

**Minutes of the 16th Goa State Expert Appraisal Committee
(Goa-SEAC) meeting held on 20th February 2014 in the Conference Room of the
EIA Secretariat, O/o Goa State Pollution Control Board (GSPCB), Patto-Panaji**

The sixteenth meeting of the Goa-SEAC was held on 20th February 2014 in the Conference room of the GSPCB from 10.00 a.m. onwards under the Chairmanship of Prof. Antonio Jaime Afonso. The list of members who attended the meeting is at “Annexure – 1”. The meeting was held to discuss and deliberate quarry-specific observations subsequent to site-inspections conducted by Goa-SEAC on 6th, 11th and 13th February 2014. The list of such Minor Mineral Quarry inspected and discussed may be referred at “Annexure – 2”.

At the beginning, Chairman, Goa-SEAC welcomed the Members present and appreciated the initiatives for convening such a ‘pre-presentation panel discussion and analysis’ meeting as a follow-up for a suitable recommendation with respect to quarry proposals received for New or Renewal of mine lease(s). Subsequently, quarry proposals were taken up for detailed deliberations based on site visit observations and suggestions. The quarry-specific observations / compliance to be sought, as applicable, are as under -

1. Quarry Project: Renewal of Laterite Stone quarry located at Sy. No. 162/1 Dharbandora village, South Goa District (lease area - 5,824 sq.mts) of M/s Sunil Khanolkar (Lease expired on 25 .12. 2013)

The Project Proponent has submitted Application Form, Environmental Appraisal Form, Environmental Report, and Quarry Lease issued by the Directorate of Mines and Geology (DMG) on 26th December 2011 and valid up to 25th December 2013.

Observations on site (*project site was visited on 13th February 2014 - Thursday*)

1. Lease areas having substantially large laterite reserves have been fully exploited.
2. Extraction of stone was ongoing on site with labourers and machinery being present.
3. Orchard has been developed on abandoned mining area around the site. As such, similar development needs to be taken up, after closure of the current lease area.
4. Only two trips / trucks per day at having a capacity of 6m³ of extractable laterite (*i.e. 12 m³ per day*).
5. Should send post-closure report to the DMG.
6. Project Proponent (PP) has to adopt safety issue around the lease boundary (i.e. fencing, terracing or sloping) as existing excavation is quite deep.
7. Mining closure to be initiated with partial filling of quarry pits and subsequently developing the plots as orchard area.

Suggestions and Recommendations

1. Based on the Directions as per section (5) of the Environment (Protection) Act, 1986 bearing no. No. 1-4/2012-RE (Pt.) dated 13th November 2013 and Office Memorandum (O.M.) bearing no. No. 1-4/2012-RE (Pt.) dated 20th December 2013 issued by the Ministry of Environment & Forests (MoEF), proposed lease area is classified as Ecologically Sensitive Area (ESA) and attracts applicable provisions thereof.
 2. In compliance to (1) above, the aforesaid proposal cannot be considered for grant of EC.
- 2. Quarry Project: Renewal of Laterite Stone quarry located at Sy. No. 142, Dharbandora village, South Goa District (lease area - 8,000 Sq.mts) of M/s Barkelo alias Bhola T. Gaonkar (Lease is in force from 2002 with validity up to 7th February 2015)**

The Project Proponent has submitted Application Form, Environmental Appraisal Form, Environmental Report, Quarry Lease issued by the Directorate of Mines and Geology (DMG) on 8th February 2010 and valid up to 7th February 2015.

Observations on site (project site was visited on 13th February 2014 - Thursday)

- a. Based on the Directions as per section (5) of the Environment (Protection) Act, 1986 bearing no. No. 1-4/2012-RE (Pt.) dated 13th November 2013 and Office Memorandum (O.M.) bearing no. No. 1-4/2012-RE (Pt.) dated 20th December 2013 issued by the Ministry of Environment & Forests (MoEF), proposed lease area is classified as Ecologically Sensitive Area (ESA) and attracts applicable provisions thereof.
- b. Project slope suggests possibility of slope-instability / siltation in low-lying agricultural areas.

Suggestions and Recommendations

- i. The project proponent should construct / provide a garland drain along the lower boundary of the lease as a storm-water channel.
 - ii. Planting of *Australian Acacia* should be discontinued and green belt around the lease area be developed with local endemic varieties of plant species.
 - iii. In compliance to (a) above, the proposal may be considered for grant of EC with validity up to 7th February 2015 (i.e. lease validity) with no further renewals.
- 3. Quarry Project: Renewal of Basalt quarry located at Sy. No. 13/2 of Cordem village Quepem taluka, South Goa District (Gross area of three leases: 02 – New and 01 – Renewal - 30,000 Sq.mts) of M/s Christopher Furtado.**

The Project Proponent has submitted Application Form, Environmental Appraisal Form, Environmental Report for all the three leases, wherein two (02) new leases are proposed and one lease for its renewal. The quarry lease, seeking its renewal, was granted on 7th October with its validity up to 6th October 2014.

Observations on site (*project site visited on 06th February 2014 - Thursday*)

- a. Topographical gradient is susceptible for slope-instability / landslide.
- b. The project proponent was asked to submit detailed geological report of minable reserves.
- c. Floral inventory based on primary data and presence of species of conservation concern, if any, should be attempted.
- d. Lease boundary and dust suppression measures should be adopted in core (during extraction) as well as buffer zone (transportation).
- e. Minal reserves of new lease are based on empirical calculation which has to be corrected / represented as actual geological (calculation) study.

Suggestions and Recommendations

1. The project proponent should construct a garland drain along the lower-reaches of the lease area to carry the storm-water, especially during monsoon.
2. Planting of *Australian Acacia* should be discontinued and green belt around the lease area be developed with local endemic varieties / fruit-bearing species.

4. Quarry Project: New Laterite / rubble murrum located at Sy. No. 139 of Agarwada village , Pernem taluka, North Goa District (lease area - 4000 Sq.mts) of Mr. Anthony Nadan

The Project Proponent has submitted Application Form, Environmental Appraisal Form for the proposed new quarry for extraction of rubble / murrum.

Observations on site (*project site visited on 11th February 2014 - Thursday*)

- a. Project Proponent informed the Consultant concerned is not able to visit the site. The project proponent could not satisfy inquiries / clarifications raised.
- b. Lease area is located on hill-top plateau area with gentle gradient towards main road. Majority of the lease area is located along the hill-sloes which may be susceptible to land slide / slope instability.
- c. Members observed significant flora, cashew plantations within the lease area.

Suggestions and Recommendations

1. The project proponent shall demarcate the lease boundary with cement poles and also develop proper approach road.

2. Submission of ephemeral biodiversity and avifaunal inventory in and around the proposed lease area, geological report.
3. Project Proponent (PP) has submitted incomplete / insufficient documents.

5. Quarry Project: Renewal of Basalt quarry located at Sy. No. 66/0 of Allorna village, Pernem taluka, North Goa District (lease area - 4000 Sq.mts) of M/s Satpurush Metal Industries.

The Project Proponent has submitted Application Form, Environmental Appraisal Form, and Environmental Report for the proposed new quarry for extraction of basalt-stone.

Observations on site (*project site was visited on 11th February 2014 - Thursday*)

- a. Mandates Reserve forest inventory surrounding the lease boundary.
- b. Lease has been worked-out in the past which has been leased by the proponent. As such, warrants detail records pertaining to its antecedents.

Suggestions and Recommendations

- i. Key Plan of the lease area and its peripheral limits up to 5 kms. with the help of Survey of India (SOI) toposheets and Google Map.
- ii. Proximity to other operational quarrying lease area suggest attempting cumulative impact assessment with specific reference to air / dust pollution.
- iii. Demarcation / delineation of permanent water sources within the vicinity of the lease area.

6. Quarry Project: Renewal of Basalt quarry located at Sy. No. 32/2 and 3 of Allorna village, Pernem taluka, North Goa District (lease area - 10,650 Sq.mts) of M/s Prashant Kamat

The Project Proponent has submitted Application Form, Environmental Appraisal Form, Environmental Report, Quarry Lease issued by the Directorate of Mines and Geology (DMG) on 25th April 2008 and valid up to 24th April 2013.

Observations on site (*project site was visited on 11th February 2014 - Thursday*)

- a. Observed strong aquifer percolation of water from vertical cut-rock section indicating water table intersection / aquifer interference.

Suggestions and Recommendations

- i. Key Plan of the lease area and its peripheral limits upto 5 kms. with the help of Survey of India (SOI) toposheets and Google Map.

- ii. Proximity to other operational quarrying lease area suggest attempting cumulative impact assessment with specific reference to air / dust pollution.

7. Quarry Project: Renewal of Basalt quarry located at Sy. No. 36/1 and 37/0 of Allorna village, Pernem taluka, North Goa District (lease area - 9,320 and 15,200 Sq.mts. respectively) of Pramod Kamat and Prashant Kamat.

The Project Proponent has submitted Application Form, Environmental Appraisal Form, and Environmental Report for both the quarries. These quarries have a common boundary. The lease located in Sy. No. 36/1 was issued by the Directorate of Mines and Geology (DMG) on 9th March 2009 and valid up to 27th February 2013 while, another lease located in Sy. No. 37/0 was initially started in May 2006 and was renewed on 17th May 2011 with a validity up to 16th May 2016.

Observations on site (*project site was visited on 11th February 2014 - Thursday*)

- a. Common boundary between these two leases.

Suggestions and Recommendations

- i. Key Plan of the lease area and its peripheral limits up to 5 kms. with the help of Survey of India (SOI) toposheets and Google Map.
- ii. Proximity to other operational quarrying lease area suggest attempting cumulative impact assessment with specific reference to air / dust pollution.

8. Quarry Project: Renewal of Basalt quarry located at Sy. No. 32/4, 5, 6, 7 and 9 of Allorna village, Pernem taluka, North Goa District (lease area - 50,000 Sq.mts) of M/s S. Kumar Metals.

The Project Proponent has submitted Application Form, Environmental Appraisal Form, Environmental Report, Quarry Lease was started in September 1998 with a validity up to August 2003. Thus, the said lease has lapsed and accordingly, the proponent has sought its renewal afresh.

Observations on site (*project site visited on 11th February 2014 - Thursday*)

- a. Quarry started in 1998 and renewed 3 times thereafter.
- b. Lease area is a rain-feed pit with approx. 50,000 sq mts. of surface area with a depth of 3.5 mts.
- c. Methodology adopted for release of impounded water.

Suggestions and Recommendations

- i. Seeking details w.r.t. proximity to forest area.
- ii. Key Plan of the lease area and its peripheral limits up to 5 kms. with the help of Survey of India (SOI) toposheets and Google Map.

- iii. Proximity to other operational quarrying lease area suggest attempting cumulative impact assessment with specific reference to air / dust pollution.

9. Quarry Project: Renewal of Basalt quarry located at Sy. No32/9(P) of Allorna village, Pernem taluka, North Goa District (lease area – 45,500 Sq.mts) of M/s Gajanan Zarapkar.

The Project Proponent has submitted Application Form, Environmental Appraisal Form, Environmental Report, Quarry Lease issued by the Directorate of Mines and Geology (DMG) on 7th September 2007 and valid up to 6th September 2012.

Observations on site (*project site was visited on 11th February 2014 - Thursday*)

- a. Presence of operational stone quarries within the immediate vicinity of the lease.
- b. Proximity to other operational quarrying lease area suggest attempting cumulative impact assessment with specific reference to air / dust pollution

Suggestions and Recommendations

- i. Seek clarification w.r.t. quarry-specific location – Allorna or Ibrampur.

10. Quarry Project: Renewal of Basalt quarry located at Sy. No. 67/1 of Ibrampur village, Pernem taluka, North Goa District (lease area - 2,600 Sq.mts) of M/s Shalini Metals.

The Project Proponent has submitted Application Form, Environmental Appraisal Form, Environmental Report, Quarry Lease was started in January 1995 with a validity up to January 2000. Thus, the said lease has lapsed and accordingly, the proponent has sought its renewal afresh.

Observations on site (*project site was visited on 11th February 2014 - Thursday*)

- a. Faunal diversity with five different fresh water fish species and some frog species were observed within the impounded water body.
- b. Adjacent vegetation and mineable resources exposed.

Suggestions and Recommendations

- i. Seek details of any court interventions / public litigations, if any.

11. Quarry Project: Renewal of Basalt Stone quarry located at Sy. No. S.No S.No 105/1 of Barcem Village, Quepem Taluka South Goa District (lease area - 7,000 Sq.mts) of Mr. Prasad Rama Naik Dessai.

The Project Proponent has submitted Application Form, Environmental Appraisal Form, and Environmental Report, Quarry Lease issued by the Directorate of Mines and Geology (DMG) on 28th March 2012 with validity up to 27th March 2017.

Observations on site (*project site was visited on 13th February 2014 - Thursday*)

- a. The proposed area was been opened-up earlier. However, quarrying is not yet started due to non-receipt of license for explosives.
- b. Access is only through Mr. Satyandra Faldessai's quarry lease area.

Suggestions and Recommendations

- i. Construct approach road to the quarry site and appropriate provision for congestion-free traffic management.
- ii. Undertaking from the lease holder not to extend stone extraction spatially beyond near-vertical exposed cliff-portion bordering one side of a lease.
- iii. Floral inventory based on secondary data and presence of species of conservation concern, if any, should be attempted.

12. Quarry Project: Renewal of Basalt Stone quarry located at Sy. No. Sy. No 102/0 of Barcem village, Quepem taluka in South Goa District (lease area - 10,000 Sq.mts) of Mr. Satyandra Faldessai.

The Project Proponent has submitted Application Form, Environmental Appraisal Form, and Environmental Report, Quarry Lease issued by the Directorate of Mines and Geology (DMG) on 9th November 2009 with its validity up to 8th November 2014.

Observations on site (*project site was visited on 13th February 2014 - Thursday*)

- a. Approximately 250 mts. away from the main road.

Suggestions and Recommendations

- i. Contour map of the proposed plot along with proposed mining should be submitted.
- ii. Should submit plan of vehicular movement from quarry to the main road (*i.e. Traffic Management Plan*).

13. Quarry Project: Renewal of Basalt Stone quarry located at Sy. No. 309, Xeldem village, Quepem taluka, South Goa District (lease area - 2,700 Sq.mts : Production capacity – 2,218 m³ per year) of M/s. Mohan Sheldekar.

The Project Proponent has submitted Application Form, Environmental Appraisal Form, and Environmental Report, Quarry Lease issued by the Directorate of Mines and Geology (DMG) on 12th September 1988 with a validity up to 11th September 2013.

Observations on site (*project site was visited on 13th February 2014 - Thursday*)

- a. Seek clarification from Directorate of Mines and Geology (DMG) with respect to the total lease area proposed.

Suggestions and Recommendations

1. Lease holder may submit complete form I and XIV.

2. Management of top-soil / overburden disposal, Measures to address slope stability and management of water body adjacent to the quarry.

14. Quarry Project: Renewal of Basalt Stone quarry located at Sy. No. 64, Barcem village, Quepem taluka, South Goa District (lease area – 7,000 Sq.mts) of M/s. Rosario Noronha.

The Project Proponent has submitted Application Form, Environmental Appraisal Form, and Environmental Report, Quarry Lease issued by the Directorate of Mines and Geology (DMG) on 12th April 2010 with validity up to 11th April 2015.

Observations on site (*project site was visited on 06th February 2014 - Thursday*)

- a. Lateritic overburden varies from 2 – 2.5 mts. indicating requirement for its safe disposal / utility.

Suggestions and Recommendations

- i. Management of top-soil / overburden disposal, Measures to address slope stability and management of storm-water drain, especially during monsoon.

In addition to quarry-specific compliances, it was also decided that **all lease holders** should comply with the following General Conditions and Mandatory Compliance(s), based on site-specific applicability.

1. The environmental safeguards and mitigation measures contained in the application shall be implemented in letter and spirit.
2. All the conditions, liabilities and legal provisions contained in the Environmental Clearance (EC) shall be applicable and implemented by the lease holder.
3. Environmental protection measures especially, dust suppression measures during operations and transportation, buffer zone planting with indigenous plants, safety of residents of surrounding habitats, traffic management of trucks should be implemented with best practices available.
4. Construction of settling pond prior to release of impounded water to open fields or storm water drain or stream / channel or any water source.
5. The project proponent shall make financial provision (i.e. annual budget) for implementation of the above-mentioned conditions and suggested environmental safeguard measures. The funds earmarked for the environmental protection measures shall not be re-appropriated for other purposes.
6. The project proponent shall make financial provision for Social Responsibility (SR) activities being done / proposed / undertaken and report the same to the Goa-SEIAA.
7. Yearly monitoring reports shall be submitted to the Goa-SEIAA; who shall be monitoring the implementation of environmental safeguards, shall provide / assist-

in full cooperation, facilities and documents / data by the lease holder during inspection.

In addition to above, it is mandatory that -

1. The project proponent shall demarcate Lease Boundary on-field with the help of cement-poles and also shall provide fencing along with the boundary as safety measure.
2. "NOC / Forest Clearance" from Forest Department, Government of Goa shall be submitted; if, lease area falls within forest land or adjoining the forest land.
3. "NOC" from concerned Panchayat shall be submitted.
4. Submission of Mineable reserve calculations based on accepted empirical methods.
5. Approved Approach / Access Road to the quarry site from the nearest Public road duly approved by the Competent Authority concerned.
6. The project proponent shall provide information on any current as well as Past status of public complaints / Litigation / Court directions / Suspension orders, as applicable, and the details thereof.
7. Submission of undertaking, as sought from time to time towards pollution control measures.
8. Affidavit from lease holder with reference to quarry-specific mandatory compliance to address Public Complaints / Panchayat resolution issued from time-to-time.

Dr. Manoj R. Borkar

_____ *Sd./-* _____

Mrs. Anita. A. B. Barreto

_____ *Sd./-* _____

Mrs. Ashwini Pai Panandikar

_____ *Sd./-* _____

Mr. Suhas Gaonkar

_____ *Sd./-* _____

Sd./-

Dr. Mohan R. Girap
Secretary, Goa-SEAC

Sd./-

Mr. Antonio Jaime C. Afonso
Chairman, Goa-SEAC

Place: Patto, Panaji

Date: 11th March 2014

ANNEXURE – 1

List of members who attended the Sixteenth Goa-SEAC meeting

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|---|--------------------|
| 1. Prof. Antonio Jaime C. Afonso, St. Istevam | Chairman |
| 2. Dr. Manoj R. Borkar, Nuvem | - <i>Member</i> |
| 3. Mrs. Anita B. Barreto, Panaji. | - <i>Member</i> |
| 4. Mrs. Ashwini Pai Panandikar, Bambolim | - <i>Member</i> |
| 5. Mr. Suhas Gaonkar, Canacona | - <i>Member</i> |
| 6. Dr. Mohan R. Girap, Panaji | - <i>Secretary</i> |
