .Government of Kerala and also as per the field inspection conducted by the joint committee the major cultivar in this area is being taken as Rubber tree. Hence the lost opportunity has been calculated by taking the possible rubber cultivation being lost in this area due to unsustainable mining.

Formula used in calculating damages caused to 'lost opportunities' is given below

$$D(LP) = A (LT + G)$$

D(LP) - Damage caused to the land that had been previously utilized for recreational/ agricultural/ or any other 'lost opportunities' (Rs /year)

A - Area affected by direct impact (Hectare ) = 5.0430 Ha

LT - Average tax on land paid to the Govt. per unit land = Rs.500/ Hectare

G - Cost of the lost opportunities (to be gained from rubber cultivation) from 1 hectare of land (Rs.) = 54109/Are = 5410900/Ha( Annexure 13)

Period of mining- 8 years

D (LP)= 5.0430 (500 + 5410900) = Rs 27,289,690/ year (rounded to the nearest non-decimal value)

Total Damage on agriculture loss for 8 years	Rs.27,289,690 x 8 = Rs 218,317,520/-
--	--------------------------------------

**I.C. Damages to water funds**

The two pits formed out of unsustainable mining has been covered with water and this may be inclusive of both run off water and ground water .Hence this much water has been in check for the nearby population for the period during which the mining activities has been conducted in an unsustainable way .Hence the nearby population of average 2175 residing in the two wards ( out of 13 wards in the Anicadu panchayath/Total population of 14140 as per Kerala state Government details) had been denied this opportunity and therefore is taken into damage assessment.( Annexure 9)

“Mannathuthodu” a creek flowing into Manimala river is seen in the location and as per the report from the Executive Engineer,Irrigation Department letter dated 26-02-21 Annexure 11) and as per the inspection of the joint committee, thethodu is now empty.However there is a possibility of this thodu being accumulated with the waste from the quarry which now stand impossible to assess the damage as it happened long back. Executive engineer also points out the possibility of air pollution happened at that time. However, this also could not be assessed as it happened way back in 2016.Monitoring of air quality also needs sophisticated approach

with mobile air quality monitoring device and expert team trained in that respect. The analysis of nearby wells by KSPCB shows that the water is not much damaged.

Hence in this step to assess the damage affected on waterfront a total ecologic and economic assessment of surface /ground water is being made.

Formula used in calculating damages caused to water funds is given below

$$D(SW) = WP \sum_{i=1}^4 K_i \cdot H_i$$

D(SW)-Total ecologic-economic assessment of surface water (Rs.)

H -Volume of water consumed (m<sup>3</sup>) = 135 L/person/day x 2175 ( Average population affected in the surrounding two wards ( annexure 9) ie 135/1000 m<sup>3</sup> x 2175 = 294 m<sup>3</sup>/day ( rounded to nearest non decimal value)

ie per Year it is 294x 365=107,310 m<sup>3</sup>

WP -Basic water price of (Rs./ m<sup>3</sup>) = Rs 4/ m<sup>3</sup> (Annexure 10 )

K -Coefficient of water to be used for various purposes (K = 0.08 to 2.5 depending on the use)= 1 ( domestic )

$$D(SW) = 4 \times 107310 = \text{Rs } 429,240/\text{year}$$

Total eco economic assessment of water for the mining period of 8 years	Rs 429,240 X 8 = Rs 3,433,920/-
---	---------------------------------

**I.D. Damage due to unsustainable extraction of minerals**

Damage assessment in this step includes the cost of the illegally excavated minerals and also the cost of restorative works. For the restoration of the damaged site of an area of 4.0270 Ha and 1.0160 Ha large amount ordinary earth from elsewhere is required . In addition to this there includes the removal of total quantity of 20350 MT of ordinary earth .Even though complete restoration is not possible in this case at least restoring to a condition that is not damaging to the environment is to be made

In case of illegal/ unsustainable extraction operations, the total amount of damage shall be calculated by the formula given below:

$$D(IE) = Q \times P + RE$$

$$\text{Here } D(IE) = (Q_{\text{stone}} \times P + Q_{\text{ordinary earth}} \times P) + RE$$

D(IE)- Extent of damage to be caused by illegal/ unsustainable extraction of mineral resources (Rs).

**Q -Volume of illegally extracted mineral resources (MT)**

The amount of illegally mined minerals as estimated by the District mining and Geology department is as follows.

Quantity of mineral illegally mined =18,57,454 MT

Quantity of ordinary earth illegally mined = 20350 MT

**P- Market rate or price of mineral resources (Rs.)**

The market price of the mineral and ordinary earth as per PWD/ irrigation Price list norms are as follows

Market price of the stone = Rs 788 / ton ( including GST ) ( Annexure 12 )

Market price of ordinary earth=Rs 300/- ton

Further restoration of the reclaimed area can be made by replantation of the same crop ie Rubber plants itself and accordingly the expenses of the restoration steps are calculated.

**RE-Expenses on possible restoration measures**

Total cost required for rubber cultivation per acre -Rs 48424/- (Annexure 13)

ie Rs 4842400/- per Ha

For the total damaged area of 5.0430 Ha it is 24,420,223/- (Rounded to nearest non-decimal value)

$D(IE) = (1,328,197,640 + 5,539,800) + 24,420,223/-$   
 $= Rs 1,358,157,663/-$

<b>Damage due to illegal extraction of minerals</b>	<b>Rs 1,358,157,663/-</b>
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**I. Total Interim Environmental Damages Assessed**

<b>I.A</b>	<b>Total cost of land lost due to illegal mining activities Rs</b>	<b>Rs 10,086,000/-</b>
<b>I.B</b>	<b>Land plot damage Total damages on agricultural loss (Rs)</b>	<b>Rs 218,317,520/-</b>

	for the period of 8yrs	
I.C	<b>Total ecologic-economic assessment of water funds (Rs.).</b>	Rs 3,433,920/-
ID	<b>Interim Damage assessed for illegal mining</b>	Rs1,358,157,663/-
	<b>Total Interim Environmental damage assessed</b>	Rs 1,589,995,103/-

**The total interim Environmental damage assessed for conducting illegal mining activity isRs 1,589,995,103/- (one fifty-eight crores ninety nine lakhsninety five thousand one hundred and three only)**

**II Expenses with respect to long term restoration /rehabilitation plan**  
The expenses with respect to long term restoration can only be made after the preparation of an effective Environment Management Plan as per the EIA guidelines. The same is to be approved by the concerned authorities after field visit and assessment.

**III. Cost associated with all studies, investigations and reviews associated with damage assessment and restoration activities**  
The cost associated with the present studies are to be made once the entire exercise of damage assessment and finalization of restoration measures are completed.

**Findings and Suggestions**

1. The joint committee has assessed the Environmental damages made to the site and the same is to be recovered from the defaulting industry with suitable

modification in assessment if required and may be utilized for making a comprehensive restoration plan.

2. All these types of damages mainly result from the lack of continuous monitoring of the mining activities in a time bound manner (may be once in three months). This responsibility can be executed by the local self-government offices followed by report submitting to the concerned authorities. The current practice of submission of six months report by the industries themselves will not bring out facts in all the cases.
3. Any of the damage caused to the environment is likely to be a permanent irreparable damage and therefore we have to consider the prevention as better than cure in the case of Environmental damage. Hence steps to prevent any kind of illegal activities are to be strengthened rather than looking into the new measures of reclamation and restoration. Continuous and time bound monitoring by the government officials /technical experts is very much important. A panchayath level constitution of the such committees and evaluation at panchayath level may be a better mechanism to preserve the local environment anywhere.
4. It is to be noted that for the reclamation of a total damaged area of 5.0430 Ha with a quantity of 2,644,380 MT ordinary earth can create another environmental damage elsewhere. The environmental damage caused by the transportation of this much soil is also to be considered. Already made illegal damage should not give way for another legal damage. Hence in this case the possibility of retaining the huge amount of precious water with all protective measures in these pits for domestic/irrigation purposes of the Panchayath may be considered as a good alternative and environmentally friendly approach. A detailed study involving the investigations by the concerned departments/experts/ irrigation department is very much required in this direction.
5. A comprehensive Environment Management plan is to be made in this case for the effective and long-term restoration of the affected site. The EMP is to be submitted to the concerned authorities and should get it approved after the field inspection and proper assessment. An effective implementation strategy is to be followed with continuous monitoring by the local authorities

6. The company should be prevented from any of the illegal activities at any of the sites and should be instructed to get all statutory clearances for any type mining activities.
  
7. The mining activities shall be sustainable and should include measures for the restoration of environment. It is to be noted that the remediation to a damage happened to the environment is also a process demanding immediate action and a long gap happened as in this case is challenging for the scientific evaluation of the damage subsequently the repair also( Annexure 14 and 15). It is also to be noted that in the period between the damage and the repair the environment is kept as polluted denying the fruits of the beautiful nature to the inhabitants, The mining and restoration activities are to be practiced simultaneously for minimizing the damages to nature.

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FILE NO. - PCB/PTA/ICO/QR/29/2007



**KERALA STATE  
POLLUTION CONTROL BOARD  
DISTRICT OFFICE  
PATHANAMTHITTA**

**CONSENT TO OPERATE**

ISSUED UNDER

Water (Prevention & Control of Pollution) Act, 1974

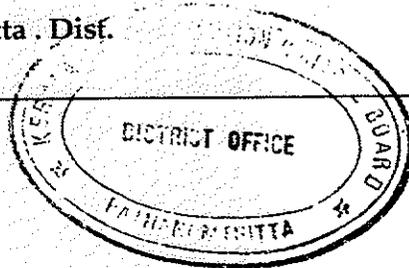
Air (Prevention & Control of Pollution) Act, 1981

&

Environment (Protection) Act, 1986

To

M/s. Philips Grano Products,  
Noorommavu.P.O.,  
Mallappally,  
Pathanamthitta . Dist.



CONSENT NO: QCO/PTA/24/2008

VALID UP TO:30.04.2011

DO

**1. GENERAL**

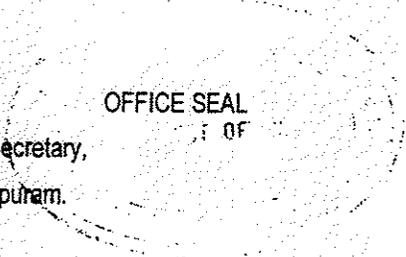
1	<b>VALIDITY:-</b> <b>Date of Commissioning:-</b>	30.04.2011 -
2	Name and address of establishment	M/s.Philips Grano Products, Noorommavu.P.O., Mallappally, Pathanamthitta. Dist.
3	Communication	Telephone : 0469 - 2685256 Fax : e-mail :
4	Occupier details	Sri. Philip Mathew, Thekkenedumplackal, Mallappally(West).P.O.,
5	Survey Number	328/6, 329/9, 327/1, 325/1, 305/10
6	Village	Anicad
7	Taluk	Mallappally
8	District	Pathanamthitta
9	Panchayat:  Ward No:	Anicad  VIII
10	Category	RED
11	Scale	SMALL
12	Fee Slab / Fee remitted	Rs. 1140/year                      Rs.3990/-
13	Capital Investment	-
14	Total Water consumption:- Water meter installed for:-	NA
15	PRODUCTS	Granite Stones : 800 T/day

**2. GENERAL CONDITIONS**

- 2.1. This consent is granted subject to the power of the Board to review and made variation in or revoke the conditions as the Board deems fit.
- 2.2. For renewal of consent application in the prescribed form shall be submitted to the Board between 3 and 4 months in advance of the date of expiry of the consent along with this consent.  
Late applications will be accepted only with a fine/late fee equivalent to 50% of the consent fee.
- 2.3. No change, deviation or alteration that may affect the quality or location of discharge of effluent is to be made without prior written permission of the Board. Any change in particulars furnished in the application and/or in the identity of the occupier/authorised agent is to be intimated to the Board forthwith.
- 2.4. The consent issued is subject to conditions specified in the clearances issued by the Mining & Geology Department and Explosive Department as per the provisions of the relevant statutes.
- 2.5. Suitable species of trees and curtain plants shall be planted and maintained within and along the periphery of the area, forming a green belt to improve the environment.
- 2.6. There shall be minimum distance of 50m from the quarrying point to the nearest residence.
- 2.7. Blasting with electric Detonators shall be limited to a maximum of 5nos at a time.
- 2.8. Blasting and quarrying shall be done without causing any nuisance or damage to occupants of adjoining or neighbouring land or building or posing damage to health, life or property.
- 2.9. Proper fencing of the quarry area shall be done to avoid hazards and accidents.
- 2.10. Sound level at 1m outside the boundary of the quarry shall be 55 dB (A) Leq, max.
- 2.11. Suspended particulate matter (dust) level at boundary shall be 200µg/m³ max and respirable particulate matter shall be 100µg/m³, max.
- 2.12. After completion of excavation at any site, the land shall be utilized for rain water harvesting with protective barriers/ any other suitable approved purpose or may be reclaimed as per specification.
- 2.13. Proper fencing/barriers shall be provided and maintained all around the abandoned deep quarry pits to avoid accidents.
- 2.14. Mining below normal water table by continuous pumping shall be avoided in summer period (March, April & May) to prevent drinking water shortage in that area.
- 2.15. Air compressors used for quarrying shall be acoustically enclosed to control the noise.
- 2.16. Noise creating activities such as drilling, blasting, breaking loading etc shall not be done during night time.

DATE: 12.06.2008

Copy to: The Member Secretary,  
Thiruvananthapuram.

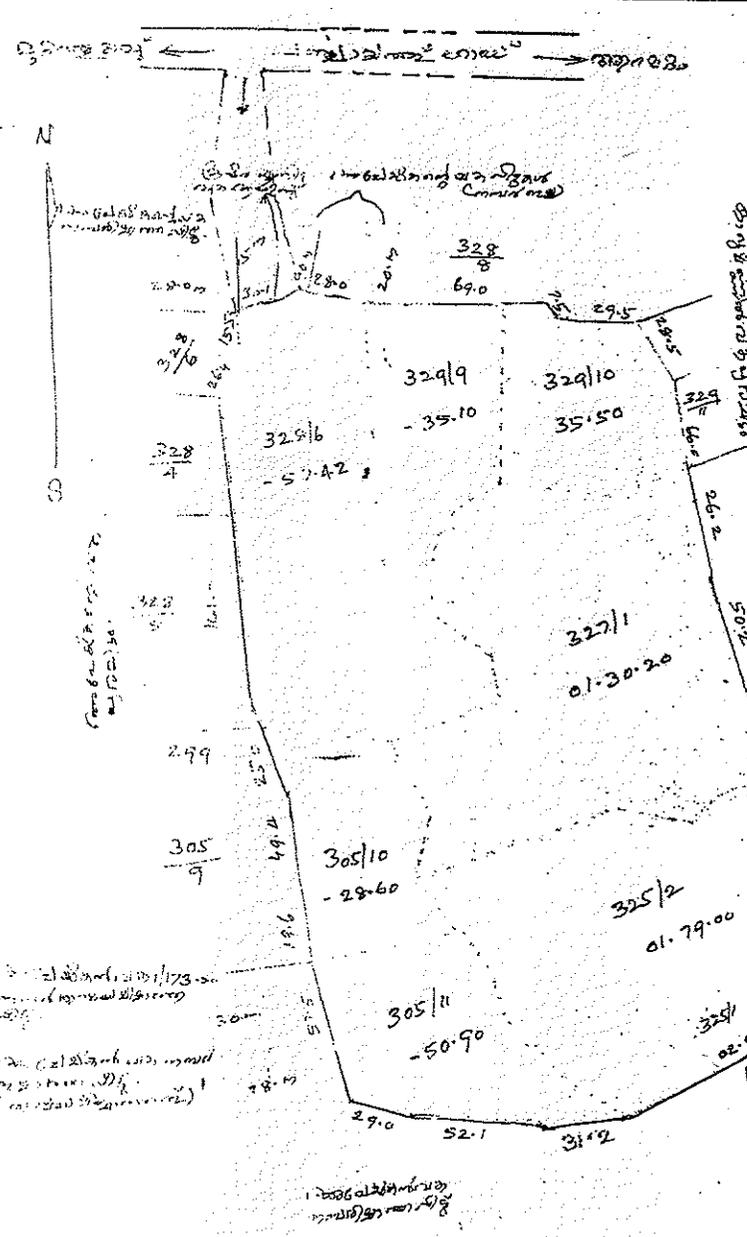


*[Signature]*  
SIGNATURE & SEAL OF  
ISSUING AUTHORITY E.A.PEN  
Environmental Engineer

പ്രദേശം: പാലക്കാട് ജില്ല  
 സ്ഥലം: പാലക്കാട്  
 താലൂക്ക്: പാലക്കാട്

സ്ഥല നമ്പരങ്ങൾ  
 Location Sketch  
 305/10, 305/11, 325/1, 325/2  
 327/1, 329/9, 329/10, 329/6

പേജ് നമ്പർ - 31



സ്ഥല നമ്പർ	വിസ്തീർണ്ണം	അനുബന്ധ ഭാഗങ്ങൾ	കുറയ്ക്കേണ്ട വി.മ.
329/6	- 73.20	- 15.78	- 57.42
329/9	- 35.10	-	- 35.10
329/10	- 35.50	-	- 35.50
327/1	01.30.20	-	01.30.20
325/1	- 02.90	-	- 02.90
325/2	01.79.00	-	01.79.00
305/10	- 28.60	-	- 28.60
305/11	- 50.90	-	- 50.90
	05.35.40	- 15.78	05.19.62

PAULUS PABEN  
 Environmental Engineer

PAULUS PABEN  
 Environmental Engineer

1:10000

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ON 29/5/13

FILE NO. - PCB/PTA/QR/29/2008

Date of issue: 29/05/2013



**KERALA STATE  
POLLUTION CONTROL BOARD  
DISTRICT OFFICE  
PATHANAMTHITTA**

**CONSENT TO OPERATE (Renewal)**

ISSUED UNDER

Water (Prevention & Control of Pollution) Act, 1974

Air (Prevention & Control of Pollution) Act, 1981

&

Environment (Protection) Act, 1986

To

**M/s Philips Grano Products,  
Noorommavu P.O,  
Mallappally,  
Pathanamthitta Dist,  
Pin 689589**

CONSENT NO: QCO/PTA/24/R-/2013

VALID UP TO: 30/04/2014

DO



## GENERAL

1	<b>VALIDITY:-</b> <b>Date of Commissioning:-</b>	30/04/2014
2	Name and address of establishment	Philips Grano Products, Noorommavu P.O, Mallappally, Pathanamthitta Dist, Pin 689 589
3	Communication	Telephone : 04692685256 Mobile : Fax : e-mail :
4	Occupier details	Sri Naveen Mathew Philip, Thekkenedumplackal, Mallappally West P.O, Pin 689585
5	Survey Number	328/6, 329/9, 329/10, 327/1, 325/1, 325/2, 305/10, 305/11
6	Village	Anicadu
7	Taluk	Mallappally
8	District	Pathanamthitta
9	Panchayat	Anicadu
	Ward No:	VIII
10	Category	RED
11	Scale	SMALL
12	Fee Slab / Fee remitted	Rs. 15000/ year                      Rs.52500/-
13	Capital Investment	Rs.75-100 Lakhs
14	Total Water consumption	250 Lit/day
15	Consent Details	QCO/PTA/24/2008 valid up to 30.04.2011
16	Machinery Details	Tractor with compressor : 45HP each (2nos) Excavator with Breaker : 1no
17	Product/Activity	Granite Quarry

**GENERAL CONDITIONS**

- 2.1. This consent is granted subject to the power of the Board to review and made variation in or revoke the conditions as the Board deems fit, as per relevant Acts & Rules.
- 2.2. This consent is issued on the basis of the minutes of the hearing conducted by Member Secretary on 06.05.2013, as per the judgment in the WP(C) No. 28830/12 dated 07.03.2013 of the Hon'ble High court and subject to Circular No.PCB/TAC/MoEF/416/08 dated. 5.12.2012 of the Chairman.
- 2.3. This consent, unless withdrawn earlier and subject to condition No.1 shall be valid up to 30/04/2014. For renewal of the consent application shall be submitted in the 3<sup>rd</sup> month before expiry of consent.  
Late applications will be accepted only with a fine/late fee as per norms.
- 2.4. No change, deviation or alteration that may affect the quality or location of discharge of effluent is to be made without prior written permission of the Board. Any change in particulars furnished in the application and/or in the identity of the occupier/authorised agent is to be intimated to the Board forthwith.
- 2.5. The consent issued is subject to conditions specified in the clearances issued by the Mining & Geology Department and Explosive Department as per the provisions of the relevant statutes and based on the site plan approved by the Village Officer.
- 2.6. There shall be minimum distance of 100m from boundary of quarry operating area to residential buildings, place of worship, Public buildings, public road having vehicular traffic, river or lake, railway line, bridges etc.
- 2.7. Quarrying shall be only within the area confirmed within the fencing with G.I.wire and the fencing shall be maintained always.
- 2.8. Boundary shall be fenced before operation of quarrying activities.
- 2.9. Blasting and quarrying shall be done without causing any nuisance or damage to occupants of adjoining or neighbouring land or building or posing damage to health, life or property.
- 2.10. Sound level at 1m outside the boundary of the quarry shall be 55 dB (A) Leq, max.
- 2.11. Suspended particulate matter (dust) level at boundary shall be 200 $\mu$ g/m<sup>3</sup> max and respirable particulate matter shall be 100 $\mu$ g/m<sup>3</sup>, max.
- 2.12. After completion of excavation at any site, the abandoned quarry shall be utilized for rain water harvesting with protective barriers/ any other suitable approved purpose or may be reclaimed as per specification.
- 2.13. Proper fencing/barriers shall be provided and maintained all around the abandoned deep quarry pits to avoid accidents.



- 2.14. Mining below normal water table by continuous pumping shall be avoided in summer period (March, April & May) to prevent drinking water shortage in that area.
- 2.15. Air compressors used for quarrying shall be acoustically enclosed to control the noise.
- 2.16. Noise creating activities such as drilling, blasting, breaking loading etc shall not be done during night time (6pm - 6am)
- 2.17. Blasting shall be done at specified time with prior signals.

**3. ADDITIONAL CONDITIONS**

- 3.1. The applicant shall obtain the Environmental clearance from the concerned Department.
- 3.2. Quarrying operations shall be started only after obtaining the D & O License under the Kerala Panchayat Raj Act from the concerned Local Self Government Institution and submitting a copy of the same to the concerned District Office of the Board.
- 3.3. Only exposed rock shall be quarried.
- 3.4. Validity of this consent will be only up to 31.06.2015, and shall be extended on production of valid lease permit from the Department of Mining and Geology and based on the site conditions.

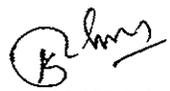
3.5. E-waste shall be disposed of in an environmentally sound manner. The following details shall be submitted to the Board on or before 31<sup>st</sup> December every year.

Sl No	Particulars of e-waste	Quantity of e-waste disposed in previous year	Quantity of e-waste proposed to be disposed in current year	Mode of disposal

3.6. Adequate fire fighting equipment in accordance with the fire safety regulations shall be installed in the unit.

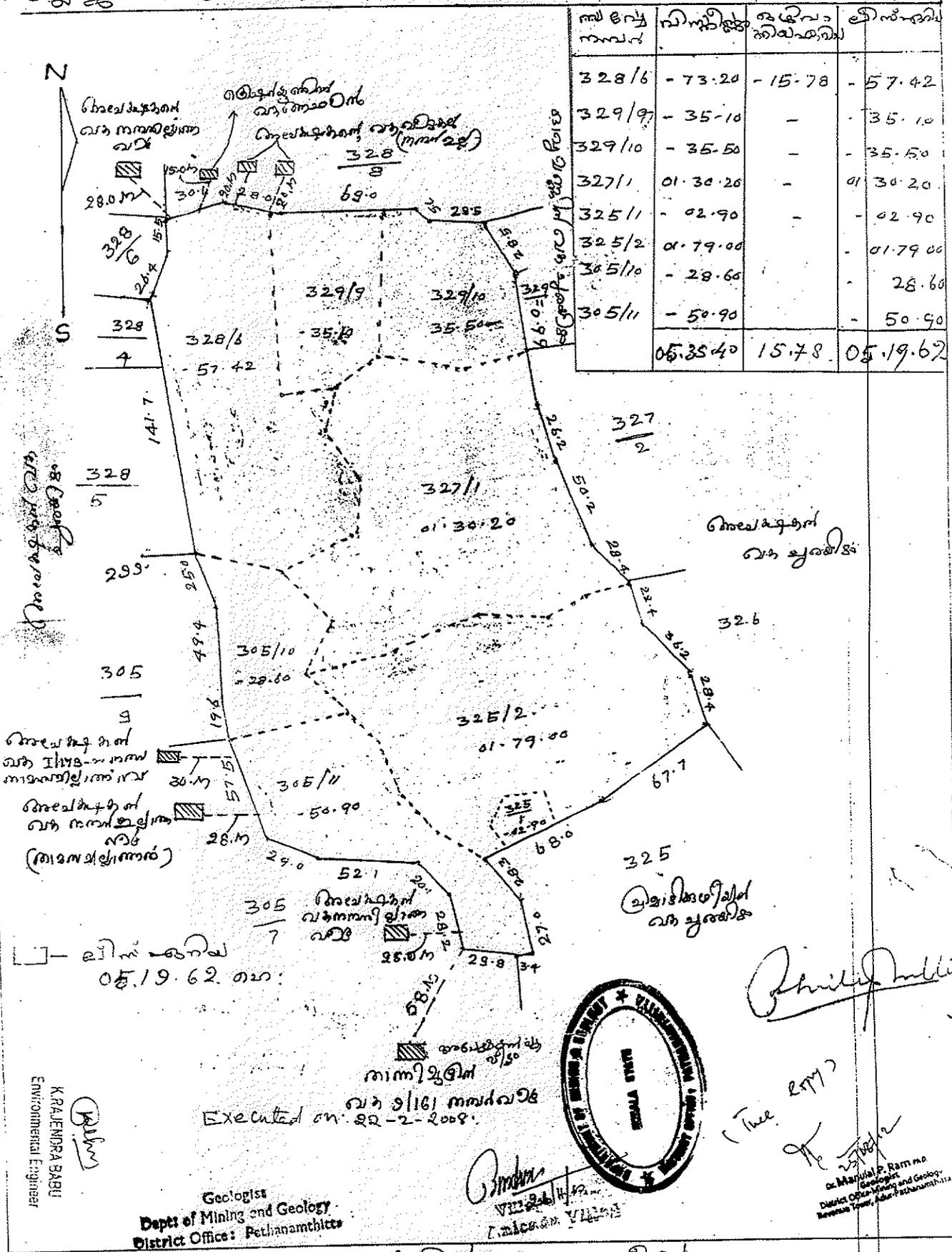
3.7. The applicant shall put up a sign board of size 6x4ft near the main entrance of the unit. One board shall display consent no. with validity & conditions 1.2, 1.16.

OFFICE SEAL

  
 SIGNATURE & SEAL OF  
 ISSUING AUTHORITY

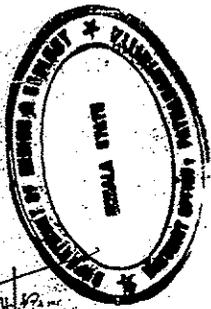
Copy to: - (1) The Chief.Envtl.Engineer, R.O, TVM.  
 (2) Stock file.

Location Sketch. 305/10, 305/11, 325/1, 325/2, 327/1, 329/9, 329/10, 328/6, 328/7, 328/8, 328/9, 328/10, 328/11, 328/12, 328/13, 328/14, 328/15, 328/16, 328/17, 328/18, 328/19, 328/20, 328/21, 328/22, 328/23, 328/24, 328/25, 328/26, 328/27, 328/28, 328/29, 328/30, 328/31, 328/32, 328/33, 328/34, 328/35, 328/36, 328/37, 328/38, 328/39, 328/40, 328/41, 328/42, 328/43, 328/44, 328/45, 328/46, 328/47, 328/48, 328/49, 328/50, 328/51, 328/52, 328/53, 328/54, 328/55, 328/56, 328/57, 328/58, 328/59, 328/60, 328/61, 328/62, 328/63, 328/64, 328/65, 328/66, 328/67, 328/68, 328/69, 328/70, 328/71, 328/72, 328/73, 328/74, 328/75, 328/76, 328/77, 328/78, 328/79, 328/80, 328/81, 328/82, 328/83, 328/84, 328/85, 328/86, 328/87, 328/88, 328/89, 328/90, 328/91, 328/92, 328/93, 328/94, 328/95, 328/96, 328/97, 328/98, 328/99, 328/100



K. RAJENDRA BABU  
Environmental Engineer

Geologist  
Dept. of Mining and Geology  
District Office: Palaniyamthittu



Signature of the Geologist  
District Office, Palaniyamthittu  
Tamil Nadu

Executed on 22-2-2009

Scale: 1 cm = 20 Meters

COUNTER SIGNED



66

-34-  
-19-

EX-104

PHONE: 0468-2223983

KERALA STATE POLLUTION CONTROL BOARD  
DISTRICT OFFICE, PATHANAMTHITTA

MAKKAMKUNNU, PATHANAMTHITTA - 689 645.

Dated: 11/11/2014

PCB/PTA/ICO/QR/29/2008

INTEGRATED CONSENT TO OPERATE - RENEWAL

Consent No. QCO/PTA/24/R<sub>1</sub>/2014

- Ref:- (1) Your application dated. 24.02.2014  
 (2) Consent No. QCO/PTA/24/R<sub>1</sub>/2013 dated.29/05/2013 Valid up to 30/04/2014

The 'Consent to operate' issued vide reference.2 to M/s.Philips Grano Products, Nooromavu.P.O, Mallappally, Pathanamthitta Dist, Pin- 689 589 is hereby renewed up to 30/04/2017. The copy of consent under ref.2 attached herewith is part of this renewal order and this order is subject to the conditions stipulated therein and the following variations.

- 1.1. Validity : 30/04/2017
- 1.15. Previous Consent details : No./QCO/PTA/24/R<sub>1</sub>/2013 dated. 29/05/2013 Valid up to 30/04/2014. /
- 1.16. Machinery details : 1. Excavator with Breaker (1no) 150HP  
2. Tractor with Compressor (1no) 48HP
- 1.17. Products : Rubble - 800 MT/day
- 2.2. Month & Year of renewal : 31/01/2017

All other conditions remain unchanged.

For and on Behalf of the  
KERALA STATE POLLUTION CONTROL BOARD

*Paulus Eapen*  
ENVIRONMENTAL ENGINEER  
PAULUS EAPEN  
Environmental Engineer

Encl: Copy of consent under ref.2

To  
Sri.Naveen Mathew Philip,  
Thekkenedumplackal,  
Mallappally West.P.O,  
Pin : 689 585

Copy to: (1) Office Copy  
(2) Stock file



CD

67

- 33 -

18

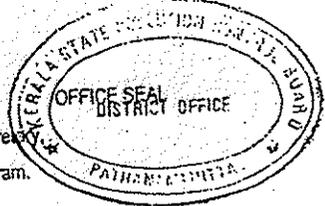
P3(3)

**GENERAL CONDITIONS**

- 2.1 This consent is granted subject to the power of the Board to review and made variation in or revoke the conditions as the Board deems fit.
- 2.2 For renewal of consent application in the prescribed form shall be submitted to the Board between 3 and 4 months in advance of the date of expiry of the consent along with this consent.  
Late applications will be accepted only with a fine/late fee equivalent to 50% of the consent fee.
- 2.3 No change, deviation or alteration that may affect the quality or location of discharge of effluent is to be made without prior written permission of the Board. Any change in particulars furnished in the application and/or in the identity of the occupier/authorised agent is to be intimated to the Board forthwith.
- 2.4 The consent issued is subject to conditions specified in the clearances issued by the Mining & Geology Department and Explosive Department as per the provisions of the relevant statutes.
- 2.5 Suitable species of trees and certain plants shall be planted and maintained within and along the periphery of the area, forming a green belt to improve the environment.
- 2.6 There shall be minimum distance of 50m from the quarrying point to the nearest residence.
- 2.7 Blasting with electric Detonators shall be limited to a maximum of 5nos at a time.
- 2.8 Blasting and quarrying shall be done without causing any nuisance or damage to occupants of adjoining or neighbouring land or building or posing damage to health, life or property.
- 2.9 Proper fencing of the quarry area shall be done to avoid hazards and accidents.
- 2.10 Sound level at 1m outside the boundary of the quarry shall be 55 dB (A) Leq. max.
- 2.11 Suspended particulate matter (dust) level at boundary shall be 200µg/m<sup>3</sup> max and respirable particulate matter shall be 100µg/m<sup>3</sup> max.
- 2.12 After completion of excavation at any site, the land shall be utilized for rain water harvesting with protective barriers/ any other suitable approved purpose or may be reclaimed as per specification.
- 2.13 Proper fencing/barriers shall be provided and maintained all around the abandoned deep quarry pits to avoid accidents.
- 2.14 Mining below normal water table by continuous pumping shall be avoided in summer period (March, April & May) to prevent drinking water shortage in that area.
- 2.15 Air compressors used for quarrying shall be acoustically enclosed to control the noise.
- 2.16 Noise creating activities such as drilling, blasting, breaking loading etc shall not be done during night time.

DATE: 12.06.2008

Copy to: The Member Secretary,  
Thiruvananthapuram.



SIGNATURE & SEAL OF  
ISSUING AUTHORITY  
*Paulus E. Pen*  
PAULUS E. PEN  
Environmental Engineer

This is the true copy of the document  
marked as EXHIBIT P referred  
ANNEXURE  
in the above case.

ADVOCATE

68

FILE NO. - PCB/PTA/QR/145/2013

Date of issue: 29.05.2013



**KERALA STATE  
POLLUTION CONTROL BOARD  
DISTRICT OFFICE  
PATHANAMTHITTA**

**CONSENT TO OPERATE (Fresh)**

**ISSUED UNDER**

Water (Prevention & Control of Pollution) Act, 1974

Air (Prevention & Control of Pollution) Act, 1981

&

Environment (Protection) Act, 1986

To

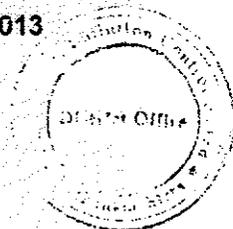
*Handwritten signature/initials*

**M/s.Philips Grano Products,  
Noorommavu.P.O,  
Mallappally- 689 589,  
Pathanamthitta - Dist.**

CONSENT NO: QCO/PTA/148/2013

VALID UP TO: 30.06.2015

CO



## GENERAL

1	<b>VALIDITY:-</b> <b>Date of Commissioning:-</b>	30.06.2015 -
2	Name and address of establishment	Philips Grano Products, Noorommavu P.O, Mallappally, Pathanamthitta Dist, Pin 689 589
3	Communication	Telephone : 04692685256 Mobile : Fax : e-mail :
4	Occupier details	Sri Naveen Mathew Philip, Thekkenedumplackal, Mallappally West P.O, Pin 689 585
5	Survey Number	326/2, 326/4, 326/5
6	Village	Anicadu
7	Taluk	Mallappally
8	District	Pathanamthitta
9	Panchayat Ward No:	Anicadu VIII
10	Category	RED
11	Scale	SMALL
12	Fee Slab / Fee remitted	Rs. 12000/ year                      Rs.78000/-
13	Capital Investment	Rs.60 Lakhs
14	Total Water consumption	250 Lit/day
15	Consent Details	Fresh application
16	Machinery Details	Tractor with compressor : 2nos Excavator with breaker
17	Product/Activity	Granite Quarry

**2. GENERAL CONDITIONS**

- 2.1. This consent is granted subject to the power of the Board to review and made variation in or revoke the conditions as the Board deems fit, as per relevant Acts & Rules.
- 2.2. This consent is issued on the basis of the minutes of the hearing conducted by Member Secretary on 06.05.2013, as per the judgment in the WP(C) No. 28830/12 dated 07.03.2013 of the Hon'ble High court and subject to Circular No.PCB/TAC/MoEF/416/08 dated. 5.12.2012 of the Chairman.
- 2.3. This consent, unless withdrawn earlier and subject to condition No.1 shall be valid up to 30/06/2015. For renewal of the consent application shall be submitted in the 3<sup>rd</sup> month before expiry of consent.  
Late applications will be accepted only with a fine/late fee as per norms.
- 2.4. No change, deviation or alteration that may affect the quality or location of if the site is to be made without prior written permission of the Board. Any change in particulars furnished in the application and/or in the identity of the occupier/authorised agent is to be intimated to the Board forthwith.
- 2.5. The consent issued is subject to conditions specified in the clearances issued by the Mining & Geology Department and Explosive Department as per the provisions of the relevant statutes and the site plan approved by the Village Officer.
- 2.6. There shall be minimum distance of 100m from boundary of quarry operating area to residential buildings, place of worship, Public buildings, public road having vehicular traffic, river or lake, railway line, bridges etc.
- 2.7. Quarrying shall be only within the area confirmed within the fencing with G.I.wire and the fencing shall be maintained always.
- 2.8. Boundary shall be fenced before operation of quarrying activities.
- 2.9. Blasting and quarrying shall be done without causing any nuisance or damage to occupants of adjoining or neighbouring land or building or posing damage to health, life or property.
- 2.10. Sound level at 1m outside the boundary of the quarry shall be 55 dB (A) Leq, max.
- 2.11. Suspended particulate matter (dust) level at boundary shall be 200 $\mu\text{g}/\text{m}^3$  max and respirable particulate matter shall be 100 $\mu\text{g}/\text{m}^3$ , max.
- 2.12. After completion of excavation at any site, the abandoned quarry shall be utilized for rain water harvesting with protective barriers/ any other suitable approved purpose or may be reclaimed as per specification, with the soil removed from the area.

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- 2.13. Proper fencing/barriers shall be provided and maintained all around the abandoned deep quarry pits to avoid accidents.
- 2.14. Mining below normal water table by continuous pumping shall be avoided in summer period (March, April & May) to prevent drinking water shortage in that area.
- 2.15. Air compressors used for quarrying shall be acoustically enclosed to control the noise.
- 2.16. Noise creating activities such as drilling, blasting, breaking loading etc shall not be done during night time (6pm - 6am)
- 2.17. Blasting shall be done at specified time with prior signals.

**3. ADDITIONAL CONDITIONS**

- 3.1. The applicant shall obtained the Environmental clearance from the State Environment Impact Assessment Authority.
- 3.2. Quarrying operations shall be started only after obtaining the D & O License under the Kerala Panchayat Raj Act from the concerned Local Self Government Institution and submitting a copy of the same to the concerned District Office of the Board.
- 3.3. Only exposed rock shall be quarried.
- 3.4. Validity of this consent will be only up to 31.12.2015, and shall be extended on production of valid permit/lease from the Department of Mining and Geology and based on the site conditions.
- 3.5. E-waste shall be disposed of in an environmentally sound manner.  
The following details shall be submitted to the Board on or before 31<sup>st</sup> December every year.

Sl No	Particulars of e-waste	Quantity of e-waste disposed in previous year	Quantity of e-waste proposed to be disposed in current year	Mode of disposal

- 3.6. Adequate fire fighting equipment in accordance with the fire safety regulations shall be installed in the unit.
- 3.7. The applicant shall put up a sign board of size 6x4ft near the main entrance of the unit. One board shall display consent no. with validity & conditions 1.2, 1.16.



SIGNATURE & SEAL OF  
ISSUING AUTHORITY

K.RAJENDRA BABU  
Environmental Engineer

Copy to: - (1) The Chief.Envtl.Engineer, R.O, TVM.  
(2) Stock file.



FILE NO. PCB/PTA/QR/145/201

Date of issue: 01/07/2015

2/7/15



**KERALA STATE  
POLLUTION CONTROL BOARD  
DISTRICT OFFICE  
PATHANAMTHITTA**

(ONLINE)

**CONSENT TO OPERATE (Renewal)****ISSUED****UNDER**

Water (Prevention &amp; Control of Pollution) Act, 1974

Air (Prevention &amp; Control of Pollution) Act, 1981

&amp;

Environment (Protection) Act, 1986

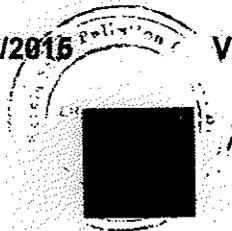
**To**

**M/s. Philips Grano Products Quarry  
Noorommavu.P.O,  
Mallappally - 689 589,  
Pathanamthitta. Dist.**

CONSENT NO: QCO/PTA/148/R/2015

VALID UP TO: 30/06/2018

DO



**1. GENERAL**

1	<b>VALIDITY:-</b>	<b>30/06/2018</b>
2	Name and address of establishment	M/s. Philips Grano Products Quarry, Noorommavu.P.O, Mallappally - 689 589, Pathanamthitta.Dist.
3	Communication	Telephone : 0469 - 2685256 Mobile : 9446187347 Fax : e- mail : naveen.peege@gmail.com
4	Occupier details	Sri. Naveen Mathew Philip, Thekkenedumplackal, Mallappally.West.P.O, Pathanamthitta- 689 585
5	Survey Number	326/2, 326/4, 326/5
6	Village	Anicadu
7	Taluk	Mallappally
8	District	Pathanamthitta
9	Panchayat: Ward No:	Anicadu VIII
10	Category	RED
11	Scale	SMALL
12	Fee Slab / Fee remitted	Rs.12000 / year                      Rs.39,000/- DD.No.569544    Date : 19/05/2015 Bank: South Indian Bank
13	Capital Investment	Rs. 60lakhs
14	Total Water consumption:-	1200Lit/day
15	Effluent Generation	200 Lit/day
16	Mode of disposal of treated effluent	Percolation
17	Effluent treatment details	Septic Tank & Soak pit
18	Date of Commissioning	May, 2013
19	Previous Consent details	QCO/PTA/148/2013, dated. 29/05/2013, Valid up to : 30/06/2015
20	Date of receipt of completed application	09/06/2015
21	Machinery details	Tractor with compressor - 2nos (15HP) Excavator with Breaker -1no (150HP)
22	PRODUCTS/ACTIVITY	Rubbles - 500MT/day



**2. GENERAL CONDITIONS**

- 2.1. This consent is granted based on the application, affidavit and other particulars filed by the occupier, certificate from the Village officer and subject to the power of the Board to review and made variation in or revoke the conditions as the Board deems fit.
- 2.2. This consent is issued subject to the Circular No.PCB/TAC/MoEF/416/08 dated. 5.12.2012 of the Chairman and subsequent directions, Government orders, Circulars and court orders.
- 2.3. No change, deviation or alteration that may affect the environment, extent and location of quarry shall be made.
- 2.4. Any change in particulars furnished in the application/the identity of the occupier/ authorised agent is to be intimated to the Board forthwith.
- 2.5. There shall be a minimum distance of 100m from boundary of quarry operating area to residential building, place of worship, public buildings, public road having vehicular traffic, river or lake, railway line, bridges etc.
- 2.6. Quarrying shall be done only within the area marked in the location plan.
- 2.7. Quarrying area shall be earmarked before commencement of quarrying activities.
- 2.8. Blasting and quarrying shall be done without causing any nuisance or damage to occupants of adjoining or neighbouring land or building or posing damage to health, life or property.
- 2.9. After completion of excavation at any site, the abandoned quarry shall be utilized for rain water harvesting with protective barriers/ any other suitable approved purpose or may be reclaimed as per specification.
- 2.10. Proper fencing/barriers shall be provided and maintained all around the abandoned deep quarry pits to avoid accidents
- 2.11. Mining below normal water table by continuous pumping shall be avoided in summer period (March, April & May) to prevent drinking water shortage in that area.
- 2.12. Noise creating activities such as drilling, blasting, breaking loading etc shall not be done during night time (6pm – 6am).
- 2.13. Blasting shall be done at specified time with prior signals to avoid accidents.
- 2.14. The PM<sub>10</sub> in ambient air at the boundary shall not exceed 100 µg/m<sup>3</sup>, max.
- 2.15. The Sound level (Leq) at 1m outside the boundary of the site and near residential locations should not exceed the ambient noise standard applicable to the adjoining areas.



**3. ADDITIONAL CONDITIONS**

- 3.1. "The consent issued from the Board will be valid only for a period during the period when all other statutory or necessary clearances from other concerned authorities are valid. The consent issued from the Board is only with respect to the powers vested under the Water Act, 1974, Air Act 1981 and Rules there under. The operation of the unit shall be commenced only after obtaining clearances from all concerned authorities".
- 3.2. No other machineries shall be operated without prior Consent of the Board.
- 3.3. Quarrying operations shall be started only after obtaining Mining permit/lease from Mining & Geology Department and D & O License under the Kerala Panchayat Raj Act from the concerned Local Self Government.
- 3.4. Adequate safety measures shall be provided in accordance with the fire safety regulations.
- 3.5. The applicant shall put up sign boards near the main entrance of the plant to display consent number & validity.



*[Handwritten Signature]*  
 SIGNATURE & SEAL OF  
 ISSUING AUTHORITY

**PAULUS EAPEN**  
 Environmental Engineer

Copy to: - (1) Office copy,  
 (2) Stock file.



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



**KERALA STATE POLLUTION CONTROL BOARD**

**കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്**

Patton P.O., Thiruvananthapuram - 695 004

പട്ടം പി.ഒ., തിരുവനന്തപുരം - 695 004

PCB/HO/TAC/GoM/953/2014

Date: 09/09/2015

**CIRCULAR**

Sub:- Consent of the Board for quarrying activity – reg.

Ref:- 1. This office letter of even no. dated 22.04.2015

2. Judgment dated 13.01.2015 of the NGT, Chennai in OA. No. 123 of 2014 and MA. No. 419 of 2014 and relates cases.

3. Judgment dated 15.07.2015 of the Hon'ble High Court of Kerala in WA No. 1514 of 2015 in WP(C) No. 7781/2015

4. Judgment dated 07.08.2015 of the NGT, Chennai in OA. No. 400 of 2013

(The copies of judgments under reference (2) (3) & (4) are available in Board's website).

As per the above judgments, Environmental Clearance has to be obtained for all quarrying activity.

The National Green Tribunal has in page 84 of the judgment under reference (2) stated that 'Hon'ble Supreme Court in the case of Deepak Kumar (supra) has clearly directed that the miners possessed of mining area of less than 5 hectares cannot operate without taking environmental clearance. This could unexceptionally apply to new units, but, in our considered view, would also apply to existing mine lease holders as well; except that they would have to be given time to comply with the requirements of law'.

The judgment of the Hon'ble High Court holds that – 'valid permit' means permit which may entail a permit holder to carry on mining operation and mining operations can only be carried out along with Environmental Clearance. Those permit holders who does not have Environmental Clearance cannot be said to have valid permit on the relevant date.

Vide reference (4) the NGT has banned all illegal quarrying activity in ESA areas in Palakkad District.

The permits & leases for quarrying are issued from Mining & Geology and Revenue Department. The letter of indent of Mining and Geology is relied by the Board for issuing consent from the Board. This has been insisted vide reference (1), based on the communication received from Mining & Geology subsequent to the framing of the Kerala Minor Mineral Concession Rules, 2015.

The consent issued to quarries by the Board is under Water Act and Air Act only and hence so far the Board is not insisting on Environmental Clearance for issue of consent. In the background of the above three judgments, to safeguard the interest of environment in general and to ensure that the judgement of the Hon'ble Supreme Court which is the law of the land and is binding on all concerned, as a matter of abundant caution the undersigned hereby issue direction to the effect that environmental clearance shall be insisted for considering issuance of consent from the Board for all quarrying activities.

Sd/-

**CHAIRMAN**

Approved for issue



**Environmental Engineer - 1**

To

1. The Chief Environmental Engineer  
Regional Office, EKM
- The Senior Environmental Engineer  
Regional Office, TVM/ KKD
- The Senior Environmental Engineer  
District Office, Palakkad
- The Environmental Engineer  
District Office, TVM / KLM / PTA / KTYM / ALPY / IDK / EKM 1, 2  
(Perumbavoor) & 3 (ESC) / TSR / KKD / MLPM / WYND / KNR / KSGD
2. All Technical Officers in Head Office
3. To IT Cell (for uploading the circular in Board's website)
4. CA to Chairman
5. CA to Member Secretary

80

Mail: kspcbpta@gmail.com

Phone/ fax: 0468-2223983

# കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

## KERALA STATE POLLUTION CONTROL BOARD

ജില്ലാ ഓഫീസ്, OPP ജനറൽ ആശുപത്രി, KK Nair Road, കുന്നിക്കോട്ടത്തിൽബീക്കഡിൽ, പത്തനംതിട്ട-689 845  
DISTRICT OFFICE, OPP.GENERAL HOSPITAL, KK NAIR ROAD, BEHIND AVG MOTORS, PATHANAMTHITTA689645

web site: www.keralapcb.nic.in - for Online registration, visit-krocmmms.nic.in/KSPCB

ഭരണഭാഷ - മാതൃഭാഷ



### CONSOLIDATED ANALYSIS REPORT

Date-11.02.2021

Source : Philips Grano Products, Mallappally (Quarry No:1,Point 1)

Date of sampling: 04.02.2021

Date of sample Received: 04.02.2021

SI. NO.	PARAMETER	UNIT	Quarry No.1				Quarry No.2		LIMIT
			Point-1	Point-2	Point-3	Point-4	Point-1	Point-2	
1	pH		7.3	7.2	7.3	7.3	7.2	7.2	Not specified
2	DO	mg/L	6.7	6.4	6.7	6.8	5.8	7	Not specified
3	BOD	mg/L	1.9	2	1.9	1.8	0.9	0.7	Not specified
4	Conductivity	µmhos/cm	169.9	173.5	169.9	187.4	85.58	70.08	Not specified
5	Turbidity	NTU	17.5	19	17.5	18.8	1.8	1.6	Not specified
6	TDS	mg/L	166	192	166	206	30	26	Not specified
7	TSS	mg/L	149.5	179.8	149.5	193.1	18	15.5	Not specified
8	TC	CFU/100ml	Nil	Nil	Nil	Nil	Nil	Nil	Not specified
9	FC	CFU/100ml	Nil	Nil	Nil	Nil	Nil	Nil	Not specified

*Beena V R*  
**BEENA V R**  
Assistant Scientist



email: [kspcbpta@gmail.com](mailto:kspcbpta@gmail.com)

Phone/ fax: 0468-2223983

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

**KERALA STATE POLLUTION CONTROL BOARD**

ജില്ലാ ഓഫീസ്, OPP ജനറൽ ആശുപത്രി, KK Nair Road, കുന്നിതോട്ടത്തിൽബീർഡിൽ, പത്തനംതിട്ട-689 645  
DISTRICT OFFICE, OPP.GENERAL HOSPITAL, KK NAIR ROAD, BEHIND AVG MOTORS, PATHANAMTHITTA689645

web site: [www.keralapcb.nic.in](http://www.keralapcb.nic.in) – for Online registration, visit-[krocmms.nic.in/KSPCB](http://krocmms.nic.in/KSPCB)

ഭരണഭാഷ-മാതൃഭാഷ



**CONSOLIDATED ANALYSIS REPORT**

Date 11.02.2021

Source : Philips Grano Products, Mallappally

Date of sampling: 04.02.2021

Date of sample Received: 04.02.2021

S I N O	PARAMETER	WELL WATER SAMPLES							LIMIT
		Sujith kumar. C	House owned by Philip	House owned by Philip	House owned by Philip	Muralidhar an Nair, poovanayil, Nooromave	P.T George,Valumannil House,Nooromavu P.O	Rajan Mathew,P ramadikk uzhiyil,No oromavu P.O	
1	pH	5.9	5.7	6.8	6.8	7.1	6.0	5.7	6.5 – 8.5
2	TDS, mg/L	48	30	100	118	140	122	126	500
3	BOD, mg/L	1.4	1.1	1.3	1.9	0.7	0.8	1.5	-
4	Hardness, mg/L,	28	16	18	18	20	14	16	200
5	Chloride,mg/L,	20	14	12	16	16	12	26	250
6	Turbidity,NTU	1.2	1.6	3.9	4.3	6.2	5.7	5.3	1
7	TC, CFU/100ml	90	Nil	Nil	190	Nil	Nil	100	0
8	FC, CFU/100ml	30	Nil	Nil	60	Nil	Nil	30	0

Beena.V.R

BEENA.V.R  
Assistant Scientist



Updated on 12-2-2021

**Annual Trends in Area, Production, Consumption, Import, Export and Average Prices of Natural Rubber in India**

Year (April to March)	Rubber area (ha)	Tappable Rubber area (ha)	Production (tonne)	Average yield (kg/ha)	Consumption (tonne)	Import (tonne)	Export (tonne)	Average price of RSS-4 at Kottayam (Rs/100kg)
2005-06	597,610	447,015	802,625	1,796	801,110	45,285	73,830	6,699
2006-07	615,200	454,020	852,895	1,879	820,305	89,799	56,545	9,204
2007-08	635,400	458,830	825,345	1,799	861,455	86,394	60,353	9,085
2008-09	661,980	463,130	864,500	1,867	871,720	77,762	46,926	10,112
2009-10	686,515	468,480	831,400	1,775	930,565	177,130	25,090	11,498
2010-11	711,560	477,230	861,950	1,806	947,715	190,692	29,851	19,003
2011-12	734,780	490,970	903,700	1,841	964,415	214,433	27,145	20,805
2012-13	757,520	504,040	913,700	1,813	972,705	262,751	30,594	17,682
2013-14	778,400	518,100	774,000	1,629	981,520	360,263	5,398	16,602
2014-15	795,135	533,675	645,000	1,443	1,020,910	442,130	1,002	13,257
2015-16	810,800	558,900	562,000	1,437	994,415	458,374	865	11,306
2016-17	818,000	584,600	691,000	1,553	1,044,075	426,188	20,920	13,549
2017-18	820,900	612,000	694,000	1,458	1,112,210	469,760	5,072	12,980
2018-19	822,000	637,900	651,000	1,453	1,211,940	582,351	4,551	12,595
2019-20p	822,300	663,700	712,000	1,459	1,134,120	457,223	12,872	13,572

P: provisional

# ആനിക്കാട് ഗ്രാമപഞ്ചായത്ത്

A Local Government Institution, Pathanamthitta District

Home ആനിക്കാട് ഗുണഭോക്തൃ ലിസ്റ്റ് ഡാറ്റാ

## പൊതുവിവരങ്ങൾ

ജില്ല	:	പത്തനംതിട്ട
ബ്ലോക്ക്	:	മല്ലപ്പള്ളി
വിസ്തീർണ്ണം	:	19.04 ച.കി.മീ.
വാർഡുകളുടെ എണ്ണം	:	13
ജനസംഖ്യ	:	14140
പുരുഷന്മാർ	:	6939
സ്ത്രീകൾ	:	7201
ജനസാന്ദ്രത	:	743
സ്ത്രീ : പുരുഷ അനുപാതം	:	1038
മൊത്തം സാക്ഷരത	:	96.28
സാക്ഷരത (പുരുഷന്മാർ)	:	97.29
സാക്ഷരത (സ്ത്രീകൾ)	:	95.31

Source : Census data 2001

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### Government of Kerala Abstract

Water Resources Department - Kerala Water Authority - Revision of Water Charges -  
Sanction accorded - Orders issued.

**Water Resources (Water Supply - B) Department**

G.O(MS) No.88 /2014/WRD

Dated, Thiruvananthapuram, 25/09/2014.

- Read:- 1. G.O(MS)No.44/2008/WRD dated 25.09.2008  
 2. Lr.No. KWA/RMC/941/2011 of the Managing Director, Kerala Water Authority.-

### ORDER

Government are pleased to accord sanction to Kerala Water Authority to revise water  
Charges as follows w.e.f. 01.10.2014:

	Category and consumption level per month	Tariff	
		Fixed	Variable
1	<b>DOMESTIC</b>		
	Upto 5000 litres	Nil	Rs. 4/KL with min.Rs.20
	5000 to 10000 litres	Nil	Rs. 20 plus Rs. 4/KL
	10000 to 15000 litres	Nil	Rs. 40 plus Rs.5.00 per every 1000 litres in excess of 10,000 litres.
	15000 to 20000 litres	Nil	Rs. 6.00 per every 1000 litres for the entire consumption
	20000 to 25000 litres	Nil	Rs. 7.00 per every 1000 litres for the entire consumption
	25000 to 30000 litres	Nil	Rs. 9.00 per every 1000 litres for the entire consumption
	30000 to 40000 litres	Nil	Rs. 12.00 per every 1000 litres for the entire consumption
	40000 to 50000 litres	Nil	Rs. 14.00 per every 1000 litres for the entire consumption
	above 50000 litres	Nil	Rs. 700.00 plus Rs.40.00 per every 1000 litres in excess of 50,000 litres
(a) No water charges will be collected from BPL families who consume up to 15,000 litres per month.			
(b) For flats fixed charges will be @ Rs.50/- per dwelling unit			

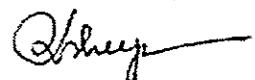
3	<b>NON DOMESTIC</b>		
	For consumption in a month		
	Upto 15000 litres	Rs. 50/-	Rs. 15/KL with Min Rs.150/-
	15000 to 30000 litres		Rs.225 Plus Rs.21.00 per every 1000 litres in excess of 15,000 litres
	30000 to 50000 litres		Rs.540 plus Rs.28.00 per every 1000 litres in excess of 30,000 litres
	above 50000 litres		Rs. 1100 plus Rs.40.00 per every 1000 litres in excess of 50,000 litres
4	<b>INDUSTRIAL</b>		
	For consumption in a month	Rs.150/-	Rs. 40/KL with min Rs.250/-
5	Sewerage Charges will be applicable @ 10% of water charges payable by those consumers who have availed sewerage connections		
6	The rate per tap per year for Rural and Urban Public Hydrants will be as follows:		
	Municipal Taps	Rs. 7,884/- per year	
	Panchayat Taps	Rs. 5,250/- per year	
7	The bulk water supply (Excluding Tanker Lorry) to Local Self Govt bodies /communities will be charged @Rs.6/K.L. For Tanker Lorry supply the rate is Rs.60/KL		

By Order of the Governor,  
**V.J.KURIAN**  
**Additional Chief Secretary to Government.**

To

The Managing Director, Kerala Water Authority, Thiruvananthapuram.  
The Prl.Accountant General (A&E), (Audit), Kerala, Thiruvananthapuram.  
The Finance Department (Vide U.O No.93028/PUC1/13/Fin dated 31.10.2013)  
The web & New Media, Information & Public Relations Department  
Stock file/Office Copy

Forwarded / By Order



Section Officer



**Government of Kerala  
Abstract**

Water Resources Department - Kerala Water Authority - Water Charges Revised  
Tariff in respect of domestic connections - Details elaborated – Modified - Orders issued.

**Water Resources (Water Supply - B) Department**

G.O(MS) No.92 /2014/WRD

Dated, Thiruvananthapuram, 30.09.2014

- Read:- 1. G.O(MS)No.88/2014/WRD dated 25.09.2014
2. Lr.No. KWA/RMC/941/2011, dated 29.09.2014 of. the Managing Director, Kerala Water Authority.

**ORDER**

1. As per the Government Order read above, Government have accorded sanction to Kerala Water Authority to revise water charges w.e.f.01.10.2014. With regard to the tariff in respect of domestic connections ordered in the G.O, Managing Director, Kerala Water Authority, as per the letter read above has proposed elaboration of the category, consumption level and tariff with a view to making it more unambiguous.

2. Government have examined the proposal in detail and are pleased to elaborate tariff in respect of domestic connections ordered in the Govt.Order read above as follows:

	Category and consumption level	Tariff	
		Fixed	Variable
1		<b>DOMESTIC</b>	
	Upto 5000 litres	Nil	Rs. 4.00 per 1000 litres with Minimum Rs.20.00
	above 5000 to 10000 litres	Nil	Rs. 20.00 plus Rs.4.00 per 1000 litres in excess of 5000 litres.
	above 10000 to 15000 litres	Nil	Rs. 40.00 plus Rs.5.00 per 1000 litres in excess of 10000 litres.
	above 15000 to 20000 litres	Nil	Rs. 6.00 per every 1000 litres for the entire consumption (0 to 20000 litres)

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above 20000 to 25000 litres	Nil	Rs 7.00 per every 1000 litres for the entire consumption (0 to 25000 litres)
above 25000 to 30000 litres	Nil	Rs. 9.00 per every 1000 litres for the entire consumption (0 to 30000 litres)
above 30000 to 40000 litres	Nil	Rs. 12.00 per every 1000 litres for the entire consumption (0 to 40000 litres)
above 40000 to 50000 litres	Nil	Rs. 14.00 per every 1000 litres for the entire consumption (0 to 50000 litres)
above 50000 litres	Nil	Rs. 700.00 plus Rs.40.00 per every 1000 litres in excess of 50000 litres

(a) No water charges will be collected from BPL families who consume up to 15,000 litres per month.

3. The Government Order read above stands modified to the above extent.

By Order of the Governor.

**V.J.KURIAN**  
**Additional Chief Secretary to Government.**

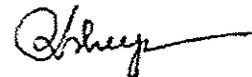
To

The Managing Director, Kerala Water Authority, Thiruvananthapuram.  
The Prl. Accountant General (A&E), (Audit), Kerala, Thiruvananthapuram.  
The Finance Department (Vide U.O No.93028/PUC1/13/Fin dated 31.10.2013)  
The web & New Media, Information & Public Relations Department  
Stock file / Office Copy

Copy to: PS to Hon. Minister, Water Resources.

Disposal leading to G.O(MS)No.88/2014/WRD dated 25.09.2014  
General Administration(SC) Dept.

Forwarded / By Order



Section Officer



ഭരണഭാഷ മാതൃഭാഷ

പി.എസ്. കോശി  
എക്സിക്യൂട്ടീവ് എഞ്ചിനീയർ

എക്സിക്യൂട്ടീവ് എഞ്ചിനീയറുടെ കാര്യാലയം  
ചെറുകിടജലസേചന വിഭാഗം,  
ഇന്ദീവരം, അച്ചൂർ റോഡ്,  
പത്തനംതിട്ട - 689645  
ഫോൺ- 0468-2271272  
E-mail: eemipta@gmail.com

നമ്പർ- DB/G.L.PCB/2019

തീയതി: 26/02/2021

സ്വീകർത്താവ്

എൻവിയോൺമെന്റൽ എഞ്ചിനീയർ  
കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ് (KSPCB)  
ജില്ലാ ഓഫീസ്, പത്തനംതിട്ട

സർ

വിഷയം- OA No. 142/2020 filed by Sri. Renni Jacob George against illegal mining in Anicadu Village, Mallappilly Taluk, Pathanamthitta Dist.

- 1. അങ്ങയുടെ കാര്യാലയത്തിൽ നിന്നുള്ള കത്ത് നമ്പർ PCB/PTA/TG/350/2021 തീയതി 03/02/2021
- 2. അസിസ്റ്റന്റ് എക്സിക്യൂട്ടീവ് എഞ്ചിനീയർ എം.ഐ ഡിവിഷൻ തിരുവല്ലയുടെ കത്ത് നമ്പർ D2-47/Pet/2016, തീയതി 26/02/2021.

മേൽ വിഷയത്തെ സംബന്ധിച്ച് സൂചനകൾ പ്രകാരം ആനിക്കാട് പഞ്ചായത്തിലും വില്ലേജ് ആഫീസിലും നേരിട്ടും നടത്തിയ ആന്വേഷണത്തിൽ നിന്ന് ലഭിച്ച വിവരങ്ങൾ അങ്ങയുടെ അറിവിലേക്കായി നൽകുന്നു.

ആനിക്കാട് വില്ലേജ് പരിധിയിലുള്ള 10-ാം വാർഡിലെ പുളിനാമല എന്ന സ്ഥലത്താണ് പ്രസ്തുത ക്വാറി നിലനിൽക്കുന്നത് മുൻകാലങ്ങളിൽ ടി ക്വാറിയിൽനിന്നും ക്വാറി വെയ്ക്കലും കഴുകുന്നവെള്ളവും സമീപത്തുള്ള മനത്തു തോട്ടിലേക്ക് ഒഴുക്കുന്നതായി ബന്ധപ്പെട്ട് നിരവധി പരാതികൾ വില്ലേജിൽ ലഭിച്ചിട്ടുള്ളതായി അവിടെനിന്നും അറിയുവാൻ സാധിച്ചു. ശ്രീ. റെനി ജേക്കബ് ജോർജിന്റെ പരാതിയിൽ പരാമർശിച്ചിരുന്ന പാറമട സന്ദർശിച്ചപ്പോൾ 2 മാസമായി പാറമട പ്രവർത്തനരഹിതമാണെന്നും വലിയ ഒരു പാറക്കുളം അവിടെ ഉള്ളതായും ശ്രദ്ധയിൽപ്പെട്ടിട്ടുണ്ട്. പാറമട നിലനിൽക്കുന്ന പ്രദേശത്തെ സമീപവാസികളോട് 2005-2019 കാലയളവിൽ പാറമട മൂലമുണ്ടായ പ്രശ്നങ്ങളെക്കുറിച്ച് അന്വേഷിച്ചതിൽനിന്നും വായു മലിനീകരണത്തിന്റേയും പൊടിമൂലമുണ്ടാകുന്ന ആരോഗ്യപ്രശ്നത്തിന്റെയും ബുദ്ധിമുട്ടുകൾ അവർ നേരിടുന്നതായി മനസ്സിലാക്കാൻ സാധിച്ചു. മനത്തുതോട്ടിൽ നിലവിൽ വെള്ളമില്ലാത്ത സ്ഥിതിയാണ്. എങ്കിലും ക്വാറി വെയ്ക്കിന്റെ പൊടി കാണാൻ സാധിക്കുന്നുണ്ട്. ഏകദേശം 1 കി.മീ. ദൂരത്തായി സ്ഥിതി ചെയ്യുന്ന മണിമലയാറ്റിലേക്കാണ് ഈ വെയ്ക്കുകൾ ചെന്നു ചേരുന്നത്. മനത്തു തോടലാതെ മറ്റു തോടുകളിൽ മലിനീകരണമുള്ളതായി പ്രാഥമിക പരിശോധനയിൽ കാണാൻ സാധിച്ചിട്ടില്ല.

കൂടാതെ ആനിക്കാട് പഞ്ചായത്തിൽ ഈ കാര്യാലയത്തിന്റേ ലിഫ്റ്റ് ഇറിഗേഷൻ സ്കീമുകളുടെകനാലുകൾ ഒന്നും തന്നെ കടന്നുപോകുന്നില്ല എന്ന വിവരവും റിപ്പോർട്ട് ചെയ്യുന്നു.

വിശ്വസ്തയോടെ,

എക്സിക്യൂട്ടീവ് എഞ്ചിനീയർ

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**MORTH - MARKET RATE**

**Morth( 400 - 499 )**

code no.	Description	unit	rate
MR400	Plate compactor	hour	27.0
MR401	Drum mix plant for cold mixes of appropriate capacity but not less than 75 tonnes/hour.	hour	1.0
MR402	Paver Finisher Hydrostatic with sensor control 100 TPH	hour	2694.0
MR403	Batch type cold mixing plant 100-120 TPH capacity producing an average output of 75 tonne per hour	hour	234.0
MR404	Cement concrete batch mix plant	hour	1250.0
MR405	HMP of appropriate capacity	hour	20508.5
MR406	Wet Mix plant @75 tonne per hour	hour	1213.0
MR407	Tipper	tonne km	3.0
MR408	Cement concrete batch mix plant	hour	1250.0
MR409	Transit truck agitator 5 cum capacity.	tonne km	3.0
MR410	Batch mix HMP @ 75 tonne per hour	hour	20508.5
MR411	Crane 10 tonne capacity	hour	358.0
MR412	Vibrating Pile driving hammer complete with power unit and accessories.	hour	4375.0
MR413	Piling rig including double acting pile driving hammer (Hydraulic rig)	hour	4250.0
MR414	Joint Cutting Machine with 2-3 blades (for rigid pavement)	hour	137.5
MR415	Texturing machine (for rigid pavement)	hour	115.63
MR416	Cement concrete batch mix plant @ 175 cum per hour (effective output)	hour	1250.0
MR417	Crane 20 tonne capacity	hour	1162.5
MR418	Plate compactor	hour	27.0
MR419	Aluminium sheeting fixed with ASTM Type IV retroreflective sheeting	sqm	3495.0
MR420	AC pipe 100 mm dia	metre	47.15
MR421	Acrylic polymer bonding coat	Litre	1.0
MR422	Alluminium Paint	Litre	160.0
MR423	Aluminium alloy plate 2mm Thick	sqm	1.0
MR424	Retro reflective tape	metre	90.8
MR425	Joint Cutting Machine with 2-3 blades	hour	137.5
MR426	Wooden ballies 8	each	337.0
MR427	Wooden ballies 2	metre	25.0
MR428	Texturing machine	hour	115.63
MR429	HMP 100-110 TPH Capacity	hour	20508.5
MR430	Snow blower equipment 140 HP	hour	1.0
MR431	Batching Plant @ 20 cum/hour	cum	2249.0
MR432	Aluminium sheeting fixed with ASTM Type XI retroreflective sheeting	sqm	6216.0
MR433	Induction, deinduction and erection of plant and equipment including all components and accessories for pneumatic method of well sinking.	hour	702.0
MR434	collar for AC pipe	each	14.85
MR437	Tube anchorage set complete with bearing plate, permanent wedges etc	each	2900.0
MR445	Aluminium sheeting fixed with Type XI reflective sheeting	sqm	6216.0
MR446	Tipper 10 tonne capacity for carriage of stone chips from stockpile on road side to chip spreader	hour	312.0
MR447	Gelatin	kg	74.08
MR448	Tipper 10 tonne capacity	hour	312.0
MR450	Welded steel wire fabric 75x50 mm mesh @ 5 kg/sqm, 4x30x2.3+5 per cent wastage	kg	57.14
MR451	Motor Grader for grading	hour	2413.0
MR453	Crane 15 tonne capacity	hour	1.0
MR454	Boat to carry atleast 20 persons	hour	1.0
MR455	Induction and deinduction	L.S	100000.0
MR456	Erection at site and commissioning	L.S	150000.0
MR457	Hire and running of piling rig including double acting pile driving hammer complete with power unit and accessories.	hour	1.0
MR458	Crane 20 tonne capacity	hour	1162.5

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MR459	Vibrating Pile driving hammer complete with power unit and accessories.	hour	4375.0
MR460	Crane 10 tonne capacity	hour	1.0
MR461	Epoxy Injection gun	hour	1.0
MR462	Hire charges for jack	Day	1.0
MR464	Sealant primer	kg	1.0
MR465	Permeable synthetic geotextile including 5 per cent for overlap and wastage	sqm	1.0
MR466	Galvanization cost for structural steel for W Beam	L.S	437.0
MR467	Galvanization cost for structural steel for Thrie Beam	L.S	543.0
MR468	Steel circular hollow pole of standard specification for street lighting to mount light at 9 m height above road level	each	1.0
MR469	Transit Mixer	cum per km	4.5
MR470	Truck Trailor 30 tonne capacity	tonne km	1.0
MR471	Motor Grader for grading	hour	2413.0
MR472	Batch type HMP 30/40 TPH	hour	7400.0
MR473	Bitumen boiler oil fired (200 litre)	hour	70.63
MR474	Bitumen (Natural Rubber Modified)	tonne	33464.8
MR475	HMP of appropriate capacity	hour	7400.0
MR476	Wet mix plant	hour	1213.0
MR477	Dozer D-50	hour	2222.0
MR478	Truck	hour	312.0
MR479	Crow bars	hour	5.0
MR480	Cost of Resin and hardner adhesive	Kit	919.0
MR481	Jack Hammer with Tractor	hour	195.5
MR482	Fevicol	kg	220.0
MR483	Corbelling Stones	no	27.0
MR484	Loose stone	cum	700.0
MR485	Jute Netting	sqm	50.0
MR486	Edge Stone (450mm x 350mm x 100mm)	no	63.0
MR487	Epoxy primer	Litre	280.0
MR488	MS Sheet Tube	kg	76.0
MR489	MS Sheet 1.5mm thick	sqm	1081.0
MR490	MS Sheet 2mm thick	sqm	1381.0
MR491	Tractor Mount Grader	hour	2411.0
MR492	Elastomeric slab seal expansion joint assembly	metre	12000.0
MR493	Galvanized Angle	kg	80.0
MR494	Preformed continuous Chlorprene Elastomer	metre	4500.0
MR495	Compressible fibre board	sqm	350.0
MR496	Galvanized MS Plate	kg	80.0
MR497	Shredded waste plastic	tonne	22000.0
MR498	Bitumen Emulsion (RS-1)	tonne	26686.0
MR499	Bitumen S-65	tonne	26410.0



# COST AND RETUR...

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## COST AND RETURNS OF NATURAL RUBBER PRODUCTION IN KERALA

Joseph, K J; Ajith Kumar, C E

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### Abstract:

Given the ongoing crisis in India's natural rubber sector, which is known for its remarkable performance in the past, there has been demand for state intervention from natural rubber growers. Any policy intervention however calls for the reliable data on cost and returns of natural rubber production, which is presently not available. The present study is an attempt at estimating the cost and returns of NR production. The study begins by highlighting some of the important dimensions of the ongoing crisis- unprecedented decline in the price, productivity and production. While the sector has been faced with heightened import competition, the state support for the sector appears to be on the declining trend. Drawing from the primary data collected from districts-Kottayam and Thiruvananthapuram, the study comes with different estimates of costs like operating cost, total cost, and total economic cost per acre and per Kg of rubber produced. The operational cost per acre of rubber is found to be Rs 37936 in Kottayam and Rs 48816 in Thiruvananthapuram and per Kg of rubber it is Rs 91 in Rs 87 in Kottayam and Thiruvananthapuram respectively. The total cost per acre is estimated at Rs 48424 in Kottayam and Rs 64155 in Thiruvananthapuram. With this total cost per acre, cost per Kg of rubber produced turns out to be Rs 117 in Kottayam and Rs 118 in Thiruvananthapuram. The above estimate may involve an underestimation of about 20-25 percent when compared with the cost involved as per the practices recommended by the Rubber Board and that we observed in case of about 11% of the growers who did not compromise on various operations in the plantations. The underestimation could be attributed to the generally observed behavior of the growers to cut down various cultural operations during crisis on account of reduced cash flow. We have also generated different economic cost scenarios by taking into account, returns from inter crop, subsidy received, potential income from the sale of rubber wood and finally the interest on the value of land used for cultivation. The estimated ratio of returns to cost is found to be greater than one in both the districts. Yet, it is important to note that the estimated net operating income per acre is only Rs 16732 and Rs 19681 respectively in Kottayam and Thiruvananthapuram. The net total income from an acre is estimated to be much lower at Rs 5685 and Rs 4343 respectively in Kottayam and Thiruvananthapuram. At the going market price, the recorded net operating income and net total income for those with holding size below two hectares and depending entirely on rubber cultivation for their livelihood is likely to be below the poverty line. In the current context, the need to ensure remunerative prices along with measures that contribute to cost minimization, higher yield and improving output quality by revamping the R&D, extension, training and developmental activities of the Rubber Board with a new orientation cannot be over emphasized.

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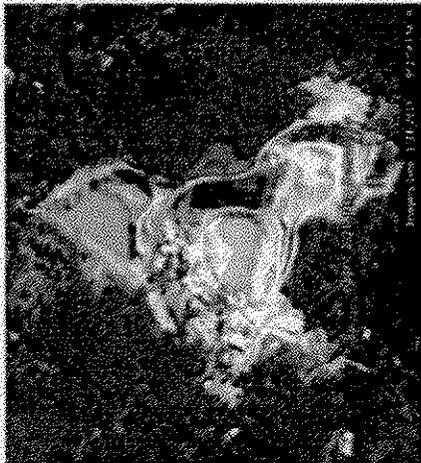
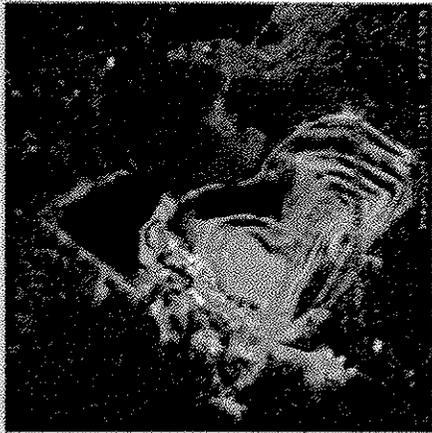
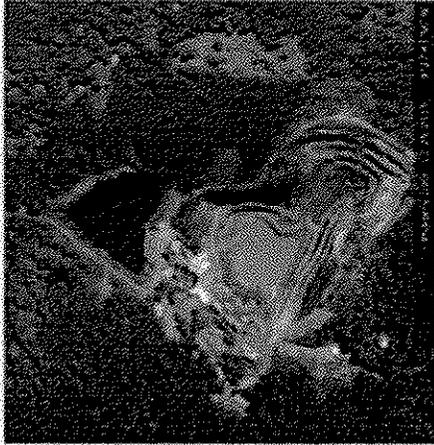
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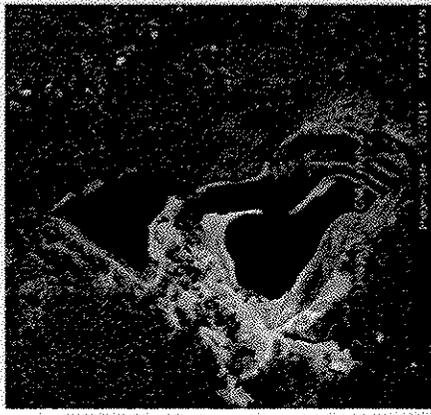
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**BEFORE THE HON'BLE NATIONAL  
GREEN TRIBUNAL  
(SOUTHERN ZONAL BENCH, CHENNAI)**

**Original Application No. 142 of 2020**

**BETWEEN**

Renny Jacob George  
S/o. George Mathai,  
Ovumannil House, Noorommavu P.O.,  
Anicadu, Pathanamthitta District 689 589  
.... **Applicant**

**AND**

Kerala State Pollution Control Board,  
Pattom P.O., Thiruvananthapuram - 695  
004 Rep by its Chairman  
and 7 others ... **Respondents**

**JOINT COMMITTEE REPORT AS PER  
ORDER DATED 07.08.2020**

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