MINUTES OF THE 209thMEETING OF THE EXPERT APPRAISAL COMMITTEE FOR PROJECTS RELATED TO COASTAL REGULATION ZONE HELD ON 18thFEBRUARY, 2019 AT INDIRA PARYAVARAN BHAWAN, MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE, NEW DELHI.

The 209thMeeting of the Expert Appraisal Committee for projects related to Coastal Regulation Zone was held on 25.01.2019 atBrahmaputraConference Hall, VayuWing, 1st Floor, Indira ParyavaranBhawan, New Delhi. The members present were:

1.	Dr. Deepak ArunApte	-	Chairman
2.	Dr. V.K Jain	-	Member
3.	Shri Anil Kumar Singh	-	Member
4.	Dr. N.K Verma	-	Member
5.	Dr.ManoranjanHota	-	Member
6.	Shri. N.K. Gupta	-	Member
7.	Dr.Anuradha Shukla	-	Member
8.	Shri W. Bharat Singh	-	Member Secretary

Dr. M.V Ramana Murthy conveyed his inability to attend while Shri T. P. Singh, Shri Prabhakar Singh, Shri Narendra Surana, Dr. Mohan Singh Panwar, and Shri Sanjay Singh were absent.

In attendance: Dr. P. Saranya, Deputy Director, MoEFCC. The deliberations held and the decisions taken are as under:

2.0 CONFIRMATION OF THE MINUTES OF THE LAST MEETING.

The Committee having noted that the Minutes of the 207thmeeting are in order, confirmed the same with suggestions that in case any typographical/grammatical errors are noticed the same may be corrected suitably.

3.0 RECONSIDERATION:

3.1 Proposed development of premium Island Resort at Survey Nos.1/1, 1/1/1 and 1/1 at Lalaji Bay, Long Island, District North and Middle Andaman, Andaman & Nicobar byM/s Andaman and Nicobar Islands Integrated Development Corporation Ltd.[F.NO.11-4/2019-IA.III]- IPZ Clearance reg.

The proposal of Andaman and Nicobar Islands Integrated Development Corporation Ltd. (ANIIDCO) for development of premium Island Resort at Lalaji Bay, Long Island, in North and Middle Andaman district, Andaman & Nicobar was earlier considered in the 207th Meeting of the EAC (CRZ) held on 25.01.2019, wherein, the project proponent made a presentation and provided the following information:

i) The proposed premium Island resort is proposed at Suvey Nos. 1/1, 1/1/1 and 1/1 at Lalaji Bay, Long Island and will comprise of 220 Keys / Rooms).
ii) Built up area will be 39600 sq.m
iii) Desalination plant of 180 KLD is also proposed.
iv) An STP of 255 KLD is proposed to be set up.

v) CRZ maps has been prepared by NCSCM, Chennai.
vi) The proposed project falls in ICRZ- III (beyond 50 m of HTL) as per IPZ Notification, 2011.
vii) No forest land is involved.
viii) About 17 MT/month of solid waste will be generated during operation phase, out of which 10.2 MT will be biodegradable and 6.8 MT non-biodegradable.
ix) Water requirement will be 240 KLD, out of which 96 KLD will be met from rain water harvesting system and 144 KLD from desalination plant.
x) Energy requirement will be 785 kVA and will be met from 2.4 MW Solar Power Plant and 0.6 MW DG set.
xi) A floating jetty is also proposed.
xii) Construction will be based on eco-friendly material and pre-fabricated concrete with minimal use of RCC.
xiii) Cost of the project will be Rs 379 Crores.
xiv) ANCZMA has recommended CRZ Clearance vide its Letter No. APCCF/EPA/1/Vol.XIII/361, dated 30.11.2018.

2. In the said meeting, the Committee had observed the area of concern is in respect of management of solid waste collection, treatment and disposal. The Committee in particular was concerned of the mechanism of control of solid waste management in such a fragile area, once the project is commissioned and handed over. The Committee therefore desired that a sound and sustainable proposal for management of solid waste including its disposal method shall be formulated in accordance with the provisions prescribed in the Solid Waste Management Rules, 2016.

3. The Committee had also noted that the project also attracts EIA Notification, 2006 in addition to IPZ Notification, 2011and therefore a composite EC and CRZ clearance is to be issued by the concerned authority, as per the CRZ regulations. The Committee observed that the proposal also consists of a desalination plant, the details of which including the route of intake and outfall pipelines superimposed on CRZ map, impact on marine environment and mitigation measures proposed, etc. are not available. The Committee observed that the project proponent may approach an institute of repute such as NIOT for marine impact assessment. The Committee further observed that turtle nesting site may be present not far from the site and therefore the project proponent need to come up with data on turtle nesting and breeding in the area.

4. The Committee in the said meeting had observed that as the area were the premium resort is proposed seem to be in an ecologically very fragile and biodiversity rich, and therefore a sub-committee comprising of: (i) Chairman, EAC (CRZ); (ii) Dr. M.V Ramanamurthy, Member, EAC (CRZ); (iii) representative of the Ministry; and (iv) representative of ANCZMA, shall undertake a site visit to assess the likely impact of tourism activities on the eco-system of the area. The proposal was accordingly deferred for reconsideration at a later stage.

5. On submission of the site visit report and other documents, the proposal was again reconsidered by the Committee.The Committee was informed that the observations of the site visit are as follows:

i) The proposal at Long island can be considered for development of eco-resorts. However, the necessary details like present status of land ownership with ANIDCO,

solid and liquid waste management plan, Disaster Management plan, Desalination plant should be submitted to EAC for consideration of proposal.

ii) The boundary of the area needs to be fenced off to prevent visitors straying in to forest areas.

iii) The location is also excellent roosting and foraging ground for migratory Golden Plover. Un-utilized areas are to be managed such that the foraging areas of the birds are maintained.

iv) All huts to be built on Stilts (atleast 2 m height above ground level) for protecting from flooding due to storm surge or Tsunami.

v) Beach front areas should be open to public access for fishermen and other public.

vi) The proponent proposed 60 (desalination)-40 (rain water) formula for meeting water requirement of proposed project. Plan for storage of rain water harvesting needs to be provided

vii) All large and medium trees to be counted and georeferenced. These trees will not be allowed to be cut

6. The project proponent informed that subsequent to the deliberations in the last meeting, certain features of the project have been suitably modified as per advice of the Committee and provided the following additional information:

i) Desalination plant capacity will be now 240 KLD, since in view of the topography of the project area, rain water harvesting envisaged to meet 40% of water requirement may be not feasible. However, 48 KLD of rain water storage capacity will be developed.

ii) Intake point will be at 400 m from LTL into the sea and outfall at 600 m from LTL into the sea.

iii) The depth on intake will be at 10 m Chart Datum (CD) and outfall at 30-30 m CD.

iv) The diameter of pipes (Intake and Outfall) will be 150 mm.

v) FSI will be 0.093.

vi) No tree felling will be involved.

vii) Solar Power Plant of 2.4 MW will be installed. In addition, a DG Set of 0.6 MW will also be installed.

viii) About 17.15 MT/month of solid waste will be generated during operational phase of the resorts. Out of 17.015 MT/month of solid waste, 10.2 MT will be biodegradable, 6.9 MT non-biodegradable and 6.6 Mt will be recyclable waste. Waste.

ix) Sewage generated will be 204 KLD and will be treated in the 255 KLD STP proposed to be developed using MBBR technology.

x) It is proposed to bring the treated sewage water close to drinking standard by subjecting it to Reverse Osmosis system. The dried sludge can be used or co – composted with other organic waste produced.

xi) The treated waste water will be utilised for toilet flushing, HVAVC cooling, landscaping etc.

7. The project proponent presented the intake and outfall locations of the pipelines for desalination plant proposed. It was informed to the Committee that a modelling exercise has been carried out in consultation with NIOT and presented a brine dispersion model result arising from the desalination plant proposed to be installed. It was presented that a modelling study undertaken to study the fate and dispersion of the brine discharge from the desalination plant. The volume of brine discharge from the desalination plant released into the sea will be

~293KLD per peak day =~7L/second = 0.007 m^3/s. It was informed that the study shows that the impact of the discharge of the brine water, on the marine environment would be insignificant. Hence, it is recommended that the brine discharge from proposed outfalls of the desalination plant at Lalaji Bay, Long Island can be discharged into the open sea at the identified location.

8. Regarding Solid Waste Management, the project proponent stated that the resort will have following onsite facilities such as a Segregation chamber- where waste is separated into paper, plastic, metal, glass, organic waste and toxic waste; Organic Waste Processor - to compost food waste and garden waste. The decomposed soil produced from the system can be used for landscaping and gardening; Compactor - to reduce the volume of the waste before it is sent for processing; Shredding machine - for shredding garden waste which can be then sent to organic waste processor. It was further stated that it shall be mandated through project concessionaire agreement between project developer and Project Management Agency (PMA)/ANIIDCO that the project proponent shall adhere to proposed mechanism for solid waste management. They shall adhere to the provisions of all existing regulatory framework and furnish legal agreement with registered scrap dealer(s) for safe disposal of segregated waste for obtaining No Objection Certificate (NOC) from the Andaman & Nicobar Pollution Control Committee (ANPCC) for commencing operation of the establishment. Furnish legal agreement with any authorised dealer from Port Blair or mainland India to handle and dispose the waste generated during construction phase for obtaining NOC from ANPCC for Establishment before commencing construction. The proponent shall install Organic Waste Processor to compose organic waste generated in the precinct.

9. The project proponent informed that the environmental impact due to the floating jetty will be negligible and cannot be compared with a permanent jetty. It was stated that while permanent jetties call for concrete construction, piers etc., floating jetty does not require permanent construction of any nature, nor does it require pier foundation which would damage the sea bed below water surface. That the surface area occupied by floating jetty would also be negligible, which would not hamper light penetration and hence would not adversely affect sea weed/grass beds or corals. In addition, it was stated that a suitably identified floating jetty in the area would ensure minimal damage to the fragile landscapes thereby inhibiting any such informal beaching activities. The floating jetties will be permitted for use only to small boats for meeting local and tourism needs and not for commercial vessels. These small boats would not affect the seabed as adequate depth is available. It was further stated that currently, floating jetties are used in multiple sites in Andaman & Nicobar Islands and across coastal areas and islands across India as well. Floating jetty proposed at Lalaji Bay, Long Island are in sheltered waters and the wave action is very minimal. To further counter wave action and provide stability to the floating jetty, adequate suspended anchors would be provided below the approach platforms and berthing decks.*The project proponent also assured the Committee that the tourist foot fall in the Island will be strictly undertaken in consonance with the carrying capacity study carried out NCSCM for the Island.*

10. Based on the deliberations made and documents produced, the Committee recommended that from CRZ perspective, the proposal canbe recommended for CRZ clearance but since the proposal also attracts EIA Notification, 2006, the project proponent need to approach the concerned authority in the State/Centre for a composite EC and CRZ clearance. The Committee finally decided that in so far as CRZ angle is concerned, the proposal is recommended subject to the following conditions:

i) The project shall be developed as a role model for tourism industry where environmental jurisprudence is implemented in letter and spirit and a third party monitoring agency of repute like NIOT, NEERI, NCSCM etc. shall be appointed by ANIIDCO. The said agency shall not only report compliance status of the conditions in the clearance letters to the authorities concerned but also shall make its observations from time to time in pursuit of protection and conservation of the CRZ ecosystem in the area.
ii) The project proponent shall ensure that an inbuilt mechanism appropriate management of solid waste management is in place which shall be a pre-requisite for obtaining CTO under Air and Water Acts from the A&NPCC.
iii) The boundary of the area shall be appropriate fenced off to prevent tourist / visitors straying in to forest areas.
iv) Un-utilized areas within the premises of the 42.2 ha of land shall be managed such that the foraging areas of the migratory birds are maintained.
v) All huts shall be built on stilts (atleast 2 m height above ground level) in order to ensure protection from flooding due to storm surge or Tsunami.
vi) Beach front areas shall be open to public access and for local fishermen and other public.
vii) The proponent proposed 60 (desalination)-40 (rain water) formula for meeting water requirement of proposed project. Plan for storage of rain water harvesting needs to be provided
viii) All large and medium trees shall be counted and geo-referenced and shall not be allowed to be cut/felled. Details of the same to be provided to the office of PCCF, A & N and the regional office of MoEFCC
ix) Project proponent needs to clearly define and demarcate diesel storage areas for the generator along with its spillage prevention plan. Project proponent need to also provide details of provision for loading and unloading of diesel at the location.

3.2 Proposed development of Premium Tents and Tree Houses at Smith island, at Survey Nos. 96 and 98, in North and Middle Andaman by M/s Andaman and Nicobar Islands Integrated Development Corporation [F. NO.11-5/2019-IA.III] **- IPZ Clearance reg.**

The proposal of Andaman and Nicobar Islands Integrated Development Corporation Ltd. for development of premium Tents and Tree Houses at Smith Island, at Survey Nos. 96 and 98,in North and Middle Andaman district, Andaman & Nicobar was considered in the last meeting held on 25.01.2019, wherein, the project proponent made a presentation and provided the following information:

i) The proposed premium tents and tree houses areproposed at Suvey Nos. 96 and 98 at Smith Island and will comprise of 70 Keys / Rooms).
ii) Built up area will be 9100 sq.m
iii) Desalination plant of 41 KLD is also proposed.
iv) An STP of 67 KLD is proposed to be set up.
v) CRZ maps has been prepared by NCSCM, Chennai.
vi) The proposed project falls in ICRZ- III (beyond 50 m of HTL) as per IPZ Notification, 2011.
vii) No forest land is involved.
viii) Turtle nesting sites are present at 1.5 to 2 kms from the site.

ix) About 5.4 MT/month of solid waste will be generated during operation phase., out of which 3.2 MT will be biodegradable and 2.2 MT non-biodegradable.
x) Water requirement will be 69 KLD, out of which 28 KLD will be met from rain water harvesting system and 41 KLD from desalination plant.
xi) Energy requirement will be 250 kVA and will be met from 1.2 MW Solar Power Plant and 0.3 MW DG set.
xii) Construction will be based on eco-friendly material and pre-fabricated concrete with minimal use of RCC.
xiii) Cost of the project will be Rs65 Crores.
xiv) ANCZMA has recommended CRZ Clearance vide its Letter No. APCCF/EPA/1/Vol.XIII/361, dated 30.11.2018.

2. In the said meeting, the Committee had observed that management of solid waste collection, treatment and disposal are an area of concern as highlighted in the previous proposal. The Committee in particular was concerned of the mechanism of control of solid waste management in such a fragile area, once the project is commissioned and handed over. The Committee therefore desired that a sound and sustainable proposal for management of solid waste including its disposal method shall be formulated in accordance with the provisions prescribed in the Solid Waste Management Rules, 2016.

3. The Committee had also further observed that the proposal also consists of a desalination plant, the details of which including the route of intake and outfall pipelines superimposed on CRZ map, impact on marine environment and mitigation measures proposed, etc. are not available. The Committee observed that the project proponent may approach an institute of repute such as NIOT for marine impact assessment. The Committee further observed that turtle nesting site may be present not far from the site and therefore the project proponent need to come up with data on turtle nesting and breeding in the area.

4. The Committee had further observed that as the area were the premium tents and tree houses are proposed seem to be in an ecologically very fragile and biodiversity rich, and therefore a sub-committee comprising of: (i) Chairman, EAC (CRZ); (ii) Dr. M.V Ramanamurthy, Member, EAC (CRZ); (iii) representative of the Ministry; and (iv) representative of ANCZMA, shall undertake a site visit to assess the likely impact of tourism activities on the eco-system of the area.

5. On submission of the site visit report and other documents, the proposal was again reconsidered by the Committee. The Committee was informed that the observations of the site visit are as follows:

i) The project proposal for island of Smith Island can be considered for development of eco-resorts. However, the necessary details like present status of land ownership with ANIDCO, solid and liquid waste management plan, Disaster Management plan, Desalination plant should be submitted to EAC for consideration of proposals.
ii) The location of the desalination plant at Smith Island should be firmed up in consultation with NIOT.
iii) All large and medium trees to be counted and geo referenced. These trees will not be allowed to be cut
iv) For augmentation of water Committee felt that the natural stream that is flowing parallel to the proposed land can be used effectively through check dams based on natural watershed. This itself will suffice most of the water requirement for the resort as well as

beneficial for ground water recharge. An advice and design for the same can be developed in consultation with Andaman and Nicobar forest department.

6. The project proponent informed that subsequent to the deliberations in the last meeting, certain features of the project have been suitably modified as per advice of the Committee and provided the following additional information:

i) The Island is managed under Integrated Island Management Plan (IIMP) and the total plot area where the premium tents and tree houses are proposed is about 25 Ha.
ii) Desalination plant capacity will be now 14 KLD only as a standby, and it is proposed to develop rain water harvesting system to meet 100 % of water requirement. The storage capacity will be 6 MLD.
iii) Ross Wildlife Sanctuary is at 5 Km from the site.
iv) Intake point will be at 280 m from LTL into the sea and outfall at 280 m from LTL into the sea.
v) The depth on intake will be at 3 m Chart Datum (CD) and outfall at 3 m CD.
vi) The diameter of pipes (Intake and Outfall) will be 25 mm.
vii) FSI will be 0.036.
viii) No forest land is involved and there will be no tree felling /cutting.
ix) Solar Power Plant of 1.2 MW will be installed. In addition, a DG Set of 0.3 MW will also be installed.
x) About 5.48 MT/month of solid waste will be generated during operational phase of the resorts. Out of 5.48 MT/month of solid waste, 3.2 MT will be biodegradable, 2.2 MT non-biodegradable waste.
xi) Sewage generated will be treated in the 67 KLD STP proposed to be set up using MBBR technology.
xii) It is proposed to bring the treated sewage water close to drinking standard by subjecting it to Reverse Osmosis system. The dried sludge can be used or co – composted with other organic waste produced.
xiii) The treated waste water will be utilised for toilet flushing, HVAVC cooling, landscaping etc.

7. The project proponent presented the intake and outfall locations of the pipelines for desalination plant proposed. It was informed to the Committee that a modelling exercise has been carried out in consultation with NIOT and presented a brine dispersion model result arising from the desalination plant proposed to be installed. It was presented that a modelling study undertaken to study the fate and dispersion of the brine discharge from the desalination plant. The volume of brine discharge from the desalination plant released into the sea will be ~21KLD per peak day =~0.7L/second = 0.0007 m^3/s. It was informed that the study shows that the impact of the discharge of the brine water, on the marine environment would be insignificant. Hence, it is recommended that the brine discharge from proposed outfalls of the desalination plant at Smith Island can be discharged into the open sea at the identified location.

8. Regarding Solid Waste Management, the project proponent stated that similar to previous proposal at Item 3.2, the instant case also will have following onsite facilities such as a Segregation chamber- where waste is separated into paper, plastic, metal, glass, organic waste and toxic waste; Organic Waste Processor - to compost food waste and garden waste. The decomposed soil produced from the system can be used for landscaping and gardening;

Compactor - to reduce the volume of the waste before it is sent for processing; Shredding machine - for shredding garden waste which can be then sent to organic waste processor. It was further stated that it shall be mandated through project concessionaire agreement between project developer and Project Management Agency (PMA)/ANIIDCO that the project proponent shall adhere to proposed mechanism for solid waste management. They shall adhere to the provisions of all existing regulatory framework and furnish legal agreement with registered scrap dealer(s) for safe disposal of segregated waste for obtaining No Objection Certificate (NOC) from the Andaman & Nicobar Pollution Control Committee (ANPCC) for commencing operation of the establishment. Furnish legal agreement with any authorised dealer from Port Blair or mainland India to handle and dispose the waste generated during construction phase for obtaining NOC from ANPCC for Establishment before commencing construction. The proponent shall also install Organic Waste Processor to compose organic waste generated in the precinct.

9. The project proponent also informed that there is already an existingjetty in the Island and the same will be utilised. The project proponent also assured the Committee that the tourist foot fall in the Island will be strictly undertaken in consonance with the carrying capacity study carried out NCSCM for the Island.

10. Based on the deliberations made and documents produced, the Committee recommended CRZ clearance for the proposal subject to the following conditions:

i) The project shall be developed as a role model for tourism industry where environmental jurisprudence is implemented in letter and spirit and a third party monitoringagency of repute like NIOT, NEERI, NCSCM etc. shall be appointed by ANIIDCO. The said agency shall not only report compliance status of the conditions in the clearance letters to the authorities concerned but also shall make its observations from time to time in pursuit of protection and conservation of the CRZ ecosystem in the area.
ii) The project proponent shall ensure that an inbuilt mechanism appropriate management of solid waste management is in place which shall be a pre-requisite for obtaining CTO under Air and Water Acts from the A&NPCC.
iii) All large and medium trees shall be counted and geo-referenced and shall not be allowed to be cut/felled. Details of the same to be provided to the office of PCCF, A & N and the regional office of MoEFCC
iv) Natural streams flowing parallel and close to the project areas shall be used effectively through check dams based on natural watershed. The same can be developed in consultation with A&N Forest Department or any other concerned agency in the UT administration.
v) Project proponent needs to clearly define and demarcate diesel storage areas for the generator along with its spillage prevention plan. Project proponent need to also provide details of provision for loading and unloading of diesel at the location.
vi) The sea turtle nesting areas (Green Sea Turtle, Hawksbill Turtle and Oilve Ridley Turtle) as identified by the Committee be clearly demarcated on the island map and made 'No Go Areas' for the tourists or any other visitors. The 'No Go Areas' should also cover atleast 1000 m on all sides as buffer areas.

3.3 Proposed development of Luxury Tents at Aves Island, at Survey Nos. 2/1 and 2/2, in Andaman and Nicobar byM/s Andaman and Nicobar Islands Integrated Development Corporation Ltd. [F.NO.11-6/2019-IA.III] **- IPZ Clearance reg.**

The proposal of Andaman and Nicobar Islands Integrated Development Corporation Ltd. for development of Luxury Tents at Aves Island, at Survey Nos. 2/1 and 2/2,in North and Middle Andaman district, Andaman & Nicobar was considered in the 207th Meeting held on 25.01.2019, wherein, the project proponent made a presentation and provided the following information:

i) The proposed premium Luxury Tents is proposed at Suvey Nos. 2/1 and 2/2 at Aves Island and will comprise of 50 Keys / Rooms).
ii) Built up area will be 5000sq.m
iii) Desalination plant of 27 KLD is also proposed.
iv) An STP of 38 KLD is proposed to be set up.
v) CRZ maps has been prepared by NCSCM, Chennai.
vi) The proposed project falls in ICRZ- III (beyond 50 m of HTL) as per IPZ Notification, 2011.
vii) No forest land is involved.
viii) About 3.9 MT/month of solid waste will be generated during operation phase., out of which 2.3 MT will be biodegradable and 1.6 MT non-biodegradable.
ix) Water requirement will be 37 KLD, out of which 15 KLD will be met from rain water harvesting system and 22 KLD from desalination plant.
x) Energy requirement will be 178 kVA and will be met from 0.43 MW Solar Power Plant and 0.1 MW DG set.
xi) A floating jetty is also proposed.
xii) Construction will be based on eco-friendly material and pre-fabricated concrete with minimal use of RCC.
xiii) Cost of the project will be Rs38 Crores.
xiv) ANCZMA has recommended CRZ Clearance vide its Letter No. APCCF/EPA/1/Vol.XIII/361, dated 30.11.2018.

2. The Committee in the said meeting had observed that management of solid waste collection, treatment and disposal are an area of concern as highlighted in the previous two proposals. The Committee in particular was concerned of the mechanism of control of solid waste management in such a fragile area, once the project is commissioned and handed over. The Committee therefore desired that a sound and sustainable proposal for management of solid waste including its disposal method shall be formulated in accordance with the provisions prescribed in the Solid Waste Management Rules, 2016.

3. The Committee had further observed that the proposal also consists of a desalination plant, the details of which including the route of intake and outfall pipelines superimposed on CRZ map, impact on marine environment and mitigation measures proposed, etc. are not available. The Committee observed that the project proponent may approach an institute of repute such as NIOT for marine impact assessment. The Committee further observed that turtle nesting site may be present not far from the site and therefore the project proponent need to come up with data on turtle nesting and breeding in the area.

4. The Committee also had observed that as the area were the luxury tents are proposed seem to be in an ecologically very fragile and biodiversity rich, and therefore a sub-committee comprising of: (i) Chairman, EAC (CRZ); (ii) Dr. M.V Ramanamurthy, Member, EAC (CRZ); (iii) representative of the Ministry; and (iv) representative of ANCZMA, shall undertake a site visit to assess the likely impact of tourism activities on the eco-system of the area.

5. The site visit was undertaken and based on the observation made during the site visit and other documents, the proposal was again reconsidered by the Committee.

6. The project proponent informed the Committee that they have reworked site feasibility keeping the steep gradient of the site into consideration and provided the following information:

i) Total land area will be 2.75 ha
ii) Floating jetty is proposed to be set up.
iii) The Island is managed by IIMP and the site is not in ICRZ-III as earlier recorded inadvertently in the minutes of the last meeting.
iv) The tourist footfall will be strictly within the tourism carrying capacity carried out for the Island.
v) Part of the project falls begins right after 20 m of HTL.

7. The project proponent informed that subsequent to the deliberations in the last meeting, certain features of the project have been suitably modified as per advice of the Committee and provided the following additional information:

i) The project will not entail FC clearance as no diversion of forest land will be involved. However, a letter from the DFO is contrary to this which states that due to canopy cover of more than 40% it attract FC. A clarification on this is thus ncesessary.
ii) Intake point for the desalination plant will be at 300 m from LTL into the sea and outfall at 310 m from LTL into the sea.
iii) The depth on intake will be at 5 m Chart Datum (CD) and outfall at 5 m CD.
iv) The diameter of pipes (Intake and Outfall) will be 50 mm.
v) Solar Power Plant of 0.43 MW will be installed. In addition, a DG Set of 0.1 MW will also be installed.
vi) About 3.9 MT/month of solid waste will be generated during operational phase of the resorts. Out of 3.9 MT/month of solid waste, 2.34 MT will be biodegradable, 1.56 MT non-biodegradable waste.
vii) Sewage generated will be treated in the 38 KLD STP proposed to be set up using MBBR technology.
viii) It is proposed to bring the treated sewage water close to drinking standard by subjecting it to Reverse Osmosis system. The dried sludge can be used or co – composted with other organic waste produced.
ix) The treated waste water will be utilised for toilet flushing, HVAVC cooling, landscaping etc.

8. The project proponent presented the intake and outfall locations of the pipelines for desalination plant proposed. It was informed to the Committee that a modelling exercise has been carried out in consultation with NIOT and presented a brine dispersion model result arising from the desalination plant proposed to be installed. It was presented that a modelling study undertaken to study the fate and dispersion of the brine discharge from the desalination plant. The volume of brine discharge from the desalination plant released into the sea will be ~56 KLD per peak day =~0.1L/second = 0.001 m^3/s. It was informed that the study shows that the impact of the discharge of the brine water, on the marine environment would be insignificant. Hence, it is recommended that the brine discharge from proposed outfalls of the

desalination plant at Smith Island can be discharged into the open sea at the identified location.

9. Regarding Solid Waste Management, the project proponent stated that similar to previous proposals at Item 3.2and Item 3.3, the instant case also will have following onsite facilities such as a Segregation chamber- where waste is separated into paper, plastic, metal, glass, organic waste and toxic waste; Organic Waste Processor - to compost food waste and garden waste. The decomposed soil produced from the system can be used for landscaping and gardening; Compactor - to reduce the volume of the waste before it is sent for processing; Shredding machine - for shredding garden waste which can be then sent to organic waste processor. It was further stated that it shall be mandated through project concessionaire agreement between project developer and Project Management Agency (PMA)/ANIIDCO that the project proponent shall adhere to proposed mechanism for solid waste management. They shall adhere to the provisions of all existing regulatory framework and furnish legal agreement with registered scrap dealer(s) for safe disposal of segregated waste for obtaining No Objection Certificate (NOC) from the Andaman & Nicobar Pollution Control Committee (ANPCC) for commencing operation of the establishment. Furnish legal agreement with any authorised dealer from Port Blair or mainland India to handle and dispose the waste generated during construction phase for obtaining NOC from ANPCC for Establishment before commencing construction. The proponent shall also install Organic Waste Processor to compose organic waste generated in the precinct.

10. The project proponent also informed that a floating jetty in the Island is proposed. The project proponent also assured the Committee that the tourist foot fall in the Island will be strictly undertaken in consonance with the carrying capacity study carried out NCSCM for the Island.

11. Based on the deliberations made and documents produced, the Committee observed that, there is a legal gap in so far as the IIMP for the Island is concerned i.e the IIMP permits development activity of the kind only beyond 60 m from HTL. Also as stated by the project proponent the proposal is not viable at current 60m IIMP boundary and it is viable only with 20m IIMP boundary. Thus under current dispensation that the Committee have, the proposal cannot be taken forward. In case if IIMP is amended in future to 20m, the proposal can be considered for CRZ clearance with following conditions.

i) The project shall be developed as a role model for tourism industry where environmental jurisprudence is implemented in letter and spirit and a third party monitoring agency of repute like NIOT, NEERI, NCSCM etc. shall be appointed by ANIIDCO. The said agency shall not only report compliance status of the conditions in the clearance letters to the authorities concerned but also shall make its observations from time to time in pursuit of protection and conservation of the CRZ ecosystem in the area.
ii) The project proponent shall ensure that an inbuilt mechanism appropriate management of solid waste management is in place which shall be a pre-requisite for obtaining CTO under Air and Water Acts from the A&NPCC.
iii) All large, medium and small trees shall be counted and geo-referenced and shall not be allowed to be cut/felled.
iv) Project proponent needs to clearly define and demarcate diesel storage areas for the generator along with its spillage prevention plan. Project proponent need to

also provide details of provision for loading and unloading of diesel at the location.

3.8 CRZ Clearance setting up of 100 MLD Desalination Plant by M/s Jodiya Water Desalination Ltd at village Jodiya, Jamnagar District, Gujarat [F.No.11-10/2019-IA.III]– **reg.**

The proposal of M/s Jodiya Water Desalination Ltd. is for setting up a Desalination Plant of 100 MLD at village Jodiya, Jamnagar District, Gujarat. The project proponent made a presentation and provided the following information:

i) Jodiya Water Desalination Ltd. is a SPV formed by the consortium partners for implementation of the proposed Desalination plant.
ii) Gujarat Water Infrastructure Limited (GEIL) is the Government of Gujarat undertaking company, which takes up various bulk water shortage in Jodiya, it has planned to set up 100 MLD Sea Water Reverse Osmosis (SWRO) Desalination plant at Jodiya village, Jamnagar District, Gujarat. The plant will be developed through Public Private Partnership (PPP) scheme with the consortium formed between Essel Infraprojects Limited (EIL) and Abeinsa Infrastructures medioAmbiente S.S, Spain (Abengoa).
iii) Jodiya Water Desalination Ltd. will execute the project on design, build, finance, operate and transfer basis for a period of 25 years.
iv) The total area of the project is 80 acres.Plant area about 11 acres will be elevated above the existing level to about (+) 7.5 m CD to ensure safety against flooding during monsoon and natural disasters.
v) The proposed outfall pipeline will be passing through CRZ IA and the desalination plant will be constructed in CRZ IB.
vi) It is proposed to make an Intake channel to draw 250 MLD seawater from Und creek. Dense Mangroves are present on either side of the banks of Und creek. A total of 2640 ha area is spread with mangroves along coastal line of Jodiyaand the project site is within 10 km radius.
vii) Total length of outfall pipeline will be 6.7 kms andwill pass inland (about 2.1 km) and length in marine area will be about 4.6 km offshore. It will cross Marine National Park and Marine Sanctuary located nearby.
viii) Outfall length from land fall point is 4600 m and depth at discharge location is 3.1 m CD LTL and 9 m HHTL.
ix) The laying of outfall pipeline will affect the mangroves over the stretch of 20 m wide and 300 m long.
x) Process water storage: Treated water will be stored in two tanks with a capacity of 20000m^3 before transferred for consumption.
xi) The required power during operation and maintenance of desalination plant will be met through transmission line constructed through PGVCL/GETCO
xii) Employment: 300 people during construction.
xiii) Benefit of the project: supply of drinking water to two corporations and three districts. Meet the basic need of the people to get drinking water up to 100 MLD.
xiv) The total project cost of the project is estimated to be Rs. 1010 crores
xv) Gujarat CZMA has recommended CRZ Clearance vide its Letter No. ENV-10-2018-210-E(T Cell) dated 7th February, 2019.

2. The project proponent also informed the Committee that six months' investigation has been done for marine baseline data of the site and 8 locations for outfall points have been examined before arriving at the present outfall point. It was also informed that the ambient

salinity of 40 ppt will be met at a distance ranging from 100 – 300 m from the outfall point. The project proponent also informed that Jodiya is a fulcrum for water main pipeline for the region and therefore chosen the village/site as the fresh water from the proposed desalination plant can be efficiently distributed from the water nodes at Jodiya to recipient villages in the district.

3. The Committee observed that Marine National Park is close by and the project proponent need to be careful as the pipeline will also cross some mangrove and reef areas. The Committee also observed that a robust mangrove and reef conservation plan shall need to be prepared in consultation with Gujarat Ecology Commission and a firm commitment of mangrove plantation/regeneration in the area need to be submitted for records.Also it is necessary to make sure that non-vegetated mudflats are not used for mangrove afforestation, are clearly identified and marked on the map. Such mudflats are vital for migratory birds and be maintained as it is. Only degraded patches of vegetated mudflats to be used for such afforestation work.

4. The Committee observed that storage of water by development of a storage pond in the inter-tidal area cannot be permitted as it maylead to permanent damage of ground water of the area,and the chances of saline water ingression travelling far interior to the inland cannot be ruled out. The Committee therefore decided that only pipeline drawl of sea water to the desalination plant can be permitted.

5. The Committee further observed that the outfall location may require to be shifted deeper in to the deep sea so that better mixing of brine at outfall point can be achieved. The Committee therefore desired that the same can be re-examined so as to avoid any coral mortality in the region due to release of brine which can have salinity of 70 ppt in this case.

6. During the course of the deliberation the Committee observed that while the Committee is in-principle inclined to agree recommending the proposal for CRZ clearance, the observations made above need to be ratified. The Committee therefore agreed that the project proponent shall submit for ratification by the Committee viz: (i) mangrove and reef conservation plan; and (ii) revised outfall location deeper into the sea and result of dispersion model thus carried out

7. The project proponent has since submitted the above documents to members of the Committee for their observations and comments. It was though advised that no mangrove afforestation be taken on non-vegetated mudflats. No comments from Members of the EAC have been received and it has been decided that the same may be ratified. Based on the deliberations held and documents submitted, the Committee decided that the project can be recommended for CRZ clearance subject to the following conditions:

i) The mangrove conservation plan shall be implemented in letter in spirit in close consultation with the Gujarat Ecology Commission as well as Gujarat State forest department.
ii) Before commencement of works for laying of pipelines for intake and outfall location shall be undertaken with due consultation with the expert in the field who had undertaken the study and co-ordinates of the revised intake and outfall location shall be verified with the expert in the field.
iii) No storage reservoir for sea water shall be permitted and only pipelines conveyance system shall be installed.

iv) 2% project cost be deposited to Mangrove and Coral Reef Foundation of Marine National Park for conservation and restoration of mangroves and corals of Gulf of Kutchchh.

There being no item left, the meeting ended with a vote of thanks to the Chair.

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