

# MINUTES OF THE 323<sup>rd</sup> MEETING OF EXPERT APPRAISAL COMMITTEE FOR PROJECTS RELATED TO COASTAL REGULATION ZONE HELD ON 23<sup>rd</sup> MARCH, 2023

The 323<sup>rd</sup> meeting of the Expert Appraisal Committee for projects related to Coastal Regulation Zone was held on 23<sup>rd</sup> March 2023 through Video Conferencing due to the prevalent pandemic situation. The list of Members presents in the EAC (CRZ) is at Annexure.

The deliberations held and the decisions taken are as under:

## 1.0 OPENING REMARKS OF THE CHAIRMAN

At the outset, Dr. Deepak Arun Apte, Chairman, EAC (CRZ) welcomed the Members of the EAC and requested Dr. H. Kharkwal, the Member Secretary of the EAC to initiate the proceedings of the meeting with a brief account of the activities undertaken by the Ministry under CRZ Division.

## 2.0 CONFIRMATION OF THE MINUTES OF THE LAST MEETING

The Committee having noted that the Minutes of the 320<sup>th</sup> meeting held on 07<sup>th</sup> February, 2023 are in order and confirmed the samewith suggestions that in case any typographical / grammatical errors are noticed in due course, the same may be corrected suitably.

### Item No. 3.1

**Extending 20” pipe line from North Jetty Reclamation pit (NJRP) to Cochin Oil Terminal (COT) & North Tanker Berth (NTB), along with associated facilities at Cochin Port Trust jetty area and modification within refinery for loading white oil products like Reformate, Naptha, MS, HSD etc. by M/s Bharat Petroleum Corporation Ltd - amendment in CRZ Clearance [IA/KL/CRZ/291876/2022] [FNo.11-31/2015-IA.III]**

***“The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of the data/information submitted is found to be false/misleading at any stage, the project will be rejected and Environmental and or CRZ Clearance given, if any, will be revoked at the risk and cost of the project proponent.”***

The proposal was earlier considered by the EAC in its 315<sup>th</sup> meeting held on 29<sup>th</sup> November, 2022 and 319<sup>th</sup> meeting held on 17<sup>th</sup> January, 2023 and EAC suggested that the project proponent shall submit a Quantitative Risk Assessment (QRA) study for the entire pipeline corridor including the present HTPL line extension from Refinery to all three loading bays of Cochin Port Trust (CPT), details of the proposed activities *vis-à-vis* the project title, EIA report, SCZMA recommendations and undertaking from the competent authority etc. The project proponent has now uploaded all documents / additional information on Parivesh

Portal as desired by EAC and placed before the Committee. The project proponent and their consultant submitted reply on additional information desired by EAC earlier and made a detailed presentation of salient features of the project and informed that:

- (i) The proposal is for CRZ clearance to the project for “Extending 20” pipeline from North Jetty reclamation pit (NJRP) to Cochin Oil Terminal (COT) & North Tanker Berth (NTB), along with associated facilities at Cochin Port Trust Jetty Area and Modification within Refinery for loading White Oil Products like Reformate, Naptha, MS, HSD etc. in Tehsil Kunnathunad of District Ernakulam, Kerala M/s Bharat Petroleum Corporation Ltd.
- (ii) BPCL – Kochi Refinery laid a 20 inch piggable Heat Traced Pipeline (HTPL) of 10.5 Km length from South Tanker Berth Jetty (Located in Cochin Port Trust area) to Kochi Refinery in the year 2019 for transporting class C intermediate products like Vacuum Gas Oil and Vacuum Residue for refinery.
- (iii) MOEF&CC issued CRZ clearance for the pipeline *vide* letter No.11-31/2015-AI-III dated 12/02/2016. PESO granted permission in February, 2020 for commissioning the piggable pipeline in class C service. Post commissioning, this pipeline remained underutilized due to various reasons.
- (iv) In order to utilize the asset optimally it is proposed to change the service of the pipeline from Class C to Class A & B and extend the pipeline to North Tanker Berth (NTB) and Cochin Oil Terminal (COT) located at Cochin Port Area. PESO approval of Consent to Establish is received for amendment proposal on 27/07/2022.
- (v) There are total three berths in Cochin Port Authority, namely South Tanker berth (STB), North Tanker berth (NTB) and Cochin Oil Terminal (COT).
- (vi) M/s. Bharat Petroleum Corporation Limited (BPCL) proposes for Extension of 20” HTPL pipeline from North Jetty Reclamation Pit (NJRP) to Cochin Oil Terminal (approximately 1.0 Km of HDD section under seabed and 0.4 km on Pipe trestle).
- (vii) Presently, pipeline is laid from refinery to South Tanker berth (STB) through NJRP. On extending the pipeline to COT, Larger volume parcels can be handled economically.
- (viii) The project Pipeline size is 20”, Pipeline Length:1.4 km (approx.) from NJRP to COT, Pipeline Throughput (Highest pumping capacity):1350 m<sup>3</sup>/hr for 20”, Operating Pressure (YP-65A Discharge Press):13.5 Kg/cm<sup>2</sup>g, Design Pressure:45 kg/cm<sup>2</sup>g, Design Temperature:65°C, Material grade of Mainline pipe: API 5L Gr. X60, PSL-2, Material grade of Station Piping: ASTM A106 Gr. B - (For all Station Piping).
- (ix) The project located in Latitude: 9°57’56.50” N to 9°58’3.14”N and Longitude: 76°16’45.23” E to 76°16’50.29”E.
- (x) The CRZ map of 1:4000 has been prepared by Indian Institute of Remote Sensing (IRS), Anna University. The CRZ classification of the study area is as:

S.No.	Description	CRZ-Classification	Length in Meters	Total length in Meter
1.	Proposed 20" Multi-Product underground	CRZ-II	17.67	1000.00
		CRZ- IV B	982.33	

	Pipeline from NJRP to Sand Bank Island			
2.	Proposed 20" Multi-Product above ground Pipeline from Sand Bank Island to Cochin Oil Terminal	CRZ- IA	21.05	380.00
		CRZ- IA (50m Mangrove Buffer Zone)	146.46	
		CRZ- IVB	212.49	

- (xi) The project site is located 2.3 km from Manglavanam Bird Sanctuary.
- (xii) The estimated cost of project is approx. ₹65.86 Crores.
- (xiii) The Kerala Coastal Zone Management Authority has recommended the proposal for CRZ clearance *vide* its Letter No. 402/A1/2022/KCZMA dated 03/09/2022 and 23/01/2023.

## 2. Deliberations in the EAC:

The Committee made detailed deliberation on the proposal. The Committee noted that the PESO granted permission in February, 2020 for commissioning the piggable pipeline in class C service, however committee suggested that the prior approval from PESO shall be obtained before commencement of the extended pipeline project. The Committee also noted that the Kerala CZMA has recommended the project and intimated that the activity is a permissible. The Committee found the additional information submitted by the project proponent to be satisfactory.

The Committee after detailed deliberations and based on the clarifications / information submitted by PP recommended the proposal for CRZ Clearance, subject to the following conditions:

- (i). All construction shall be strictly in accordance with the provisions of the CRZ Notification, 2011, as amended from time to time.
- (ii). The prior approval from PESO should be obtained before commencement of the extended pipeline project.
- (iii). The pipeline as committed in CRZ area should be laid through Horizontal Directional Drilling (HDD) method.
- (iv). Any temporary physical infrastructure setup and excavated material during laying of pipelines shall not be dumped in water bodies or adjacent areas and the site shall be restored to its original condition after completion of construction of work.
- (v). No storage reservoir for sea water shall be permitted and only pipelines conveyance system shall be installed.
- (vi). No groundwater shall be extracted within the CRZ area to meet the water requirements during the construction and/or operation phase of the project.
- (vii). Permanent labour camp, machinery and material storage shall not be set up in the CRZ area.
- (viii). All the conditions stipulated by the Kerala Coastal Zone Management Authority for CRZ clearance 2019 *vide* its Letter No. 244/CRZ/IND/2020 dated 03/09/2022,

23/01/2023 and commitments made by the PP before the KCZMA and EAC shall be followed in letter and spirit.

- (ix). All necessary clearance from the concerned authority, as may be applicable should be obtained prior to commencement of project or activity.

### **Item No. 3.2**

**Proposal for laying of Petroleum & Petroleum products pipeline project from Ennore Port to Manali Industrial Area along the NCTPCL Compound Wall via Puzhuthivakkam, Ennore, Vallur, Athipattu, Kathivakkam, Eranvur, Manali, Tirvottiyur, Sathangadu & Sadayankuppam Village in Chennai District by M/s IMC Limited, Chennai-CRZ Clearance [IA/TN/CRZ/411946/2022] [F.NO.11/3/2023-IA.III]**

***“The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of the data/information submitted is found to be false / misleading at any stage, the project will be rejected and Environmental and or CRZ Clearance given, if any, will be revoked at the risk and cost of the project proponent.”***

The proposal was earlier considered by the EAC (CRZ) in its 319<sup>th</sup> meeting held on 17<sup>th</sup> January, 2022 and EAC suggested that the project proponent shall submit action plan for laying pipeline at a depth below the creek / sea crossing zones, critical areas in CRZ area (mangrove forest area and sand dune area) should be identified in map and Plan for HDD method in these areas should be drawn. Marine Biodiversity management Plan including sand dune restoration in the pipeline route should be prepared. The project proponent has now uploaded all documents / additional information on Parivesh Portal as desired by EAC and placed before the Committee. The project proponent and their consultant submitted reply on additional information desired by EAC earlier and made a detailed presentation of salient features of the project and informed that:

- (i) The proposal is for CRZ clearance to the project for “laying of Petroleum & Petroleum products pipeline project from Ennore Port to Manali Industrial Area along the NCTPCL Compound Wall via Puzhuthivakkam, Ennore, Vallur, Athipattu, Kathivakkam, Eranvur, Manali, Tirvottiyur, Sathangadu & Sadayankuppam Village in Chennai District, Tamil Nadu by M/s IMC Limited.
- (ii) The total length of the pipeline is 20393.58 m.
- (iii) The CRZ classification of the proposed pipeline from Ennore Port ETTPL Manifold area to Manali Industrial Area on approved CRZ Notification as per CRZ 2011 Notification involves CRZ-IB (308.51 m), CRZ-II (9055.37 m), CRZ-III (577.95 m) and CRZ-IVB (76.13 m), which covers 10,017.96 m length of the pipeline that comes under the CRZ region and 10375.62 m in Non-CRZ region.
- (iv) The project site co-ordinates: Pumping Unit:13°17'18.25"N, 80°20'12.77"E and Receiving Unit: 13°11'1.57"N, 80°15'51.29"E and Geographical coordinates of HTL points 1 to 125 as per IRS CRZ Report, Anna University and submitted by PP.

- (v) The Construction Phase: The major impact may occur during drilling and other pipeline installation process.

**Mitigation measures:**

- Environment Management Plan (EMP) will be kept in place so as to nullify the impacts due to drilling activities with proper storage of drilling mud and transfer to Authorized dealers.
- No tree will be cut during construction phase.

**Operation Phase:** There are no major impacts during operation phase since; it is an underground pipeline project.

- Operation and maintenance of pipeline will be monitored thoroughly *via* Supervisory Control and Data Acquisition (SCADA) system.
- The only impact may be due to pipeline leakage.

**Mitigation measures:**

- Leak detection system will be installed and proper supervision and maintenance will be done.
- The sectionalizing valves will be provided as per PNGRB (Petroleum & Natural Gas Regulatory Board) guidelines.

- (vi) Green belt development will be carried / expanded surrounding project area in consultation with a local forest department along the pipeline stretch wherever feasible.
- (vii) Further Green belt area proposed on the periphery of IMC Limited in an area of around 2000 Sq.ft.
- (viii) The budgetary provision for environmental Management cost estimate for EMP as:

S. No.	Particulars	Cost in Lakhs (₹)	Recurring Cost in Lakhs (₹)
1.	DG Set & Stack	25	2
2.	Environmental Monitoring	-	0.28
Total		25	0.28

- (ix) The pipeline laying detail as:

Sl. No.	Location	Minimum cover (m)
1.	Industrial, commercial and residential areas	1.0
2.	Stream, canal and other minor water crossings	1.5
3.	Major River Crossing through HDD	6-10 (below river bed)
4.	Drainage ditches at road ways and rail roads	1.0
5.	Rocky areas	1.0
6.	Un cased/cased crossings	1.2
7.	Rail road crossing	1.5
8.	Other areas	1.0

- (x) The area break up:

SI. No.	Description (CRZ- Classification)	Project Components	Length in Metres
1	CRZ IB	Pipeline	308.51

2	CRZ II	Pipeline	9055.37
3	CRZ III	Pipeline	577.95
4	CRZ IVB	Pipeline	76.13
5	NON - CRZ	Pipeline	10375.62
<b>Total</b>			<b>20,393.58</b>

(xi) Water requirement of the project:

S. No.	Description	Requirement (KLD)			Disposal
		Total Water	Fresh Water	Sewage	
1	Construction Phase	3	1	2.7	Mobile STP to be proposed
2	Operation Phase: Domestic	0.9	0.9	0.76	Existing Soak pit

(xii) The total cost of the project ₹94.89 Crore.

(xiii) The Tamil Nadu Coastal Zone Management Authority has recommended the proposal for CRZ clearance *vide* its Letter No. P1/321/2020, dated 28/06/2022.

## 2. Deliberations in the EAC:

The Committee made detailed deliberation on the proposal. The Committee noted that the activity is a permissible as per CRZ Notification 2011. However, suggested that the PP should not do any project construction activity during the turtle nesting season from 1<sup>st</sup> January to 30<sup>th</sup> April of every year. The Committee also suggested that the pipeline where crossing of water body / river / creek areas should be laid through Horizontal Directional Drilling (HDD) method. The Committee found the additional information submitted by the project proponent to be satisfactory.

The Committee after detailed deliberations and based on the clarifications / information submitted by PP recommended the proposal for CRZ Clearance, subject to the following conditions:

- (i) All construction shall be strictly in accordance with the provisions of the CRZ Notification, 2011, as amended from time to time.
- (ii) The PP should not do any construction activity during the turtle nesting season from 1<sup>st</sup> January to 30<sup>th</sup> April of every year.
- (iii) The pipeline where crossing of water body / river / creek areas should be laid through Horizontal Directional Drilling (HDD) method.
- (iv) Any temporary physical infrastructure setup and excavated material during laying of pipelines shall not be dumped in water bodies or adjacent areas and the site shall be restored to its original condition after completion of construction of work.
- (v) No storage reservoir for sea water shall be permitted and only pipelines conveyance system shall be installed.
- (vi) No groundwater shall be extracted within the CRZ area to meet the water requirements during the construction and/or operation phase of the project.

- (vii) Permanent labour camp, machinery and material storage shall not be set up in the CRZ area.
- (viii) The prior approval from PESO should be obtained before commencement of the project.
- (ix) All the conditions stipulated by the Tamil Nadu Coastal Zone Management Authority for CRZ clearance 2011 vide its Letter No. P1/321/2020, dated 28/06/2022 and commitments made by the PP before the Tamil Nadu CZMA and EAC shall be followed in letter and spirit.
- (x) All necessary clearance from the concerned authority, as may be applicable should be obtained prior to commencement of project or activity.

### **Item No. 3.3**

#### **Proposal for quadrupling of Virar-Dahanu Road Railway Project under Mumbai Urban Transport Project III, District Palghar by M/s Mumbai Railway Vikas Corporation Ltd-CRZ Clearance [IA/MH/CRZ/411954/2022] [F.No.11/2/2023-IA.III]**

1. The proposal was earlier considered by the EAC (CRZ) in its 319<sup>th</sup> meeting held on 17<sup>th</sup> January, 2022 and EAC suggested that the project proponent has not made available the EIA / EMP report along with other documents for appraisal of the Committee and deliberation on the proposal without a detailed examination of the project may not serve the purpose. The Committee desired that the proposal shall be examined at a later stage and the PP shall circulate the EIA / EMP and other requisite documents as per the Agenda.

2. The project was placed before the EAC based on the documents uploaded on Parivesh Portal and noted during the meeting that the PP has not uploaded / circulated complete documents as desired by EAC in its earlier meeting, same also accepted by PP and also stated that the one season study for Rapid EIA is still on-going / not completed.

***The proposal is accordingly deferred.***

### **Item No. 3.4**

#### **Proposal for Flood mitigation measures to extended areas of Greater Chennai Corporation by Construction of Integrated Storm Water Drains (ISWD) in Kosasthalaiyar Basin by Superintending Engineer, Greater Chennai Corporation Chennai-CRZ Clearance [IA/TN/CRZ/267713/2022] [F.No.11/20/2022-IA.III]**

***“The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/information submitted is found to be false / misleading at any stage, the project will be rejected and Environmental and or CRZ Clearance given, if any, will be revoked at the risk and cost of the project proponent.”***

The proposal was earlier considered by the EAC (CRZ) in its 299<sup>th</sup> meeting held on 14<sup>th</sup> June, 2022 and 309<sup>th</sup> meeting held on 10<sup>th</sup> October 2022 and Committee suggested that the project proponent has not made available DPR and detail about proposed storm water

drainage plan in relation to intensity and duration of precipitation, topography, likely areas of flooding, management of extreme flooding, sub-canal distribution, pumping requirement during varying tidal conditions in estuaries / canals, assurance that the proposed storm water drain will not be used for carrying sewage or industrial effluent in future, details regarding type of lining (e.g., cement, earthen etc.) proposed to be used in the proposed drainage system, as it has implication on the discharge (Q) as per Manning's Equation for estimating Q in open Channel flows and maintenance of the minimum flow during critical i.e. summer seasons etc., undertaking that the no NGT case is pending or given direction for this project, obtain expert opinion of IIT Madras or an national institute for estimation of design return period in terms of methodology (Gumbel or any other distribution), rainfall intensity and duration in view of extreme events due to climate change, drainage system and pumping stations to be designed, considering outflow flood water into the estuaries for varied tidal conditions to avoid flood of areas. The project proponent has now uploaded all documents / additional information on Parivesh Portal as desired by EAC and placed before the Committee. The project proponent and their consultant submitted reply on additional information desired by EAC earlier meetings and made a detailed presentation of salient features of the project and informed that:

- i) The proposed proposal for Construction of Integrated Storm Water Drain (ISWD) in “Kosasthalayar Basin” within Extended Greater Chennai Corporation (GCC) Areas and located in Kathivakkam, Ernavoor, Sadayankuppam, Thiruvottiyur, Sathangadu, and Manali Villages within Thiruvottiyur Taluk, Chennai District, Tamil Nadu.
- ii) The total length of storm water drainage network is 763.13 Km. and out of total 61.08 Km. in CRZ area and 702.05 Km. in Non CRZ area.
- iii) Total pumping stations are 2 nos. and in CRZ area with 489.5 m<sup>2</sup> each. The Power require for operation will be sourced through TNEB. Power backup DG sets with capacity of 1 no. of 750 kVA and 1no. of 500KVA will be installed.
- iv) The CRZ classification of project area in CRZ II, CRZ IB, CRZ IVA and CRZ IVB.

SI No.	Project Component	CRZ- Classification	Length / Area
1.	Storm Water Drains	CRZ – I B	0.357 Km.
		CRZ – II	59.059 Km.
		CRZ – IVA	0.451 Km.
		CRZ – IVB	1.210 Km.
2.	Pumping Station – I (S.F.No 618/G3, Thiruvottiyur Village, Thiruvottiyur Taluk, Chennai District)	CRZ – II	489.5 Sq.m.
3.	Pumping Station – II (S.F.No 121 &122, Ernavoor Village, Thiruvottiyur Taluk, Chennai District)	CRZ – II	489.5 Sq.m.

- v) The Storm Water Outfall Points are 118 Nos, out of which 32 Nos in CRZ area. The CRZ classification of outfall are as:

Sl. No.	Project Details in CRZ	Location	CRZ-Classification	Numbers
1.	Number of Outfall in CRZ Zone	Buckingham Canal & Sea	CRZ – II	6 Nos
2.		Buckingham Canal, Kosasthalyar & Sea	CRZ – IB	3 Nos
3.		Sea	CRZ – IVA	9 Nos
4.		Buckingham Canal	CRZ – IVB	14 Nos
			<b>Grand Total</b>	<b>32 Nos</b>

- vi) The estimated cost of the project is ₹2518 crores (₹226.62 Crores in CRZ and ₹2291.38 crores in non-CRZ area).
- vii) The Tamil Nadu State Coastal Zone Management Authority (TNSCZMA) has recommended the proposal for CRZ clearance *vide* letter No. 693/EC.3/2022-1, dated 14/02/2022.

## 2. Deliberations in the EAC:

The EAC deliberated on the proposal. The Committee noted that the TNCZMA recommended the project and intimated that the activity is a permissible activity *vide* Para 3 (v) (b) and 8 (i) I CRZ-I (i)(b), however, project requires CRZ clearance as per Para 4 (ii) (d) of the CRZ Notification 2011. The Committee has been accepted the report of IIT, Madras and suggested that all recommendation should be implement by the PP. The Committee found the additional information submitted by the project proponent to be satisfactory.

The Committee after detailed deliberations and considering the submissions made by the project proponent recommended the proposal for CRZ Clearance, subject to the following conditions:

- (i). All construction shall be strictly in accordance with the provisions of the CRZ Notification, 2011, as amended from time to time.
- (ii). All exit points into the rivers and creeks should be monitored for its performance after completion of the project and report should submit IRO.
- (iii). The recommendations of IIT, Madras in its report should be complied and submit the compliance report to IRO.
- (iv). Permanent labour camp, machinery and material storage shall not be set up in the CRZ area.
- (v). No groundwater shall be extracted within CRZ area to meet water requirements during the construction and / or operational phase of the project.
- (vi). All the conditions stipulated by the Tamil Nadu Coastal Zone Management Authority has recommended the proposal for CRZ clearance *vide* its Letter No. 693/EC.3/2022-1, dated 14/02/2022 and commitments made by the PP before the CZMA and EAC shall be followed in letter and spirit.
- (vii). All necessary clearance from the concerned authority, as may be applicable should be obtained prior to commencement of project or activity.

**Item No. 3.5**

**Proposal for setting up of 5 MLD desalination plant at Ganjam by Grasim Industries Pvt. Ltd- CRZ Clearance [IA/OR/CRZ/418559/2023] [F.NO.11/12/2023-IA.III]**

***“The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of the data/information submitted is found to be false / misleading at any stage, the project will be rejected and Environmental and or CRZ Clearance given, if any, will be revoked at the risk and cost of the project proponent.***

The project proponent submitted documents and their consultant made a detailed presentation of salient features of the project and informed that:

- (i) The proposal is for CRZ clearance to the project for setting up of 5 MLD desalination plant at Ganjam by Grasim Industries Pvt. Ltd.
- (ii) The distance of Intake Channel: LFP 1 to river = 10m and Outfall Pipeline: LFP 1 to LFP 2 = 2422m (Across river), LFP 2 to diffuser = 800 m.
- (iii) The proposed Marine facilities is as:

Parameter	UTM Coordinate (Zone 45)		Geographical Coordinates (WGS – 84)	
	X (m)	Y (m)	Latitude, N	Longitude, E
LFP 1 – River side (for intake and outfall)	294996	2143819	19°22'40.98"	85°02'53.02"
Intake Channel Distance from LFP 1 into River = 10 m Depth = 0.2 m CD	294991	2143811	19°22'40.72"	85°02'52.84"
LFP 2 – Open sea (for outfall) Distance of outfall pipeline across the river, i.e., LFP 1 to LFP 2 = 2422 m	296697	2142487	19°21'58.30"	85°03'51.80"
Brine Reject Outfall Distance from LFP 2 to diffuser = 800 m Depth = 8.9 m CD	297096	2141794	19°21'35.90"	85°04'05.70"

- (iv) The status of various project activities are as:

S. No.	Project Details	CRZ-Classification	Length in meters	Total in Meters
1	Proposed Desalination Outfall Pipeline	CRZ-IB	405.72	3222.48
		No Development Zone (CRZ-III)	172.74	
		CRZ - IVA	704.84	
		CRZ – IVB	1939.18	
2	Proposed Infiltration Gallery Pipeline	No Development Zone (CRZ-III)	215.62	400.61
		CRZ – IVB	184.99	

- (v) The sea water intake: 12.5 MLD and after desalination process, 5 MLD is product water and 7.5 MLD is brine reject.
- (vi) The total cost of the project ₹30.0 Crore.
- (vii) The Odisha Coastal Zone Management Authority has recommended the proposal for CRZ clearance *vide* its Letter No. OCZMA/33/2022/5/OCZMA, dated 19/01/2023 and activities are permissible / regulated under Para 5.1.2 (ii), 5.1.2 (xiv), 5.1.2 (xv), 5.1.2 (xviii), 5.3 (i), 5.4 (iii), 5.4 (xiii) of CRZ Notification 2019.

## **2. Deliberations in the EAC:**

The Committee deliberated on the proposal. The Committee noted that the area is major nesting ground for Olive Ridley Sea Turtles. The intake and outfall locations are only in Rushikulya River. PP has not submitted PFR. The details about pipeline through HDD method are not available as well as desalination technology and recovery and brine quality etc are missing. The Committee suggested to submit all the aforesaid documents / clarification. Comprehensive marine biodiversity conservation plan with special focus on sea turtles needs to be prepared. This should include the details on the sea turtle congregation along the offshore areas of Rushikulya river mouth extending about 2 km in the sea and 2 km on either side of river mouth along the shore on both north and south of the river mouth needs to be examined. The details should include the impact of discharge of brine on sea turtles as well as impact of HDD on sea turtle nesting areas. An alternate alignment avoiding all sea turtle nesting areas should also be explored. The detailed study indicating the layout of intake, outfall with diffuser and depth of burial, discharge quantity/quality with environmentally friendly technology should be submitted along with above observations.

***The proposal was accordingly deferred.***

### **Item No. 3.6**

**Proposal for laying of pipeline for discharge of treated effluent from the Surimi (fish paste), fish meal processing unit at Village Tundara, Inchudi, District Balasore to Sea” by Gadre Marine Export Pvt Ltd - CRZ Clearance [IA/OR/CRZ/419375/2023] [F.NO.11/13/2023-IA.III]**

***“The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/information submitted is found to be false / misleading at any stage, the project will be rejected and Environmental and or CRZ Clearance given, if any, will be revoked at the risk and cost of the project proponent.”***

The project proponent submitted documents and their consultant made a detailed presentation of salient features of the project and informed that:

- (i) The proposal is for CRZ clearance to the project for “laying of pipeline for discharge of treated effluent from the Surimi (fish paste), fish meal processing unit at Village Tundara, Inchudi, District Balasore to Sea” by Gadre Marine Export Pvt Ltd.

- (ii) The project influence in CRZ area are as:

Description	Length (m)				
	CRZ IB	NDZ	CRZ IV B	Non CRZ	Total Length(m)
Plant to LFP	210	4917	2770	169	8066
LFP to Outfall	467	120	13	-	600

- (iii) The distance Outfall Pipeline: Plant to LFP=8066 m (along banks of Ghandia Nallah creek) and the Geographical Coordinates of proposed facilities is as:

Location	Geographical Coordinates (WGS 84)		UTM Coordinates (Zone 45 N)	
	Latitude, N	Longitude, E	X (m)	Y (m)
Starting Point (Plant)	21°21'53.1"N	86°52'47.9"E	487557	2362521
LFP	21°20'16.4"N	86°54'42.5"E	490856	2359545
Outfall	21°20'2.0"N	86°54'56.2"E	491249	2359103

- (iv) The length of outfall from LFP: 600 m, No. of Ports: 2, Diameter of Ports: each 120 mm and initial dilution: 200 times in 1 minute.
- (v) The treated processed water to be disposed through marine outfall system will be treated in order to meet the marine outfall standards as prescribed by CPCB / OPCB norms.
- (vi) The CTE has been obtained from OSPCB *vide* letter No.1066 / CTE-3195 / 2022, dated 25/05/2022 and valid for five years.
- (vii) The total cost of the project ₹4.5 Crore.
- (viii) The Odisha Coastal Zone Management Authority has recommended the proposal for CRZ clearance *vide* its Letter No. OCZMA/38/2022/31, dated 19/01/2023.

## 2. Deliberations in the EAC:

The Committee made detailed deliberation on the proposal. The Committee noted that the OCZMA has recommended and activity is a permissible as per CRZ Notification 2019. The Committee suggested that the PP shall ensure that the treated effluent discharge into sea / marine outfalls as per the prescribed standards of by CPCB / SPCB.

The Committee after detailed deliberations and considering the submissions made by the project proponent recommended the proposal for CRZ Clearance, subject to the following conditions:

- (i) All construction shall be strictly in accordance with the provisions of the CRZ Notification, 2019, as amended from time to time.
- (ii) M/s Gadre Marine Export Pvt. Ltd. should strictly ensure disposal of treated effluent discharge into Sea or marine outfalls to the prescribed standards of CPCB / SPCB.
- (iii) Special attention should be given to remove odour from the discharge effluent.
- (iv) No storage reservoir for sea water shall be permitted and only pipelines conveyance system shall be installed.

- (v) Any temporary physical infrastructure setup and excavated material during laying of Pipelines shall not be dumped in water bodies or adjacent areas and the site shall be restored to its original condition after completion of construction of work.
- (vi) No groundwater shall be extracted within the CRZ area to meet the water requirements during the construction and/or operation phase of the project.
- (vii) Permanent labour camp, machinery and material storage shall not be set up in the CRZ area.
- (viii) All the conditions stipulated by the Odisha Coastal Zone Management Authority for CRZ clearance 2019 *vide* its Letter No.OCZMA/38/2022 31 dated 19/01/2023 and commitments made by the PP before the MCZMA and EAC shall be followed in letter and spirit.
- (ix) All necessary clearance from the concerned authority, as may be applicable should be obtained prior to commencement of project or activity.

**Item No. 3.7**

**Proposal for Beach Resort and Convention Centre at S.No.14/3c2a and 14/3c2b of Deveneri Hamlet, Mamallapuram, Village, Thirukazhukundram Taluk, Chengalpattu District by M/s VGS Estates Pvt. Ltd, Nandanam, Chennai - CRZ Clearance [IA/TN/CRZ/409050/2023] [F.NO.11/14/2023-IA.III]**

***“The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/information submitted is found to be false / misleading at any stage, the project will be rejected and Environmental and or CRZ Clearance given, if any, will be revoked at the risk and cost of the project proponent.”***

The project proponent submitted documents and their consultant made a detailed presentation of salient features of the project, and informed that:

- (i). The proposal is for CRZ clearance to the project for Beach Resort and Convention Centre at S.No.14/3c2a and 14/3c2b of Deveneri Hamlet, Mamallapuram, Village, Thirukazhukundram Taluk, Chengalpattu District by M/s VGS Estates Pvt. Ltd.
- (ii). Total land area for the project is 7.85 Acres (31772.8Sq.m), total built up area proposed is 9155 Sq.m., FSI: 0.2771 (27%) and coverage is about: 5595 Sq.m (17%).
- (iii). Project proposal is for Beach Resort, Convention centre with allied facilities like Specialty Restaurant, King Villa, Spa and Gym, Hotel, Restaurant, Swimming pool and Services and built up details are as under:

<b>S. No</b>	<b>Description</b>	<b>No. of floors</b>	<b>Plot coverage (Sq. m.)</b>	<b>No. of units</b>	<b>FSI Area (Sq. m)</b>	<b>Total Built up area (Sq. m)</b>
1	Entrance Arch	Ground only	250	1	250	250
2	Grand Porch	Ground only	360	1	360	360
3	Welcome Center & Reception	Ground +2 Floors	450	1	1350	1350

4	Convention Centre	Ground only	2400	1	2400	2400
5	Entrance Porch for Convention	Ground Floor	100	1	100	100
6	Specialty Restaurant	Ground Floor	100	1	100	100
7	King Villa	Ground +1 floor	100	1	200	200
8	Cottage	Ground	120	12	2400	2400
9	Spa & Gym	Ground	400	1	400	400
10	Hotel Block	Ground+2	140	3	420	420
11	Restaurant	Ground	600	1	600	600
12	Bar	Ground	100	1	100	100
13	Swimming Pool	Ground	350	1	350	350
14	Services Block	Ground	125	1	125	125
<b>Total Built up area</b>					<b>9155</b>	<b>9155</b>
<b>FSI Coverage</b>					<b>8805 Sq.m (27%)</b>	
<b>Non-FSI Coverage (Swimming Pool – 350 Sq. m)</b>					<b>350 Sq.m</b>	
<b>Plot Coverage</b>					<b>5595 Sq.m (17%)</b>	

- (iv). The proposed facility is located under CRZ-II and the coordinates of the project site is Latitude 12°38'51.75" N and Longitude: 80°12'16.06"E.
- (v). The water requirement during Construction phase: 65 KLD and Operational phase:162.62 KLD (Fresh water – 81.12 and Recycled water - 81.5). The fresh water requirement will be met from Authorized Tankers.
- (vi). The Power requirement is estimated about 2700 kVA and Power Backup is proposed about 2x 1500 kVA through DG sets. The sourced of power from the State Grid.
- (vii). The Municipal Solid Waste:
- During construction phase around 45 Kg/day of Municipal Solid Waste will be generated and will be collected and disposed in local municipal bins.
  - During Operation phase around 1104.75 Kg/day of Municipal Solid Waste will be generated and will be collected and disposed in local municipal bins and
  - Inorganic waste will be sold to TNPCB authorised recycler.
- (viii). The proposed STP for the project is about 110 KLD with UF and UV for treatment and recycling of treated sewage.
- (ix). Total 58.66% of the land area is proposed for greeneries such as trees, plants and lawn i.e. around 5580 Number of trees (2500 trees / Ha considering 80% survival rate).
- (x). The manpower requirement during construction phase - 100 and during operation phase - 300.
- (xi). The estimated cost of project is approx. ₹70 Crores and EMP capital cost proposed about ₹140.0 lakhs.
- (xii). The Tamil Nadu Coastal Zone Management Authority has recommended the proposal for CRZ clearance *vide* its Letter No. 12457/EC.3/2022-1 dated 25/07/2022.

## 2. Deliberations in the EAC:

The Committee noted that the proposed project is a permissible / regulated activity as per para 4 (i) (d), 8 II (i), and 8 II (ii) of CRZ notification 2011 and also noted that the landward side of

the existing and proposed roads or existing authorized structures subjected to the existing local town and country planning regulations including the 'existing' norms of Floor Space Index or Floor Area Ratio.

The Committee also noted that the total 58.66% of the land area is proposed for greeneries such as trees, plants and lawn i.e. around 5580 number of trees (2500 trees / Ha considering 80% survival rate). The Committee, further, also noted that the Beach Resort located in CRZ-II area, however as committed by PP construction activities will be carried out 200 meter away from HTL and Committee suggested submit an undertaking for the same immediately. The PP has been submitted undertaking *vide* e-mail / letter No. Nil, dated 23/03/2023, same also circulated to all EAC members including MoEFCC and also accepted by EAC while approving the minutes.

The Committee after detailed deliberations and considering the submissions made by the project proponent recommended the proposal for CRZ Clearance, subject to the following conditions:

- (i). The proposed construction should be as per extant norms given at Annexure-III of the CRZ Notification, 2011 and as amended from time to time.
- (ii). No groundwater shall be extracted within CRZ area to meet the water requirements during the construction and / or operation phase of the project.
- (iii). No excavated material during the construction shall be dumped in water bodies or adjacent areas. The site shall be restored to its near original condition after completion of construction of work.
- (iv). Any temporary physical infrastructure setup during construction period shall be removed simultaneously with completion of laying of each segment of the project.
- (v). No permanent labour camp, machinery and material storage shall be allowed in CRZ area.
- (vi). The recommendations made by the Tamil Nadu Coastal Zone Management Authority *vide* its letter No. 12457/EC.3/2022-1, dated 25/07/2022 and commitments made before the EAC shall be implemented in letter and spirit.
- (vii). All necessary clearance from the concerned authority, as may be applicable should be obtained prior to commencement of project or activity.

### **Item No. 3.8**

**Proposal for laying of RO Reject Disposal pipeline from proposed 60 MLD common effluent treatment plant (CETM), Dholera Special investment region (SIR) in to Sukhbadar Creek, Gulf of Khambhat, Gujarat by M/s Delhi Mumbai Industrial Corridor Development Corporation Limited (DMICDE) -CRZ Clearance  
[[IA/GJ/CRZ/414087/2023] [F.NO.11/15/2023-IA.III]**

***“The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/information submitted is found to be false / misleading at any stage,***

***the project will be rejected and Environmental and or CRZ Clearance given, if any, will be revoked at the risk and cost of the project proponent."***

The project proponent submitted documents and their consultant made a detailed presentation of salient features of the project, and informed that:

- (i) The proposal is for CRZ clearance to the project for "laying of RO Reject Disposal pipeline from proposed 60 MLD common effluent treatment plant (CETM), Dholera Special investment region (SIR) in to Sukhbadar Creek, Gulf of Khambhat, Gujarat by M/s Delhi Mumbai Industrial Corridor Development Corporation Limited (DMICDE).
- (ii) The development of DSIR encompasses an integrated industrial effluent management system, one of the components of which is a Central effluent Treatment Plant (CETP) of capacity 60 MLD including Reverse Osmosis (RO).
- (iii) The proposed project involves a 13.5 km long outfall pipeline connecting 60 MLD CETP to Sukhbhadar Creek at Gulf of Khambhat in order to discharge 12 MLD of RO Reject from the CETP.
- (iv) The Site location of the project as:

Description	Name	Latitude	Longitude
Proposed CETP	A.	22°12'48.030"N	72°12'38.080"E
	B.	22°12'50.300"N	72°12'44.007"E
	C.	22°12'48.710"N	72°12'48.096"E
	D.	22°12'41.250"N	72°12'51.320"E
	E.	22°12'37.930"N	72°12'42.430"E
Proposed RO reject pipeline	F.	22°12'44.410"N	72°12'42.776"E
	G.	22°9'12.960"N	72°12'19.421"E

- (v) The total length of pipeline is 13527.7 meter and CRZ demarcation along the pipeline alignment is as:

Description	CRZ - Classification	Length (m)
Proposed RO Reject Pipeline	CRZ - IA	1128.65
	CRZ - IA (50 m Mangrove Buffer Zone)	112.38
	CRZ - IB	2642.14
	CRZ - III (NDZ)	4830.67
	CRZ - IVB	267.75
	Outside CRZ	4546.12
Proposed CETP	Outside CRZ	88296.4 <b>(Area Sq.m)</b>

- (vi) The pipeline is proposed to be of 400 mm diameter and buried 2 m below the ground, to be laid in a 1 m wide trench using the cut-and-cover method and would have an online water quality monitoring equipment which would continuously monitor the water quality of the RO Reject.
- (vii) The portion 112.38m of the proposed RO Reject pipeline is passing through mangrove buffer areas.
- (viii) About 4.5 km of the pipeline towards the CETP side is located outside CRZ.
- (ix) The outfall would be located underwater and equipped with diffusers to ensure instant dilution and dispersion of the discharged material into the surrounding seawater.
- (x) Based on the modelling output, it is deduced that the order of dilution shows 150 times in 25 m distance and 1500 times in 100 m distance from discharge point.
- (xi) The total 100 permanent employment likely to be generated by the project.
- (xii) The total cost of the project ₹9.0 Crore and ₹6.0 Lakh estimated for environmental monitoring during the operation phase of the project
- (xiii) The Gujarat Pollution Control Board has issued provisional Consent Order (CTE) *vide* Consent No. CTE-95494 and valid upto 05/07/2025.
- (xiv) The Gujarat Coastal Zone Management Authority has recommended the proposal for CRZ clearance *vide* its Letter No. ENV-10-2017-70-T, dated 27/09/2022.

## 2. Deliberations in the EAC:

The Committee made detailed deliberation on the proposal. The Committee noted that the proposed laying of disposal pipeline from CETP project is upstream of Kalpsar Water Supply Project, which is under consideration of same Committee as submitted by Government of Gujarat. It is also noted that the NOC dated 20<sup>th</sup> April 2018 from Narmada, Water Resource, Water Supply & Kalpsar Department, permitting for disposal RO reject from proposed CETP, it needs status of NOC including further plan.

The Committee after detailed deliberations expressed concern about projects requesting permissions for discharge upstream of proposed Kalpasar project. This will be counterproductive to the proposed Kalpasar project which is planned as a drinking water reservoir as effluent discharge will continue to pollute the area. Thus, Committee is of the opinion, that feasibility of a suitable location at downstream of proposed Kalpasar project be explored and if required as a common effluent discharge mechanism for other industries as well. The viability of the same along with time required for the same can be also provided. Detail characteristics of the effluent are also to be provided.

***The proposal was accordingly deferred.***

### **Item No. 3.9**

**Proposal for laying of new 16 inch multi product (HSD/MS/SKO/ATF) pipeline from new dispatch Terminal of BPCL at Krishnapatnam Coastal Installation, Nellore District, Andhra Pradesh to New receipt Terminal of BPCL at Malkapur Village Choutupal Tehsil, Yadadri by M/s Bharat Petroleum Corporation Limited, Hyderabad - CRZ Clearance (IA/AP/CRZ/421522/2023) (F.No.11/16/2023-IA.III)**

***“The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/information submitted is found to be false / misleading at any stage, the project will be rejected and Environmental and or CRZ Clearance given, if any, will be revoked at the risk and cost of the project proponent.”***

The project proponent submitted documents and their consultant made a detailed presentation of salient features of the project, and informed that:

- (i) The proposal is for CRZ clearance to the project for “laying of new 16 inch multi product (HSD/MS/SKO/ATF) pipeline from new dispatch Terminal of BPCL at Krishnapatnam Coastal Installation, Nellore District, Andhra Pradesh to New receipt Terminal of BPCL at Malkapur Village Choutupal Tehsil, Yadadri by M/s Bharat Petroleum Corporation Limited.
- (ii) The proposed pipeline will originate from BPCL's upcoming coastal installation at Krishnapatnam port, District Nellore, Andhra Pradesh (AP) with Tap Off Point at BPCL's existing depot at Ongole and will terminate at the proposed Installation at Malkapur near Hyderabad in Telangana State. The envisaged thruput of the pipeline is 2.6 MMTPA.
- (iii) The proposed project attracts CRZ Notification 2011 as segment of the pipelines corridor falls under (CRZ-1B: 68.91m), (CRZ-III-NDZ: 489.00m) and (CRZ-IVB: 316.5m).
- (iv) The location coordinates of project: Krishnapatnam : 19°01'35.28"N & 72°53'47.82"E and Malkapur (Hyderabad): 18°54'06.32"N & 73°09'09.21"E.
- (v) The pipelines length and width for selected corridor is 423.02 KM ( AP - 308.69 KM & Telangana – 114.33 KM) and width 18 meter in general corridor and 1.2 meters below ground level.
- (vi) The Project details are: design capacity: Phase-I : 2.6 MMTPA and Phase-II : 4.4 MMTPA, Type of product to be transported: MS/SKO/HSD/ATF, Design Pressure: 99.99 Kg/Cm<sup>2</sup>, Pipeline Specification: API 5L X 65 Grade, Pipeline size: 16 inch Dia, Pipeline thickness: 7 / 7.92 / 11.91 mm, SV Stations: 14 Nos, Intermediate Piggig (IP) Station: 3 Nos, Despatch Terminal: Krishnapatnam near Nellore, Tap Off Point: Ongole TOP, Receipt Terminal: Malkapur near Hyderabad and Pipeline laid 1.2 m to 2.5 m below ground level.
- (vii) Total employment likely to be generated by the project is about 7300 (contractual and permanent).
- (viii) The total cost of the project ₹1500 Crore.
- (ix) The Andhra Pradesh Coastal Zone Management Authority has recommended the proposal for CRZ clearance *vide* its Letter No. 350/CRZ/IND/2021-804, dated 23/12/2022.

## **2. Deliberations in the EAC:**

The Committee made detailed deliberation on the proposal. The Committee noted that the PESO granted permission in February, 2020 for commissioning the piggable pipeline in class C service, however the prior approval from PESO should be obtained before commencement of the extended pipeline project. The Committee also noted that the Andhra Pradesh CZMA has recommended the project and intimated that the activity is a permissible.

The Committee after detailed deliberations and based on the clarifications / information submitted by PP recommended the proposal for CRZ Clearance, subject to the following conditions:

- (i). All construction shall be strictly in accordance with the provisions of the CRZ Notification, 2011, as amended from time to time.
- (ii). The pipeline where crossing of water body / river / creek areas should be laid through Horizontal Directional Drilling (HDD) method.
- (iii). The prior approval from PESO should be obtained before commencement of the extended pipeline project.
- (iv). Any temporary physical infrastructure setup and excavated material during laying of pipelines shall not be dumped in water bodies or adjacent areas and the site shall be restored to its original condition after completion of construction of work.
- (v). No storage reservoir for sea water shall be permitted and only pipelines conveyance system shall be installed.
- (vi). No groundwater shall be extracted within the CRZ area to meet the water requirements during the construction and/or operation phase of the project.
- (vii). Permanent labour camp, machinery and material storage shall not be set up in the CRZ area.
- (viii). All the conditions stipulated by the Andhra Pradesh Coastal Zone Management Authority for CRZ clearance 2011 *vide* its Letter No. 350/CRZ/IND/2021-804, dated 23/12/2022 and commitments made by the PP before the APCZMA and EAC shall be followed in letter and spirit.
- (ix). All necessary clearance from the concerned authority, as may be applicable should be obtained prior to commencement of project or activity.

### **Item No. 3.10**

#### **Proposal for additional construction to the existing Hotel (Resorts) building for M/s Mahindra Holidays & Resorts India Limited at Manapet Revenue Village, Bahour Commune Panchayat, Puducherry - CRZ Clearance [IA/AP/CRZ/421413/2023] [F.NO.11/17/2023-IA.III]**

M/s Mahindra Holidays & Resorts India Limited has submitted proposal for additional construction to the existing Hotel (Resorts) building on Parivesh Portal at Manapet Revenue Village, Bahour Commune Panchayat, Puducherry.

2. The Committee noted that the case of post-facto clearance and has submitted it for additional construction to the existing Hotel (Resorts) building as per Coastal Regulation Zone (CRZ) Notification, 2011 for CRZ Clearance from the Ministry.

3. The Committee was informed that the case of post-facto clearance issues may be decided in accordance with the MoEFCC O.M. dated 19/02/2021 which states that "Procedure for dealing with violations arising due to not obtaining a prior CRZ clearance for permissible activities". The said OM is under sub-judice and has been stayed by Hon'ble High Court of Bombay and Hon'ble High Court of Chennai in 2021 by which Ministry is

restrained from granting a permission / clearance on the basis of the office memorandum under challenge till further orders.

4. The proposal thus was return considering it as a post facto clearance case and related OM dated 19/02/2021 is sub-judice.

**Item No. 3.11**

**Proposal for Extension of validity in CRZ Clearance of Mumbai Trans Harbour Link (MTHL) project by MMRDA  
[IA/MH/CRZ/411891/2022] [F.NO.11-65/2012-IA.III]**

The proposal Mumbai Trans Harbour Link (MTHL) submitted for Extension of validity in CRZ Clearance by MMRDA on Parivesh Portal.

2. The project proponent and their consultant attended the VC meeting and after introduction, immediately disconnect due to network issue on the part of PP and Consultant and not able to attend VC meeting again. After 15 minutes waiting the EAC decided that the project may be considered in next meeting and advised the PP to keep ready without any network issue in future. The proposal is accordingly deferred for consideration in the next meeting. The Committee also decided to make a site visit to understand the current status of the project.

**4.0. Any other item with the permission of the Chair.**

The meeting ended with a Vote of Thanks to the Chair.

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**Annexure**

**List of the Expert Appraisal Committee (CRZ) Members participated during Video Conferencing (VC) Meeting held on 23<sup>rd</sup> March 2023.**

<b>S. No.</b>	<b>Name of Members</b>	<b>Designation</b>
1.	Dr. Deepak Arun Apte	Chairman
2.	Dr. M.V. Ramana Murthy	Member
3.	Dr. Manoranjan Hota	Member
4.	Shri M.S. Negi	Member
5.	Prof. V. K. Jain	Member
6.	Prof. A.K. Pachauri	Member
7.	Shri Sham Wagh	Member
8.	Dr. Niraj Sharma	Member
9.	Shri P.K. Mishra	Member
10.	Shri R.S.P. Verma	Member
11.	Dr. H. Kharkwal	Member Secretary
12.	Dr. E.P. Nobi	MoEFCC

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