

MINUTES OF THE 42ND GOA STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY (GOA-SEIAA) MEETING HELD ON 16TH MARCH 2018 AT 05.30 P.M. IN THE CONFERENCE ROOM OF THE GOA STATE POLLUTION CONTROL BOARD.

The forty second meeting of the Goa-SEIAA (*hereinafter referred as 'Authority'*) was held on 16th March 2018 at 05.30 p.m. in the conference room of GSPCB, 1st floor, Dempo Tower, Patto, Panaji. The list of members present during the meeting is annexed (*refer Annexure – 1*).

At the outset, Chairman welcomed Authority members and briefed about the agenda items (*refer Annexure – 2*) to be taken up for discussion / deliberations and suitable decisions. Accordingly, the same were considered as detailed below –

1. Proposed **Super specialty Block** at Goa Medical College, Bambolim, Goa. The project Proposal was discussed on the basis of presentation made and documents submitted by the proponent. All issues related to environment including air, land, soil, ecology and biodiversity and social aspects were discussed. Committee noted that the project is under **8a (B2) category of EIA Notification 2006 (building & constructions)**. Further documents like Consolidated statements, Form I and IA, project specific presentation and plans submitted are taken on the record. Brief extract of the project details submitted by Project Proponent is as below:

Sr.No	Description	Details
1	Name & location of the project	Proposed Construction of Super Specialty Block at Goa Medical College, Bambolim, Goa
2	Plot Area	103092.71 m ²
	Net plot Area	99014.71 m ²
4	FSI Area Non-FSI Area Total construction Area Building configuration & Height of the building	52530.03 m ² 897 m ² 6025.2 m ² 46.65 m
5	No. of shops	500 beds super speciality hospital
6	Total water requirement(Construction/operation phase)	556 KLD during operation phase

7	Sewage generation	290 KLD (234 KLD from Domestic and 56 KLD from Laboratory)
8	STP Capacity	STP capacity : 280 KLD ETP capacity : 70 KLD
9	Total Solid Waste Quantities	1583 kg/Day
10	RG Area	60045.49 m ²
11	No. of trees	Tree plantation shall be carried out as per the Government Guidelines during the construction/operation phase and local species would be planted.
12	Energy Efficiency	Energy conservation measures have been proposed by installation of solar panels, solar street lighting, solar water heating etc. All efforts would be made to conserve the energy
13	Parking 4 W and 2W	1050 ECS
14	Power requirement	5000 KVA
15	D.G set Capacity	2 x 2500 KVA
16	RWH tank capacity	Capacity of 1 recharge pit will be 153.86 m ³
17	EMP cost (including DMP cost)	Construction Phase: Rs 12.5 Lakhs Operation Phase: Rs 100 Lakhs
18	No. of trees to be cut	292 no
19	No. of trees to be planted on site	Tree plantation shall be carried out as per the Government Guidelines during the construction/operation phase and local species would be planted.
23	CRZ status	NA

Goa-SEAC conducted site inspection on 11th January 2018 following project specific presentation during 89th Goa-SEAC meeting held on 23rd January 2018 and during its 91st meeting held on 27th February 2018 Committee recommended the said proposal to Goa-SEIAA (*hereinafter referred as 'Authority'*) for the grant of environmental Clearance (EC). Accordingly the Authority after detailed perusal of the compliances submitted by the PP and recommendations by the Committee decided to recommend the said proposal for grant of environmental clearance (EC) under the provision of EIA notification 2006 (*as amended*) with following specific conditions :

- i. PP should prioritize the issues related to health and hygiene in complying with the matters related to waste disposal and treatment / air and water pollution / waste-water management.

- ii.** PP needs to ensure that no treated water or any waste sewage shall be discharged into any water body..
- iii.** E-waste shall be disposed through Authorised vendor as per E-waste (*Management and Handling*) Rules, 2011.
- iv.** Project Proponent (PP) should necessarily make appropriate provision while constructing the roof-tops at the time of construction stage only to enable installation of solar panels towards south facing walls as and when made applicable in future.
- v.** The Project Proponent shall utilise fly ash bricks in masonry works.
- vi.** The PP shall use construction debris for land filling wherever applicable.
- vii.** At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
- viii.** Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
- ix.** Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- x.** Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing,

landscape irrigation, car washing, thermal cooling, conditioning, etc. shall be done.

- xi.** Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
- xii.** Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- xiii.** The project proponent will provide landscape bed of 600mm wide X 600mm deep along the periphery of the plot to carry out plantation of trees. The treated water from the sewage treatment plant will be pumped through high flow drips on these beds to prevent outflow of treated sewage water outside the premises.
- xiv.** PP should implement Dust mitigation measures for construction activities such as:
 - a.** Roads leading to or at construction sites must be paved and blacktopped (i.e. metallic roads).
 - b.** No excavation of soil shall be carried out without adequate dust mitigation measures in place.
 - c.** No loose soil or sand or Construction & Demolition Waste or any other construction material that causes dust shall be left uncovered.
 - d.** Wind-breaker of appropriate height i.e. 1/3rd of the building height and maximum up to 10 meters shall be provided.
 - e.** Water sprinkling system shall be put in place.
 - f.** Dust mitigation measures shall be displayed prominently at the construction site for easy public viewing.
 - g.** New serial number '107' has been inserted which relates to Mandatory Implementation of Dust Mitigation Measures for all Construction and Demolition Activities:
 - h.** Grinding and cutting of building materials in open area shall be prohibited.
 - i.** Construction material and waste should be stored only within earmarked area and road side storage of construction material and waste shall be prohibited.
 - j.** No uncovered vehicles carrying construction material and waste shall be permitted.
 - k.** Construction and Demolition Waste processing and disposal site shall be identified and required dust mitigation measures be notified at the site.

2. Proposed District and Sessions Court Complex in Survey no.40/1 to 17, 41/1 to 15 and 39/1 to 17 at Mercés, Tiswadi, Goa having (*plot area 20091.00 sq. mt*) and total built up area of (*36524.60 sq. mt*). The project Proposal was discussed on the basis of presentation made and documents submitted by the proponent. All issues related to environment including air, land, soil, ecology and biodiversity and social aspects were discussed. Committee noted that the project is under **8a (B2) category of EIA Notification 2006 (building & constructions)**. Further documents like Consolidated statements, Form I and IA, project specific presentation and plans submitted are taken on the record. Brief extract of the project details submitted by Project Proponent is as below:

Sr.No.	Description	Details
1	Name & location of the project	Proposed District and Sessions Court Complex at Mercés, Tiswadi, Goa Location: Survey no.40/1 to 17, 41/1 to 15 and 39/1 to 17, Mercés, Tiswadi, Goa
2	Plot Area	20091.00 m ²
3	Net plot Area	19056.801m ²
4	FSI Area Non-FSI Area Total construction Area Building configuration & Height of the building	FSI Area: 14016.87m ² Non FSI Area: 22507.73 m ² Total Built up Area: 36524.60 m ² Building configuration & Height of the building 1. Stilt Floor: Parking 2. First Floor: Parking + Offices 3. Second Floor: Court rooms, Adv. Chambers etc. 4. Third Floor: Court rooms, Adv. Chambers etc. 5. Fifth Floor: Court rooms, Adv. Chambers etc.
5	No. of shops	Nil
6	Total water requirement(Construction/operation phase)	Construction phase: 52.75 CMD Operation phase: 84 CMD
7	Sewage generation	Construction phase: 2.20 CMD (Management Plan: Temporary toilet block will be provided. Toilet block will be connected to septic tank. Sewage proposed to be disposed at

		common STP at Patto) Operation phase:74 CMD (Management Plan: STP of capacity 100 KLD)
8	STP Capacity	100CMD
9	Total Solid Waste Quantities	Construction phase: Total Waste: 25 Kg/day (Will be segregated into Dry & Wet waste) Dry waste: 10 Kg/day (Recyclable waste will be sold of to scrap dealers, Non recyclable waste will be disposed of through the Village Panchayat collection facility) Wet waste: 15 Kg/day (Will be given to Village Panchayat collection facility.) Operation phase: Total Waste: 467 Kg/day (Will be segregated into Dry & Wet waste) Dry waste: 187 Kg/day (Recyclable waste will be sold of to scrap dealers, Non recyclable waste will be disposed of through the Village Panchayat collection facility) Wet waste: 280 Kg/day (Will be treated in an automatic Organic Waste Converter of capacity 150 Kg/day X 2 nos.) STP sludge: Will be collected in a sludge tank and disposed off as and when required to common STP at Tonca, Panaji. Or at STP at Patto, Panaji
10	RG Area	--
11	No. of trees	Plot is devoid of any tree cover.
12	Energy Efficiency	LED lights for common areas, Solar street lights
13	Parking 4 W and 2W	326 nos. of car parking space (considering visitors parking)
14	Power requirement	Construction phase: 20 KW Operation phase: 460 KW
15	RG Area	--
16	No. of trees	Plot is devoid of any tree cover.
17	Energy Efficiency	LED lights for common areas, Solar

		street lights
18	Parking 4 W and 2W	326 nos. of car parking space (considering visitors parking)
19	Power requirement	Construction phase: 20 KW Operation phase: 460 KW
20	D.G set Capacity	1 no. X 220 KVA
21	RWH tank capacity	221.400 KL
22	EMP cost (including DMP cost)	4 Cr
23	No. of trees to be cut	Nil
24	No. of trees to be planted on site	--
25	CRZ status	Not applicable

Goa-SEAC during its site inspection held on 28th December 2017 noted that the project proponent has already started construction on the site without prior environmental clearance (EC). The same was confirmed by the Goa-SEIAA during its site inspection on 16/03/2018. The Authority further noted that the proposed site is being in the catchment area proper drainage drawing/plan should be prepared by the pp and needs to be approved by Water Resources Department (WRD), as the surrounding area is likely to get flooded during heavy monsoon period. The Authority subsequently during the meeting perused the compliances submitted by the PP and recommendations by the Committee, and accordingly decided to recommend the said proposal for grant of environmental clearance (EC) under the provision of EIA notification 2006 (as amended) with following specific conditions:

- i. PP should prioritize the issues related to health and hygiene in complying with the matters related to waste disposal and treatment / air and water pollution / waste-water management.
- ii. Sewage Treatment Plant (STP) contract should be for minimum period of 5 years with operation and maintenance contract after commissioning /completion of project.
- iii. PP needs to ensure that no treated water or any waste sewage shall be discharged into any water body.
- iv. E-waste shall be disposed through Authorised vendor as per E-waste (*Management and Handling*) Rules, 2011.
- v. Project Proponent (PP) should necessarily make appropriate provision while constructing the roof-tops at the time of construction stage only to enable installation of solar panels towards south facing walls as and when made applicable in future.

- vi.** The Project Proponent shall utilise fly ash bricks in masonry works.
- vii.** The PP shall use construction debris for land filling wherever applicable.
- viii.** At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
- ix.** Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
- x.** Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- xi.** Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning, etc. shall be done.
- xii.** Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
- xiii.** Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- xiv.** The project proponent will provide landscape bed of 600mm wide X 600mm deep along the periphery of the plot to carry out plantation of trees. The treated water from the sewage treatment plant will be pumped through high flow drips on these beds to prevent outflow of treated sewage water outside the premises.
- xv.** PP should prioritize the issues related to health and hygiene in complying with the matters related to waste disposal and treatment / air and water pollution / waste-water management.

- xvi.** PP needs to ensure that no treated water or any waste sewage shall be discharged into any water body..
- xvii.** E-waste shall be disposed through Authorised vendor as per E-waste (*Management and Handling*) Rules, 2011.
- xviii.** Project Proponent (PP) should necessarily make appropriate provision while constructing the roof-tops at the time of construction stage only to enable installation of solar panels towards south facing walls as and when made applicable in future.
- xix.** The Project Proponent shall utilise fly ash bricks in masonry works.
- xx.** The PP shall use construction debris for land filling wherever applicable.
- xxi.** At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
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- xxv.** Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.

- xxvi.** Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- xxvii.** The project proponent will provide landscape bed of 600mm wide X 600mm deep along the periphery of the plot to carry out plantation of trees. The treated water from the sewage treatment plant will be pumped through high flow drips on these beds to prevent outflow of treated sewage water outside the premises.
- xxviii.** PP shall make provision for charging points for electronic vehicles in the parking area.
- xxix.** PP should implement Dust mitigation measures for construction activities such as:
- a.** Roads leading to or at construction sites must be paved and blacktopped (i.e. metallic roads).
 - b.** No excavation of soil shall be carried out without adequate dust mitigation measures in place.
 - c.** No loose soil or sand or Construction & Demolition Waste or any other construction material that causes dust shall be left uncovered.
 - d.** Wind-breaker of appropriate height i.e. 1/3rd of the building height and maximum up to 10 meters shall be provided.
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 - j.** No uncovered vehicles carrying construction material and waste shall be permitted.
 - k.** Construction and Demolition Waste processing and disposal site shall be identified and required dust mitigation measures be notified at the site

2. Consideration of deferred agenda items from the previous Authority meeting held on 5th February 2018 as under –

- i. Venkat Mupanna regards to **M/s Umia Developers Pvt. Ltd.**, - for the proposed developmental activity in Sancoale area. for the proposed developmental activity in Sancoale area. The SEAC has conducted the site-inspection on 16th August 2016. Thereafter, project-specific presentation was held during 75th SEAC meeting held on 22nd September 2016 with a request to submit compliance to following observations –
- 1) Provide NOC for water supply from Public Works Department (PWD).
 - 2) Provide a copy of NOC for bore-well from competent authorities with details of depth proposed for bore well based on hydro geological studies.
 - 3) Note on efficiency of sanitation systems with reference to technology proposed with overall saving expected vis-a vis occupancy load scenarios.
 - 4) Detailed calculation on energy conservation measures.
 - 5) Furnish details on ephemeral flush vegetation once ready.
 - 6) Considering the scale of the project, the PP may consider an appropriate budgetary allocation benefiting the local communities. The details of the same may be submitted to the Authority.
 - 7) Labour population and camps during the construction of the project.
 - 8) A detail water balance calculation for different scenarios.
 - 9) Provide sectional drawings for cutting and filling operation for construction with all existing and proposed levels along with quantity of soil to be excavated and filled.
 - 10) Provide Smoke exhaust details in the building (positive pressure ventilation).
 - 11) Provide Disaster Management plan for evacuation of occupants.
 - 12) Obtain D.G.C.A letter of consent/information about the high rise structure.
 - 13) Provide details on Compartmentations in building by way of smoke stop doors.
 - 14) Provide detailed traffic management plan including peak hour movements.

The PP has submitted the compliance to above-referred observations vide letter no. Nil dated 9th November 2016 (*received on 14th November 2016*). SEAC has perused / discussed the same during its 81st meeting held on 29th November 2016 and accordingly was recommended to Authority for grant of EC. The Authority during its 36th meeting scheduled on 6th December 2016 deferred the decision for want of time to peruse relevant project details in light of its validity expiring by 8th December 2016. The Authority during 37th meeting held on 6th September 2017 decided to communicate to the PP whether the PP wants to go ahead with the proposed activity and the proposal to be taken up for consideration only after receipt of suitable response to the letter. In case, no reply is received within a time-limit stipulated in the letter, it will be presumed that PP is not interested. Accordingly this Authority received a reply from the Project Proponent with regards to the same. The Authority may deliberate & discuss.

Decision: Authority decided to carry out the inspection of the proposed site.

- ii. **M/s John Distilleries** for proposed expansion in the production capacity at a unit located at Cuncolim Industrial estate, Cuncolim. for proposed expansion in the production capacity at a unit located at Cuncolim Industrial estate, Cuncolim. The site was visited by SEAC on 25th October 2016 and subsequently, PP made the project-specific presentation during the 80th meeting held on 22nd November 2016. Accordingly, the PP was requested to submit compliance to (a) Documentary evidence for approved boiler attendants, (b) Operational mechanism for scientific disposal of additional solid (*boiler waste / fermentation residues*) effluents generated during process and (c) Submit revised CSR Plan. Subsequently, the PP replied to these observations *vide letter no. JDPL/SEAC/16-17/003 dated 30th November 2016* which were considered during 82nd meeting held on 1st December 2016 and was recommended to Authority for grant of EC. The Authority during its 36th meeting scheduled on 6th December 2016 deferred the decision for want of time to peruse relevant project details in light of its validity expiring by 8th December 2016. The Authority during 37th meeting held on 6th September 2017 decided to communicate to the PP with directions to submit compliance to observations made by Goa-SEAC during

its 80th meeting held on 22nd November 2016 w.r.t. operational mechanism for scientific disposal of additional solid (boiler waste / fermentation residues) effluents generated during process within a period of 45-days from the date of receipt of communication from the Goa-SEIAA. If the PP submits the said within time-limit, the said compliance report to be forwarded to the Goa-SEAC who will verify and inspect the site, for strict implementation of this observation. In case, the PP fails to submit the said compliance within the time-limit, the proposal shall be deemed to be rejected. Accordingly this Authority received a reply from the Project Proponent with regards to the same. The Authority may deliberate & discuss.

Decision: Authority decided to carry out the inspection of the proposed site.

Authority decided to defer the other following matters in the next meeting for the want of time.

3. Reply to a communication received from **M/s Sociedade de Fomento Industrial Pvt. Ltd.**, - Proposed Rail River Freight Terminal (Private) in (a) Survey Nos. 33/1A, 33/1B, 34/1 to 34/9, 01/1(part), 4/1, 4/2(part), 3, 5, 6, 9, 10 in the village- Xic – Xelvona, Taluka Qupem ; (b) Survey nos. 34/1 (part), 35/1,2,3,4,5,6,7,8 and 35/10, 27/2-L, 27/2-M, 27/2-A, 27/2-N, 22/7, 33/2, 32/3, 30/27, 30/28, 30/1 in village Assolda, Taluka Qupem and (c) Survey nos. 31/0, 33/2, 33/3, 33/4, 33/5, 33/6, 33/7, 35/1, 35/2, 35/3, 34(part), 41 (part), 36/2, 36/1, 37/1 (part), 37/2, 38/0(part) in village Chandor, Taluka Salcete, Goa.
4. To deliberate and decide with reference to the site visit by Goa-SEIAA held on 07th March 2018 for proposed building construction project (*total plot area – 26,839 sq.mts., BUA – 39,179.85 sq.mts.*) (**Plot – A**) and (**Plot B**) (*total plot area – 16,322 sq.mts., BUA – 22,354.53 sq.mts.*) by **M/s G. N. Constructions, Mumbai** project proposal seeking prior environmental clearance (EC) at survey no. 31/1-A-1 in Pilerne village, Bardez Taluka.

Meeting concluded with a vote of thanks to the chair.

Sd/-

Mr. Parag Nagarcenkar
Member Secretary, Goa-SEIAA

Sd/-

Mr. Vivekanand L. Sawkar
Chairman, Goa-SEIAA

Place: Patto, Panaji
Date: March 2018

ANNEXURE – 1

List of Members who attended the 42nd Goa-SEIAA meeting held on 16th March 2018

1. Mr. Vivekanand L. Sawkar Chairman, Goa-SEIAA
2. Mr. Parag Nagarcenkar Member Secretary, Goa-SEIAA