PARIVESH

<u> Part.1</u>

CONSIDERATION/RECONSIDERATION OF ENVIRONMENTAL CLEARANCE

1. SIA/KL/MIN/134153/2019, 1797/EC6/2020/SEIAA Granite Building stone over an extent of 0.7874 Ha in Re Survey No. 276/1 in Oorakam Village, Thirurangadi Taluk, Malappuram District, Kerala.

Decision: The Committee examined the proposal and verified the additional documents submitted. The project area is 0.7874 Ha, the mineable reserve is 1,65,630 MT and proposed mine life is 5 years with a production plan of 33,000 TPA. The Project area does not fall in moderate or high hazard zone. The distance to the nearest built structure (house) is 122m. The depth to water table is around 6m bgl and therefore, mining should be limited to 75m above MSL. The CER is not prepared in accordance with the relevant OM of the MoEF & CC. The Proponent has not submitted certain details sought in Form-2 of Parivesh system, especially the information pertaining to Ecological Sensitivity of the area which is essential details for appraisal. Therefore, the Committee decided to direct the proponent to submit the following additional details.

- 1. Details pertaining to Ecological Sensitivity as sought in Form-2 of Parivesh system
- 2. Revised the CER after detailed consultation and situation analysis as envisaged in the pertinent OM of the MoEF & CC.
- 3. Revise the EMP incorporating spot-specific proposals and revised CER.

SIA/KL/MIN/134774/2020, 1646/EC4/2020/SEIAA Environmental Clearance for the Proposed Granite Building Stone Quarry of Mr. Muhammed Themeem P C for an area of 0.5553 Ha in Re Survey No. 18/14, 22/11, 18/13 of Vavad Village, Thamarassery Taluk, Kozhikode District, and Kerala.

Decision: The Committee examined the proposal and verified the documents. The project area is 0.5553 Ha which includes an abandoned quarry pit. The mineable reserve is 1,12,066 MT and the production plan is 22413 TPA. The life of mine proposed is 5 years.

The proposal is to mine up to a depth of 45m above MSL. The depth to water table is reported to be 54m above MSL and therefore, it is desirable limit the depth of mining to 55m above MSL. This will limit the project period to only 3 years. As per the letter from the DFO, Kozhikkode, there is no Wildlife Sanctuary within 10km.

The Committee decided to entrust Dr A N Manoharan and Dr. C C Harilal for field inspection and report.

3. SIA/KL/MIN/143918/2020, 1367/EC2/2019/SEIAA Environmental Clearance for Granite Building Stone quarry of Mr.Kumaran. N.M at Re SyNos -316/4, 320/6 in Thiruvalloor Village, Vatakara Taluk, Kozhikode District, and Kerala for total mine Permit area of 0.5463 Ha

Decision: The Committee examined the proposal, verified the documents and discussed the Field Inspection Report. The proposed Life of mine is 5 years for extracting 106195MT of granite building stone with an extraction rate of 21239 TPA. The nearest house is at 52.96m and depth to water table is 30m above MSL. There are 6 houses located around the project area within a distance varying from 52m to 79m. The Proponent has not submitted certain details sought in Form-2 of Parivesh portal, especially the information pertaining to Ecological Sensitivity of the area which is essential details for appraisal. The Committee, therefore, decided to direct the Proponent to submit the details pertaining to Ecological Sensitivity as sought in Form-2 of Parivesh portal.

4. SIA/KL/MIN/149209/2020, 1700/EC4/2020/SEIAA

Environmental Clearance for the building stone quarry of Sri.M.P.Lalu, at Re Survey No.74/1Dpt,74/608pt, Block No. 37 of Kuttur Village, Payyannur Taluk, Kannur District, Kerala for an Area of 1.4336 Ha. (132nd SEAC meeting Minutes -Item No.21)

Decision: The Committee examined the proposal, verified the documents submitted by the proponent and discussed the Field Inspection Report. The proposed Life of mine is 12 years for extracting 443685MT of granite building stone with an extraction rate of 33665 TPA. The nearest house is at 103m and a crusher is located at a distance of 59m. The depth to water table is 35.74m amsl and the maximum depth of mining proposed is 35m amsl. During the appraisal, the Committee observed the following contradiction which need clarification from the Proponent.

An Application No. SIA/KL/MIN/45999/2019 submitted by M/s. RDS Projects

Ltd. for mining building stone from area of 0.971 Ha falling in Sy. No. 74/1D of Kuttoor Village, Kannur district is pending before the SEAC. The proposal under consideration in the present Committee (SIA/KL/MIN/149209/2020) falls in Sy. No. 74/1D and 74/608pt in the same village. When the KML files of both the proposals are examined, it is found that the boundary pillars no. BP5, BP6, BP7 and BP10 of File No. SIA/KL/MIN/149209/2020 falls in the area earmarked in the File No. SIA/KL/MIN/45999/2019. In the circumstance, the Committee decided to direct the proponent to revise the mining plan or submit a certificate from the authority who approved the both the Mining Plans stating that there are no crossover of project boundaries.

5. SIA/KL/MIN/149660/2020, 1682/EC1/2020/SEIAA

Environmental Clearance for the proposed Granite / Building stone Quarry of 0.8777 Ha in Sy.Nos.137/4-11, 137/4-11-1, 137/422, 137/4-21 in Thachanattukara-1 village, Mannarkad Taluk by Sri.Mujeeb.P.K.

Decision: The Committee examined the proposal, verified the documents and discussed the field inspection report. The total mineable reserve is 3,46,320 MT, life of mine proposed is 10 years, and distance to nearest house is 125.6m. Based on discussions, the **Committee decided to recommend issuance of EC for a period of 10 years subject to the following specific conditions** in addition to the general conditions:

- 1. Depth of mining should be limited to 55m above MSL instead of 45m above MSL in the approved Mining Plan considering the depth to groundwater table.
- 2. Development of green belt should be initiated prior to the commencement of mining operation
- Compensatory afforestation should be initiated prior to the commencement of mining.
- 4. Drainage system incorporating garland canal, silt traps, siltation pond and outflow channel connecting to a natural drain should be provided prior to the commencement of mining.
- 5. Haulage road should be developed prior to the commencement of mining and it may be maintained well with frequent sprinkling.
- 6. Garland drain, silt-traps, siltation ponds and outflow channel should be desilted periodically and geo-tagged photographs of the process should be included in the compliance report.
- 7. Retaining wall of appropriate height should be provided at the overburden dumping

site.

- 8. CER Plan should be implemented within the first 2 Years and it should be operated and maintained till the mine closure plan is implemented.
- 9. Transportation of mined material should not be done during the peak hours in the forenoon (8.30am to 10.30am) and afternoon (3.30pm to 5 pm).
- 10. Adequate sanitation, waste management and rest room facilities should be provided to the workers prior to commencement of mining.
- 11. Adequate energy conservation measures including solar power installations should be implemented prior to commencement of mining.
- 12. Environment Management Cell (EMC) should include one subject expert in environment management. The proceedings of the monthly meeting of the EMC should be submitted along with the HYCR

SIA/KL/MIN/150672/2020, 1680/EC1/2020/SEIAA Environmental Clearance for the proposed Granite / Building stone Quarry in Sy No.142/1 in Thachanattukara-1 village, Mannarkad Taluk by Sri.Muhammed Mammunni.

Decision: The Committee examined the proposal, verified the documents and discussed the field inspection report. The total mineable reserve is 2,57,760MT, life of mine proposed is 5 years, and distance to nearest house is 50.7m. Based on discussions, the **Committee decided to recommend issuance of EC for a period of 5 years** subject to the following specific conditions in addition to the general conditions:

- 1. Depth of mining should be limited to 100m above MSL instead of 90m above MSL in the approved Mining Plan considering the depth to groundwater table.
- 2. The impact of vibration due to blasting on the nearest houses and built structures should be monitored in terms of Peak Particle Velocity and amplitude for maximum charge per delay and included in the Half Yearly Compliance Report.
- Development of green belt should be initiated prior to the commencement of mining operation
- 4. Compensatory afforestation should be initiated prior to the commencement of mining.
- 5. Drainage system incorporating garland canal, silt traps, siltation pond and outflow channel connecting to a natural drain should be provided prior to the commencement of mining.

- 6. Haulage road should be developed prior to the commencement of mining and it may be maintained well with frequent sprinkling.
- 7. Garland drain, silt-traps, siltation ponds and outflow channel should be desilted periodically and geo-tagged photographs of the process should be included in the compliance report.
- 8. Retaining wall of appropriate height should be provided at the overburden dumping site.
- 9. CER Plan should be implemented within the first 2 Years and it should be operated and maintained till the mine closure plan is implemented.
- 10. Transportation of mined material should not be done during the peak hours in the forenoon (8.30am to 10.30am) and afternoon (3.30pm to 5 pm).
- 11. Adequate sanitation, waste management and rest room facilities should be provided to the workers prior to commencement of mining.
- 12. Adequate energy conservation measures including solar power installations should be implemented prior to commencement of mining.
- 13. Environment Management Cell (EMC) should include one subject expert in environment management. The proceedings of the monthly meeting of the EMC should be submitted along with the HYCR

7. SIA/KL/MIN/153085/2020, 1777/EC1/2020/SEIAA Environmental Clearance for the Proposed Granite (Building Stone) Quarry in Block no.83, ReSurvey No: 66 of Ambalappara -II and Block No.80, Re Sy.No: 287/17 of Ambalappara-I village in Ottappalam Taluk, Palakkad District, Kerala by P. K. Abdul Khader M/s Fathima Granites.

Decision: The Committee examined the proposal, verified the documents and discussed the field inspection report. The total mineable reserve is 1,26,250 MT, life of mine proposed is 5 years, and distance to nearest house is 199.9m. Based on discussions, the **Committee decided to recommend issuance of EC for a period of 5 years** subject to the following specific conditions in addition to the general conditions:

- 1. Development of green belt should be initiated prior to the commencement of mining operation
- 2. Compensatory afforestation should be done at the proposed site with local plants as mentioned in the biodiversity assessment and also climbers and herbs prior to commencement of mining and the progress should be documented as geotagged

photographs and submitted along with HYCR.

- 3. Drainage system incorporating garland canal, silt traps, siltation pond and outflow channel connecting to a natural drain should be provided prior to the commencement of mining.
- 4. Haulage road should be developed prior to the commencement of mining and it may be maintained well with frequent sprinkling.
- 5. Garland drain, silt-traps, siltation ponds and outflow channel should be desilted periodically and geo-tagged photographs of the process should be included in the compliance report.
- 6. Retaining wall of appropriate height should be provided at the overburden dumping site.
- 7. CER Plan should be implemented within the first 2 Years and it should be operated and maintained till the mine closure plan is implemented.
- 8. Transportation of mined material should not be done during the peak hours in the forenoon (8.30am to 10.30am) and afternoon (3.30pm to 5 pm).
- 9. Adequate sanitation, waste management and rest room facilities should be provided to the workers prior to commencement of mining.
- 10. Adequate energy conservation measures including solar power installations should be implemented prior to commencement of mining.
- 11. Environment Management Cell (EMC) should include one subject expert in environment management. The proceedings of the monthly meeting of the EMC should be submitted along with the HYCR

8. SIA/KL/MIN/160638/2020, 1721/EC2/2020/SEIAA Environmental Clearance for Building Stone Quarry of Mr.S.Sundarasan over an extent of 0.7678 Ha. Re Survey no.114/2-1,115/6-4-2,113/6,113/4-2,113/13, of Puthoor Village, Kottarakkara taluk, Kollam District, Kerala (FIR Received)

Decision: The Committee examined the proposal, verified the documents and discussed the field inspection report. The total mineable reserve is 190938 MT, life of mine proposed is 4 years, distance to nearest built structure is 55.5m. Based on discussions, the **Committee decided to recommend issuance of EC for a period of 4 years subject to the following specific conditions** in addition to the general conditions:

1. The abandoned quarry located adjacently should be put to appropriate use and it should be protected with fencing all around to avoid any accidents.

- 2. Depth of mining should be limited to 195m above MSL considering the depth to groundwater table.
- 3. The impact of vibration due to blasting on the nearest houses and built structures should be monitored in terms of Peak Particle Velocity and amplitude for maximum charge per delay and included in the Half Yearly Compliance Report.
- 4. Development of green belt should be initiated prior to the commencement of mining operation
- 5. Compensatory afforestation should be initiated prior to the commencement of mining.
- 6. Drainage system incorporating garland canal, silt traps, siltation pond and outflow channel connecting to a natural drain should be provided prior to the commencement of mining.
- 7. Haulage road should be developed prior to the commencement of mining and it may be maintained well with frequent sprinkling.
- 8. Garland drain, silt-traps, siltation ponds and outflow channel should be desilted periodically and geo-tagged photographs of the process should be included in the compliance report.
- 9. Gabion wall of appropriate height should be provided at the overburden dumping site
- 10. CER Plan should be implemented within the first 2 Years and it should be operated and maintained till the mine closure plan is implemented.
- 11. Transportation of mined material should not be done during the peak hours in the forenoon (8.30am to 10.30am) and afternoon (3.30pm to 5 pm).
- 12. Adequate sanitation, waste management and rest room facilities should be provided to the workers prior to commencement of mining.
- 13. Adequate energy conservation measures including solar power installations should be implemented prior to commencement of mining.
- 14. Environment Management Cell (EMC) should include one subject expert in environment management. The proceedings of the monthly meeting of the EMC should be submitted along with the HYCR

9. SIA/KL/MIN/161069/2020, 1799/EC6/2020/SEIAA Granite Building Stone Quarry of Mr.Abdul Rasack.P having area of 2.1509 Ha in Survey No:95/9-3,95/7-4 In Mankada Village, Perinthalmanna Taluk,

Malappuram District, Kerala

Decision: The Committee examined the proposal, verified the documents and discussed the field inspection report. The total mineable reserve is 9,16,951MT and the production plan is 76413 TPA. The life of mine proposed is 11 years and distance to the nearest house is 218 m and a crusher at 73m. The depth to water table is 10m bgl in the valley portion which necessitates limiting the depth of mine to 60m above MSL instead of 50m above MSL. Based on discussions, **the Committee decided to recommend issuance of EC for a period of 11 years** subject to the following specific conditions in addition to the general conditions:

- Depth of mining should be limited to a maximum of 60m above MSL instead of 50m in the approved Mine Plan considering the depth to groundwater table
- 2. The abandoned quarry should be protected with strong fencing all-around to prevent any accident and it should be closed as per the mine closure plan and put to useful purposes.
- 3. Development of green belt should be initiated prior to the commencement of mining operation.
- 4. Compensatory afforestation should be initiated prior to the commencement of mining.
- 5. Drainage system incorporating garland canal, silt traps, siltation pond and outflow channel connecting to a natural drain should be provided prior to the commencement of mining.
- 6. Garland drain, silt-traps, siltation ponds and outflow channel should be desilted periodically and geo-tagged photographs of the process should be included in the compliance report.
- 7. Gabion wall of appropriate height should be provided at the overburden dumping site.
- 8. CER Plan should be implemented within the first 2 Years and it should be operated and maintained till the mine closure plan is implemented.
- 9. Transportation of mined material should not be done during the peak hours in the forenoon (8.30am to 10.00am) and afternoon (3.30pm to 5 pm).
- 10. The haulage road should be maintained well with frequent sprinkling.
- 11. Adequate sanitation, waste management and rest room facilities should be provided to the workers.
- 12. Adequate energy conservation measures proposed should be implemented

including solar power installations

13. Environment Management Cell (EMC) should include one subject expert in environment management. The proceedings of the monthly meeting of the EMC should be submitted along with the HYCR

10. SIA/KL/MIN/163826/2020, 1837/EC6/2020/SEIAA Granite Building stone over an extent of 1.3230Ha in Survey Nos. 51,52-1in Pullippadam Village, Nilambur Taluk, Malappuram District, Kerala.

Decision: The Committee examined the proposal and verified the documents submitted by the proponent. It is noted that Rs. 11 Lakh is earmarked for EMP out of which Rs. 10 Lakh is for CER. It indicates that the fund earmarked for EMP is inadequate for undertaking environmental mitigation measures, environmental monitoring activities and environmental restoration works. Therefore, the committee directed the Proponent to rework the EMP with appropriate costing and integrate the CER with EMP as required.

11. SIA/KL/MIN/166510/2020, 1811/EC3/2020/SEIAA

Building Stone Mine (Quarry, Minor Mineral Mining) project of M/s Chattupara Granites Private Limited at Survey Nos.734/1B-32, 734/1B-34-3, 734/1B-34-4 of Kalloorkkad Village, Muvattupuzha Taluk, Ernakulam District, Kerala in an area of 0.9700 Ha

Decision: The Committee examined the proposal and verified the documents. The Committee noted that there is a complaint from Sri. Ajish James against consideration of the proposal for environmental clearance. The **Committee decided to entrust Dr. K N Krishnakumar and Dr. Mahesh Mohan for field inspection and report and also verify the points raised in the complaint.**

12. SIA/KL/MIN/175300/2020, 1987/EC3/2022/SEIAA

Building Stone Minor Mineral Mining (Quarry) project of M/s Rock field Estates Pvt. Ltd. at Block No. 48 in Re-Survey No. 400/1, 400/2, 401/5-2, 406/5 of Chengalam (E) Village, Kottayam Taluk, Kottayam District, Kerala in an area of 0.8736 hectares.

Decision: The Committee examined the proposal and discussed the Field Inspection Report in detail and **decided to direct the Proponent to submit the following additional documents:**

1. Modified OB dump plan

- 2. Modified EMP with modified CER
- 3. Detailed plan for compensatory afforestation consisting of the geo-coordinates of the demarcated area for compensatory afforestation, geo-tagged photographs of the location, number of trees proposed and the type and species of trees, shrubs, herbs and climbers included in the afforestation program.
- 4. Drainage plan including the details of settling traps, siltation ponds, outflow channel, connectivity to natural drain and modification of culvert and associated drainage canals.

13. SIA/KL/MIN/177504/2020, 1864/EC3/2020/SEIAA Proposed Laterite Building Stone Quarry of Thankappan .M.M. at Re -Survey No-55/1-4 in Edakattuvayal Village, Kanayannur Taluk, Ernakulam District, Kerala for an extent of 0.0970.

Decision: The Committee examined the proposal and appraised the project as per OM dated 24.6.2013, pertaining to brick earth or ordinary earth up to an area less than 5 Ha and **decided to recommend EC for a period of One year with the following specific conditions in addition to general conditions:**

- 1. The excavation activity associated should not involve blasting.
- 2. The excavation activity should be restricted to a maximum depth of 2m below general ground level at the site
- 3. The excavation activity should be restricted to 2m above the ground water table at the site.
- 4. The excavation activity should not alter the natural drainage pattern of the area
- 5. The excavated pit should be restored by the project proponent for useful purpose
- 6. Appropriate fencing all around the excavated pit should be made to prevent any mishap
- Measures should be taken to prevent dust emission by covering of excavated earth during transportation
- 8. Safeguards should be adopted against health risks on account of breeding of vectors in the water bodies created due to excavation of earth
- 9. Workers/labourers should be provided with facilities for drinking water and sanitation
- 10. A berm should be left from the boundary of adjoining field having a width equal to at least half the depth of proposed excavation

- 11. A minimum distance of 15m from any civil structure should be kept from the periphery of the project area
- 12. No water logging should be allowed in the mine pit. Appropriate drainage should be ensured from the project area prior to the commencement of mining.
- 13. The drain should be provided with silt traps and siltation pond and the overflow water should be clarified and drained to the nearest natural drain without any hindrance.
- 14. The drainage system should be cleaned and desilted periodically to facilitate unhindered drainage.
- 15. Measures incorporated in the CER should be implemented as per norms
- 16. Transportation of mined material should not be done during the peak hours in the forenoon (8.30am to 10.00am) and afternoon (3.30pm to 5 pm).

14. SIA/KL/MIN/189134/2020, 1953/EC3/2022/SEIAA

Environmental Clearance project of Amal P Wilson for the building stone quarry at Re-Survey No. 10/1-2, 10/1-3,10/9,Block No.16 of Mookkannoor Village, Aluva Taluk, Ernakulam District, Kerala for an Area of 0.7694 Ha.

Decision: The Committee examined the proposal, verified the documents submitted by the proponent and **decided to entrust Dr. N Ajithkumar and Dr. R. Ajayakumar varma for field inspection and report.**

15. SIA/KL/MIN/209954/2021, 1951/EC1/2022/SEIAA

Environmental Clearance for the building stone quarry of SUKUMARAN K at Survey No. 364 of Nagalassery Village, Pattambi Taluk, Palakkad District, Kerala for an Area of 0.4696 Ha.

Decision: The Committee examined the proposal and verified the documents submitted by the Proponent. It is observed that the EMP and CER are very sketchy. Therefore, the Committee decided to direct the proponent to submit site specific EMP with adequate budget provision and incorporating implementable CER with monitorable target.

16. SIA/KL/MIN/229459/2021 , 1948/EC4/2022/SEIAA

Environmental Clearance for Laterite Building Stone Quarry project of Mr. Subair Chakkingal at Re. Sy. No: 19/514, 19/515 Koodathai -Village, Tamarassery -Taluk, Kozhikode- District, Kerala over an area of 0.668617 Ha.

Decision: The Committee examined the proposal, verified the documents, discussed the field inspection and appraised the project as per OM dated 24.6.2013, pertaining to brick

earth or ordinary earth up to an area less than 5 Ha. The Committee decided to **recommend EC for a project period of 3 years from the date of permit from the Mining and Geology Department** subject to the following Specific Conditions in addition to the General Conditions as per the O M dated 24.6.2013:

- 1. The activity associated with borrowing/excavation should not involve blasting.
- 2. The borrowing/excavation activity should be restricted to a maximum depth of 2m below general ground level at the site.
- 3. The borrowing/excavation activity should not alter the natural drainage pattern of the area.
- 4. The borrowed/excavated pit should be restored by the project proponent for useful purposes.
- 5. Appropriate fencing all around the borrowed/excavated pit should be made to prevent any mishap.
- 6. Measures should be taken to prevent dust emission by covering of borrowed/excavated earth during transportation.
- 7. Safeguards should be adopted against health risks on account of breeding of vectors in the water bodies created due to borrowing/excavation of earth.
- 8. Workers/labourers should be provided with facilities for drinking water and sanitation.
- 9. A berm should be left from the boundary of adjoining field having a width equal to at least half the depth of proposed excavation.
- 10. Numbered Boundary Pillars marked with geo-coordinates should be fixed to define the exact boundary and geotagged photographs of all the boundary pillars should be submitted prior to commencement of mining.
- 11. No water logging should be allowed in the mine pit. Appropriate drainage should be ensured from the project area prior to the commencement of mining.
- 12. The drain should be provided with silt traps and siltation pond and the overflow water should be clarified and drained to the nearest natural drain without any hindrance.
- 13. The drainage system should be cleaned and desilted periodically to facilitate unhindered drainage.
- 14. Measures incorporated in the CER should be implemented as per norms
- 15. Transportation of mined material should not be done during the peak hours in the forenoon (8.30am to 10.00am) and afternoon (3.30pm to 5 pm).

SIA/KL/MIN/229588/2021, 1928/EC4/SEIAA/2021

Environmental Clearance for Laterite building stone quarry project of Mr. Mirshad. C.K at Re-survey.No: 35/153 of Puthoor -Village, Tamarassery - Taluk, Kozhikode District, Kerala over an area of 0.3875 Ha.

Decision: The Committee examined the proposal and appraised the project as per OM dated 24.6.2013, pertaining to brick earth or ordinary earth up to an area less than 5 Ha and decided to recommend EC for a period of One year with the following specific conditions in addition to general conditions:

- 1. The excavation activity associated should not involve blasting.
- 2. The excavation activity should be restricted to a maximum depth of 2m below general ground level at the site
- 3. The excavation activity should be restricted to 2m above the ground water table at the site.
- 4. The excavation activity should not alter the natural drainage pattern of the area
- 5. The excavated pit should be restored by the project proponent for useful purpose
- 6. Appropriate fencing all around the excavated pit should be made to prevent any mishap
- 7. Measures should be taken to prevent dust emission by covering of excavated earth during transportation
- 8. Safeguards should be adopted against health risks on account of breeding of vectors in the water bodies created due to excavation of earth
- 9. Workers/labourers should be provided with facilities for drinking water and sanitation
- 10. A berm should be left from the boundary of adjoining field having a width equal to at least half the depth of proposed excavation
- 11. A minimum distance of 15m from any civil structure should be kept from the periphery of the project area
- 12. No water logging should be allowed in the mine pit. Appropriate drainage should be ensured from the project area prior to the commencement of mining.
- 13. The drain should be provided with silt traps and siltation pond and the overflow water should be clarified and drained to the nearest natural drain without any hindrance.
- 14. The drainage system should be cleaned and desilted periodically to facilitate unhindered drainage.

- 15. Measures incorporated in the CER should be implemented as per norms.
- 16. Transportation of mined material should not be done during the peak hours in the forenoon (8.30am to 10.00am) and afternoon (3.30pm to 5 pm).
- 17. There are two abandoned pits nearby the project area which should be filled and reclaimed.
- 18. Compensatory afforestation should be done for the trees removed from the site

17. SIA/KL/MIN/255487/2022 , 2010/EC1/2022/SEIAA

Granite Building Stone Quarry of Sri.K.Udayan over an extent of 0.99.17 Hectares in Sy.No. 163, 163/1 at Enadimangalam Village, Adoor Taluk, Pathanamthitta District, Kerala.

Decision: The Committee examined the proposal and discussed the field inspection report. It is observed that there are inconsistencies in the details provided in Form-2 and other reports. Based on discussions, the Committee decided to **direct the proponent clarify the inconsistencies and submit the following additional documents:**

- 1. Clarification regarding the recommendation of land reclamation in the conceptual plan
- 2. Clarification regarding the inconsistency with respect to the depth of final mine void and distance to the KIP canal.
- 3. Clarification regarding lack of fund earmarked for Environment Management Plan as given in Form 2.
- 4. Revised Project cost and so also revised EMP and CER. The EMP should be revised with spot specific mitigation measures and monitoring plan and CER should be revised with monitorable physical targets integrated into the EMP.
- 5. Recently certified survey map showing distance to the canal and all nearby structures. There are built structures near the project site which are not marked in the survey map submitted.
- 6. Feasibility report on the conversion of the nearby abandoned quarry to rain water harvesting facility and its utility potential
- 7. Revised KML file as the boundary pillars are not marked in the KML file uploaded.
- 8. Non assignment certificate needs to be submitted.
- 9. Map showing access road and its connectivity to the nearby panchayat road with details of width.
- 10. Photographs showing each of the boundary pillars after they are firmly fixed with

concrete.

- 11. Map showing location OB storage and details of protection to OB storage.
- 12. Map showing the drainage design and its connectivity to the nearest natural drain with siltation facilities envisaged
- 13. Detailed Compensatory afforestation plan to compensate the non-feasibility of green belt in the buffer zone between P1 and P6 and the trees proposed to be removed from the site. The plan should be consisting of the geo-coordinates of the demarcated area for compensatory afforestation, geo-tagged photographs of the location, number of trees proposed and the type and species of trees, shrubs, herbs and climbers included in the afforestation program.

18. SIA/KL/MIN/261870/2022, 2005/EC6/2022/SEIAA

Environmental Clearance for the Proposed Laterite (Building Stone) Quarry in Block No. 14, Re-Survey Nos: 63/1/5-1, 63/3/3-1 of Muthuvallur Village, Kondotty Taluk, Malappuram District, Kerala.

Decision: The Committee examined the proposal and appraised the project as per OM dated 24.6.2013, pertaining to brick earth or ordinary earth up to an area less than 5 Ha and **decided to recommend EC for a period of Two year with the following specific conditions** in addition to general conditions:

- 1. The excavation activity associated should not involve blasting.
- 2. The excavation activity should be restricted to a maximum depth of 2m below general ground level at the site
- 3. The excavation activity should be restricted to 2m above the ground water table at the site.
- 4. The excavation activity should not alter the natural drainage pattern of the area
- 5. The excavated pit should be restored by the project proponent for useful purpose
- 6. Appropriate fencing all around the excavated pit should be made to prevent any mishap
- 7. Measures should be taken to prevent dust emission by covering of excavated earth during transportation
- 8. Safeguards should be adopted against health risks on account of breeding of vectors in the water bodies created due to excavation of earth
- 9. Workers/labourers should be provided with facilities for drinking water and sanitation

- 10. A berm should be left from the boundary of adjoining field having a width equal to at least half the depth of proposed excavation
- 11. A minimum distance of 15m from any civil structure should be kept from the periphery of the project area
- 12. No water logging should be allowed in the mine pit. Appropriate drainage should be ensured from the project area prior to the commencement of mining.
- 13. The drain should be provided with silt traps and siltation pond and the overflow water should be clarified and drained to the nearest natural drain without any hindrance.
- 14. The drainage system should be cleaned and desilted periodically to facilitate unhindered drainage.
- 15. Measures incorporated in the CER should be implemented as per norms.
- 16. Transportation of mined material should not be done during the peak hours in the forenoon (8.30am to 10.00am) and afternoon (3.30pm to 5 pm).

19. SIA/KL/MIN/272314/2022, 1339/EC2/2019/SEIAA

Granite Building Stone Quarry located at Survey No. 911 and 912 in Thekkumkara Village, Thalappilly Taluk, Thrissur District, Kerala, B and B Granites Granite Building Stone Quarry of 0.8075 ha

Decision: As directed by the Committee, consequent to the decision of the 115th meeting of the SEIAA, the Proponent has submitted a letter from the Wildlife Warden, Peechi No. PW 2-3155/2022 dated 23.8.2022 which states that the distance to the Peechi-Vazhani Wildlife Sanctuary from the project site is 7.84 km. The Proponent has also submitted copy of the application submitted to the NBWL. In the circumstance, the Committee decided to recommend EC for the project with a project period of 5 years subject to the following specific conditions in addition to the general conditions.

- 1. The depth of mining should be limited to 195 m above MSL instead of the proposed 185 m above MSL considering the depth to the ground water table.
- 2. Medium sized carriages (trucks) should only be used for transportation and only one-way traffic should be allowed for loaded vehicles.
- 3. The impact of vibration due to blasting on the nearest houses and built structures should be monitored in terms of Peak Particle Velocity and amplitude for maximum charge per delay and included in the Half Yearly Compliance Report.
- 4. Development of green belt should be initiated prior to the commencement of

mining operation.

- 5. Compensatory afforestation should be initiated prior to the commencement of mining.
- 6. Drainage system incorporating garland canal, silt traps, siltation pond and outflow channel connecting to a natural drain should be provided prior to the commencement of mining.
- 7. Garland drain, silt-traps, siltation ponds and outflow channel should be desilted periodically and geo-tagged photographs of the process should be included in the compliance report.
- 8. Gabion wall of appropriate height should be provided at the overburden dumping site.
- 9. CER Plan should be implemented within the first 2 Years and it should be operated and maintained till the mine closure plan is implemented.
- 10. Transportation of mined material should not be done during the peak hours in the forenoon (8.30am to 10.00am) and afternoon (3.30pm to 5 pm).
- 11. The haulage road should be maintained well with frequent sprinkling.
- 12. Adequate sanitation, waste management and rest room facilities should be provided to the workers.
- 13. Adequate energy conservation measures proposed should be implemented including solar power installations
- 14. Environment Management Cell (EMC) should include one subject expert in environment management. The proceedings of the monthly meeting of the EMC should be submitted along with the HYCR

20. SIA/KL/MIN/45319/2019, 1499/EC3/2019/SEIAA Environmental Clearance for Granite Building Stone quarry project of Mr. T. Abdul Rahiman, Re Survey No. 172 of Kodiyathur Village, Kozhikode Taluk, Kozhikode District, Kerala for an area of 1.0514 hectares.

Decision: The Committee examined the proposal, verified the documents submitted by the proponent and discussed the field inspection report. The additional documents asked for on 18.3.2021 was submitted only on 27.9.2022. The total mineable reserve is 3,36,500 MT and the projected life of mine is 10 years. The nearest house is at 101.7m and depth to water table is 7m bgl. The general elevation of the site varies from 100m to 145m above MSL. Considering the depth to water table, the mining will have to be limited to a depth of 95m

above MSL instead of the proposed 85m above MSL. The proposed site includes an abandoned quarry without any safeguards. It is observed that about 80% of the project area falls in moderate hazard zone. Therefore, the stipulations in the Kerala State Disaster Management Plan, 2016 that quarrying shall be permitted only after getting the approval of the district level crisis management committee for mining constituted vide G.O (Rt) No. 542/14/ID dated 26-05- 2014 is applicable. It is also found that the EMP is not spot specific and the amount earmarked for EMP is too inadequate at 4.4% of project cost. Therefore, **the Committee decided to direct the proponent to rework on EMP.**

21. SIA/KL/MIN/74360/2019, 1446/EC3/2019/SEIAA

Environment Clearance for the Quarry project of Sri. Eldho Kuruvila. at Re.SurveyNos: 284/1, 279/2- 2pt, 279/2pt, 284/2, 284/2-1pt, 284/2-4pt, 284/1-3pt, 284/2-5pt & 284/1-1pt of Block No. 29, Mazhuvannoor Village, Kunnathunadu Taluk, Ernakulam District, Kerala for an area of 2.3337 hectares.

Decision: The Project comes under cluster conditions along with another proposal with File No. SIA/KL/MIN/74384/2020 and hence was recommended for a cumulative impact assessment. The application for approval of ToR was submitted on 24.09.2019 and the same was deemed to have been approved. The Committee examined the proposal and discussed the evaluation report of the EIA study and reply to the points raised during the Public consultation. The cumulative EIA was carried out in March 2020-February 2021. During the Public consultation, there were supportive comments as well as apprehensions and concerns about the project. The reply to the comments in the public consultation are acceptable. However, there are inadequacies in the EIA Report and EMP and non-compliances with ToR as given hereunder.

- Environment policy approved by the Board of Directors of the project is missing (ToR 7)
- Proximity to "critically polluted" areas is not found provided (ToR 19)
- The mineralogical composition of PM10, particularly for free silica is not addressed (ToR 22)
- The details of ambient air quality sampling are not given, particularly with regard to the equipment used, method adopted for the analysis, type of filter papers used for PM10 and PM2.5 etc. (ToR 23)

- Though the ToR stipulates that all the parameters used for modelling study should be clearly mentioned in the report, it is not done. The details with regard to the air quality model used, input parameters etc are not given (ToR 23)
- As per the Table 3.6., the PM10 value is 57microgram/m³ and the standard value is 60 microgram/m³ (data from the monitoring station of PCB at 5.5km away from the site). It is very close to the threshold limit and the ground level concentration consequent to the project activities may be beyond the threshold value. In the absence of modelling study, this is not examined and no mitigative measures suggested (ToR 23).
- Only two samples of ground water (well) and one surface water (Canal) have been collected and analysed for the EIA study. It does not adequately represent the impact zone No water sample from the natural streams within the impact zone is found analysed through there are a total of six nos. of primary streams in the study (Fig. 3.11). Also listed out so many surface water bodies, but haven't taken any samples from there. There are chances for contaminating the natural streams even though there is no direct connection with the drainage of the quarry, through the air as well as surface runoff, as the area has so many working quarries with crusher units (ToR 27).
- Contradictory statement on page 3-87: "surface water is within the acceptable limit....except total coliform". As per the results, the water samples are free from coliform content (ToR 27).
- The connection of drainage with the natural stream is not given (ToR 27).
- As per 4.9 of the report, the Cumulative impact assessment didn't find any welldefined natural drainage. However, earlier figures in the report show that drainages (first order /second order streams) are present in the study area as in Fig. 3.11 (ToR 27).
- Details of microbiological sampling are missing (ToR 27)
- The groundwater contour map is not legible. The details of the wells are given but not the distance from the proposed quarry site. The wells are not mapped. From Table 3.26, it is found that the depth to water table is 4-5m below ground level during post monsoon and hence, the conclusion that the mining activity will not intersect groundwater table is incorrect. (ToR 28)
- The traffic study was conducted for two days, and only type of vehicles were noticed. No interpretation of the impact of adding more and more vehicles when the new quarry starts working. Also, the new quarry is going to supplement the raw material to

nearby crushers. The production of the crusher units will increase leading to more vehicular movement. Traffic study has to be supported with air quality study, however, minimum number of sample locations were fixed which is not representative of the entire area even though they are at down wind and upwind directions and site with sensitive receptors (ToR 32).

- The wells near the site are proposed to be taken for drinking purpose. Water quality study indicates that the Turbidity, Fe, and Odour are not within the permissible limit. However, no treatment mechanism (as a mitigative measure) is given in the EMP (ToR 35).
- Detailed Compensatory afforestation plan is not given. It should include the geocoordinates and photographs of the proposed site, a list of plant species (trees, shrubs, climbers, etc.), time frame, planting details, and a maintenance plan for the first five years (ToR 38).

Considering the non-compliances to ToR and other shortcomings in the report and other documents submitted, the Committee decided to direct the Proponent to submit the following additional details.

- 1. Revised EIA report EMP considering the non-compliance with the ToR as explained above and also incorporating legible figures.
- 2. Methodology used for impact assessment considering the list of project activities envisaged in the project and environmental aspects significant to the impact zone.
- 3. Modified CER specific to the present project
- 4. Revised budgetary provision of EMP as the fund earmarked for environmental monitoring (Table 6.3) is inadequate.
- 5. Revised drainage map showing connectivity to natural stream
- 6. KML file with BPs
- 7. Valid accreditation status of the Consultant
- 8. Detailed Compensatory afforestation plan including the geocoordinates of the proposed area and geo-tagged photographs of the proposed site, list of plant species (trees, shrubs, climbers, etc.), time frame, planting details, and a maintenance plan for the first five years.
- 9. Details of air quality modelling studies
- 10. Modified traffic plan

- 11. Clarifications regarding the depth to water table and proposed depth of mining and possible intersection with groundwater table
- 12. Water quality analysis of representative stream water samples and impounded water in the impact zone

22. SIA/KL/MIN/74384/2020, 1667/EC3/2020/SEIAA

Environment Clearance project of Sri. P.K. Prasad, for the building stone quarry project at Re. Survey Nos: 281/10, 281/11, 281/11-2 of Mazhuvannoor Village of Kunnathunad Taluk, Ernakulam District, Kerala for an area of 2.1235 hectares.

Decision: The Project comes under cluster conditions along with another proposal with File No. SIA/KL/MIN/74384/2020 and hence was recommended for a cumulative impact assessment. The application for approval of ToR was submitted on 24.09.2019 and the same was deemed to have been approved. The Committee examined the proposal and discussed the evaluation report of the EIA study and reply to the points raised during the Public consultation. The cumulative EIA was carried out in March 2020-February 2021. During the Public consultation, there were supportive comments as well as apprehensions and concerns about the project. The reply to the comments in the public consultation are acceptable. However, there are inadequacies in the EIA Report and EMP and non-compliances with ToR as given hereunder.

- Environment policy approved by the Board of Directors of the project is missing (ToR 7)
- Proximity to "critically polluted" areas is not found provided (ToR 19)
- The mineralogical composition of PM10, particularly for free silica is not addressed (ToR 22)
- The details of ambient air quality sampling are not given, particularly with regard to the equipment used, method adopted for the analysis, type of filter papers used for PM10 and PM2.5 etc. (ToR 23)
- Though the ToR stipulates that all the parameters used for modelling study should be clearly mentioned in the report, it is not done. The details with regard to the air quality model used, input parameters etc are not given (ToR 23)
- As per the Table 3.6., the PM10 value is 57microgram/m³ and the standard value is 60 microgram/m³ (data from the monitoring station of PCB at 5.5km away from the site). It is very close to the threshold limit and the ground level concentration consequent to

the project activities may be beyond the threshold value. In the absence of modelling study, this is not examined and no mitigative measures suggested (ToR 23).

- Only two samples of ground water (well) and one surface water (Canal) have been collected and analysed for the EIA study. It does not adequately represent the impact zone No water sample from the natural streams within the impact zone is found analysed through there are a total of six nos. of primary streams in the study (Fig. 3.11). Also listed out so many surface water bodies, but haven't taken any samples from there. There are chances for contaminating the natural streams even though there is no direct connection with the drainage of the quarry, through the air as well as surface runoff, as the area has so many working quarries with crusher units (ToR 27).
- Contradictory statement on page 3-87: "surface water is within the acceptable limit....except total coliform". As per the results, the water samples are free from coliform content (ToR 27).
- The connection of drainage with the natural stream is not given (ToR 27).
- As per 4.9 of the report, the Cumulative impact assessment didn't find any welldefined natural drainage. However, earlier figures in the report show that drainages (first order /second order streams) are present in the study area as in Fig. 3.11 (ToR 27).
- Details of microbiological sampling are missing (ToR 27)
- The groundwater contour map is not legible. The details of the wells are given but not the distance from the proposed quarry site. The wells are not mapped. From Table 3.26, it is found that the depth to water table is 4-5m below ground level during post monsoon and hence, the conclusion that the mining activity will not intersect groundwater table is incorrect. (ToR 28)
- The traffic study was conducted for two days, and only type of vehicles were noticed. No interpretation of the impact of adding more and more vehicles when the new quarry starts working. Also, the new quarry is going to supplement the raw material to nearby crushers. The production of the crusher units will increase leading to more vehicular movement. Traffic study has to be supported with air quality study, however, minimum number of sample locations were fixed which is not representative of the entire area even though they are at down wind and upwind directions and site with sensitive receptors (ToR 32).

- The wells near the site are proposed to be taken for drinking purpose. Water quality study indicates that the Turbidity, Fe, and Odour are not within the permissible limit. However, no treatment mechanism (as a mitigative measure) is given in the EMP (ToR 35).
- Detailed Compensatory afforestation plan is not given. It should include the geocoordinates and photographs of the proposed site, a list of plant species (trees, shrubs, climbers, etc.), time frame, planting details, and a maintenance plan for the first five years (ToR 38).
- Impact on the nearby buildings as well as those located in the break-in-slope region of the impact zone, particularly in the WSW and Eastern side: Though the buildings are listed out, no detailed study has been done (Additional ToR)

Considering the non-compliances to ToR and other shortcomings in the report and other documents submitted, the Committee decided to direct the Proponent to submit the following additional details.

- 1. Revised EIA report EMP considering the non-compliance with the ToR as explained above and also incorporating legible figures.
- 2. Methodology used for impact assessment considering the list of project activities envisaged in the project and environmental aspects significant to the impact zone.
- 3. Modified CER specific to the present project
- 4. Revised budgetary provision of EMP as the fund earmarked for environmental monitoring (Table 6.3) is inadequate.
- 5. Revised drainage map showing connectivity to natural stream
- 6. KML file with BPs
- 7. Valid accreditation status of the Consultant
- 8. Detailed Compensatory afforestation plan including the geo-coordinates of the proposed area and geo-tagged photographs of the proposed site, list of plant species (trees, shrubs, climbers, etc.), time frame, planting details, and a maintenance plan for the first five years.
- 9. Details of air quality modelling studies
- 10. Modified traffic plan
- 11. Clarifications regarding the depth to water table and proposed depth of mining and possible intersection with groundwater table

- 12. Water quality analysis of representative stream water samples and impounded water in the impact zone
- 13. Impact on the nearby buildings as well as those located in the break-in-slope region of the impact zone, particularly in the WSW and Eastern side.

<u>CONSIDERATION/RECONSIDERATION OF ENVIRONMENTAL</u> <u>CLEARANCE(Extension/Amendment/Corrigendum)</u>

 SIA/KL/MIN/268740/2022, 538/SEIAA/EC3/3881/2014
 Extension of Environmental Clearance project of Nizamudheen K.S. for the building stone quarry Survey No.567/1-2,567/2B2, 568/1-1,568/2-2, 569/1-3, 569/1-5, 567/2A, 567/2B1, of Thirumarady Village, Muvattupuzha Taluk, Ernakulam District, Kerala for an Area of 3.9662 Ha.

Decision: The Committee examined the proposal and discussed the evaluation report. The evaluation report is incomplete and hence the Committee assessed the project is detail. The project with an area of 3.9662 Ha was given EC on 1.6.2016 with validity up to 31.5.2021 with four specific conditions. The mineable reserve as per the Mining Plan approved on 21.1.2015 was 18, 55,676 MT with projected life of mine of 12 years and production rate of 1,60,000 TPA. The maps uploaded along with the mining plan is not legible. The elevation details provided in the mining plan and that in the drainage map are different. The cluster certificate dated 14.7.2022 indicates a project area of only 0.6070 Ha. The survey numbers given in the EC order and that shown in the cluster certificate are also different. There is no survey map showing the distance to built structures, revised scheme of mining, depth to ground water table etc. The Certified Compliance Report from the Regional Office of the MoEF & CC, Bangalore is missing. In the circumstance, the **Committee decided to defer the application till the Project Proponent submits the application with all required details and documents as detailed above.**

CONSIDERATION OF TOR PROPOSALS

 SIA/KL/MIN/67030/2021, 1926/EC1/2021/SEIAA Application for ToR for the China Clay (Minor Mineral) Mining project of M/s EICL Limited in Survey Nos. 177, 178, 179, 180, 241, 242, 181/21, 181/10, 182/3, 4, 5, 6, 10, 11, 12, 17, 183, 184, 240/2, 12, 13, 14, 229/14-1 (existing mine lease area of 14.5129 ha) and Survey Nos. 196/7, 10-5, 10, 10-2, 10-3, 245/1, 1-2, 1-3, 2, 3, 4, 5, 6, 16, 17 (proposed mine lease area of 1.0910 ha) in Veiloor Village, Thiruvananthapuram Taluk, Thiruvanathapuram District for an area of 15.6039 Ha- Judgement dated 29.04.2022 in No.11630/2022 and WP(C) No. 111030/2022 filed before the Hon'ble High court of Madras-(Request dated 29.09.2022 from M/s EICL to consider the application as per the Office Memorandum of MoEF dated 07..07.2021)

Decision: As per the application, the proposed project area 15.6039 Ha includes the existing mine lease area of 14.5129 Ha and proposed mine lease area of 1.0910 Ha in Veiloor Village, Thiruvananthapuram Taluk. The Committee discussed the report of the Sub Committee constituted by the SEAC in its 130th meeting. Based on discussions, the Committee decided to inform SEIAA that it is desirable to assess the application for EC by M/s. EICL under File No. SIA/KL/MIN/67030/2021, 1926/EC1/2021/SEIAA as per the OM dated 7.7.2021 on the SoP for identification and handling of violation cases under EIA Notification 2006 issued in compliance to Order of Hon. NGT in OA No. 34/2020. However, this may be done after obtaining legal opinion with respect to the OA No. 41/2017 (SZ), the total interim environmental damage assessed by the Sub Committee constituted by the Hon. NGT in OA No. 41/2017 and order of the Hon HC of Madras in WP(C) 11630/2022 & WMP 11103 of 2022. The Committee also decided to request the SEIAA to seek legal opinion as stated above and provide further direction to the SEAC regarding the consideration of this application further.

<u>PART 2</u>

<u>CONSIDERATION/RECONSIDERATION OF ENVIRONMENTAL</u> <u>CLEARANCE</u>

1. SIA/KL/MIN/127122/2019, 1562/EC1/2019/SEIAA

Proposed granite quarry of Mr. Mathew Daniel for an extent of 2.23.92 Ha in SY.No: 340/1/99-1, 340/1/99-2, 340/1/102/2-1, 340/1/100/3, 340/1/100-4, 340/1/100-1, 340/1/100-2, 340/1/102-2, 340/1/103-1 at Enadimangalam Village, Adoor Taluk, Pathanamthitta District, Kerala.

Decision: As invited, the Proponent Mr.Mathew Daniel and Consultant, Mr. Suryakumar on behalf of Aadhi Boomi Mining & Enviro Tech (P) Ltd, were present. The consultant

made the presentation. The mineable reserve is 7,91,122 MT with production plan of 1,20,036 TPA for the first five years. The project life of mine is 12 years. The distance to nearest built structure is 108m and the depth to water table is 32m bgl. The Project cost is projected as Rs.66 lakh and the cost for EMP is only 6% of the projected project cost. Also the EMP is worked out only for five years. The Proponent also failed to submit the details pertaining to the Ecological Sensitivity of the area to be incorporated in Form-2 of the Parivesh portal. Therefore, the **Committee decided to direct the proponent to submit the following additional details**.

- 1. Affidavit stating revised Project Cost including revised cost of EMP and CER.
- 2. Site specific Environmental Management Plan for the entire life of mine including the cost component
- 3. Details pertaining to Ecological Sensitivity as envisaged in Form-2 of Parivesh System.

2. SIA/KL/MIN/128666/2019, 1958/EC1/2022/SEIAA Granite Building stone quarry of Shri. Martin Varghese, with an area of 0.996 Ha in Re- Survey No: 96/5, 96/6 Block No.2 in Vilapilsala Village, Kattakada Taluk, Thiruvanathapuram District, Kerala.

Decision: As invited, the Proponent, Mr. Martin Varghese and RQP, Mr. Balaraman were present. The RQP made the presentation. The Committee heard the presentation and observed that following shortcomings:

- 1. KML file uploaded is for a different location.
- 2. Spot-specific EMP details with adequate budget

The Committee decided to entrust Er. Dileepkumar & Dr.A Bijukumar for field inspection and report.

SIA/KL/MIN/130330/2019, 1924/EC6/2021/SEIAA Granite Building stone over an extent of 0. 4988 Ha in Survey3 1 0 / 1 4, 3 1 1 / 2 in Kavanur Village, Eranad Taluk, Malappuram District, Kerala State of M/s Manjeri Blue Metals

Decision: As invited proponent, Mr. Abdul Majeed P and Consultant, Mr. Haneesh K R, EIA Co-ordinator and functional expert on behalf of ABC Techno Labs India Private Limited. The consultant made the presentation. The mineable reserve is 1,03,000 MT and the production plan is 25,750 TPA for the life of mine of 4 years. The depth to water table

7.5m and the distance to nearest house is 202m. The proposal is to extract the rocks surrounding a small abandoned pit. Based on discussions, the **Committee decided to recommend EC for 4 years** with following specific condition in addition to the general conditions.

- 1. Development of green belt should be initiated prior to the commencement of mining operation.
- 2. Compensatory afforestation should be initiated prior to the commencement of mining.
- 3. Drainage system incorporating garland canal, silt traps, siltation pond and outflow channel connecting to a natural drain should be provided prior to the commencement of mining.
- 4. Garland drain, silt-traps, siltation ponds and outflow channel should be desilted periodically and geo-tagged photographs of the process should be included in the compliance report.
- 5. Gabion wall of appropriate height should be provided at the overburden dumping site.
- 6. CER Plan should be implemented within the first 2 Years and it should be operated and maintained till the mine closure plan is implemented.
- 7. Transportation of mined material should not be done during the peak hours in the forenoon (8.30am to 10.00am) and afternoon (3.30pm to 5 pm).
- 8. The haulage road should be maintained well with frequent sprinkling.
- 9. Adequate sanitation, waste management and rest room facilities should be provided to the workers.
- 10. Adequate energy conservation measures proposed should be implemented including solar power installations.
- 11. The proceedings of the monthly meeting of the Environment Management Cell (EMC) should be submitted along with the HYCR

4. SIA/KL/MIN/131195/2019, 1577/EC3/2019/SEIAA Environmental Clearance for Granite Building Stone quarry at Re. Survey No. 292/1A of New Naduvil Village, Thaliparamba Taluk, Kannur District, Kerala for total permit area of 0.8893 Ha.

Decision: As invited the authorized person by the proponent Mr. Raneesh Keethadath, with authorization letter, and RQP, Dr. Nazar Ahmmed were present. The RQP made the

presentation. The Committee noted that the mineable reserve is 1,67,625 MT and the production plan is 20,000 TPA. The projected life of mine is 5 years. The cost earmarked for EMP is inadequate and the CER cost is added to the total project cost. The Brahmagiri Wildlife Sanctuary is located at 11km from the project site as per the details provided in the application. The site is in the mid-slope region of a hill with maximum elevation of about 750m above MSL. The elevation of the proposed project area vary from 549m to 639m above MSL as per the google imagery. However, in the PFR, elevation of the project site is shown as varying from 100m to 150m, which is misguiding. The hill on which the site is located is a pairing hill of Paithalmala with an elevation of 1372m above MSL. The high hazard zone surrounds the project site on the upstream and downstream sides on the northern and southern sides and on the eastern and western sides of the sites. The boundary pillar no. 7 is located just 7m away from the boundary of the high hazard zone on the upstream side. Based on discussions, the **Committee decided to reject the proposal based on precautionary principle due to the following reasons.**

- The site is located at the mid-slope region of a very steep hill range of height 750m above MSL. The slope of the project site is also extremely steep.
- The proximity of the proposed site to High Hazard Zone indicates that the hazard potential of the site is extremely high.
- The boulders of moderate size spread over the project area which enhances the accident potential.

5. SIA/KL/MIN/131218/2019, 1965/EC1/2022/SEIAA Granite Building Stone Quarry of Mr. Balakrishnan at Survey No. 208/1, Alanallur III Village, Mannarkad Taluk, Palakkad District, Kerala having an area of 0.6658 Ha.

Decision: As invited, the proponent Mr. Balakrishnan and RQP, the authorized person Mr. V K Roy with authorization letter were present. The RQP made the presentation. **The Committee heard the presentation and decided to direct the proponent to submit the following additional documents:**

- 1. Revised project cost as per norms.
- Revised CER with specific and monitorable physical targets prepared in consultation with the stakeholders as stipulated in the OM No.22- 65/2017-IA.III dated 30/09/2020 and OM No. 22-65/2017-IA.III dated 20/10/2020 of MoEF&CC, GOI

- 3. Non –assignment certificate from the Village Officer.
- 4. Proof of application submitted to NBWL for wildlife clearance.
- 5. Recently signed survey map from the Village Office indicating distance to all the built structures within 200m radius.
- 6. Modified drainage plan
- 7. Certificate from DFO regarding the distance of the project area from forest.
- SIA/KL/MIN/139351/2020, 1714/EC3/2020/SEIAA Environment Clearance for mining permit of "Granite Building Stone Quarry of Shri.Maneesh P Mohanan" over an extent of 0.8586 Ha.(2.1216 Acres) at Sy. Nos. 476/1/15, 476/1/15, 477/2, 477/2/2, 477/2/4, Thirumarady Village, Muvattupuzha Taluk, Ernakulam District, Kerala (Presentation)

Decision: As invited, the Proponent Mr. Maneesh Mohan and RQP, Mr. Thambu Cheriyan were present. The RQP made the presentation. The mineable reserve is 1,69,049 MT with an average production plan of 40,881 TPA. The life of mine projected is 5 years and the nearest house is at 76m as per the field inspection report. However, from the google imagery, it is observed that there is a built structure at a distance of 20m which is confirmed during the presentation. In the survey map, the structure is classified as site office which is incorrect as there are no operational quarries in the vicinity. Based on discussions, the Committee decided to reject the proposal as it is not complying with the distance norm.

7. SIA/KL/MIN/148486/2020, 1640/EC3/2020/SEIAA Granite Building Stone Quarry of Mr.P.V Paul, Re Sy No:263/1 of Thuravoor Village, Aluva- Taluk, Ernakulam- District, Kerala for an extent 0.9905 Ha(Presentation)

Decision: As invited, an authorized representative of the Proponent Mr. M D Devassykutty, with authorization letter, and RQP, Dr. Nazar Ahmmed were present. The RQP made the presentation. The mineable reserve is 1,53,170 MT with projected life of mine of 5 years. The nearest building reported during the presentation is 51m. The Committee observed the following:

- 1. CER need to be reworked as per norms
- 2. EMP need to be prepared with spot specific mitigation and monitoring measures
- 3. Project cost is to be revised
- 4. Depth of water table provided incorrect

5. Recent survey map is not seen uploaded.

The Committee decided to entrust Dr. N Ajithkumar & Dr. R. Ajayakumar Varma for field inspection and report.

8. SIA/KL/MIN/162354/2020, 1746/EC1/2020/SEIAA Environmental Clearance for the Proposed Laterite (Building Stone) Quarry in Survey number 307/1A in Anakkara Village, Pattambi Taluk, Palakkad District, Kerala by Sri. P T Anilkumar.

Decision: As invited proponent, Mr. P T Anilkumar and RQP, Mr. V K Roy were present. The RQP made the presentation. The Committee heard the presentation and appraised the proposal as per OM dated 24.6.2013, pertaining to extraction of brick earth or ordinary earth up to an area less than 5 Ha. Accordingly, the Committee **decided to recommend EC for a project period of 1 years from the date of permit from the Mining and Geology Department** subject to the following Specific Conditions.

- 1. The activity associated with borrowing/excavation should not involve blasting.
- 2. The borrowing/excavation activity should be restricted to a maximum depth of 2m below general ground level at the site.
- 3. The borrowing/excavation activity should be restricted to 2m above the ground water table at the site .
- 4. The borrowing/excavation activity should not alter the natural drainage pattern of the area.
- 5. The borrowed/excavated pit should be restored by the project proponent for useful purposes.
- 6. Appropriate fencing all around the borrowed/excavated pit should be made to prevent any mishap.
- 7. Measures should be taken to prevent dust emission by covering of borrowed/excavated earth during transportation.
- 8. Safeguards should be adopted against health risks on account of breeding of vectors in the water bodies created due to borrowing/excavation of earth.
- 9. Workers/labourers should be provided with facilities for drinking water and sanitation.
- 10. A berm should be left from the boundary of adjoining field having a width equal to at least half the depth of proposed excavation.
- 11. A minimum distance of 15m from any civil structure should be kept from the

periphery of the excavation area.

- 12. Numbered Boundary Pillars marked with geo-coordinates should be fixed to define the exact boundary.
- 13. No water logging should be allowed in the mine pit. Appropriate drainage should be ensured from the project area prior to the commencement of mining.
- 14. The drain should be provided with silt traps and siltation pond and the overflow water should be clarified and drained to the nearest natural drain without any hindrance.
- 15. The drainage system should be cleaned and desilted periodically to facilitate unhindered drainage.
- 16. Measures incorporated in the CER should be implemented as per norms.
- 17. Transportation of mined material should not be done during the peak hours in the forenoon (8.30am to 10.00am) and afternoon (3.30pm to 5 pm).

9. SIA/KL/MIN/178887/2020, 1850/EC4/2020/SEIAA

Environmental Clearance for mining ordinary clay of M/s Balipatam Tile Works, from 0.1665 hectares in Sy.No. 7/6, 7/7, 7/8 and 7/9 of Pariyaram village, Thaliparambu Taluk, Kannur District.

Decision: As invited, an authorized person of the Proponent namely Mr. Sreeraj S, Chief Operating Officer with authorization letter, and RQP, Sri. Muhammed Kunhi were present. The RQP made the presentation. Based on discussions, the Committee decided to appraise the proposal as per OM dated 24.6.2013, pertaining to extraction of brick earth or ordinary earth up to an area less than 5 Ha. Accordingly, the Committee decided **to recommend EC for a project period of 1 years from the date of permit from the Mining and Geology Department** subject to the following Specific Conditions.

- 1. The activity associated with borrowing/excavation should not involve blasting.
- 2. The borrowing/excavation activity should be restricted to a maximum depth of 2m below general ground level at the site.
- 3. The borrowing/excavation activity should be restricted to 2m above the ground water table at the site .
- 4. The borrowing/excavation activity should not alter the natural drainage pattern of the area.
- 5. The borrowed/excavated pit should be restored by the project proponent for useful purposes.

- 6. Appropriate fencing all around the borrowed/excavated pit should be made to prevent any mishap.
- 7. Measures should be taken to prevent dust emission by covering of borrowed/excavated earth during transportation.
- 8. Safeguards should be adopted against health risks on account of breeding of vectors in the water bodies created due to borrowing/excavation of earth.
- 9. Workers/labourers should be provided with facilities for drinking water and sanitation.
- 10. A berm should be left from the boundary of adjoining field having a width equal to at least half the depth of proposed excavation.
- 11. A minimum distance of 15m from any civil structure should be kept from the periphery of the excavation area.
- 12. Numbered Boundary Pillars marked with geo-coordinates should be fixed to define the exact boundary.
- 13. No water logging should be allowed in the mine pit. Appropriate drainage should be ensured from the project area prior to the commencement of mining.
- 14. The drain should be provided with silt traps and siltation pond and the overflow water should be clarified and drained to the nearest natural drain without any hindrance.
- 15. The drainage system should be cleaned and desilted periodically to facilitate unhindered drainage.
- 16. Measures incorporated in the CER should be implemented as per norms.
- 17. Transportation of mined material should not be done during the peak hours in the forenoon (8.30am to 10.00am) and afternoon (3.30pm to 5 pm).

10. SIA/KL/MIN/183677/2020, 1849/EC4/2020/SEIAA

Environmental Clearance for the Proposed Granite Building Stone Quarry of Mr. K.C Krishnan At Re.Sy. No. 173/1 & 173/3 of Maruthonkara Village, Vatakara Taluk, Kozhiode District of Keralafor an extent of 0.6199 Ha

Decision: As invited the proponent, Mr. K C Krishnan and RQP, Mr. Nazar Ahmmed were present. The RQP made the presentation. The Committee **decided to direct the proponent to submit the following additional documents:**

- 1. Recent and legible Survey map certified by the Village Officer.
- 2. Revised CER with monitorable physical targets incorporated in the EMP as per OM

No.22- 65/2017-IA.III dated 30/09/2020 and OM No. 22-65/2017-IA.III dated 20/10/2020 of the MoEF&CC.

- Proof of application submitted to NBWL for wildlife clearance as Malabar Wildlife Sanctuary is reported at 4.34km
- 4. Revised EMP with spot specific mitigation and monitoring plan and adequate cost earmarked for each site-specific activity

11. SIA/KL/MIN/189304/2020, 1940/EC1/2022/SEIAA Granite Building Stone Quarry of Shri. K. J. Thomaskutty over an extent of 0.6147 Ha. Survey no.776/1-29, 776/1-3-18,776/1-5-4, 776/1-5-4-8, 776/1-5-4-8, 776/3-8 of Chethackal Village, Ranni Taluk, Pathanamthitta District, Kerala -Judgement dated 08.04.2022 in WPC 12093/2022.

Decision: As invited proponent, Mr. K J Thomaskutty and RQP, Mr. Thambu Cheriyan were present. The RQP made the presentation. The Committee **decided to direct the proponent to submit the following additional documents:**

- 1. Non assignment Certificate.
- 2. Details of Ecological and Environmental Sensitivity details as envisaged in Form-2 of Parivesh
- 3. Letter from concerned DFO regarding the distance to the forest boundary from the project site.

12. SIA/KL/MIN/203330/2021, 1937/EC3/2022/SEIAA

Environment Clearance for mining permit of 'Granite Building Stone Quarry of M/s. Mariyan Granites' over an extent of 0.9802 Ha. in Sy Nos. 805/1A-40, 805/1A-40, 805/1A-40 of Kalloorkkad Village, Muvattupuzha Taluk, Ernakulam District, Kerala State (Presentation).

Decision: As invited proponent, Mr. Jimmy Jose and RQP, Mr. Thambu Cheriyan were present. The RQP made the presentation. The Committee discussed the project in detail, verified the documents and discussed the Field Inspection Report. The mineable reserve is 1,44,983 MT and the proposed Life of mine is 4 years with an average extraction rate of 44,980 TPA. The nearest house is at 85m and depth to water table is 37m above MSL. The **Committee discussed the proposal and decided to recommend EC after submission of the details of Ecological and Environmental Sensitivity parameters as envisaged in Form-2 of Parivesh**

13. SIA/KL/MIN/220733/2021, 1930/EC4/SEIAA/2021

Environment Clearance for mining lease of "Granite Building Stone Quarry of M/s. Chathamala Crushers Private Limited' over an extent of 1.7424 Ha, at Block No: 83 Re-Sy. No. 5/210, 5/927 ,Eruvessi Village, Thaliparamba Taluk, Kannur District, Kerala State.

Decision: As invited, the Proponent, Mr. K K Radhakrishnan and RQP, Thambu Cheriyan were present. The RQP made the presentation. The mineable reserve is 4,00,125 MT with a projected life of mine of 6 years. The nearest house is at a distance of 230m from the project site. The Committee observed the following salient aspects of the project.

- 1. Project area is located at the southern steep flank of an E-W trending the ridge with maximum elevation of 670m above MSL.
- 2. The highest and lowest elevation of the project site is 525m and 480m above MSL and the slope is extremely steep.
- 3. The downstream side of the site is high hazard zone. It is reported that the high hazard zone is at a distance of 11m and medium hazard zone is at a distance of 84m and both are in the proximity.
- 4. Boulders of moderate size is spread over the steep sloping project area.

In this circumstance, the **Committee decided to reject the proposal based on precautionary principle due to the reasons stated above.**

14. SIA/KL/MIN/236496/2021, 1978/EC6/2022/SEIAA

Environmental Clearance for the Proposed Laterite (Building Stone) Quarry in Re-survey no. 232/2 in Melmuri Village, Tirur Taluk, Malappuram District, Kerala of ALAVI P P.

Decision: As invited proponent, Mr. Alavi P P and RQP, Mr. K V Roy were present. The RQP made the presentation. Based on discussions, the Committee decided to appraise the proposal as per OM dated 24.6.2013, pertaining to extraction of brick earth or ordinary earth up to an area less than 5 Ha. Accordingly, the Committee **decided to recommend EC for a project period of 1 year from the date of permit from the Mining and Geology Department** subject to the following Specific Conditions:

- 1. The activity associated with borrowing/excavation should not involve blasting.
- 2. The borrowing/excavation activity should be restricted to a maximum depth of 2m below general ground level at the site.

- 3. The borrowing/excavation activity should be restricted to 2m above the ground water table at the site
- 4. The borrowing/excavation activity should not alter the natural drainage pattern of the area.
- 5. The borrowed/excavated pit should be restored by the project proponent for useful purposes.
- 6. Appropriate fencing all around the borrowed/excavated pit should be made to prevent any mishap.
- 7. Measures should be taken to prevent dust emission by covering of borrowed/excavated earth during transportation.
- 8. Safeguards should be adopted against health risks on account of breeding of vectors in the water bodies created due to borrowing/excavation of earth.
- 9. Workers/labourers should be provided with facilities for drinking water and sanitation.
- 10. A berm should be left from the boundary of adjoining field having a width equal to at least half the depth of proposed excavation.
- 11. A minimum distance of 15m from any civil structure should be kept from the periphery of the excavation area.
- 12. Numbered Boundary Pillars marked with geo-coordinates should be fixed to define the exact boundary.
- 13. No water logging should be allowed in the mine pit. Appropriate drainage should be ensured from the project area prior to the commencement of mining.
- 14. The drain should be provided with silt traps and siltation pond and the overflow water should be clarified and drained to the nearest natural drain without any hindrance.
- 15. The drainage system should be cleaned and desilted periodically to facilitate unhindered drainage.
- 16. Measures incorporated in the CER should be implemented as per norms.
- 17. Transportation of mined material should not be done during the peak hours in the forenoon (8.30am to 10.00am) and afternoon (3.30pm to 5 pm).

15. SIA/KL/MIN/239769/2021, 2062/EC3/2022/SEIAA

Environmental Clearance for the building stone quarry at ReSurvey No. 357/1,357/2,357/3 Block no.14, of Karimkunnam Village, Thodupuzha Taluk, Idukki District, Kerala for an Area of 0.9883 Ha (Presentation)

Decision: As invite proponent Mr. Sabu Kuriakose and RQP, Mr. Balaraman were present. The RQP made the presentation. The mineable reserve is 2,75,233 MT and the proposed life of mine is 5 years. The elevation of the site vary from 214m to 257m above MSL. It is observed that in the approved survey map there is a built structure at 22m from the project boundary. The proponent intimated that it is only cattle shed without building number. The OB dump site is relatively in higher elevation. The project area mostly fall in medium hazard zone and the high hazard zone is at a distance of 2.3km. **The Committee observed**

the following discrepancies:

- 1. Cluster certificate is incomplete as the site is located in the border of two Districts and certificate from only one district, Idukki, is submitted. In the certificate, it is pointed out that there is a quarry seen at 480m from the proposed site as per google imagery, the details of which have to be obtained.
- EMP incorporating the specific CER activities in physical terms to be undertaken by the proponent in consultation with the stakeholders as stipulated in the OM No.22-65/2017-IA.III dated 30/09/2020 and OM No. 22-65/2017-IA.III dated 20/10/2020 of the MoEF&CC, GOI is required instead of allocation of funds under CER.
- 3. The location of the site overlaid on the Hazard Zonation Map of the district is not found uploaded.
- 4. Map showing the location of OB dump site in lower elevation.

The Committee decided to entrust Dr. K.N. Krishnakumar and Dr. Mahesh Mohan for field inspection and report.

16. SIA/KL/MIN/250609/2022, 2015/EC4/2022/SEIAA

Environment Clearance for the Proposed Granite Building Stone Quarry of M/s Super Stone Crusher at Un. Sy. No. 1452 (Pt) and 1453(pt) (Not final) of Koodaranji Village, Thamarassery Taluk, Kozhikode District of Kerala for an extent of 1.1915 Ha.

Decision: The proponent informed that he is unable to attend the meeting due to

unavoidable circumstances. So, the Committee decided to defer the proposal.

17. SIA/KL/MIN/262486/2022, 1962/EC1/2022/SEIAA

Environmental Clearance for Laterite building stone quarry of Mr.Manikandan P. V, over an extent of 0.7575 Ha, Survey No-65 in Anakkara Village, Pattambi Taluk, Palakkad District, Kerala

Decision: As invited proponent Mr. Manikandan P V and RQP Dr. Nazar Ahmmed K V were present. The RQP made the presentation. The proposal is to extract 79,538 MT of laterite in two years. The mine depth proposed is 6m. The nearest house is at a distance of 51m. Based on discussions, the Committee **decided to recommend EC for a project period of 2 years from the date of permit from the Mining and Geology Department** subject to the following Specific Conditions.

- 1. The activity associated with the excavation should not involve blasting.
- 2. The excavation activity should be restricted to 2m above the ground water table at the site
- 3. The excavation activity should not alter the natural drainage pattern of the area.
- 4. The excavated pit should be restored by the project proponent for useful purposes.
- 5. Appropriate fencing all around the excavated pit should be made to prevent any mishap.
- 6. Measures should be taken to prevent dust emission by covering of excavated laterite during transportation.
- 7. Safeguards should be adopted against health risks on account of breeding of vectors in the water bodies created due to excavation of laterite.
- 8. Workers/labourers should be provided with facilities for drinking water and sanitation.
- 9. A berm should be left from the boundary of adjoining field having a width equal to at least half the depth of proposed excavation.
- 10. A minimum distance of 50m from any civil structure should be kept from the periphery of the excavation area.
- 11. Numbered Boundary Pillars marked with geo-coordinates should be fixed to define the exact boundary.
- 12. No water logging should be allowed in the mine pit. Appropriate drainage should be ensured from the project area prior to the commencement of mining.
- 13. The drain should be provided with silt traps and siltation pond and the overflow

water should be clarified and drained to the nearest natural drain without any hindrance.

- 14. The drainage system should be cleaned and desilted periodically to facilitate unhindered drainage.
- 15. Measures incorporated in the CER should be implemented as per norms.
- 16. Transportation of mined material should not be done during the peak hours in the forenoon (8.30am to 10.00am) and afternoon (3.30pm to 5 pm).

18. SIA/KL/MIN/262881/2022, 1956/EC1/2022/SEIAA

Environmental Clearance for the Proposed Granite (Building Stone) Quarry, SRI SRI GRANITES in Block No:12, Re-Survey Nos: 664/2, 664/19, 665/22, 665/13, 666/36, 666/34 in Kuthanur-I Village, Alathur Taluk, Palakkad District, Kerala.

Decision: As invited the authorized representative of the proponent Mr. Shibukumar S, Manging Partner with authorization letter, and RQP, Sri. V K Roy were present. The RQP made the presentation. The Committee noted the following shortcomings in the proposal:

- 1. CER need revision incorporating monitorable physical targets as per norms
- 2. EMP need revision by incorporating site specific mitigation and monitoring activities
- 3. Project cost need revision as per norms.
- 4. The depth to water table in the site not provided.
- 5. Compensatory afforestation plan along with the site details and geo-tagged photographs is not provided.
- 6. Recent and legible survey map.

The Committee decided to entrust Dr. A V Raghu and Dr. K N Krishnakumar for field inspection and report.

19. SIA/KL/MIN/39461/2019, 1546/EC1/2019/SEIAA

Building Stone Mine (Quarry, Minor Mineral Mining) project of M/s Vengunadu Granite and Sands Pvt. Ltd. at Survey Nos. 238/1, 238/2, 239/1, 239/2, 239/5, 239/6, 239/7, Block No. 22, Muthalamada 1 V Village, Chittur Taluk, Palakkad (HEARING).

Decision: As invited, the representative of the Proponent, Mr. Sajith Menon and the Consultant Mr. P.Z. Thomas were present. The Consultant made the presentation

highlighting the following.

- Based on HLWG report headed by Dr. K. Kasturirangan, the area extent of the ESA was 13108 km2 and the number of ESA villages was 123. But in the draft notification by the MoEF dated 10.3.2014, the area extent is reduced to 9993.7 km2 and the number of ESA villages to 119. It includes 9107 km2 of forest area and 886.7 km2 of non-forest area and the boundary and description of Eco-sensitive Area and the village-wise details of Ecosensitive area proposed by the State Government are available on the website of the Kerala State Biodiversity Board.
- Further, the Govt. of Kerala submitted a fresh proposal in 2018 for further reduction of the ESA in Western Ghats from 9,993.70 km2 to 8,656.46 km2 which is not accepted by MoEF&CC so far.
- The Proponent and Consultant argued that the comment by the Regulatory Authority (SEIAA & SEAC) is that "the proposal of Govt. of Kerala is not accepted by MoEF&CC" is for the additional reduction area of 1337.24 km2. They have also highlighted the observation of the National Green Tribunal, PB in WP (C) no. 597 / 2018 as relevant which held that "any further reduction in ESA area from the area notified in draft Notification is not permissible". They further argued that the prohibition / restriction is only for the area included in draft Notification (9,993.70 sq.km.) and not for area included in HLWG report (13,108 sq.km) and hence. in other words, there is no prohibition for mining in those areas which are outside the areas of the draft Notification. Therefore, it should be considered that the project site of M/s Vengunad Granites Private Limited in Muthalamada 1 village, Palakkad District is falling in the excluded area of 3,114.30 km2 and outside the ESA as per draft Notification issued by the Ministry and therefore, there is no prohibition or restriction for the mining projects.
- The Proponent and Consultant also brought to the notice of the Committee that the SEIAA have issued EC to a project falling in ESA village (Perunad) on 11.10.2022 as per the recommendation of the present SEAC and many other projects in the past.

The Committee noted the decision of the 116th meeting of the SEIAA that "till the issuance of final ESA Notification, the directions issued on 13.11.2013 shall prevail in ESA villages and hence mining shall not be permitted in ESA villages". In this background, the Committee decided the following.

1. The Proponent is directed to approach the SEIAA for resolution of their

complaint.

- 2. The Proponent is directed to submit a detailed hearing note and documents substantiating their argument within a week.
- 3. The SEIAA secretariat is directed to submit the hearing note and documents to the SEIAA, if submitted by the Proponent.
- 4. The Committee shall examine and take up the alleged recommendation and issuance of EC on 11.10.2022 to a project falling in ESA village, Perunad, with the SEIAA.

20. SIA/KL/MIS/194843/2021, 1904/EC3/2021/SEIAA Environmental Clearance for the proposed Expansion of Residential project ("Federal Greens") developed by M/s The Federal House Construction Cooperative Society Ltd. (Presentation)

Decision: As invited proponent, Mr. Jenib J Kachappilly and Consultant, Mr. P.Z. Thomaz were present. The Consultant made the presentation. The Committee noted that **the proponent has not submitted Certified Compliance Report from the IRO, MoEF&CC,** Bangalore. Therefore, the Committee decided to defer the proposal.

21. SIA/KL/MIS/271560/2022 , 1991/EC6/2022/SEIAA

Environmental Clearance for the Proposed Expansion of Existing Building Construction Project (Wellness Resort) to be developed by Mr. Siva Bhadran K power of attorney holder of Mr. Faisal Edavalath Kottikollon

Decision: As invited, the authorized representative of the Proponent, Mr. Prekumar with authorization letter, and Consultant, Sri. P.Z. Thomas on behalf of M/s Environmental Engineers & Consultants Pvt. Ltd. were present. The Consultant made the presentation. The Committee sought clarifications with respect to waste management, storm water management, water harvesting, water budget and integrated water management, slope stability, green building aspects adopted, energy saving measures, ecological conservation measures, environmental management plan etc. The Committee also deliberated on the proposal for Corporate Environmental Responsibility. Based on discussions, the Committee directed the Proponent to submit detailed CER proposal as per norms taking into considerations the suggestions expressed by the members of the SEAC.

22. SIA/KL/MIN/273506/2022, 310/SEIAA/KL/1693/2014

Application for Environmental Clearance in Survey No. : 197/2(p), 198/8(p), 198/9(p) 198/2(p), 198/10(p) & 205/2(p) Koppam Village, Pattambi Taluk, Palakkad District, Kerala (Judgment dated 26.08.2021 in WP (C) No.14476/2021 & Judgement dated 22.08.2022 in WP (C) No.25902/2022 filed by M/s Marath Enterprises and crushers Pvt. Ltd) - Additional Documents Received.

Decision: The Committee examined the proposal and noted that the project was issued EC on 11.6.2017 for a period of 5 years which was set aside by the Hon. Court directing it to be considered by the DEIAA. While the project was consideration of the DEIAA, the DEIAA was dissolved. As per the direction of the Hon. High Court on 26.8.2021, the SEIAA was asked to consider the application subject to submission of duplicate copies of documents as the file under the consideration of DEIAA was not traceable. Accordingly, the application was filed before the SEIAA on 18.5.2022. The 130th meeting of the SEAC held during July 4-6, 2022 considered the proposal and decided to invite the Proponent for making a presentation of the project proposal. The proposal was presented before the 131st meeting of the SEAC held during August 5-6 and 19-20, 2022 and the Committee sought certain additional details required for appraising the project which included (i) Recent Cluster certificate, (ii) Recent Survey map certified by the Village Officer, (iii) Revised PFR incorporating pertinent details from the DSR or DSR, (iv) Revised Project Cost and (v) Revised EMP.

The Proponent submitted the details on 1.10.2022 and the 133rd meeting of the SEAC held during October 11-13, 2022 verified the documents. It is found that the proponent has not submitted a recent Cluster Certificate and the one uploaded is dated 7.8.2015. The Cluster Certificate available in the file indicate that the total project area within the cluster of 500m radius is more than 5ha and hence necessitates Environmental Impact Assessment study and Pubic Consultation. The survey map submitted is not legible and therefore, the distance from the Project boundary to built structures is unable to be deciphered. Though asked for, the revised PFR incorporating pertinent details from the DSR or DSR is not found uploaded. Instead, the copy of the DSR is uploaded. The revised project cost is estimated as Rs 89 Lakh. In addition, a budget for CER/CSR is projected as Rs. 20 lakh for two years in the Table and Rs. 18.5 lakh elsewhere. Similarly, the EMP cost projected is Rs. 21 lakh for 5 years in one part and Rs. 12 lakh in the Table. The revised EMP submitted is not

comprehensive. In the circumstance, the Committee decided to direct the Proponent to revise and resubmit all the documents uploaded earlier.

As per the Cluster Certificate submitted, it is necessary the Proponent has to submit Terms of Reference for carrying out Environmental Impact Assessment (EIA) study and preparation of Environmental Management Plan (EMP) as per the existing norms. Therefore, the Committee decided to direct the Proponent to submit draft Terms of Reference for carrying out EIA study and preparation of EMP.

The Proponent has submitted a Judgment in WP(C) NO. 14476 OF 2021 dated 26.08.2022 which directs SEIAA to consider the application of the petitioner for EC within a period of two months from the date of receipt of a copy of this judgment. In the circumstance, the Committee decided to refer the above details and decision to the SEIAA for obtaining legal opinion on the court direction contained in order dated 26.8.2022 and for providing necessary direction for proceeding further.

PART 3

CONSIDERATION/RECONSIDERATION OF ENVIRONMENTAL CLEARANCE

1. SIA/KL/MIN/134486/2020, 1790/EC4/2020/SEIAA

Environmental Clearance for the Granite Building Stone Quarry of Sri. Shamseer.V.K ,at Re Survey No. 2/18, 2/20, 2/46, 2/76, 2/77, 2/78 in Raroth Village, Thamarassery Taluk, Kozhikode District, and Kerala for an area of 0.9926 hectares (Field Inspection Report Received).

Decision: The Committee discussed the field inspection report in detail and decided to

direct the proponent to submit the following additional documents:

- 1. Compensatory afforestation plan along with geocoordinates and geo-tagged photographs of the site.
- 2. Revised Project cost considering norms.
- 3. Site specific EMP along with cost revision
- 4. Revised CER incorporating monitorable physical targets and in accordance with

revised project cost.

- 5. Recent cluster certificate.
- 6. Action taken report on the built structure (shed) within 50 meters.
- 7. Letter from the Wildlife Warden or DFO regarding the distance to the nearest wildlife sanctuary from the project boundary or the Proof of application submitted for wildlife clearance from NBWL.
- 8. Plan for the removal of loose boulders in and around the site

2. SIA/KL/MIN/152995/2020, 1681/EC1/2020/SEIAA EnvironmentalClearance for the Proposed Granite (Building Stone) Quarry of M/s Deepam Granites in Block No-5, Re-Survey No. 540/5 in Pallassena Village, Chittur Taluk, Palakkad District, Kerala for an extent of 0.9992 Ha.(Field Inspection Report Received)

Decision: The Committee examined the proposal, verified the documents and discussed the Field Inspection Report. The proposed Life of mine is 5 years for extracting 2,29,500MT of granite building stone with an extraction rate of 45,900TPA. The nearest house is at 54m and depth to water table is 53m above MSL. The Committee discussed the proposal and **decided to recommend EC for a period of 5 years subject to the following Specific Conditions** in addition to the General Condition:

- 1. Development of green belt should be initiated prior to the commencement of mining operation.
- 2. Compensatory afforestation should be initiated prior to the commencement of mining and the coordinates and geo-tagged photographs of the site should be incorporated in the HYCR.
- 3. The impact of vibration due to blasting on the nearest houses and built structures should be monitored in terms of Peak Particle Velocity and amplitude for maximum charge per delay and included in the Half Yearly Compliance Report.
- 4. Drainage system incorporating garland canal, silt traps, siltation pond and outflow channel connecting to a natural drain should be provided prior to the commencement of mining.
- 5. Garland drain, silt-traps, siltation ponds and outflow channel should be desilted periodically and geo-tagged photographs of the process should be included in the compliance report.
- 6. Retaining wall of appropriate height should be provided at the overburden dumping

site.

- 7. CER Plan should be implemented within the first 2 Years and it should be operated and maintained till the mine closure plan is implemented.
- 8. Transportation of mined material should not be done during the peak hours in the forenoon (8.30am to 10.00am) and afternoon (3.30pm to 5 pm).
- 9. The haulage road should be developed prior to the commencement of mining and it should be maintained well with frequent sprinkling.
- 10. Adequate sanitation, waste management and rest room facilities should be provided to the workers.
- 11. Adequate energy conservation measures proposed should be implemented including solar power installations for street light and office
- 12. The Environment Management Cell (EMC) should include an Environment expert the proceedings of the monthly meeting of the Environment Management Cell (EMC) should be submitted along with the HYCR
- 13. The drain water quality should be monitored regularly by an NABL accredited lab and clear water should be flowed into the natural stream.

3. SIA/KL/MIN/171945/2020, 1844/EC1/2020/SEIAA

Environmental Clearance for the proposed Granite Building Stone Quarry (0.9905 Ha), O S Granites in resurvey numbers Re - Survey Nos. 244, Puthucode Village, Alathur Taluk, Palakkad District, Kerala.(*Field Inspection Report Received*).

Decision: The Committee examined the proposal, verified the documents discussed the field inspection report. The certified survey map uploaded is not legible. The Proponent submitted copy of the application submitted for wildlife clearance from the NBWL. Based on discussions, the Committee decided to direct the proponent to submit the following additional document.

- Recently certified and legible Survey Map showing all the built structures including houses, roads, canals, electrical & telecommunication installations etc., within 200 m radius.
- 2. Compensatory afforestation plan including the coordinates and geo-tagged photographs of the site proposed for afforestation.

4. SIA/KL/MIN/175536/2020, 1846/EC1/2020/SEIAA

Granite Building Stone quarry project of area 0.9407 Ha in Survey No: 60/1, 53/1 of Nellaya Village and Re Survey No. 150/1 of Cherpulassery village of Ottapalam Taluk of Palakkad District, Kerala by Sri. Sukumaran, President of Ottappalam Taluk Karinkal Quarry Operators Industrial Co-operative Society Ltd.(*Field Inspection Report Received*).

Decision: The Committee examined the proposal, verified the documents and discussed the Field Inspection Report. The proposed Life of mine is 5 years for extracting 153329MT of granite building stone with an extraction rate of 30665TPA. Depth to water table is 15m above MSL. The Committee discussed the proposal and decided to **recommend EC for a period of 5 years subject to the following Specific Conditions** in addition to the General Condition:

- 1. The green-belt development should initiate prior to the commencement of mining operations. As the mining area is part of an agriculture field, the green belting plants also could include Jack, Avocado, Litchi and Rambutan mixed with the species of wild trees removed for the project site.
- 2. Compensatory afforestation should be initiated prior to the commencement of mining and the coordinates and geo-tagged photographs of the site should be incorporated in the HYCR.
- 3. Drainage system incorporating garland canal, silt traps, siltation pond and outflow channel connecting to a natural drain should be provided prior to the commencement of mining.
- 4. Garland drain, silt-traps, siltation ponds and outflow channel should be desilted periodically and geo-tagged photographs of the process should be included in the compliance report.
- 5. Retaining wall of appropriate height should be provided at the overburden dumping site.
- 6. CER Plan should be implemented within the first 2 Years and it should be operated and maintained till the mine closure plan is implemented.
- 7. Transportation of mined material should not be done during the peak hours in the forenoon (8.30am to 10.00am) and afternoon (3.30pm to 5 pm).
- 8. The haulage road should be developed prior to the commencement of mining and it should be maintained well with frequent sprinkling. Considering the inadequate width of the road on vehicles with 3 ton capacity should be allowed.

- 9. Adequate sanitation, waste management and rest room facilities should be provided to the workers.
- 10. Adequate energy conservation measures proposed should be implemented including solar power installations for street light and office
- 11. The Environment Management Cell (EMC) should include an Environment expert the proceedings of the monthly meeting of the Environment Management Cell (EMC) should be submitted along with the HYCR
- 12. The drain water quality should be monitored regularly by an NABL accredited lab and clear water should be flowed into the natural stream.
- 13. Boundary fencing should be done and the details with geo-tagged photos to be submitted along with HYCR.
- 14. Major part of the proposed quarry site includes an abandoned quarry without any benches with steep wall and irregular quarry faces. This should be rectified by developing proper benches during the future quarrying operations under the supervision of qualified mining

SIA/KL/MIN/177823/2020, 1829/EC1/2020/SEIAA Granite Building Stone Quarry of Shri. Najeeb Hassan at Survey No. 372/1-2in Ongallur-II Village, Pattambi Taluk, Palakkad District in an extent of 0.8747 Ha.

Decision: The Committee examined the proposal, verified the documents and discussed the Field Inspection Report. The proposed Life of mine is 5 years for extracting 209734MT of granite building stone with an extraction rate of 45000TPA. Depth to water table is 10m bgl. The nearest house is at a distance of 457m and a crusher is located at a distance of 161m. The Committee discussed the proposal and **decided to recommend EC for a period of 5 years subject to the following Specific Conditions** in addition to the General Condition:

- 1. Development of green belt should be initiated prior to the commencement of mining operation.
- 2. Compensatory afforestation should be initiated prior to the commencement of mining and the coordinates and geo-tagged photographs of the site should be incorporated in the HYCR.
- 3. Drainage system incorporating garland canal, silt traps, siltation pond and outflow channel connecting to a natural drain should be provided prior to the

commencement of mining.

- 4. Garland drain, silt-traps, siltation ponds and outflow channel should be desilted periodically and geo-tagged photographs of the process should be included in the compliance report.
- OB dumbing area should be relocated to lower elevation on northern side. Retaining wall of appropriate height should be provided at the overburden dumping site.
- 6. CER Plan should be implemented within the first 2 Years and it should be operated and maintained till the mine closure plan is implemented.
- 7. Transportation of mined material should not be done during the peak hours in the forenoon (8.30am to 10.00am) and afternoon (3.30pm to 5 pm).
- 8. The haulage road should be developed prior to the commencement of mining and it should be maintained well with frequent sprinkling. Considering the inadequate width of the road on vehicles with 3 ton capacity should be allowed.
- 9. Adequate sanitation, waste management and rest room facilities should be provided to the workers.
- 10. Adequate energy conservation measures proposed should be implemented including solar power installations for street light and office
- The Environment Management Cell (EMC) should include an Environment expert the proceedings of the monthly meeting of the Environment Management Cell (EMC) should be submitted along with the HYCR
- 12. The drain water quality should be monitored regularly by an NABL accredited lab and clear water should be flowed into the natural stream.
- 13. Boundary fencing should be done and the details with geo-tagged photos to be submitted along with HYCR.
- 14. Major part of the proposed quarry site includes an abandoned quarry without any benches with steep wall and irregular quarry faces. This should be rectified by developing proper benches during the future quarrying operations under the supervision of qualified mining

6. SIA/KL/MIN/183324/2020, 2084/EC2/SEIAA/2022

Granite Building Stone Quarry of Mr. Sudheesh A T at Re Survey No: 432/584 of Nenmeni Village, Sulthan Bathery Taluk, Wayanad District, Kerala for an area of 0.9612 hectares. (Processed as ToR file [SIA/KL/MIN/37909/2019, 1396/EC1/2019/SEIAA]).

Decision: The Committee examined the proposal, verified the documents and discussed the Field Inspection Report. The proposed life of mine is 5 years for extracting 1,87,881MT of granite building stone with an extraction rate of 37576 TPA. There are 7 houses within a distance of 100m from the project boundary and the nearest house is at 50.1m. The Committee discussed the proposal and **decided to recommend EC for a period of 5 years subject to the following Specific Conditions** in addition to the General Condition:

- 1. Development of green belt should be initiated prior to the commencement of mining operation.
- 2. Compensatory afforestation should be initiated prior to the commencement of mining and the coordinates and geo-tagged photographs of the site should be incorporated in the HYCR.
- 3. The impact of vibration due to blasting on the nearest houses and built structures should be monitored in terms of Peak Particle Velocity and amplitude for maximum charge per delay and included in the Half Yearly Compliance Report.
- 4. Drainage system incorporating garland canal, silt traps, siltation pond and outflow channel connecting to a natural drain should be provided prior to the commencement of mining.
- 5. A seasonal overland drain with flow direction towards the proposed site should be diverted from outside the buffer zone of the project site. If not, it should be connected to the garland drain subject to the conditions that the garland drain is designed with adequate carrying capacity to contain the flow from overland drain in addition.
- 6. Garland drain, silt-traps, siltation ponds and outflow channel should be desilted periodically and geo-tagged photographs of the process should be included in the compliance report.
- 7. Retaining wall of appropriate height should be provided at the overburden dumping site.
- 8. CER Plan should be implemented within the first 2 Years and it should be operated and maintained till the mine closure plan is implemented.
- 9. Transportation of mined material should not be done during the peak hours in the forenoon (8.30am to 10.00am) and afternoon (3.30pm to 5 pm).
- 10. The haulage road should be developed prior to the commencement of mining and it should be maintained well with frequent sprinkling.

- 11. Adequate sanitation, waste management and rest room facilities should be provided to the workers.
- 12. Adequate energy conservation measures proposed should be implemented including solar power installations for street light and office
- 13. The Environment Management Cell (EMC) should include an Environment expert the proceedings of the monthly meeting of the Environment Management Cell (EMC) should be submitted along with the HYCR
- 14. The drain water quality should be monitored regularly and only clear water should be allowed into the natural stream.
- 15. The dilapidated house located within the project site should be demolished prior to the commencement of mining activity.
- 16. The mining should be limited by avoiding the last bench of height 5m so as to reduce the resultant water column to 12m instead of 17m as proposed.
- 17. The resultant quarry pond should be safeguarded with strong fencing or boundary wall to prevent any accidents.

7. SIA/KL/MIN/204626/2021 , 1351/EC2/2019/SEIAA Building Stone Quarry, at Re-Survey. Nos. 253/14, 266/1 & 2 in Cherukavu village, Kondotty Taluk, Malappuram District, Kerala (FIR received).

Decision: The Committee discussed the field inspection report and **decided to direct the proponent to submit the following additional documents:**

1. Revised drainage plan.

- 2. Revised CER incorporating monitorable physical targets integrated into the EMP
- 3. Plan for compensatory afforestation
- 4. A plan map showing the OB dump location and protection measures.

8. SIA/KL/MIN/204850/2021, 1352/EC2/2019/SEIAA

Building Stone quarry situated at Situated at Sy. No. 253/14 & 266/2 of Cherukavu village Kondaty Taluk, Malappuram district of Kerala (FIR received).

Decision: The Committee discussed the field inspection report and decided to direct the

proponent to submit the following additional documents:

- 1. Revised drainage plan.
- 2. Revised CER
- 3. Plan for compensatory afforestation

4. A plan map showing the OB dump location and protection measures.

9. SIA/KL/MIN/211090/2021, 1949/EC1/2022/SEIAA Granite (Building Stone) Quarry in Re. Survey No:347/3 of Thachanattukara -I Village, Mannarkkad Taluk, Palakkad District, Kerala by Mannarkkad Taluk Karinkal Quarry Operators (Field Inspection Report Received)-COMPLAINT Received.

Decision: The Committee examined the proposal, verified the documents and discussed the Field Inspection Report. The proposed Life of mine is 8 years for extracting 190694MT of granite building stone with an extraction rate of 25,000TPA. The nearest built structure is at 110.7m and depth to water table is 30m above MSL. The Committee observed that there is complaint received from Mr. Abdul Shukkoor dated 29.9.2022 against issuance of EC to the quarry. Considering this, **the Committee decided to forward the complaint to the Proponent for his response prior to further decision on the proposal.**

10. SIA/KL/MIN/219969/2021 , 1934/EC3/2022/SEIAA

Environmental Clearance for ordinary earth mining project of MrBiju K Peter, over an extent of 0.8245 Ha in ReSy No-111/13 of Aikaranad south Village, Kunnathunad Taluk, Ernakulam District, Kerala. (Field Inspection Report received)

Decision: The Committee examined the proposal and appraised the project as per OM dated 24.6.2013, pertaining to brick earth or ordinary earth up to an area less than 5 Ha and **decided to recommend EC for a period of one year with the following specific conditions**:

- 1. The excavation activity associated should not involve blasting.
- 2. The excavation activity should be restricted to a maximum depth of 2m below general ground level at the site
- 3. The excavation activity should be restricted to 2m above the ground water table at the site.
- 4. The excavation activity should not alter the natural drainage pattern of the area
- 5. The excavated pit should be restored by the project proponent for useful purpose
- 6. Appropriate fencing all around the excavated pit should be made to prevent any mishap
- 7. Measures should be taken to prevent dust emission by covering of excavated earth during transportation

- 8. Safeguards should be adopted against health risks on account of breeding of vectors in the water bodies created due to excavation of earth
- 9. Workers/labourers should be provided with facilities for drinking water and sanitation
- 10. A berm should be left from the boundary of adjoining field having a width equal to at least half the depth of proposed excavation
- 11. A minimum distance of 15m from any civil structure should be kept from the periphery of the project area
- 12. No water logging should be allowed in the mine pit. Appropriate drainage should be ensured from the project area prior to the commencement of mining.
- 13. The drain should be provided with silt traps and siltation pond and the overflow water should be clarified and drained to the nearest natural drain without any hindrance.
- 14. The drainage system should be cleaned and desilted periodically to facilitate unhindered drainage.
- 15. Measures incorporated in the CER should be implemented as per norms.
- 16. Transportation of mined material should not be done during the peak hours in the forenoon (8.30am to 10.00am) and afternoon (3.30pm to 5 pm).

11. SIA/KL/MIN/221432/2021 , 1451/EC1/2019/SEIAA

Granite Building Stone Quarry of M/s Aloor Blue Metal Crusher Unit (Conversion ToR to EC), in Re Survey No.152,153/2,153/1,154/2A,197/1(P) in Pattithara Village, Pattambi Taluk, Palakkad District (Field Inspection Report Received).

Decision: The Commyyzx8oittee examined the proposal, verified the documents and discussed the Field Inspection Report. The proposed Life of mine is 10 years for extracting 832715 MT of granite building stone with an extraction rate of 2,35,465 TPA. The nearest house is at 54m and depth to water table is 108m above MSL. The Committee discussed the proposal and decided to direct the Proponent to submit the following additional documents.

- 1. Details of pre-mining landuse as sought in Form 2 of Parivesh
- 2. Details of Ecological and Environmental Sensitivity as sought in Form 2 of Parivesh
- 3. Legible and recently certified survey map from the Village Officer
- 4. EMP earmarked is about Rs. 29 lakh out which about Rs.7 lakh is earmarked for

CER. The remaining Rs. 21 lakh is inadequate for implementing EMP for the life of mine of 10 years. Therefore, revised EMP estimate considering site specific environmental management and monitoring requirement for 10 years.

5. Plan for compensatory afforestation along with details of species proposed and coordinates and geo-tagged photographs of the proposed site for afforestation.

12. SIA/KL/MIN/222222/2021 , 1920/EC4/SEIAA/2021

Environmental Clearance for the Proposed Granite Building Stone Quarry of Mr. Haridasan at Re Survey No. 3/1237, 3/744 of Engapuzha Village, Thamarassery Taluk, Kozhikode District, and Kerala for an area of 1.3050 hectares (Field Inspection Report Received).

Decision: The Committee discussed the field inspection report and decided to direct the

proponent to submit the following additional documents:

- 1. Proof of application submitted for wildlife clearance to NBWL.
- 2. Recently certified legible survey map
- 3. Plan for protection of the water bodies in around the project area
- 4. Plan for the connectivity of garland drain to the natural drainage system.
- 5. Plan for safe removal of boulders in the project area.
- 6. Site specific EMP plan with adequate fund earmarked for environmental mitigation and monitoring measures for the entire life of mine projected.
- 7. Revise the PC considering the revised EMP cost and also revise the fund earmarked for CER
- 8. Plan for compensatory afforestation along with details of species proposed and coordinates and geo-tagged photographs of the proposed site for afforestation.

13. SIA/KL/MIN/222256/2021 , 1919/EC4/SEIAA/2021

Environmental Clearance for the Proposed Granite Building Stone Quarry of Mr. Haridasan at Re Survey No. 3/1237, 3/744 of Engapuzha Village, Thamarassery Taluk, Kozhikode District, and Kerala for an area of 1.3050 hectares (Field Inspection Report Received).

Decision: The Committee discussed the field inspection report and **decided to direct the proponent to submit the following additional document:**

- 1. Proof of application submitted for wildlife clearance to NBWL.
- 2. Recently certified legible survey map
- 3. Site specific EMP plan with adequate fund earmarked for environmental mitigation

and monitoring measures for the entire life of mine projected.

- 4. Revise the PC considering the revised EMP cost and also revise the fund earmarked for CER
- 5. Plan for compensatory afforestation along with details of species proposed and coordinates and geo-tagged photographs of the proposed site for afforestation.

14. SIA/KL/MIN/223779/2021 , 1921/EC4/SEIAA/2021

Environmental Clearance for Laterite building stone quarry project of Mr.Mirshad C.K, over an extent of 0.7115 Ha in Re Sy No 67/1190, 67/1191, 67/1187, 67/1186, 67/801 of Kakkad Village, Kozhikode Taluk, Kozhikode District, Kerala. (Field Inspection Report Received).

Decision: The Committee discussed the field inspection report and decided to direct the

proponent to submit the following additional documents:

- 1. Compensatory afforestation plan with geo-coordinates and geo-tagged photographs of the site proposed for afforestation
- 2. Detailed drainage plan considering the unhindered discharge of overland flow to the nearest natural drainage system
- 3. Modified plan for OB /topsoil dump.
- 4. Detailed closure plan of the area subjected to laterite extraction.

15. SIA/KL/MIN/232409/2021 , 1961/EC4/2022/SEIAA

Environmental Clearance for Laterite building stone quarry project of Mr. Shaji at Re-survey.No: 67/636, 67/639, 67/637, 67/649, 67/748 of Kakkad - Village, Kozhikode - Taluk, Kozhikode - District, Kerala over an area of 0.9902 Ha.(Field Inspection Report Received).

Decision: The Committee discussed the field inspection report and decided to direct the

proponent to submit the following additional documents:

- 1. Compensatory afforestation plan with geocoordinates and geo-tagged photographs of the site proposed for afforestation
- 2. Detailed drainage plan considering the unhindered discharge of overland flow to the nearest natural drainage system
- 3. Modified plan for OB /topsoil dump.
- 4. Detailed closure plan of the area subjected to laterite extraction

16. SIA/KL/MIN/239760/2021 , 2013/EC1/2022/SEIAA

Granite Building Stone Quarry Project of SrI . C.H. Sakkariya, President, MANNARKKAD TALUK KARINKAL QUARRY OPERATORS INDUSTRIAL COOPERATIVE SOCIETY LTD having an area of 0.9669 Ha in Survey no. 395/5 Thachanattukara-I Village, Mannarkkad Taluk, Palakkad District (Field Inspection Report Received).

Decision: The Committee examined the proposal, verified the documents and discussed the Field Inspection Report. The proposed Life of mine is 5 years for extracting 264849 MT of granite building stone with an extraction rate of 25000 TPA. The nearest house is at 84.9m and depth to water table is 30m above MSL. The Committee discussed the proposal and **decided to direct the Proponent to submit the following additional details.**

- 1. Revised CER incorporating monitorable physical target.
- 2. Modified drainage plan with details of silt trap and siltation tank and connectivity to natural drain.
- 3. Plan for Compensatory afforestation along with coordinates and geo-tagged photographs of the proposed site for afforestation.
- 4. Site specific EMP plan with adequate fund earmarked for environmental mitigation and monitoring measures for the entire life of mine projected.
- 5. Revise the PC considering the revised EMP cost and also revise the fund earmarked for CER

17. SIA/KI/Min/255794/2022, 2000/Ec6/2022/Seiaa Laterite Building Stone Quarry Of Mr Manningachalil Ibrahim, Pulpatta Village, Ernad Taluk, Malappuram District (Fir Received).

Decision: The Committee examined the proposal, verified the documents and discussed the field inspection report. The Committee decided to direct the proponent to submit the following additional details:

- Comprehensive drainage plan for the 3 project areas comprised in SIA/KL/MIN/261634/2022, SIA/KL/MIN/262702/2022 and SIA/KL/MIN/255794/2022.
- 2. Compensatory afforestation plan along with coordinates and geo-tagged photographs of the proposed site for afforestation.
- 3. Revised CER proposal incorporating monitorable physical target.

18. SIA/KL/MIN/259967/2022, 2025/EC1/2022/SEIAA Environmental Clearance for Granite building stone quarry of Mr.Muralikumar K A, over an extent of 0.5130 Ha ResyNo-52117,15 in

Erimayur -II Village, Alathur Taluk, Palakkad District, Kerala.(Field Inspection Report Received)

Decision: The Committee examined the proposal, verified the documents and discussed the field inspection report. The **Committee decided to direct the proponent to submit**

the following additional details.

- 1. Revised CER incorporating monitorable physical target.
- 2. Modified drainage plan with details of silt trap and siltation tank and connectivity to natural drain.
- 3. Plan for Compensatory afforestation along with coordinates and geo-tagged photographs of the proposed site for afforestation.
- 4. Site specific EMP plan with adequate fund earmarked for environmental mitigation and monitoring measures for the entire life of mine projected.
- 5. Revise the PC considering the revised EMP cost and also revise the fund earmarked for CER

19. SIA/KL/MIN/261634/2022 , 1999/EC6/2022/SEIAA

Environmental Clearance for Laterite building stone quarry of Mr. Ayamu, over an extent of 0.3391 Ha, ReSyNo-242/1-3 in Pulpatta Village, Ernad Taluk, Malappuram District, Kerala (FIR received).

Decision: The Committee examined the proposal, verified the documents and discussed the field inspection report. The Committee decided to direct the proponent to submit the following additional details:

- Comprehensive drainage plan for the 3 project areas comprised in SIA/KL/MIN/261634/2022, SIA/KL/MIN/262702/2022 and SIA/KL/MIN/255794/2022.
- 2. Compensatory afforestation plan along with coordinates and geo-tagged photographs of the proposed site for afforestation.
- 3. Revised CER proposal incorporating monitorable physical target.

20. SIA/KL/MIN/262702/2022 , 1996/EC6/2022/SEIAA Laterite Building Stone Quarry Of Mr. Moideenkutty. P In Pulpatta Village O Ernad Taluk In Malappuram District (FIR received)

Decision: The Committee discussed the field inspection report and **decided to direct the proponent to submit the following additional documents:**

- Comprehensive drainage plan for the 3 project areas comprised in SIA/KL/MIN/261634/2022, SIA/KL/MIN/262702/2022 and SIA/KL/MIN/255794/2022.
- 2. Compensatory afforestation plan along with coordinates and geo-tagged photographs of the proposed site for afforestation.
- 3. Revised CER proposal incorporating monitorable physical target.

21. SIA/KL/MIN/265909/2022, 1985/EC1/2022/SEIAA

Environmental Clearance for Laterite building stone quarry of Mr.Ansar.C over an extent of 0.8489 Ha in Survey No. 1/2A, of Pottassery-2 Village of Mannarkkad Taluk, Palakkad-District of Kerala. (Field Inspection Report Received)

Decision: The Committee discussed the field inspection report and decided to direct the

proponent to submit the following additional documents:

- 1. 10 photographs of the site and the surrounding area from different angles.
- 2. Drainage plan connecting to the natural drain.
- 3. Revised CER proposal incorporating physical targets.
- 4. Depth to water table in the nearest well alongwith the geotagged photogrphas of the well.

22. SIA/KL/MIN/271936/2022 , 1995/EC4/2022/SEIAA

Environmental Clearance for the Proposed Granite Building Stone Quarry of Mr. Sreelath T, at Re Survey Block No. 7, Re-Survey Nos. 93/27, Raroth Village, Thamarassery Taluk, Kozhikode District, Kerala for an area of 1.7613 hectares.(Field Inspection Report Received).

Decision: The Committee examine the proposal, verified the documents and discussed the field inspection report. The mineable reserve is 4,05,019 MT with production plan of 60,000 TPA for a life of mine of 7 years. The nearest house is reported at 220m and the depth to water table is 10m bgl. The site is not in the vicinity of medium or high hazard zone. The Malabar Wildlife Sanctuary is located at 8.4 km from the project site and the Proponent has submitted a hard copy proof. **Considering this, the Committee decided to recommend EC for a project period of 7 years with the following specific conditions, in addition to general conditions.**

- 1. Proof of application submitted for wildlife clearance from NBWL should be uploaded in Parivesh portal prior to the issuance of EC.
- 2. Development of green belt should be initiated prior to the commencement of

mining operation.

- 3. Compensatory afforestation should be initiated prior to the commencement of mining and the coordinates and geo-tagged photographs of the site should be incorporated in the HYCR.
- 4. Drainage system incorporating garland canal, silt traps, siltation pond and outflow channel connecting to a natural drain should be provided prior to the commencement of mining.
- 5. Garland drain, silt-traps, siltation ponds and outflow channel should be desilted periodically and geo-tagged photographs of the process should be included in the compliance report.
- 6. Gabion wall of should be provided at the overburden dumping site.
- 7. CER Plan should be implemented within the first 2 Years and it should be operated and maintained till the mine closure plan is implemented.
- 8. Transportation of mined material should not be done during the peak hours in the forenoon (8.30am to 10.00am) and afternoon (3.30pm to 5 pm).
- 9. The haulage road should be developed prior to the commencement of mining and it should be maintained well with frequent sprinkling.
- 10. Adequate sanitation, waste management and rest room facilities should be provided to the workers.
- 11. Adequate energy conservation measures proposed should be implemented including solar power installations for street light and office
- The Environment Management Cell (EMC) should include an Environment expert the proceedings of the monthly meeting of the Environment Management Cell (EMC) should be submitted along with the HYCR

23. SIA/KL/MIN/272255/2022 , 1412/EC2/2019/SEIAA

Granite Building Stone Quarry of Mr. SudheeshA T for an area of 2.4973 Ha in Survey No: 55/2, 55/3, 55/4 of Irulam Village, Sulthanbathery Taluk, Wayanad District, Kerala. (Processed as ToR file [SIA/KL/MIN/39592/2019, 1412/EC2/2019/SEIAA] and recommended in 130th meeting).

Decision: The Committee observed that the proposal was recommended in the 130th SEAC meeting and hence **decided to adhere to decision in item No. 21 of part 3 taken in its** 130th meeting.

24. SIA/KL/MIN/36040/2019, 1374/EC2/2019/SEIAA

Granite Building Stone Quarry of M/s. Pala Metals and Sands Pvt Ltd, over an extent of 9.6560 Ha. (23.8599 Acres).Re -Sy.No. 126/1, 128/1, 128/1-1, 128/2, 128/3,128/3-1, 128/3-2, 128/4, 129/4, 126/2, 126/5, 127/2, 132/8,129/1, 129/1-1, 129/2, & 129/3 in Bharanganam Village, Meenachil Taluk, Kottayam District, Kerala (Evaluation Report -Received)

Decision: The committee discussed the evaluation report and **decided to invite the proponent for presentation.**

25. SIA/KL/MIN/61795/2019, 1894/EC6/2021/SEIAA

Building Stone Minor Mineral Mining (Quarry) project of Mr. Manoj K. at Kannamangalam Village, Thirurangadi Taluk, Malappuram District, Kerala for an area of 0.9524 hectors. (FIR received).

Decision: The Committee examined the proposal and verified the documents and noted that only one chapter of the EIA report is uploaded. Due to technical error committee was unable to download the proceedings of public hearing. Therefore, the Committee decided to direct the Proponent to submit the documents which are not uploaded and other additional documents as given below:

- 1. Upload EIA Report and EMP in total
- 2. Upload proceedings of the Public Hearing conducted
- 3. Recently certified legible survey map from the village officer indicating distance to all the built structures within 200m

The Committee also decided that the Sub Committee entrusted for field inspection will evaluate the EIA report, EMP statement and Public Consultation proceedings and include the salient aspects in the field inspection report and enable the Committee to take a decision on the proposal.

26. SIA/KL/MIN/62708/2019 , 1901/EC4/2021/SEIAA

Environmental Clearance for the Proposed Granite Building Stone Quarry of Mr. Abdul Rahim at Re Survey No. 147/46, 147/2A1, 147/2A2, 147/42, 147/43, 147/44, 147/41 at Thazhakkode Village, Kozhikode Taluk, Kozhikode District, Kerala for an extent of 3.8830 Ha.(Field Inspection Report Received)

Decision: The Committee discussed the field inspection and **decided to direct the proponent to submit the following additional documents:**

- 1. Upload project boundary in kml file.
- 2. Plan for development of approach road.
- 3. Map showing OB dumping site and protection requirement.

- 4. Modified drainage plan including garland canal, silt traps, siltation pond, outflow channel and connectivity to natural drain.
- 5. Compensatory afforestation plan with geo-coordinates and ge-tagged photographs of the proposed area.

27. SIA/KL/MIS/73563/2022, 1193/EC2/2018/SEIAA

Environment Clearance for proposed Expansion of Mixed Use Township development project to be developed by M/s Calicut Landmark Builders & Developers (India) Pvt. Ltd, at Sy. Nos.27/3, 32/1, 32/4, 32/5, 31/4, 31/7, 31/8, 31/9, 35/1B (part), 30/4C, 31/5, 31/6,Pantheerankavu Village, OlavannaPanchayat, Kozhikode Taluk & District (Presentation)

Decision: As invited proponent Mr. Anwar Sadath & Consultant, Mr. P Z Thomas on behalf of M/s Environmental Engineers & Consultants Pvt. Ltd. The Consultant made the presentation. Based on discussions, the Committee **decided to entrust Dr. R.** Ajayakumar Varma and Dr. C C Harilal for field inspection and report. The Sub Committee is also informed that there is case against issuance of EC to the project pending with the NGT, the details of which is yet to be obtained.

28. SIA/KL/NCP/71500/2017, 1143/EC/SEIAA/KL/2017

Application for EC for the Proposed Outer Ring Road (ORR) under CRDP-II, Thiruvananthapuram, Kerala (Southern Ring: Mangalapuram-Thekkada-Vizhinjam) - Evaluation Report Received

Decision: The 130th meeting of the SEAC considered the document titled 'SEAC clarification report' submitted by the Proponent of the proposed project "Southern Ring of the Outer Ring Road Project connecting Mangalapuram-Thekkada-Vizhinjam under the Capital Region Development Project -II" which was prepared in response to the 14 point clarification sought on the Environmental and Social Impact Assessment (ESIA) Study Report of the project. The Committee entrusted a two member Sub Committee who evaluated the report and associated documents and appraised the salient aspects of the project to the Committee. The findings of the subcommittee is given hereunder.

1. On the direction to complete the EIA study by addressing all the aspects in the approved TOR, the Proponent has incorporated a compliance table showing the ToR points and relevant sections in the EIA Report where the topic has been addressed. However, many of the requirements under ToR are not addressed as required. Some of the shortcomings are given hereunder:

- Land use map of the study area to a scale of 1: 25,000 based on recent satellite imagery delineating the crop lands (both single and double crop), agricultural plantations, fallow lands, waste lands, water bodies, built-up areas, forest area and other surface features such as railway tracks, ports, airports, roads, and major industries etc. is not found included
- Detailed ground surveyed map on 1:2000 scale showing the existing features falling within the right of way namely trees, structures including archaeological & religious, monuments etc. if any is not found included.
- Environmental and Social Strip Plan of the alignment is given as Appendix4.2 which is not found included in the report.
- Stability of slopes, Landslide, rock fall protection measures etc are not dealt with in the report. Some details are provided in the SEAC Clarifications note.
- No study regarding the Animal bypasses is found in the report. The locations of underpasses are detailed.
- Details of the trees to be cut including their species and whether it also involves any protected or endangered species is not given and the details of compensatory plantation is not provided. Also measures taken to reduce the number of the trees to be removed is not explained in detail as required. Some details of compensatory plantation are provided in this SEAC clarifications note.
- Details of green belt development is not provided except general statement and it is mentioned that the cost provision is given in DPR which is not found submitted.
- The report is silent about the location and details of wayside amenities, which should include petrol station/service centre, rest areas including public conveyance, etc.
- Details of construction material requirement and its sourcing and transporting details are not given
- Detailed analysis of the possibilities of utilizing the debris/ waste materials available in and around the project area is not made.
- Air quality and noise level data collection details are not given
- Project activities during construction and operation phases are not listed
- Generation of fugitive dust from crusher units and air emissions from hot mix plants are not monitored
- Details of fill materials and initial and final levels after filling above MSL is not given as the proposed route is passing through low lying areas,

- The status, volumetric capacity, quality and likely impacts on water bodies are not dealt as required.
- Details of water quantity required and source of water including water requirement during the construction stage with supporting data is not given quantitatively
- Details of signage, service roads accident prone zone and the mitigation measures are not provided
- Details of the properties, houses, businesses religious and social places etc are sketchy.
- Details of survey carried out for preparing detailed R&R plan is not found included.
- 2. On the direction to provide the details/plan of the stormwater drainage and its interconnection with the natural drain of the locality along with predicted impacts and mitigation measures, the following shortcomings are noted.
 - The criteria for deciding the box culverts and pipe culverts not given
 - Hydrological computations used for designing the drains not given
 - Connectivity of constructed drains to natural water bodies is not detailed
 - Ways to avoid local flooding due to overloading of drains not explained
 - Mitigation measures are only general statements and not spot specific
- 3. On the direction for detailed plan proposed for mitigation of air pollution and enhanced noise levels including the details of avenue plants and vegetation, the Proponent preconceives that 100-130 days of wet days and the lush vegetation of Kerala take care of air pollution and also no noise attenuation study seems to have been done
- 4. On the direction to conduct slope stability study, wherever required as per the terrain conditions, and suggest feasible management measures, certain details provided
- 5. On the direction to assess impact of the drainage diversion proposed in the project and its management measures, some details provided.
- 6. On the direction to provide a detailed plan for the management of Construction and Demolition waste and excess cut waste, the Proponent has not anticipated C&D waste generation and hence it is not estimated. The Proponent also failed to submit a policy & protocol for management of C&D waste.
 - On the direction to provide the details of the environmentally sensitive spots such as wetlands, sacredgroves, natural regions with rare and endemic species etc along and adjacent to the project area and assess the impacts and mitigation measures, the

Proponent has not addressed it. The maps provided have no index and hence it could not be made use of for identifying and understanding the features

- 7. The Proponent has not conceived the sanction under Kerala Paddy & Wetland Act, 2008 is required to convert paddy field as road.
- 9. On the impact on rock-cut caves, temples, churches, mosques and other locally important structures etc., if any and management measures, the Proponent have identified and listed the structures, but the impacts and specific mitigation measures for each of the structures is not given
- 10. On the impact of sourcing and transportation of the construction materials and management measures, the Proponent has not estimated the anticipated requirement of construction materials and also not detailed the Policy & protocol for procurement and management of construction materials needed.
- 11. On the proposal to extract building stones from Mookkunnimala, the Proponent has not provided the feasibility of the same. It is important as the source is near Defence Installation and the area is an assigned land. Further, the anticipated extraction requirement of construction materials from this site is not estimated as well as the Policy & protocol for procurement and management of construction materials from this particular site is not detailed.
- 12. On the requirement of details of the compensatory plan for trees proposed to be removed from the proposed project area, the green development plan for public buildings, schools, hospitals and other community building are necessary to compensate for the vegetation loss anticipated and also for mitigation of air and noise pollution mitigation is not considered.
- 13. On the details of avenue trees and its proposed nurturing and management measures, some details are provided.
- 14. On the details of the rehabilitation and resettlement plan, if applicable, it seems that there are no specific survey conducted by the Proponent.

The Committee discussed the salient aspects of the evaluation report and decided to invite the Proponent for a presentation of the revised EIA & EMP statement including the shortcomings listed as above. The Proponent may be advised to make the presentation based on the ToR and also with quantitative data wherever required. It is also decided to share the evaluation report to the Proponent.

29. SIA/KL/MIN/278602/2022 , 1213/EC2/2019/SEIAA

Application for Environmental Clearance for the Granite Building Stone Quarry Project of Sri.MohammedShareef for an area of 1.3997 Ha in Sy.No.1/1A in Pulamanthole Village, Perinthalmmana Taluk, Malappuram District (Physical to Online)

Decision: The Committee observed that the proposal was recommended in the 126th SEAC meeting and hence **decided to adhere to decision No. 126.34 taken in its 126th meeting.**

PART 4

CONSIDERATION/RECONSIDERATION OF ENVIRONMENTAL CLEARANCE

1. SIA/KL/MIN/132154/2019, 1618/EC2/2019/SEIAA

Environmental Clearance for the Proposed Granite (Building Stone) Quarry in Re-Sy. Nos. 272/3, 272/4, 272/5 of Elamadu Village, Kottarakkara Taluk, Kollam District., Kerala for an extent of 0.7969Ha of Aishwarya Granites (Clarification received).

Decision: The proponent has submitted a letter along with a screenshort indicating that he has withdrawn the application SIA/KL/MIN/75523/2022, 2001/EC2/2022/SEIAA(ToR for the Proposed Granite Building Stone Quarry of A.M Chackochan at Elamad Village, Kottarakara Taluk, Kollam District, Kerala for an extent of 8.0563 Ha). In this circumstances Committee recommend EC for 4 years subject to the withdrawal of the application stated above and also subject to the following specific conditions in addition to general conditions.

- 1. Development of green belt should be initiated prior to the commencement of mining operation.
- 2. Compensatory afforestation should be initiated prior to the commencement of mining and the coordinates and geo-tagged photographs of the site should be incorporated in the HYCR.
- 3. Drainage system incorporating garland canal, silt traps, siltation pond and outflow channel connecting to a natural drain should be provided prior to the commencement of mining.
- 4. Garland drain, silt-traps, siltation ponds and outflow channel should be desilted

periodically and geo-tagged photographs of the process should be included in the compliance report.

- 5. Gabion wall of should be provided at the overburden dumping site.
- 6. CER Plan should be implemented within the first 2 Years and it should be operated and maintained till the mine closure plan is implemented.
- 7. Transportation of mined material should not be done during the peak hours in the forenoon (8.30am to 10.00am) and afternoon (3.30pm to 5 pm).
- 8. The haulage road should be developed prior to the commencement of mining and it should be maintained well with frequent sprinkling.
- 9. Adequate sanitation, waste management and rest room facilities should be provided to the workers.
- 10. Adequate energy conservation measures proposed should be implemented including solar power installations for street light and office
- The Environment Management Cell (EMC) should include an Environment expert the proceedings of the monthly meeting of the Environment Management Cell (EMC) should be submitted along with the HYCR

2. SIA/KL/MIN/135534/2020, 1677/EC2/2020/SEIAA

Environmental Clearance for the Proposed Granite (Building Stone) Quarry in Re-Sy. No. 244/2 of Elamadu Village, Kottarakkara Taluk, Kollam District., Kerala for an extent of 0.3615Ha of Aishwarya Granites (Clarification received)

Decision: The proponent has submitted a letter along with a screenshort indicating that he has withdrawn the application SIA/KL/MIN/75523/2022, 2001/EC2/2022/SEIAA(ToR for the Proposed Granite Building Stone Quarry of A.M Chackochan at Elamad Village, Kottarakara Taluk, Kollam District, Kerala for an extent of 8.0563 Ha). In this circumstances Committee recommend EC for 3 years subject to the withdrawal of the application stated above and also subject to the following specific conditions in addition to general conditions.

- 1. Development of green belt should be initiated prior to the commencement of mining operation.
- 2. Compensatory afforestation should be initiated prior to the commencement of mining and the coordinates and geo-tagged photographs of the site should be incorporated in the HYCR.

- 3. Drainage system incorporating garland canal, silt traps, siltation pond and outflow channel connecting to a natural drain should be provided prior to the commencement of mining.
- 4. Garland drain, silt-traps, siltation ponds and outflow channel should be desilted periodically and geo-tagged photographs of the process should be included in the compliance report.
- 5. Gabion wall of should be provided at the overburden dumping site.
- 6. CER Plan should be implemented within the first 2 Years and it should be operated and maintained till the mine closure plan is implemented.
- 7. Transportation of mined material should not be done during the peak hours in the forenoon (8.30am to 10.00am) and afternoon (3.30pm to 5 pm).
- 8. The haulage road should be developed prior to the commencement of mining and it should be maintained well with frequent sprinkling.
- 9. Adequate sanitation, waste management and rest room facilities should be provided to the workers.
- 10. Adequate energy conservation measures proposed should be implemented including solar power installations for street light and office
- The Environment Management Cell (EMC) should include an Environment expert the proceedings of the monthly meeting of the Environment Management Cell (EMC) should be submitted along with the HYCR

3. [SIA/KL/MIN/136899/2020, 1830/EC4/2020/SEIAA

Environmental Clearance for the proposed Granite Building Stone Quarry of M/s Surya Crusher & Hollow at Resurvey No.9/1A,335 in Kolavallur village, Thalassery Taluk, Kannur District, Kerala for an extent of 2.0233 Ha. (Additional Documents Received)

Decision: The Committee examined the proposal, verified the documents submitted and discussed the field inspection report. The project area is 2.0233 Ha, the minable reserve is 8,86,675 MT, the life of mine is 10 years and the production plan is 88,668 TPA. The nearest built structure is at a distance of 81m. The Project cost revised is Rs. 78.08 lakh, the EMP cost revised is Rs. 22.3 lakh and CER cost revised is Rs. 30 lakh. The overall project cost is lower than that according to norms, the EMP cost is lower than the requirement for environmental management and mitigation measures for 10 years. The depth to water table

indicated is 50m below ground level which is not a representative value for the site under consideration. Therefore, the Proponent is directed to submit the following details.

- 1. Revised project cost as per norms
- 2. Revised EMP with site specific proposals and cost earmarked for the lif of mine projected

4. SIA/KL/MIN/140382/2020, 1674/EC2/2020/SEIAA Environmental Clearance for the Proposed Granite (Building Stone) Quarry in Re-Sy. No. 268/1 of Elamadu Village, Kottarakkara Taluk, Kollam District., Kerala for an extent of 0.9957Ha (Clarification received)

Decision: The proponent has submitted a letter along with a screenshort indicating that he has withdrawn the application SIA/KL/MIN/75523/2022, 2001/EC2/2022/SEIAA(ToR for the Proposed Granite Building Stone Quarry of A.M Chackochan at Elamad Village, Kottarakara Taluk, Kollam District, Kerala for an extent of 8.0563 Ha). In this circumstances Committee recommend EC for 5 years subject to the withdrawal of the application stated above and also subject to the following specific conditions in addition to general conditions.

- 1. Development of green belt should be initiated prior to the commencement of mining operation.
- 2. Compensatory afforestation should be initiated prior to the commencement of mining and the coordinates and geo-tagged photographs of the site should be incorporated in the HYCR.
- 3. Drainage system incorporating garland canal, silt traps, siltation pond and outflow channel connecting to a natural drain should be provided prior to the commencement of mining.
- 4. Garland drain, silt-traps, siltation ponds and outflow channel should be desilted periodically and geo-tagged photographs of the process should be included in the compliance report.
- 5. Gabion wall of should be provided at the overburden dumping site.
- 6. CER Plan should be implemented within the first 2 Years and it should be operated and maintained till the mine closure plan is implemented.
- 7. Transportation of mined material should not be done during the peak hours in the forenoon (8.30am to 10.00am) and afternoon (3.30pm to 5 pm).
- 8. The haulage road should be developed prior to the commencement of mining and it

should be maintained well with frequent sprinkling.

- 9. Adequate sanitation, waste management and rest room facilities should be provided to the workers.
- 10. Adequate energy conservation measures proposed should be implemented including solar power installations for street light and office
- The Environment Management Cell (EMC) should include an Environment expert the proceedings of the monthly meeting of the Environment Management Cell (EMC) should be submitted along with the HYCR

5. SIA/KL/MIN/165695/2020, 1968/EC3/2022/SEIAA Environmental Clearance for the building stone quarry at Re-Survey No. 193/5/2,180/4/1,180/4/2,180/4/3,Block No.17 of Mookkannoor Village, Aluva Taluk, Ernakulam District, Kerala for an Area of 0.9996 Ha.(Field Inspection Report received)

Decision: The Committee examined the proposal and discussed the field inspection and **decided to direct the proponent to submit the following additional documents:**

- 1. Recent Cluster Certificate
- 2. Recently Certified and legible Survey Map indicating distance to houses and other built structures within 200m radius
- 3. Proposal for boulder management
- 4. Distance to moderate and high hazard zones
- 5. Site specific EMP for the entire life of mine with costing
- 6. Drainage map with details of garland canal, silt traps, outflow channel, connectivity to natural drain etc.
- Revised CER with monitorable physical targets as per norms and its cost requirements incorporated in the revised EMP as the amount earmarked for CER is different in different documents submitted.
- 8. Revise the Project cost taking into consideration the revised cost required for EMP
- 9. Details of rainwater harvesting
- 10. Details of sanitation and waste management and drinking water provisions made
- 11. Details of energy conservation measures proposed
- 12. The errors in the application should be corrected, particularly with respect to land use breakup, depth of mine void, land ownership, water requirement, source of water.

- 13. The proposed road to the site is narrow and therefore needs to be widened. Submit a plan for the same.
- 14. Map showing OB dump in the most appropriate location and the details of the protection of OB dump
- 15. Compensatory afforestation taking into account the trees cut and the absence of buffer on one side of the proposed quarry.

6. SIA/KL/MIN/214224/2021, 1900/EC4/2021/SEIAA

Environment Clearance for the Granite Building Stone Quarry Project of M/s
Irikkur Rocks Products Private Limited, at, Re-Sy. No. 4 (Block No. 83),
Eruvessy Village, Thaliparamba Taluk, Kannur District, Kerala for an area of
4.8404 Ha (ToR file No.1386/EC2/2019/SEIAA) (Fresh EC application)

Decision: The Committee verified the proposal and discussed in detail and found that in EIA report public hearing has not conducted and Brahmagiri Wildlife Sanctuary eco sensitive zone at 9.5 m. The Committee decided to invite the proponent for presentation.

7. SIA/KL/MIN/230280/2021, 1959/EC3/2022/SEIAA Environmental Clearance for Ordinary Earth Mining Project of Mrs. Resmi Mathew, over an extent of 0.9915 Ha in Re Sy No-306/4-2, 306/3 of Keezhmad Village, Aluva Taluk, Ernakulam District, Kerala..(Field Inspection Report received)

Decision: The Committee examined the proposal and appraised the project as per OM dated 24.6.2013, pertaining to brick earth or ordinary earth up to an area less than 5 Ha and **decided to recommend EC for a period of One year with the following specific conditions**:

- 1. The excavation activity associated should not involve blasting.
- 2. The excavation activity should be restricted to a maximum depth of 2m below general ground level at the site
- 3. The excavation activity should be restricted to 2m above the ground water table at the site.
- 4. The excavation activity should not alter the natural drainage pattern of the area
- 5. The excavated pit should be restored by the project proponent for useful purpose
- 6. Appropriate fencing all around the excavated pit should be made to prevent any mishap

- 7. Measures should be taken to prevent dust emission by covering of excavated earth during transportation
- 8. Safeguards should be adopted against health risks on account of breeding of vectors in the water bodies created due to excavation of earth
- 9. Workers/labourers should be provided with facilities for drinking water and sanitation
- 10. A berm of 2m should be left from the boundary of adjoining field having a width equal to at least half the depth of proposed excavation
- 11. A minimum distance of 15m from any civil structure should be kept from the periphery of the project area
- 12. No water logging should be allowed in the mine pit. Appropriate drainage should be ensured from the project area prior to the commencement of mining.
- 13. The drain should be provided with silt traps and siltation pond and the overflow water should be clarified and drained to the nearest natural drain without any hindrance.
- 14. The drainage system should be cleaned and desilted periodically to facilitate unhindered drainage.
- 15. Amount should be earmarked for CER as per stipulation and it should be expended for monitorable work targets as per OM.
- 16. Transportation of mined material should not be done during the peak hours in the forenoon (8.30am to 10.00am) and afternoon (3.30pm to 5 pm).

8. SIA/KL/MIN/234374/2021 , 2028/EC3/2022/SEIAA

Environmental Clearance project of Mathew P M, for the Ordinary Earth project at Survey No.338/1A/17C of Keerampara Village, Kothamagalam Taluk, Ernakulam District, Kerala State for an area of 0.7186 hectares.(Field Inspection Report received)

Decision: The Committee discussed the field inspection report and found that the Thattekad Bird Sanctuary situated at distance of 5.5 km. The Committee decided to seek the direction of SEIAA on the applicability of Clearance from NBWL for extraction of ordinary earth which is done as per OM dated 24.6.2013, pertaining to brick earth or ordinary earth up to an area less than 5 Ha. The Committee decided to consider the application further after getting a direction from the SEIAA.

9. SIA/KL/MIN/266045/2022, 2047/EC1/2022/SEIAA

Environmental Clearance for Granite building stone quarry of C.H Saktriariya, MANNARKKAD TALUK KARINKAL QUARRY OPERATORS INDUSTRIAL CO OPERATIVE SOCIETY LTD . over an extent of 0.6347 Ha.ResyNo.241/1A1 in Pottassery -i Village, Mannarkkaci Taiuk. Palakkad District, Kerala. (Fresh proposal).

Decision: The Committee verified the proposal and discussed in details and found that there are 3 buildings at distance of 21.6m, 44.7m & 37m respectively, as per the survey map. So, **the Committee decided to invite the proponent for presentation**.

10. SIA/KL/MIN/267633/2022 , 2026/EC3/2022/SEIAA

Environmental Clearance project of MUHAMMED K P for the Ordinary Earth Removal project at Block-34, Re.Survey No. 215/10-6,7 of Pattimattom Village, Kunnathunad Taluk, Ernakulam District, Kerala State for an area of 0.2830 hectares.(Field Inspection Report received).

Decision: The Committee examined the proposal and discussed the field inspection report in detail and found that as per existing directions and regulations, environmental clearance cannot be considered for the project. However, there is a house under construction located just adjacent to the vertical face of the hill and the removal of earth from that portion is necessary to safeguard the structure. It is also reported that during the interactions in the field that the house is constructed as part of the LIFE scheme sponsored by the government for the poor. It is desirable to remove the earth right from the boundary of the hill to a maximum thickness of 5m at the vertical face region (without leaving a berm) and with reducing thickness towards upper slope with 1m thickness at upper slope region of the proposed project site at the end of the proposal, it is decided to refer the matter to the SEIAA for further direction.

11. SIA/KL/MIN/280117/2022 , 2098/EC6/2022/SEIAA

Environmental Clearance for the Laterite Building Stone Quarry Project of Sri.Mohammed Faisal Kannadan for an area of 0.1943 Ha in Kurumbathur Village, Tirur Taluk, Malappuram District (Fresh proposal).

Decision: The Committee examined the proposal and verified the documents submitted. It is note that the survey map indicating distance to built structures within 200m radius of the project site is not submitted and the depth of mine void is not stated. Based on discussions, **the Committee decided to invite the proponent for presentation**.

12. SIA/KL/MIN/284456/2022, 2108/EC4/2022/SEIAA

Environmental Clearance for the proposed Laterite building stone quarry of Mr. Cherunni. K, at Re.Sy.No-32/2D, in Kakkad Village, Kozhikode Taluk, Kozhikode District, Kerala. For an extent of 0.5827 Ha (Fresh application).

Decision: The Committee examined the file and discussed in detail and **decided to invite the proponent for presentation.**

13. SIA/KL/MIN/285616/2022 , 2107/EC4/2022/SEIAA

Environmental Clearance for Laterite building stone quarry of Mr. Ashraf. K,at Re.Sy.No-64/75, in Ulliyeri Village, Koyilandy Taluk, Kozhikode District, Kerala, for an extent of 0.8094 Ha. (Fresh application).

Decision: The Committee examined the file and verified the documents and **decided to invite the proponent for presentation.**

14. SIA/KL/MIN/45324/2019, 1557/EC3/2019/SEIAA

Granite Building stone quarry of "Shri. Varghese Chakku At Re- Survey No:284,Block No.22 in Malayattoor Village, Aluva Taluk, Ernakulam District, Kerala State.(Clarification with respect to the two cluster certificate received from Dept. of Mining and Geology)

Decision: The Committee examined the proposal and verified the documents. The **Committee decided to entrust Dr. N. Ajithkumar and Dr. R. Ajayakumar Varma for field inspection and report.**

15. SIA/KL/MIS/273775/2022 , 2109/EC3/2022/SEIAA

Proposed Expansion of the Building Project ~Adlux Medicity and Convention Centre Pvt. Ltd. at Karukutty Village, Aluva Taluk, Ernakulam, Kerala (Fresh Proposal)

Decision: The Committee examined the proposal and verified the documents. **The Committee decided to invite the Proponent for presentation.**

16. SIA/KL/MIS/284787/2022 , 2099/EC6/2022/SEIAA

Environmental Clearance for the Proposed Expansion of Commercial Complex Project (Ozone Mall) to be developed by M/s INOA Properties & Developers LLP in Pathaikkara Village, Perinthalmanna Taluk, Malappuram District(Fresh proposal).

Decision: The Committee verified the proposal and found that they are already given EC

for removal of ordinary earth and for construction of building. They are yet to submit Certified Compliance Report from the IRO, MoEF & CC, Bangalore. Based on discussions, **the committee decided to invite the proponent for presentation.**

<u>CONSIDERATION/RECONSIDERATION OF ENVIRONMENTAL</u> <u>CLEARANCE(Extension/Amendment/Corrigendum)</u>

1. SIA/KL/MIS/185860/2020, 1963/EC3/2022/SEIAA

Group Housing Project of Jain Housing and construction Ltd.at 483/14, 484/7, 485/1,Village Kakkanad, Panchayat Thrikkakara, Taluk Kanayannur, District Ernakulam, Kerala (Judgment in NGT O.A. No. 205 of 2021 (SZ) filed by Environmental Protection and Research Council a Public Trust, Thiruvananthapuram)

Decision: The Committee examined the application and noted that it is for extension of validity of EC issued on 24.5.2011. The Proponent has not submitted the documents sought as per Form 6 and also not submitted many of the Essential Documents sought. The Certified Compliance Report from the IRO, MoEF & CC is also not submitted. Therefore, the Committee decided to direct the Proponent to submit the details as stated above.

2. SIA/KL/MIN/262617/2022, 553/SEIAA/EC3/4087/2014

Granite Building stone quarry of "Shri. Saji K Alias, Owner, M/s Mariyem Industries, Kuzhikandathil House, Thiruvaniyoor P O, Ernakulam At Survey No: 302/6, 302/7-1, 302/7-2, 302/8, 302/1- 2, 298/15, 298/14, 298/16, 298/13, 298/12, 302/2-2, 301/1, 301/2, 302/5-1, 302/5-2-2, in Thiruvaniyoor Village, Muvattupuzha Taluk, Ernakulam District, Kerala State.(Field Inspection Report Received).

Decision: The Committee examined the proposal, verified the documents and discussed the field inspection report and observed the following:

- 1. The stipulated buffer zone is not maintained and green belt is not retained uniformly
- 2. Bench height and width are not maintained as per the mining plan and as a result, there are steep quarry phases with dangerous consequences
- 3. Boundary Pillars are not fixed firmly in the ground using concrete
- 4. Another quarry with an area of 0.8784 Ha and Production of 35,609 TPA is operational in the adjacent plot with Sy No.302/2-2 & 302/3 having EC No.43/2018 dated 4.7.2018 issued by DEIAA, Ernakulam. The buffer zone between the two

quarries with EC issued on 13.4.2016 and 4.7.2018 is extracted unauthorizedly as no authorization for such an extraction could be produced by the Proponent.

- 5. The compliance of the specific conditions issued while giving EC and their compliance are given hereunder.
 - a. Fencing should be provided all around the lease area. The steep cut faces of the old workings should be further demarcated and fenced to be left as danger zone- Not Complied
 - b. Overburden must be stored in designated places and provided with protective support walls. The 20m wide strip of depressed land with thick soil cover may be used for this purpose. Storage of OB in the elevated part as planned may be avoided- Not complied
 - c. Part of the drainage from the quarry is currently directed to the old pit that acts as RWH structure. However, overflow is not provided. It may do in the form of a lined drain, draining to the north. The water from the RWH structure should be let out only after clarification/desiltation for which a suitable structure is essential at the outlet- Partially complied, but not satisfactory
 - d. The main haulage road formed in the quarry must be maintained in motorable condition. The approach road to the quarry from the main road is not maintained properly at all. This road should also be made maintained in good motorable condition by the Proponent- Partially Complied
 - e. To the extent possible, local biodiversity management Committee shall be involved in the environmental management/restoration activities – Not Complied
 - f. Reclamation and eco-restoration should be done by planting native trees- Not complied

The Proponent has not submitted Certified Compliance Report obtained from the IRO, MoEF & CC, Bangalore. Based on the various observations above, the Project is not eligible for extension of validity. There are serious violations of EC conditions. Therefore, **the Committee decided to recommend to SEIAA to issue Stop Memo with immediate effect and initiate action for violating EC conditions.**

3. SIA/KL/MIN/232216/2021, 953/A2/2019/SEIAA

Extension of Environmental Clearance for Laterite building stone quarry project of Mr.P. J. Jacob, at Survey.No: 65 of Anakkara -Village, Pattambi -Taluk, Palakkad District, Kerala over an area of 0.8097 Ha.

Decision: This proposal is for the extension of EC of the laterite building stone quarry project. The Committee observed that as per exiting direction of MoEF & CC, CCR from IRO is mandatory for the extension proposals. It is understood that as per the present practice, half yearly compliance report are not insisted for laterite quarrying project. In the circumstance, the Committee decided to refer the proposal to SEIAA for appropriate direction for proceeding further on this proposal.

4. SIA/KL/MIN/265356/2022, 3476/EC4/2019/SEIAA Extension of Environmental Clearance for Laterite building stone quarry project of Mr.Pardeep K at survey No.587/46, 587/47, 587/48, 587/49, 588/3 of Kunnathoor Village, Kunnathoorr Taluk, Kollam. (Fresh application)

Decision: This proposal is for the extension of EC of the laterite building stone quarry project. The Committee observed that as per exiting direction of MoEF & CC, CCR from IRO is mandatory for the extension proposals. It is understood that as per the present practice, half yearly compliance report are not insisted for laterite quarrying project. In the circumstance, the Committee decided to refer the proposal to SEIAA for appropriate direction for proceeding further on this proposal.

SIA/KL/MIN/259995/2022, 1964/EC3/2022/SEIAA Extension of removal of Ordinary Earth of Mr.Abbas P.S, At Re- Survey No: 431/6-2,431/7, Block No.22 in Arakkappady Village, Kunnathunad Taluk, Ernakulam District, Kerala State.

Decision: The committee examined the proposal and found that there is a difference in quantity mentioned in earlier EC issued by DEIAA, Ernakulam and in form 6. Hence the Committee decided to get a clarification from the proponent regarding the proposed quantity. **The Committee decided to invite the Proponent for presentation.**

6. SIA/KL/MIN/223112/2021, 361/A1/2019/SEIAA Laterite Building Stone Quarry of JACOB JOHN at survey No. 184/6-2, 6-4, Ummanoor Village, Kottarakara Taluk, Kollam (Fresh application) **Decision:** The Committee examined the proposal and verified the documents submitted by the proponent. **The Committee decided to direct the proponent to apply with a new mine plan.**

7. SIA/KL/MIN/269491/2022, EC No.3/17 File No.A/11133/17/DEIAA Building Stone Quarry of M/s.Kayyar Aggregates Pvt Ltd at Survey No.242/3A(pt), 242/3A, 3B, 242/3B(pt), 343/2C, 243/2(pt), Kayyar Village, Manjeswaram Taluk, Kollam (Fresh application)

Decision: The Committee examined the proposal and verified the documents submitted by the proponent and **decided to invite the proponent for presentation.**

8. SIA/KL/MIN/276929/2022, 540/A1/2019/SEIAA Laterite Building Stone Quarry of Muraleedharan L at survey No. 467/8-2, Naduvathoorr Village, Kottarakara Taluk, Kollam (Fresh application)

Decision: The Committee verified the documents submitted by the proponent and **decided to invite the proponent for presentation.**

 SIA/KL/MIN/265862/2022, 1989/EC1/2022/SEIAA Extension of Environmental Clearance of Granite Building Stone Quarry of Sri.Nishad.P.V. over an extent of 3.4277 Ha at Survey Nos. 348/1,2,3 of Thrithala -Village, Pattambi-Taluk, Palakkad District, Kerala.

Decision: The Committee examined the proposal and verified the documents submitted by the proponent and **decided to direct the proponent to submit the Certified Compliance Report from MoEF&CC, IRO, Bangalore.**

CONSIDERATION OF TOR PROPOSALS

1. SIA/KL/MIN/78023/2022, 2033/EC2/2022/SEIAA Granite Building Stone Quarry of M/s.Perattur Rocks N Sands in Thayanoor Village, Vellarikundu Taluk, Kasaragod, Kerala (Fresh application).

Decision: The Committee decided to approve standard ToR with the following additional studies:

- 1. Landslide proneness & soil piping potential of the project impact zone.
- 2. Vibration impact on structures within 1 km radius.

2. SIA/KL/MIN/73017/2022, 2069/EC6/2022/SEIAA

Application for ToR for the Granite Building Stone Quarry of Arshak Ali. E. K in Re Survey Block No -2, Re Survey Nos: 104/2B-09 & 104/2B-44 in Kannamangalam Village, Tirurangadi Taluk, Malappuram District.

Decision: The Committee decided to approve standard ToR with the following additional studies:

- 1. Landslide proneness of the impact zone.
- 2. Accident potential analysis to the houses in the immediate vicinity.
- 3. Water quality of the streams in the impact zone.

3. SIA/KL/MIN/81219/2022, 2097/EC6/2022/SEIAA

Application for ToR for granite building stone quarry project of Sri.Riyas Eranhikkal in Block No.8, Sy.No.147/7-1, 147/1, 146/1-3, 146/1-4, 146/1-5, 146/1-6, 146/1-7 in Pulikkal Village, Kondotty Taluk, Malappuram District.

Decision: The Committee decided to approve standard ToR with the following additional studies:

- 1. Landslide proneness of the proposed area.
- 2. Breach potential study.
- 3. Accident proneness to the nearby houses.

4. SIA/KL/MIS/82880/2022, 2085/EC2/SEIAA/2022

Environmental Clearance for Construction of Hospital N.S. Memorial Institute of Medical Sciences in Re-Sy. Nos. 557/2, 5, 6, 557/4, 571/15,16, 572/33-34,9-5, 572/35, 572/35/2, 557/1, 571/18, 573/13-2, 571/11, 571/12, 572/8/2, Vadakkevila Village, Kollam Municipal Corporation, Kollam Taluk & District, Kerala. (Fresh application)

Decision: The Committee examined the proposal and decided to approve Specific ToR and General ToR as per MoEF Notification No. S.O. 804 (E) dated 14.3.2017 and other required studies for enabling the appraisal of the project as per SoP for identification and handling of violation cases under EIA notification 2006 vide OM dated 7.7.2021

<u>PART 5</u>

CONSIDERATION/RECONSIDERATION OF ENVIRONMENTAL CLEARANCE

1.SIA/KL/MIN/240137/2021, 2002/EC6/2022/SEIAA

Environmental Clearance for Ordinary earth mining project of Mr. Babu, at Survey No: 1441/1p/1441/1-6 of Peechi -Village, Thrissur -Taluk, Thrissur-District, Kerala

Decision: The Committee discussed the field inspection report and observed that proposed area situated at a distance from Peechi – Vazhani Wild life sanctuary and the proponent has not submitted the CER in this situation the Committee decided to direct the proponent to submit the following additional documents:

- 1. Letter from wild life warden, Peechi regarding the distance to the Wild Life Sanctuary from the proposed area.
- 2. Appropriate CER proposal as per exiting norms.

The meeting ended at 4.30 pm on 13th October 2022.

It is decided to convene the next meeting of SEAC from 9th to 11th November, 2022.

Sd/ Suneel Pamidi, IFS Secretary, SEAC

Sd/ Dr.Ajayak umar Varma Chairman, SEAC

Sl.No	Name	11.10.2022	12.10.2022	13.10.2022
•	Chri Chailt Hadan			,
1.	Shri.Sheik Hyder Hussain	\checkmark	\checkmark	\checkmark
2.	Dr.A.Bijukumar.		X	X
3.	Dr.A.N.Manoharan	√		
4.	Shri. M.Dileepkumar	√	√	
5.	Smt. BeenaGovindan	√	√	√
6.	Dr.C.C.Harilal	√	√	√
7.	Dr.K.VasudevanPillai	√	√	√
8.	Dr.Mahesh Mohan	X	√	√
9.	Dr.K.N.Krishnakumar	√	√	√
10.	V.Gopinathan	√	\checkmark	√
11.	Dr.A.V.Raghu	√	√	√
12.	Dr.N.Ajithkumar	√	Х	√
13.	Shri.SuneelPamidi,IFS	\checkmark	√	√
14.	(Secretary) Dr.R.AjayakumarVarma (Chairman)	√	√	√