

To,

**The Inspector General of Forest / Scientist C,**  
Integrated Regional Office (IRO),  
Ministry of Environment, Forest and Climate Change,  
Karmayogi Bhawan,  
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**Sub** : Half yearly Compliance report for Expansion of Waterfront Development Plan of Mundra Port in an area of 3335 ha for handling of additional 289 MMTPA of multi-purpose cargo in addition to the existing approved capacity of 225 MMTPA, located at Mundra, Kachchh, Gujarat.

**Ref** : Environment and CRZ clearance granted to M/s Adani Ports & SEZ Limited vide F. No 10-24/2019-1A-III dated 13/08/2024.

**Dear Sir,**

Please refer to the above cited reference for the said subject matter. In connection to the same, it is to state that copy of the compliance report for the Environmental and CRZ Clearance for the period of October 2024 to March 2025 is being duly uploaded on the Parivesh Portal.

Additionally, a soft copy of the same is being submitted through soft copy (e-mail communication).

Kindly consider the above submission and acknowledge.

Thank you,  
Yours Faithfully,  
For, **M/s Adani Ports and Special Economic Zone Limited**



**Bhagwat Swaroop Sharma**  
**Head – Environment**  
**Mundra & Tuna Port**

**Encl: As above**

**Copy to:**

- 1) The Director (IA Division), Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003.
- 2) The Zonal Officer, Regional Office, CPCB – Western Region, Parivesh Bhawan, Opp. VMC Ward Office No. 10, Subhanpura, Vadodara – 390023.
- 3) The Member Secretary, GPCB – Head Office, Paryavaran Bhavan, Sector 10 A, Gandhi Nagar – 382010.
- 4) The Director, Forests & Environment Department, Block – 14, 8th floor, Sachivalaya, Gandhi Nagar – 382010.
- 5) The Regional Officer, Regional Office GPCB (Kutch-East), Gandhidham – 370201.

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# Environmental Clearance Compliance Report



Expansion of Waterfront Development  
Plan,  
Mundra, Dist. Kutch, Gujarat

Adani Ports and SEZ Limited  
Mundra, Kutch

For the period of  
October-2024 to March-2025

**Status of the conditions stipulated in Environment and CRZ Clearance**

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	<b>Adani Ports and Special Economic Zone Limited, Mundra.</b>	<b>From :Oct'24 To : Mar'25</b>
<b>Status of the conditions stipulated in Environment and CRZ Clearance</b>		

**APSEZ has been granted EC & CRZ Clearance for Expansion of Waterfront Development Plan of Mundra Port in an area of 3335 ha for handling of additional 289 MMTPA of multi-purpose cargo in addition to the existing approved capacity of 225 MMTPA from MOEF&CC, located at Mundra, Kachchh District, Gujarat by Adani Ports & SEZ Ltd vide F. No 10-24/2019-1A-III dated 13/08/2024.**

**Note:** APSEZ has been accorded Consent to Establish (ToR to CtE) from GPCB vide dated 19<sup>th</sup> May, 2020 and the same become valid after getting EC & CRZ clearance from MoEF&CC vide its order dated 13<sup>th</sup> August, 2024. Therefore, compliance status of ongoing work undertaken after getting EC & CRZ clearance is being submitted in this half yearly compliance report.

Activities/facilities approved, major components completed and proposed future activities as per Environment and CRZ Clearance are as below:

Sl. No.	Description	Approved as per EC & CRZ Clearance	Already Developed till 31.03.2025	Balance to be developed	Remarks
1	Quay Length (m)	16760	8485	8275	Developed additional quay length in South port @ 615 meter (400 meter Jetty for Liquid / Gas / Cryogenic cargo handling + 215 meter Multi-purpose T2 Jetty extension) along with its related infrastructure facilities / back-up area has been developed for increase in Cargo Handling Capacity i.e. Liquid Cargo & Container Cargo by developing new berths along with its supporting infrastructure facilities/ utilities and regularizing General / Dry Cargo handling capacity in line with existing port capacity.
2	Dredging (MCuM)	120	1.55	118.45	Capital dredging activity for development additional quay length and basin area is in process.
3	Effluent Treatment Plant (KLD)	1065	265	800	ETP of 265 KLD already developed as part of earlier clearances granted till 2009. Based on the future requirement, ~800 KLD is proposed to be developed on Modular basis.
4	Sewage Treatment Plant (KLD)	50055	55	50000	STP of 55 KLD already developed as part of earlier clearances granted till 2009. Based on the future requirement, 50 MLD is proposed to be developed on Modular basis.
5	Desalination Plant (MLD)	447	80	367	Desalination plant of 47 MLD capacities already developed as part of earlier clearances granted in 2009. Additional development of 33 MLD capacity Desalination plant

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sl. No.	Description	Approved as per EC & CRZ Clearance	Already Developed till 31.03.2025	Balance to be developed	Remarks
					<p>has been developed.</p> <p>However, as a part of WFDP-Expansion project, development of an additional 400 MLD capacity Desalination plant is approved. Out of this APSEZ has developed Desalination plant of 33 MLD capacities</p> <p>At present total 80 MLD (47 MLD – Existing + 33 MLD – New) desalination plant developed under WFDP west port (GPCB ID – 35427) with utilization of existing intake and outfall channel (up to 300 MLD capacities) and CC&amp;A Amendment for the same granted by GPCB board</p> <p>Additional development of 80 MLD desalination plant is under progress through Mundra Petrochemical Ltd. (Subsidiary company of Adani Group). Separate Consent to Establish from GPCB has been obtained by them vide Order no. CTE-77914 dated 09.12.2024.</p> <p>Balance 287 MLD capacity desalination plant will be developed on a modular basis as per business requirement.</p>
6	Sea Island Jetty	1	Nil	1	Not developed so far
7	Single Point Mooring (SPM)/ Single buoy Mooring (SBM)	3	2	1	02 SPMs / SBMs already developed as part of earlier clearances granted till 2009.

- ✓ The proposed expansion of west port and south port along with supporting utilities/infrastructure facilities will be undertaken over an area of 3335 ha. For handling of additional 289 MMTPA of multi-purpose/Liquid/gas/cryogenic cargo will be handled in addition to the existing approved capacity of 225 MMTPA.
- ✓ The entire existing and proposed quay length will be used for handling Multipurpose/Liquid /Gas/Cryogenic cargo.

	<b>Adani Ports and Special Economic Zone Limited, Mundra.</b>	<b>From :Oct'24 To : Mar'25</b>
<b>Status of the conditions stipulated in Environment and CRZ Clearance</b>		

**Note:**

EC & CRZ Clearance has been granted for Expansion of WFDP @ Mundra port. Compliance of relevant conditions has been given as per current practices those are being followed as per existing operational activities in line with permission granted earlier from competent authorities. The same practice will also be continued during proposed expansion activities also.

**Status of the conditions stipulated in Environment and CRZ Clearance**

**Cargo Mix and its handling capacity for Proposed Expansion of Waterfront Development Plan is approved as below.**

S. No	Cargo type	Cargo Mix	Cargo Handling Capacity (MMTPA)
1	Dry Bulk & Break Bulk Cargo	Multipurpose Cargoes including Coal / Iron ore / limestone / Mines & Minerals & other dry bulk/Fertilizers and raw materials for manufacture of fertilizer / food grains / sugar / clinker / cement / Project cargo / timber & wood / machines/ Iron steel products / Bulk/Break Bulk etc.	140
2	Containers	Container, Ro – Ro & Automobiles and any other non-hazardous cargo	250
3	Liquid Cargo	All Class A, B, C petroleum products, excluded petroleum products Including Petrochemical products, Hazardous, Toxic and Non-Hazardous chemicals/Liquids and other Liquid cargoes. Tentative list of hazardous liquid cargo but not limited to are as follows: Ethylene, Propylene (Propene), Butadiene, Pentane, Ethyl Mercaptan Motor Spirit, Propylene Oxide, Hexane, Naptha, Acetone, Methyl Chloride / Chloro Methane, Cyclohexane, Benzene, Ethyl Acetate, Acrylonitrile Acetonitrile, Methyl Methacrylate, Meth acrylonitrile, Methanol (Methyl Alcohol), Isopropyl Alcohol, Ethyl Alcohol (Ethanol), Ethylene di chloride, Methyl Isobutyl Ketone, Ethyl Benzene, N-Butyl Acetate, Isobutyl Alcohol (Iso Butanol), N-Butyl Alcohol (N-Butanol), Epichlorohydrine, Styrene, O-Xylene, Acetic Acid, Acetic Anhydride, Nonedible/ Mentha Oil Low Sulphur Heavy Stock/ Furnace oil, Aniline, Methyl Ethyl Ketone Peroxide, Ethyl Hexanol-2, Vinyl Chloride, Phenol, Naphthalene, Ethylene Glycol, Mono Ethylene Glycol, Toluene 2.4 -di isocyanate, Diphenyl Methane Di-Isocyanate, Edible oil/Palm Oil, Paraffin, Bitumen, Sulphur, Coal, CNG, NG, Ammonia (NH <sub>3</sub> ), Diammonium Phosphate, Muriate of Potash (MOP), Soda Ash (Sodium Carbonate), Urea, Limestone, Caustic Soda, Sulphuric acid, Phosphoric acid, Piperine/ Piperdine, Chloroform, Hydrochloric Acid (HCL), Ethylene diamine (EDA), CMDI etc. PoL such as Motor Spirit, Naptha, HSD, Crude Oil, Aviation Fuel, Kerosene, Low Sulphur Heavy stock/Furnace Oil, Carbon Black Feedstock, Paraffin, Bitumen, Lube Oil, Asphalt etc.	84
4	Gas /Cryogenics/ Liquid	LNG, Propane, Butane, n-Butane, Ethane, LPG, CNG, NG and All Class A, B, C petroleum products, excluded petroleum products Including Petrochemical products, Hazardous, Toxic and Non-Hazardous chemicals/Liquids and other Liquid cargoes.	40
<b>TOTAL</b>			<b>514</b>

 <p><b>adani</b> Ports and Logistics</p>	<p><b>Adani Ports and Special Economic Zone Limited, Mundra.</b></p>	<p><b>From :Oct'24 To : Mar'25</b></p>
<p><b>Status of the conditions stipulated in Environment and CRZ Clearance</b></p>		

**Compliance Report of  
Environmental and CRZ  
Clearance**



	<b>Adani Ports and Special Economic Zone Limited, Mundra.</b>	<b>From :Oct'24 To : Mar'25</b>
<b>Status of the conditions stipulated in Environment and CRZ Clearance</b>		

**Half yearly Compliance report for Expansion of Waterfront Development Plan of Mundra Port in an area of 3335 ha for handling of additional 289 MMTPA of multi-purpose cargo in addition to the existing approved capacity of 225 MMTPA, located at Mundra, Kachchh District, Gujarat by Adani Ports & SEZ Ltd."**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025
<b>1. Specific Conditions</b>		
1.1	Construction activity shall be carried out strictly according to the provisions of the CRZ Notification, 2011. No construction work/activity other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.	<p>Being Complied.</p> <p>Construction work for the project is partially completed &amp; construction activity is in progress for proposed development in accordance with existing rules &amp; regulations of CRZ Notification, 2011 and as amended from time to time.</p> <p>All the specific conditions provided for construction phase is being considered upon recommencement of construction activity.</p>
1.2	All the recommendations and conditions specified by the Gujarat Coastal Zone Management Authority vide letter no. ENV/10/2024/37/T dated 20th April, 2024 shall be implemented.	<p>Complied.</p> <p>Point wise compliance report of CRZ recommendations issued by GCZMA (Gujarat Coastal Zone Management Authority), Gandhinagar vide letter ENV/10/2024/37/T dated 20<sup>th</sup> April 2024 attached as <b>Annexure A</b>.</p>
1.3	All the storage proposed in the CRZ area shall be in line with the CRZ notification, 2011. No storage is allowed other than the products mentioned in the CRZ notification, 2011 in the CRZ area.	<p>Complied.</p> <p>Storage of all the cargo proposed in CRZ area will be carried out in line with CRZ Notification, 2011 and its amendments thereafter as well as permissions granted by regulatory authorities.</p>
1.4	Multipurpose Backup Area of 252.3 ha proposed in the CRZ-IA area only permissible activities shall be taken up. And in no case mangroves falling in proposed backup area shall be disturbed and 50-meter buffer should be kept around mangroves.	<p>Complied.</p> <p>Multipurpose Backup Area of 252.3 ha proposed in the CRZ-IA area is part of 1840 Ha reserved forest area, which had been diverted vide 30<sup>th</sup> September 2009 for development of port based SEZ. Copy of Forest clearance submitted during compliance period Apr'24 to Sep'24. There are no mangroves, or any other eco-sensitive area falls within this proposed Multipurpose Backup Area in line with CRZ notification, 2011 and its amendments thereafter.</p>

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025																																					
1.5	In no case mangrove area falling within proposed Multipurpose Backup Area shall be disturbed and a buffer of 50 meters shall be provided all around the mangroves area.	<p>Activities permitted as per CRZ Notification, 2011 and as amended from time to time would be carried out in the proposed Multipurpose backup area only.</p> <p>Other than this, APSEZ is carrying out mangrove monitoring at regular time intervals as part of mangrove conservation plan prepared by NCSCM and approved by GCZMA. The details of the same are described below.</p> <p><b>Summary of Conservation of mangroves:</b></p> <table border="1"> <thead> <tr> <th rowspan="2">Mangrove mapping Year</th> <th rowspan="2">Monitoring Agency</th> <th rowspan="2">Mangrove cover total Area (Ha.)</th> <th colspan="2">Mangrove cover area Increased</th> </tr> <tr> <th>Hac.</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>2011</td> <td rowspan="2">NCSCM</td> <td>2094</td> <td>-</td> <td>-</td> </tr> <tr> <td>2011 to 2016-17</td> <td>2340</td> <td>246</td> <td>11.75%</td> </tr> <tr> <td>2017 to 2019 till March</td> <td>NCSCM</td> <td>2596</td> <td>256</td> <td>10.94%</td> </tr> <tr> <td>2019 to 2021 till March</td> <td>GUIDE</td> <td>2723</td> <td>127</td> <td>4.89%</td> </tr> <tr> <td><b>Total</b></td> <td></td> <td><b>2723</b></td> <td><b>629</b></td> <td><b>--</b></td> </tr> </tbody> </table> <p>Hence, overall increase in mangrove cover area in creek system in and around APSEZ from 2011 (2094 Ha) to 2021 (2723 Ha) is <b>629 Ha (30%)</b>.</p> <p>As a part of GCZMA recommendations and NCSCM mangrove conservation action plan, APSEZ has undertaken the following activities.</p> <table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Recommendations</th> <th>Compliance</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Mangrove mapping and monitoring in and around APSEZ</td> <td> <ul style="list-style-type: none"> <li>APSEZ entrusted NCSCM, Chennai to carry out Monitoring of mangrove distribution in creeks in and around APSEZ and shoreline changes in Bocha island.</li> <li>As a part of this study, overall growth of mangroves in the creeks in and around APSEZ was assessed comparing Google earth images of 2017 &amp; 2019 and it is observed that there was increase in mangrove cover between March 2017 and September 2019 to the extent of 256 Ha, which is about 10.94%.</li> <li>This suggests that the mangroves and the tidal system in the creeks remain undisturbed over this period.</li> </ul> </td> </tr> </tbody> </table>	Mangrove mapping Year	Monitoring Agency	Mangrove cover total Area (Ha.)	Mangrove cover area Increased		Hac.	%	2011	NCSCM	2094	-	-	2011 to 2016-17	2340	246	11.75%	2017 to 2019 till March	NCSCM	2596	256	10.94%	2019 to 2021 till March	GUIDE	2723	127	4.89%	<b>Total</b>		<b>2723</b>	<b>629</b>	<b>--</b>	Sr. No.	Recommendations	Compliance	1.	Mangrove mapping and monitoring in and around APSEZ	<ul style="list-style-type: none"> <li>APSEZ entrusted NCSCM, Chennai to carry out Monitoring of mangrove distribution in creeks in and around APSEZ and shoreline changes in Bocha island.</li> <li>As a part of this study, overall growth of mangroves in the creeks in and around APSEZ was assessed comparing Google earth images of 2017 &amp; 2019 and it is observed that there was increase in mangrove cover between March 2017 and September 2019 to the extent of 256 Ha, which is about 10.94%.</li> <li>This suggests that the mangroves and the tidal system in the creeks remain undisturbed over this period.</li> </ul>
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**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025																											
			<p>Analysis of data between categories indicated that there was an increase in dense mangroves and also conversion of scattered to sparse which also shows that the growth of mangroves in a progressive direction.</p> <ul style="list-style-type: none"> <li>Hence, there is an overall growth of mangroves in creeks in and around APSEZ, Mundra is 502 Ha between 2011 and 2019.</li> <li>The cost of the said study was INR 23.56 Lacs incurred by APSEZ.</li> <li>According to GUIDE Mangrove monitoring study report November 2023 (the report was submitted during the last compliance report submission Apr'23 to Sep'23), the distribution of mangroves in Kotadi, Baradi mata, Navinal, Bocha and Khari creeks as well as in the Bocha island was studied using LISS IV satellite images for the duration of March 2019 to March 2021. The mangrove cover in the creeks in and around APSEZ showed a positive trend from March 2019 to March 2021, with an overall increase of 52.79 ha (1.9%) compared to the cover during the year 2019. The total mangrove cover during 2019 was 2670 ha which has increased to 2723 ha during the year 2021.</li> <li>Hence, overall increase in mangrove cover area in creek system in and around APSEZ from 2011 (2094 Ha) to 2021 (2723 Ha) is 629 Ha (30%).</li> <li>The cost of the said study was INR 23.60 Lacs incurred by APSEZ.</li> </ul> <p><b>Summary of Mangrove mapping and monitoring (from 2011 to 2021):</b></p> <table border="1" data-bbox="951 1570 1377 1902"> <thead> <tr> <th rowspan="2">Mangrove mapping Year</th> <th rowspan="2">Mangrove cover total Area (Ha.)</th> <th colspan="2">Mangrove cover area Increased</th> </tr> <tr> <th>Hac.</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>2011</td> <td>2094</td> <td>-</td> <td>-</td> </tr> <tr> <td>2011 to 2016-17</td> <td>2340</td> <td>246</td> <td>11.75%</td> </tr> <tr> <td>2017 to 2019 till March</td> <td>2596</td> <td>256</td> <td>10.94%</td> </tr> <tr> <td>2019 to 2021 till March</td> <td>2723</td> <td>127</td> <td>4.89</td> </tr> <tr> <td><b>Total</b></td> <td><b>2723</b></td> <td><b>629</b></td> <td><b>--</b></td> </tr> </tbody> </table>	Mangrove mapping Year	Mangrove cover total Area (Ha.)	Mangrove cover area Increased		Hac.	%	2011	2094	-	-	2011 to 2016-17	2340	246	11.75%	2017 to 2019 till March	2596	256	10.94%	2019 to 2021 till March	2723	127	4.89	<b>Total</b>	<b>2723</b>	<b>629</b>	<b>--</b>
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Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025	
		2.	<p>Tidal observation in creeks in and around APSEZ</p> <ul style="list-style-type: none"> <li>APSEZ carried out the tidal observations at locations similar to 2017 in Kotdi, Baradimata, Navinal, Bocha and Khari creeks under the guidance of NCSCM.</li> <li>The observed tidal ranges indicate that the creeks experience normal tidal ranges, adequate for the growth of mangroves.</li> <li>The cost of the said activity was INR 1.0 Lacs.</li> </ul>
		3.	<p>Removal of Algal and Prosopis growth from mangrove areas</p> <ul style="list-style-type: none"> <li>Algal and Prosopis growth monitoring was done in and around mangrove area and algal encrustation was found in some of the mangrove areas, which has been removed manually.</li> <li>The cost of the said activity was Rs. 150000 during FY 2024-25. The algal removal report is attached as <b>Annexure - 1</b>.</li> </ul>
		4.	<p>Awareness of mangroves importance in surrounding communities</p> <ul style="list-style-type: none"> <li>Adani Foundation – CSR Arm of Adani group has done awareness camps/activities created in the community regarding importance of mangroves. Adani Foundation provides Good Quality dry and green fodder to 24 Villages. Project is covering total 15005 Cattles and hence enhancing cattle productivity. Dry Fodder 15,74,250 Kg Green – 51,66,805 Kg.</li> <li>Awareness of mangroves importance in surrounding communities &amp; Fodder support - The expenditure for fodder supporting activities was approx. 410.48 Lacs during FY 2024-25, which was incurred by APSEZ.</li> <li><b>Grass Land development:</b> 213 acres of gauchar land has been cleaned and allocated for Grass land development with strong Community Contribution and Mobilization.</li> <li>Other than this dedicated security guard with gate system deployed by APSEZ across the coastal area and no unauthorized persons allowed within coastal as well as mangrove areas.</li> <li>APSEZ has celebrated the International Day for the Conservation of the Mangrove Ecosystem with coordination of</li> </ul>

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025	
			<p>Adani Foundation from 24th to 26th July 2024 to raise awareness of the importance of mangrove ecosystems as "a unique, special and vulnerable ecosystem". The report for the same was submitted during the EC compliance report submission for the period Apr'24 to Mar'25.</p> <ul style="list-style-type: none"> <li>Refer CSR report attached as <b>Annexure 2.</b></li> </ul>
		<p>To comply with the GCZMA recommendations regarding mangrove monitoring at every 2 years, recently APSEZ has awarded the work order to NCSCM, Chennai vide order no. 4802055905, dated 24/09/2024 with cost 45.87 Lacs for mangrove mapping in and around APSEZ March 2021 to March 2023.</p> <p>NCSCM conducted ground truthing during 5th to 7th Mar'25 &amp; 22nd to 27th Apr'25 in and around our APSEZ area for mangrove mapping &amp; study work has been completed. Final Mangrove mapping report is awaited from NCSCM.</p> <p>A Regional Impact Assessment study through Chola MS, Chennai (NABET accredited consultant) to identify impacts of all the existing as well as proposed project activities in Mundra region inline to ToR issued by GCZMA. The cost of said study was 1.3 Cr, which was incurred by APSEZ.</p>	

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025
1.6	<p>Compensatory Mangrove Afforestation over 100 ha, as also stipulated in GCZMA conditions and agreed by the PP, shall be carried out at the Project cost. Accordingly, plan shall be prepared in consultation with state Forest Department or any other agency authorized by the government. The plan shall be submitted to the IRO of MoEFCC within 3 months of the issue of EC/CRZ clearance and implementation of the plan shall be submitted in 6 monthly monitoring report.</p>	<p>Will be complied.</p> <p>The said Compensatory Mangrove Afforestation over an area of 100 Ha required to be carried out through Green Credit Programme in line with GCZMA recommendation issued to this project. APSEZ is following-up with Green Credit Cell, ICFRE to undertake the said work, however we are in receipt of the response below from Green Credit Cell, ICFRE.</p> <p><i>"The Green Credit Programme is currently in its pilot stage, hence at this stage only the PSUs are allowed to participate as entity and State Forest Departments as Implementing Agency. Private entities may be allowed later. We will keep you informed as we progress and expand the program to private entities participation. Your user ID, if created, will be activated accordingly."</i></p> <p>Latest corresponds with concern authority is attached as <b>Annexure - 3</b>.</p> <p>Once Green Credit Programme is available for participation by private entities, we will initiate the same and submit our action plan to undertake the Compensatory Mangrove Afforestation over an area of 100 ha to the IRO of MoEF&amp;CC.</p>
1.7	<p>No mangrove shall be cut or affected due to port construction.</p>	<p>Complied.</p> <p>No Mangrove would be cut or affected due to port construction and development of its related infrastructures other than utility corridors proposed in mangrove / mangrove buffer area which will have an overall impact on 0.92 Ha area. For which APSEZ will carry out Compensatory Mangrove afforestation over an area of 100 Ha through Green Credit Programme as mentioned in Point No. 1.6.</p> <p>To enhance the marine biodiversity, till date APSEZ has carried out mangrove afforestation in 4140 ha. area across the coast of Gujarat. Total expenditure for the same till Mar'25 is INR 1592.8 lakh.</p> <p>Please refer compliance of Condition No. 1.5 for mangrove conservation in detail.</p>

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025
1.8	<p>Brine reject from desalination plant and cooling water reject from re-gasification unit of LNG will be discharged at the offshore location as identified through scientific study. No Objection Certificate from the concern Gujarat State Pollution Control Board need to be obtained.</p>	<p>Complied.</p> <p>Existing LNG Jetty and terminal has been developed and is being operated by GSPC LNG Limited as per separate permissions obtained and NOC given by APSEZ. Discharge of cooling water reject from re-gasification unit of LNG is being taken care by GSPC only.</p> <p>Development of LNG Jetty and terminal approved as a part of this clearance has not been carried out so far. However, cooling water reject from re-gasification unit of LNG will be discharged at the offshore location as per EIA, once it is developed.</p> <p>At present 47 MLD capacity Desalination plant along with associated Intake and Outfall facility have been developed out of earlier approved 300 MLD capacities in line with permissions granted by competent authorities.</p> <p>However, as a part of WFDP-Expansion project, development of an additional 400 MLD capacity Desalination plant is approved. Out of this APSEZ has developed Desalination plant of 33 MLD capacities for which CtE (ToR to CtE) already been granted by GPCB vide dated 19.05.2020. Copy submitted during compliance period Apr'24 to Sep'24.</p> <p>At present total 80 MLD (47 MLD – Existing + 33 MLD – New) desalination plant developed under WFDP west port (GPCB ID – 35427) with utilization of existing intake and outfall channel (up to 300 MLD capacities) and CC&amp;A Amendment for the same granted by GPCB board CC&amp;A Amendment order copy for the same is attached as <b>Annexure - 4.</b></p> <p>Additional development of 80 MLD desalination plant is under progress through Mundra Petrochemical Ltd. (Subsidiary company of Adani Group). Separate Consent to Establish from GPCB has been obtained by them vide order no. CTE-77914 dated 09.12.2024 Copy of the same is attached as <b>Annexure - 5</b></p>

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025
		<p>Balance 287 MLD capacity desalination plant will be developed on a modular basis as per business requirement.</p> <p>The existing Intake and Outfall channel is suitable for 300 MLD Desalination capacity. For additional desalination plant capacity will have intake &amp; outfall with pipeline system.</p> <p>The desal reject is being discharged into deep sea at identified location through existing outfall channel approved in EC granted in 2009.</p>
1.9	<p>Construction of Utility corridor on stilts is proposed through Gantry Girder Launching technology which does not require construction of road for transporting heavy machineries and therefore ensure minimal/zero footprint on land /mangrove areas. As per CRZ mapping by NCSCM actual damage to mangroves will be limited to only 0.92 ha. PP will carry out 100 ha Compensatory Mangrove afforestation.</p>	<p>Complied.</p> <p>APSEZ ensures minimal/zero footprint on land /mangrove areas by implementing following method during construction:</p> <ul style="list-style-type: none"> <li>➤ Use of advanced construction techniques, i.e. elevated gantry girder will eliminate the requirement of creation of temporary approach road in the mangrove/creek areas which will impact less or very negligible footprint on the ground.</li> <li>➤ Use of construction safety nets will be deployed on the working platform of the gantry girder, which will prevent impact due to dropping of construction materials &amp; tools in the creek and mangrove areas.</li> <li>➤ The temporary stress on the avifauna and mangroves dependent species are limited to short period of time.</li> <li>➤ Turbidity due to piling in water column is contained since piling activity is carried out within the steel casings.</li> </ul> <p>Development of Utility corridor (Conveyor corridor) from West port to SEZ area for transportation of liquid cargo is in progress, which is being passed through CRZ area. For which advance Elevated Gantry Girder Launching construction technology is being used, which has negligible impact on ground.</p> <p>APSEZ is ensuring above mentioned aspects during construction activity of utility corridor in CRZ area.</p> <p>Please Refer Compliance status of Condition no 1.6 for compensatory mangrove afforestation.</p>



**Status of the conditions stipulated in Environment and CRZ Clearance**

<b>Sr. No.</b>	<b>Conditions as per clearance letter</b>	<b>Compliance Status as on 31-03-2025</b>																																																		
1.10	The Environmental Clearance to the project is primarily under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc required to be obtained under any other Act/Rule/regulation The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/Regulations or Statutes as applicable to the project.	<p>Point Noted and Complied.</p> <p>All requisite permission from concerned authorities will be obtained under relevant act/rules/regulation.</p> <p>Requisite permissions from Gujarat Maritime Board (GMB), for carrying out construction activities will be taken from time to time.</p> <p>The project is being developed as per Consent to Establish (CtE) and Consent to Operate (CtO) granted by SPCB. The present in-force CtE &amp; CtO are mentioned below.</p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>Permission</th> <th>Project</th> <th>Ref. No. / Order No.</th> <th>Valid till</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>CtE – Amendment</td> <td>LPG Terminal</td> <td>PC/CCA-KUTCH-1437/PCB ID-53331/473995</td> <td>03.10.25</td> </tr> <tr> <td>2</td> <td>CtE – Amendment</td> <td>LPG Terminal</td> <td>PC/CCA-KUTCH-1437/GPCB ID-53331/587015</td> <td>01.03.26</td> </tr> <tr> <td>3</td> <td>CtE – Amendment</td> <td>WFDP</td> <td>17739 / 15618</td> <td>18.05.27</td> </tr> <tr> <td>4</td> <td>CC&amp;A - Renewal</td> <td>West Port – WFDP</td> <td>AWH-113458</td> <td>01.02.27</td> </tr> <tr> <td>5</td> <td>CC&amp;A – Renewal</td> <td>Mundra Port Terminal</td> <td>AWH-117045</td> <td>20.11.26</td> </tr> <tr> <td>6</td> <td>CC&amp;A - Correction</td> <td>Mundra Port Terminal</td> <td>PC/CCA-KUTCH-39(8)/GPCB ID 17739/592900</td> <td>20.11.26</td> </tr> <tr> <td>7</td> <td>CC&amp;A - Renewal</td> <td>LPG Terminal</td> <td>PC/CCA-KUTCH-1437/PCB ID-53331/816485</td> <td>27.06.29</td> </tr> <tr> <td>8</td> <td>CC&amp;A – Amendment</td> <td>Mundra Port Terminal</td> <td>WH-141598</td> <td>20.11.2026</td> </tr> <tr> <td>9</td> <td>CC&amp;A – Amendment</td> <td>West Port – WFDP</td> <td>WH-139724</td> <td>01.02.27</td> </tr> </tbody> </table> <p>Above mention permission copy from Sr 1 to 7 submitted during compliance period Apr'24 to Sep'24.</p> <p>The permission copies (Sr. No. 8 &amp; 9) attached as <b>Annexure – 6.</b></p>	S. No.	Permission	Project	Ref. No. / Order No.	Valid till	1	CtE – Amendment	LPG Terminal	PC/CCA-KUTCH-1437/PCB ID-53331/473995	03.10.25	2	CtE – Amendment	LPG Terminal	PC/CCA-KUTCH-1437/GPCB ID-53331/587015	01.03.26	3	CtE – Amendment	WFDP	17739 / 15618	18.05.27	4	CC&A - Renewal	West Port – WFDP	AWH-113458	01.02.27	5	CC&A – Renewal	Mundra Port Terminal	AWH-117045	20.11.26	6	CC&A - Correction	Mundra Port Terminal	PC/CCA-KUTCH-39(8)/GPCB ID 17739/592900	20.11.26	7	CC&A - Renewal	LPG Terminal	PC/CCA-KUTCH-1437/PCB ID-53331/816485	27.06.29	8	CC&A – Amendment	Mundra Port Terminal	WH-141598	20.11.2026	9	CC&A – Amendment	West Port – WFDP	WH-139724	01.02.27
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Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025																																																														
	and validation process by the Gujarat Institute of Desert Ecology (GUIDE) shall be implemented. The compliance to the recommendations shall be submitted along with 6 monthly compliance report to the regional office of MoEFCC.	Compliance to the recommendations mentioned in the Marine Biology study conducted by NABET accredited consultant i.e. M/s Cholamandalam MS Risk Services Ltd. and the same has been validated by M/s Gujarat Institute of Desert Ecology (GUIDE) is attached as <b>Annexure - 7.</b>																																																														
1.1 2	Continuous monitoring of the ecological characteristics of the habitat during and after the construction, to assess the changes in the water quality, coastal hydrology, bottom contamination and diversity & abundance of marine organisms. The report of the monitoring report shall be submitted to the concern IRO, MoEF&CC along with six monthly report.	<p>Complied.</p> <p>To ensure no damage to marine ecology, marine water &amp; sediment monitoring is being carried out once a month by NABL and MoEF&amp;CC accredited agency namely M/s. Unistar Environment and Research Labs Pvt. Ltd., Vapi as part of regular environment monitoring plan.</p> <p>Summary of the same for duration from Oct'24 to Mar'25 is mentioned below.</p> <p><b>Total Sampling Locations: 09 Nos.</b></p> <table border="1"> <thead> <tr> <th rowspan="2">Parameter</th> <th rowspan="2">Unit</th> <th colspan="3">Surface</th> <th colspan="3">Bottom</th> </tr> <tr> <th>Min</th> <th>Max</th> <th>Avg.</th> <th>Min</th> <th>Max</th> <th>Avg.</th> </tr> </thead> <tbody> <tr> <td>pH</td> <td>--</td> <td>7.98</td> <td>8.34</td> <td>8.18</td> <td>7.85</td> <td>8.12</td> <td>8.01</td> </tr> <tr> <td>BOD (3 Days @ 27 °C)</td> <td>mg/L</td> <td>2.5</td> <td>3.4</td> <td>2.90</td> <td>BDL (MDL: 1.0)</td> <td>BDL (MDL: 1.0)</td> <td>BDL (MDL: 1.0)</td> </tr> <tr> <td>TSS</td> <td>mg/L</td> <td>102</td> <td>144</td> <td>124.02</td> <td>80</td> <td>128</td> <td>101.24</td> </tr> <tr> <td>DO</td> <td>mg/L</td> <td>6.45</td> <td>7.04</td> <td>6.77</td> <td>6.35</td> <td>6.84</td> <td>6.63</td> </tr> <tr> <td>Salinity</td> <td>ppt</td> <td>35.12</td> <td>36.34</td> <td>35.75</td> <td>36.12</td> <td>37.35</td> <td>36.74</td> </tr> <tr> <td>TDS</td> <td>mg/L</td> <td>34560</td> <td>36642</td> <td>35405</td> <td>35180</td> <td>36720</td> <td>36109</td> </tr> </tbody> </table> <p>*BDL – Below Detection Limit *MDL – Minimum Detection Limit</p> <p>Please refer to <b>Annexure – 8</b> for detailed analysis reports. Approx. INR 17.27 Lakh is spent for all environmental monitoring activities during the FY 2024-25 for overall APSEZ, Mundra. Marine monitoring for west port area including location near existing intake and outfall location is being carried out by M/s. Adani Power (Mundra) Limited (Pre-monsoon &amp; Post-monsoon) through NABL accredited and MoEF&amp;CC authorized agency namely M/s. UniStar Environment &amp;</p>	Parameter	Unit	Surface			Bottom			Min	Max	Avg.	Min	Max	Avg.	pH	--	7.98	8.34	8.18	7.85	8.12	8.01	BOD (3 Days @ 27 °C)	mg/L	2.5	3.4	2.90	BDL (MDL: 1.0)	BDL (MDL: 1.0)	BDL (MDL: 1.0)	TSS	mg/L	102	144	124.02	80	128	101.24	DO	mg/L	6.45	7.04	6.77	6.35	6.84	6.63	Salinity	ppt	35.12	36.34	35.75	36.12	37.35	36.74	TDS	mg/L	34560	36642	35405	35180	36720	36109
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		<p>Research Labs Pvt. Ltd. Monitoring reports are also enclosed as <b>Annexure - 8</b>.</p> <p>Summary of ecological parameters of M/s. Adani Power (Mundra) Limited is given below:</p> <p><b>PHYTOPLANKTON DIVERSITY:</b> Phytoplankton sampling was carried out at 5 stations. At each station, water samples were collected from surface and bottom waters. During the sampling period the phytoplankton population in the coastal waters of APL-Mundra, was more diverse during the post-monsoon season (December 2024) than pre-monsoon (March 2025) (Table 6). However, the overall phytoplankton abundance was more during post-monsoon than the pre-monsoon season. The detailed species percentage composition reported during both sampling period is given in Annexure I and II. In December 2024, the phytoplankton community was represented with a total of 41 phytoplankton genera belonging to diatoms (35 genera) and dinoflagellates (6 genera). Overall, 37 phytoplankton genera representing diatoms (31 genera) and dinoflagellate (6 genera) reported during March 2025 sampling. Diatoms Species belonged to <i>Amphora</i> sp., <i>Amphiprora</i> sp., <i>Asterionella</i> sp., <i>Bacillaria</i> sp., <i>Chaetoceros</i> sp., <i>Corethron</i> sp., <i>Coscinodiscus</i> sp., <i>Cyclotella</i> sp., <i>Cylindrotheca</i> sp., <i>Cymbella</i> sp., <i>Diploneis</i> sp., <i>Ditylum</i> sp., <i>Fragilaria</i> sp., <i>Guinardia</i> sp., <i>Lauderia</i> sp., <i>Leptocylindrus</i> sp., <i>Licmophora</i> sp., <i>Lithodesmium</i> sp., <i>Navicula</i> sp., <i>Nitzschia</i> sp., <i>Odontella</i> sp., <i>Pinnularia</i> sp., <i>Pleurosigma</i> sp., <i>Pseudonitzschia</i> sp., <i>Rhizosolenia</i> sp., <i>Streptotheca</i> sp., <i>Thalassiosira</i> sp., <i>Thalassiothrix</i> sp., and <i>Thalassionema</i> sp. were common during both sampling period. Total 4 dinoflagellate genera i.e., <i>Ceratium</i>, <i>Prorocentrum</i>, <i>Protoperdinium</i> and <i>Scrippsiella</i> sp. were common during both December 2024 and March 2025 samplings.</p> <p>The phytoplankton abundance in the study region was higher during the 156.6 to 395.2 cells x 10<sup>2</sup> L<sup>-1</sup> during December 2024 as compared to March 2025 (ranged from 163.2 to 323.2 cells x 10<sup>2</sup> L<sup>-1</sup>). In December 2024, the highest phytoplankton abundance was observed at St-5 in the surface (395.2 cells x 10<sup>2</sup> L<sup>-1</sup>). The lowest phytoplankton abundance (156.6 cells x 10<sup>2</sup> L<sup>-1</sup>) was observed at St-2 in surface water. During March 2025,</p>

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		<p>phytoplankton abundance was higher at St-5 in surface water (<math>323.2 \text{ cells} \times 10^2 \text{ L}^{-1}</math>) and lowest at St-3 bottom water (<math>163.2 \text{ cells} \times 10^2 \text{ L}^{-1}</math>). The diatom genera, <i>Rhizosolenia</i> (up to <math>44.8 \text{ cells} \times 10^2 \text{ L}^{-1}</math>) during December 2024 (Annexure I), whereas in March 2025, <i>Coscinodiscus</i> (up to <math>38.4 \text{ cells} \times 10^2 \text{ L}^{-1}</math>) was also predominant along with <i>Navicula</i> (up to <math>33.6 \text{ cells} \times 10^2 \text{ L}^{-1}</math>) (Annexure II). The study shows that the marine water around was enriched with the diverse phytoplankton population during the sampling period.</p> <p><b><u>BENTHIC DIVERSITY:</u></b></p> <p><b>Subtidal region:</b> The macrobenthic population study revealed large spatiotemporal variation with the benthic population during the study period. Overall, more macrobenthos abundance and biomass were reported at subtidal stations than at intertidal stations. The macrobenthic abundance and biomass were more during the December 2024 than the March 2025 sampling. In December 2024, the macrobenthos density ranged from <math>725 \text{ no./m}^2</math> to <math>960 \text{ nos./m}^2</math> at sampling stations (Table 7). The biomass of the macrobenthic community in the study region was ranged from <math>1.4 \text{ g/ m}^2</math> to <math>2.0 \text{ g/ m}^2</math> in the study region. The maximum abundance and biomass of benthic microorganisms was reported at St-4 (<math>960 \text{ nos./m}^2</math> and <math>2.0 \text{ g/m}^2</math>). During March 2025, the macrobenthos density was ranged from 590 to 890 nos./m<sup>2</sup>. The macrobenthic biomass was ranged from 1.5 to <math>2.3 \text{ g/ m}^2</math>.</p> <p>In species composition (Annexure IV), Polychaete species (Phylum Annelida) belonging to the family Paraonidae, Pilargidae, Capitillidae, Cossuridae, Glyceridae, Ciratullidae, Nephthyida, Nereidae, Lumbriconeridae, Spionidae were abundant contributing ~71% to macrobenthic population during December 2024. In March 2025, polychaete species contributed ~82.3% to macrobenthic population (Annexure IV). Overall, the presence of Polychaete, Amphipods, and Nemerteans suggest the availability of food organisms for benthic predators in the area. The macrobenthic population reported during both studies reveals that the large spatial-temporal variation with</p>

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		<p>the benthic population could be due to the change in bottom substratum.</p> <p><b>Intertidal region:</b> The sandy substratum with low organic matter affects the occurrence of the macrobenthic community in the intertidal region. In December 2024, the highest biomass was measured (0.09 g/m<sup>2</sup> to 0.4 g/m<sup>2</sup>) in the intertidal region. The highest density of macrobenthic organisms was reported at station IT-2 (LW) (256 nos./m<sup>2</sup>), whereas the lowest density was reported at Station IT-1 (HW) (116 nos./m<sup>2</sup>). During March 2025, the macrobenthic biomass was ranged from (0.08 to 0.5 g/m<sup>2</sup>). At IT-1 (LW) the higher macrobenthic population (122 nos./m<sup>2</sup>) and biomass (0.5 g/m<sup>2</sup>) was reported. No macrobenthic community was observed at St-3 (HW and LW) may be due to sandy sediment during both sampling periods. In species composition (Annexure V), Polychaete species dominated the macrobenthic population in the intertidal region.</p> <p>APSEZ will increase the no. of marine water monitoring locations if required.</p>
1.1 3	<p>The Project Proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained.</p>	<p>Complied.</p> <p>APSEZ has taken following measures for conservation of creeks which is detailed below:</p> <ul style="list-style-type: none"> <li>➤ The prominent creek system (main creeks and small branches of creeks) in and around APSEZ are: (1) Kotdi (2) Baradimata (3) Navinal (4) Bocha (5) Mundra (Oldest port (Juna Bandar) leading to Bhukhi river).</li> <li>➤ All above creek mouths are open allowing free flow of water into the creeks and surrounding areas and there is no filling or reclamation of any creek area.</li> <li>➤ This aspect is also confirmed from the earlier studies of NCSCM in 2017-18, which highlights the bathymetry data of the entire coast around APSEZ.</li> <li>➤ From the bathymetry data it can be concluded that there are sufficient depths at the creek mouths and all creek mouths are open allowing flushing of water.</li> </ul> <p>APSEZ has so far constructed 19 culverts having total length of approx. 1100 m with total cost of INR 20</p>

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		<p>Crores. Three RCC Bridges have also been constructed over Kotdi creek with total length of 230 m and cost of INR 10 Crores.</p> <p>As per the bathymetry study carried out by NCSCM in 2017-18, it can be concluded that there are sufficient depths at the creek mouths and all creek mouths are open allowing flushing of water.</p> <p>GUIDE has completed the study of Monitoring and Distribution of the Mangroves along the Creeks in and Around APSEZ, Mundra, Kutch, Gujarat for the duration of the year March 2019 to March 2021.</p> <p>NCSCM has conducted ground truthing during 5<sup>th</sup> to 7<sup>th</sup> Mar'25 &amp; 22<sup>nd</sup> to 27<sup>th</sup> Apr'25 in and around our APSEZ area for mangrove mapping &amp; study work has been completed. Final Mangrove mapping report is awaited from NCSCM.</p> <p>Photographs of culvert and bridges submitted during compliance period Apr'24 to Sep'24.</p> <p>However, increase in mangrove cover around the creeks of APSEZ over the period of years also confirms, there is no blockage of any creek or river.</p> <p>APSEZ will also ensure that no creeks or rivers should be blocked due to any port expansion activities and free flow of water should be maintained.</p>
1.1 4	No underwater blasting is permitted.	<p>Complied.</p> <p>No underwater blasting activity is being carried out or will be carried out as a part of proposed port expansion activities.</p>
1.1 5	The closed conveyor gallery along with the junction/transfer towers shall be provided with dust suppression systems (DSS). Dust suppression systems with water sprinklers/fogging system shall be provided to prevent the fugitive dust emissions during handling, transfer	<p>Complied.</p> <p>The following safeguard measures are being taken for abatement of dust / fugitive emissions.</p> <ul style="list-style-type: none"> <li>➤ Regular water sprinkling on road and other open area.</li> <li>➤ Regular cleaning of roads through mechanized equipment</li> <li>➤ Dry fog Dust Suppression System (DSS) in hopper, transfer towers and conveyor belts</li> </ul>

**Status of the conditions stipulated in Environment and CRZ Clearance**

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	<p>and storage. Further, the Greenbelts prevent/arrest/controls the fugitive emissions.</p>	<ul style="list-style-type: none"> <li>➤ Use of water mist canon</li> <li>➤ Closed type conveyor belts</li> <li>➤ Regular sprinkling on coal heaps with mechanized system</li> <li>➤ Covering other types of dry bulk cargo heaps</li> <li>➤ Installation of wind breaking wall</li> <li>➤ Development of greenbelt along the periphery of the storage yards/back up area</li> <li>➤ Mechanized handling system for coal and other dry bulk cargo</li> <li>➤ Wagon loading and truck loading through closed silo</li> <li>➤ Greenbelt development within plant premises</li> </ul> <p>Photographs of safeguard measures implemented for abatement of dust / fugitive emissions at site submitted during compliance period Apr'24 to Sep'24.</p> <p>The same practice will also be continued as a part of proposed expansion activities.</p> <p>Ambient Air Quality (twice in a week) monitoring is being carried out by NABL and MoEF&amp;CC accredited agency namely M/s. Unistar Environment and Research Labs Pvt. Ltd., Vapi. Summary of the same for duration from Oct'24 to Mar'25 is mentioned below.</p> <p style="text-align: center;"><b>Total Ambient Air Sampling Locations: 13 Nos.</b></p> <table border="1" data-bbox="685 1325 1390 1680"> <thead> <tr> <th>Parameter</th> <th>Unit</th> <th>Min</th> <th>Max</th> <th>Average</th> <th>Perm Limit<sup>§</sup></th> </tr> </thead> <tbody> <tr> <td colspan="6" style="text-align: center;"><b>AAQM</b></td> </tr> <tr> <td>PM<sub>10</sub></td> <td>µg/m<sub>3</sub></td> <td>42.00</td> <td>85.91</td> <td>72.71</td> <td>100</td> </tr> <tr> <td>PM<sub>2.5</sub></td> <td>µg/m<sub>3</sub></td> <td>16.85</td> <td>42.39</td> <td>30.28</td> <td>60</td> </tr> <tr> <td>SO<sub>2</sub></td> <td>µg/m<sub>3</sub></td> <td>10.80</td> <td>34.01</td> <td>22.16</td> <td>80</td> </tr> <tr> <td>NO<sub>2</sub></td> <td>µg/m<sub>3</sub></td> <td>14.12</td> <td>38.46</td> <td>26.34</td> <td>80</td> </tr> </tbody> </table> <p style="text-align: right;"> <sup>§</sup> as per NAAQ standards, 2009  <sup>*</sup> as per CC&amp;A granted by GPCB                      Values recorded confirms to the stipulated standards.                 </p> <p>The environmental management budget (including horticulture) for FY 2024–25 was INR 1340.21 lakh, of which approximately INR 1029.51 lakh was utilized, including INR 17.27 lakh for environmental monitoring.</p>	Parameter	Unit	Min	Max	Average	Perm Limit <sup>§</sup>	<b>AAQM</b>						PM <sub>10</sub>	µg/m <sub>3</sub>	42.00	85.91	72.71	100	PM <sub>2.5</sub>	µg/m <sub>3</sub>	16.85	42.39	30.28	60	SO <sub>2</sub>	µg/m <sub>3</sub>	10.80	34.01	22.16	80	NO <sub>2</sub>	µg/m <sub>3</sub>	14.12	38.46	26.34	80
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**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025
1.16	Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dump sites for such material must be secured so that they should not leach into the ground water.	<p>Complied.</p> <p>All the waste materials are being handled in line with applicable rules and regulations. APSEZ also ensures no kind of waste materials are being dumped into water bodies or in any open land.</p>
1.17	Spillage of fuel/engine oil and lubricants from the construction site are a source of organic pollution which impacts marine life, particularly benthos. This shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage.	<p>Complied.</p> <p>Utmost care as well as provision of appropriate secondary contamination control is being taken to avoid Spillage of fuel/engine oil and lubricants from the construction site.</p> <p>As well as proper environment awareness training for handling of fuel/engine is being imparted to workers to avoid any spillage and same practice will also be continued as a part of proposed expansion activities.</p>
1.18	Oil spillage prevention and mitigation scheme shall be prepared. In case of oil spillage/contamination, action plan shall be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil shall be disposed of to the authorized recyclers.	<p>Complied.</p> <p>Oil spill contingency plan is in place to handle Tier 1 level oil spills considering different accident scenarios, and the vulnerable areas are identified, and mitigation plan is prepared.</p> <p>Based on the oil spill modeling study, it has been observed that crude oil spill of 700 tons (Tier-I) will spread over an area having radius of around 400 m within 4hr. APSEZ already has facilities for combating a Tier-1 spill.</p> <p>Recommendations of Marine EIA by NIO with respect to pollution emergency contingency plan for Multipurpose Terminal, Container, Dry &amp; Break Bulk Terminal as well as associated facilities are addressed in Oil Spill Response Plan.</p> <p>This action plan prepared by APSEZ to combat the oil spill (LOS-DCP) is in accordance with the NOS DCP, International Petroleum Industry Environmental Conservation Association (IPIECA).</p>



**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025
		Waste/Spent Oil/Oily sludge generated would be disposed of through authorized recycler.
1.1 9	Emergency response system for oil spillage and oil spill contingency plan, any other hazardous material spillages shall be in place at the site level. The mock drill in this regard shall be conducted regularly and the same shall be documented and made available during inspections of local pollution control board, port authorities and MoEF&CC.	<p>Complied.</p> <p>Oil spill contingency response plan is being updated on regular basis and the same was last updated on 30.07.2022 is in place and implemented. The updated Oil spill contingency response plan submitted during compliance period Apr'24 to Sep'24.</p> <p>For responding to oil spill, the Indian Coast Guard has developed the National Oil Spill Disaster Contingency Plan NOSDCP which has the approval of the Committee of Secretaries and has been in operation since 1996. Oil Spill Contingency Response Plan (OSCRP) prepared by APSEZ is in accordance with the NOSDCP.</p> <p>Latest Regional Level Pollution Response exercise "SWACHCHH SAMUDRA-NW 2024" was carried out by Indian Coast Guard on 14<sup>th</sup> - 15<sup>th</sup> OCT 2024 at Off Vadinar, Gujarat. All participants from various Oil Handling Agencies and Stakeholders (M/S Adani Port &amp; SEZ, Mundra, Indian Oil Corporation LTD, Jamnagar, M/S Nayara Energy LTD VOTL, Vadinar, M/S Reliance Industries LTD, Sikka Jamnagar, M/S Essar Bulk Terminal, Salaya) were participated in this exercise. Details of the same is attached <b>Annexure - 9</b>.</p> <p>Mock drills are conducted regularly by APSEZ. Last Oil Spill Mock drill was conducted on 06.02.2025. The updated Oil Spill Mock Drill report is enclosed as <b>Annexure - 10</b>.</p> <p>On Site Emergency Response Plan and Crisis Management Plan is in place and implemented. The updated (Aug'23) Onsite emergency plan submitted during compliance period Apr'24 to Sep'24.</p> <p>Regular TBT and fire &amp; safety training is being imparted by the fire &amp; safety department.</p> <p>Regular drills are being conducted for the effectiveness of the system. There were 12 drills conducted for various scenarios during compliance period (Oct'24 to Mar'25) as mentioned below.</p>

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025			
		Sr. No.	Month	Location	Scenario
		1.	Oct-24	2L20B1 container AICTPL	Scenario was yard checker was going to pick up LMV after correction work of lock stuck in external trailer during the course other external trailer hit him at yard
		2.	Nov-24	5L07, AMCT	Scenario was yard checker was going to pick up LMV after correction work of lock stuck in external trailer during the course other external trailer hit him at yard
		3.	Nov-24	Yard 7A, ACMTPL	Assuming One lasher fell into the See while approaching Vessel Gangway at berth number 09 near STS-017. Wharf Supervisor immediately informed about this to superintendent. Simultaneously informed to POC, OHC, Fire, and Safety & Security (Security Control), Safety, POC and to all concern people.
		4.	Nov-24	Yard 7A, ACMTPL	Assuming fire occurred in hazardous container of Class 5.1 at yard 7A same time one EITV -36 came and contact with one of the lasher and he got minor injury on his right leg supervisor immediately informed about this to superintendent. Simultaneously informed to POC, OHC, Fire, and Safety & Security (Security Control) and to all concern people.
		5.	Dec-24	T3 Berth No 10, Dry Cargo	To conduct a mock drill to test the emergency response plan and preparedness of the team in the event of an accident. Scenario: A person has been hit by dumper (GJ12CT2276) Driver by veer Singh. V.T- Devendra. Wharf Supervisor immediately informed about this to superintendent. Simultaneously informed to ISCR, OHC, and Safety & Security (Security Control), Safety, POC and to all concern people.
		6.	Jan-25	FCC, BU-03&04	While doing welding activity at hopper, hot spatters fell on the empty bags placed underneath and caught fire.
		7.	Jan-25	3R194, line 5A, SPRH	Fire observed by checker in container DHLU2003818 and He rushed to informed supervisor during the course He fell down and got injury on head and He became unconscious
		8.	Feb-25	Steel yard track No 04 - WMI 01	Lasher fell down from the trailer bed during Coil lashing and got injured
		9.	Feb-25	Opposite wear house 2 open yard	Fire observed by yard supervisor in dumped tyre opposite off wear house 2 open yard near fencing
		10.	Mar-25	Pump House-04- pump number 102	Fire in pump number 102 (Cargo-PY Gas) at pump house-04 during strainer cleaning activity, catch fire in pump suction line strainer due to presence of unknown ignition source.

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025					
		11.	Mar-25	FCC, MHS workshop area	Power supply problem check activity in workshop area electric panel that time panel door opening time suddenly spark & flash generated and electric current pass in person body.		
12.	Mar-25	Close Godown 14 Gate 09	Vehicle hit to Person				
		Safety Mock drill report (latest report) conducted during the compliance period is enclosed as <b>Annexure - 11.</b>					
1.20	Since liquid/gaseous product handling is involved, complete risk safety assessment including 'BLEVE' study and mitigation measures and safety precautions shall be drawn and implemented along with the Robust safety standards and latest fire detection and prevention techniques. The report shall be submitted along with the 6 monthly compliance report.	<p>Complied.</p> <p>Quantitative Risk Assessment for existing facilities i.e; Tank farms, Jetty Area &amp; Pipelines was conducted in Nov'2016 by M/s TECHNIP INDIA LIMITED to assess the risk levels associated with the facilities to handle liquid/gaseous product; evaluate risks based on the HSE UK Risk Acceptance Criteria, and risks if found are outside the tolerable region, then risk reduction measures shall be proposed to bring the risks into tolerable or As Low As Reasonably Practicable (ALARP) Levels and lower levels and recommendations of the study is being complied with. Copy of QRA report submitted during compliance period Apr'24 to Sep'24.</p> <p>Risk assessment study for new liquid/gaseous product handling system will be carried out including BLEVE study and its recommendations of the report will be implemented as applicable.</p>					
1.21	The risk assessment and management plan being drawn up with regards to the environmental impacts of natural disasters, oil spills and other waste, dredging and dumping on marine ecology shall scrupulously implemented. It shall be ensured that the marine ecology in the area of influence shall not affect. The monitoring and compliance status of the marine ecology management plan shall be submitted along with the	<p>Complied.</p> <p>Disaster Management Plan is updated regularly and the updated DMP submitted during compliance period Apr'24 to Sep'24.</p> <p>APSEZ would stringently implement risk assessment and management plan, and few recommendations implemented in past is mentioned below:</p> <p><b>Few Marine EIA recommendations:</b></p> <table border="1"> <tr> <td>Shore based power supply shall be provided to the ships that are berthed to reduce the air emissions.</td> <td>Complied.  Power supply from Grid/Solar is being supplied to the vessels berthed to reduce emissions.</td> </tr> </table>				Shore based power supply shall be provided to the ships that are berthed to reduce the air emissions.	Complied.  Power supply from Grid/Solar is being supplied to the vessels berthed to reduce emissions.
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Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025	
	<p>six monthly EC compliance reports.</p>	<p>The ballast water or any discharge from the ships shall be prevented by insisting the ships/vessels to follow the MARPOL Convention guidelines.</p> <p>The discharge from the ships, if required, shall be disposed only after proper treatment.</p>	<p>Complied</p> <p>Ships berthing at Mundra Port comply with MARPOL regulations.</p> <p>No discharge such as ballast/bilge wastes, sewage or any other liquid wastewater is allowed into marine environment inside port limits.</p> <p>APSEZ has adequate Waste Reception facility as per MARPOL and DG Shipping regulations. The port has reception facility for all MARPOL waste streams (Annex-I, Annex-II, Annex-IV &amp; Annex-V) except Annex-VI that is generated from vessels.</p> <p>As a general practice APSEZ provide facility for receiving slop / waste oil from vessels through hose connection with oil tankers. These tankers divert slop / waste oil to Oil water separator system where water and oil particles are separated. Separated oil is being sold to authorized recycler /re-processor. However, no slope / waste oil was received during the compliance period.</p> <p>Regular Marine water and sediments monitoring is being carried out by NABL and MoEF&amp;CC accredited agency namely M/s. Unistar Environment and Research Labs Pvt. Ltd., Vapi. Monitoring reports for the period from Oct'24 to Mar'25 is enclosed as <b>Annexure – 8</b>.</p>
		<p>A risk assessment of the ships and other vessels entering the port shall be carried out to avoid introduction of alien species or pests.</p>	<p>Complied</p> <p>No discharge such as ballast/bilge wastes, sewage or any other liquid wastewater is allowed into marine environment inside port limits to avoid introduction of alien species or pests.</p>
		<p>Marine water monitoring for west port area is being carried out by M/s. Adani Power (Mundra) Limited (Pre-monsoon &amp; Post-monsoon) through NABL accredited and MoEF&amp;CC authorized agency namely M/s. UniStar</p>	

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		<p>Environment &amp; Research Labs Pvt. Ltd. Monitoring reports are also enclosed as <b>Annexure - 8</b>.</p> <p>Please Refer Compliance status of specific Condition no 1.12 of EC &amp; CRZ clearance for Continuous monitoring of the ecological characteristics</p>																																				
1.2 2	All the recommendations mentioned in the risk assessment report, disaster management plan and safety guidelines shall be implemented.	<p>Complied.</p> <p>We have commenced port expansion activity after getting EC &amp; CRZ clearance and Consent to Establish from concern regulatory authorities. Hence, all the recommendations suggested in risk assessment report, disaster management plan and safety guidelines are being complied as applicable.</p>																																				
1.2 3	The project proponent shall install a system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the port area at least at four locations (one within and three outside the port area at an angle of 120°each), covering upwind and downwind directions.	<p>Complied.</p> <p>Ambient Air Quality is being carried out by NABL accredited and MoEF&amp;CC authorized agency namely M/s. Unistar Environment and Research Labs Pvt. Ltd., Vapi.</p> <p>Total number of ambient air monitoring station is 13. Out of which 09 Nos. is within Port &amp; 04 Nos. Outside Port.</p> <p>Locations have been selected considering an angle of 120°each), covering upwind and downwind directions of port operational activities.</p> <p>Summary of the same for duration from Oct'24 to Mar'25 is mentioned below:</p> <p><b>Air sampling locations &amp; frequency: 13 nos. (twice a week including surrounding villages)</b></p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Unit</th> <th>Min</th> <th>Max</th> <th>Average</th> <th>Perm. Limit\$</th> </tr> </thead> <tbody> <tr> <td colspan="6" style="text-align: center;">AAQM</td> </tr> <tr> <td>PM10</td> <td>µg/m<sup>3</sup></td> <td>42.00</td> <td>85.91</td> <td>72.71</td> <td>100</td> </tr> <tr> <td>PM2.5</td> <td>µg/m<sup>3</sup></td> <td>16.85</td> <td>42.39</td> <td>30.28</td> <td>60</td> </tr> <tr> <td>SO2</td> <td>µg/m<sup>3</sup></td> <td>10.80</td> <td>34.01</td> <td>22.16</td> <td>80</td> </tr> <tr> <td>NO2</td> <td>µg/m<sup>3</sup></td> <td>14.12</td> <td>38.46</td> <td>26.34</td> <td>80</td> </tr> </tbody> </table> <p>\$ as per NAAQ standards, 2009 * as per CC&amp;A granted by GPCB Values recorded confirms to the stipulated standards.</p> <p>Please refer <b>Annexure - 8</b> for detailed analysis reports. Approx. INR 17.27 Lakh is spent for all environmental</p>	Parameter	Unit	Min	Max	Average	Perm. Limit\$	AAQM						PM10	µg/m <sup>3</sup>	42.00	85.91	72.71	100	PM2.5	µg/m <sup>3</sup>	16.85	42.39	30.28	60	SO2	µg/m <sup>3</sup>	10.80	34.01	22.16	80	NO2	µg/m <sup>3</sup>	14.12	38.46	26.34	80
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**Status of the conditions stipulated in Environment and CRZ Clearance**

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		<p>monitoring activities during the FY 2024-25 for overall APSEZ, Mundra.</p> <p>Ambient air quality monitoring in surrounding villages is being carried out by M/s. Adani Power (Mundra) Limited, Mundra through NABL accredited and MoEF&amp;CC authorized agency namely M/s. UniStar Environment &amp; Research Labs Pvt. Ltd. and monitoring reports of the same are also enclosed in <b>Annexure - 8</b>.</p> <p>If required, nos. of Ambient Air Monitoring Locations will also be increased.</p>
1.24	<p>Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed fugitive emission standards.</p>	<p>Complied.</p> <p>For further details regarding the control measures for fugitive emissions, please refer to specific condition no 1.15 of the EC and CRZ clearance.</p>
1.25	<p>Emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&amp;CC, Zonal office of CPCB and Regional Office of SPCB along with six monthly monitoring report.</p>	<p>Complied.</p> <p>For further details regarding ambient air quality monitoring &amp; results, please refer to specific condition no 1.15 of the EC and CRZ clearance.</p> <p>Stack monitoring (once in six month) is being carried out by NABL and MoEF&amp;CC accredited agency namely M/s. Unistar Environment and Research Labs Pvt. Ltd., Vapi.</p> <p>Monitoring reports for the period from Oct'24 to Mar'25 is enclosed as <b>Annexure - 8</b>.</p>
1.26	<p>Rain water harvesting for roof run-off and surface run-off, should be implemented. Before recharging the surface run off, pre-treatment must be done to remove suspended matter, oil and grease.</p>	<p>Complied</p> <p>Groundwater recharge cannot be done at the project site since the entire project is in the intertidal / sub tidal areas. Rainwater within project area is managed through storm water drainage.</p> <p>We have installed Rainwater recharge bore well (4 Nos.) within our township to recharge ground water. During FY 2024-25 Approx. 7.40 ML of rainwater has been recharged to increase the ground water table.</p>

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025
		<p>We have also connected roof top rainwater duct of operational building (Tug berth building within MPT) with u/g water tank for utilization of collected rainwater for gardening / horticulture purpose. Details of the same submitted during compliance period Apr'24 to Sep'24.</p> <p>However, Adani Foundation – CSR arm of Adani Group has carried out rainwater harvesting activities in the nearby villages for benefit of the locals.</p> <p>Water conservation Projects i.e. Roof Top Rainwater Harvesting, Desilting of Check dams, Bore Well Recharge and Pond deepening were taken up in past years, review and monitoring of all water harvesting structures had been taken up.</p> <p>To make connections between human actions and the level of biological diversity found within a habitat and/or ecosystem, this year Adani Foundation launch project "Sanrakshan" in coordination with GUIDE and Sahjeevan.</p> <p>Since, 10 years considerable Water Conservation Work carried out in Mundra Taluka. Due to satisfactory rain in current year 1.11 mtr ground water table increased as per increased in coastal belt of Mundra as per Government Figures.</p> <p><b>Our water conservation work is as below.</b></p> <p>The Water Conservation Projects completed during the current Compliance period:</p> <ul style="list-style-type: none"> <li>➤ <b><u>WATER CONSERVATION "SWAJAL PROJECT" ENHANCING RURAL WATER RESOURCES</u></b></li> <li>❖ Adani Foundation has undertaken significant water conservation initiatives to address water scarcity and improve water availability in rural areas.</li> <li>❖ <b>Through the creation of 737 various water structures, the project has increased water capacity by 5,400,735 cubic meters (CUM) and benefited 64,515 people.</b></li> </ul>

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025
		<ul style="list-style-type: none"> <li>• <b>Check Dam New/Renovation</b> <ul style="list-style-type: none"> <li>○ Structures: 29</li> <li>○ Water Capacity Increase: 1,072,332 CUM</li> <li>○ Beneficiaries: 30,870</li> <li>○ Impact: Enhances water storage and irrigation.</li> </ul> </li> <li>• <b>Rainwater Harvesting Structures (RRWS)</b> <ul style="list-style-type: none"> <li>○ Structures: 330</li> <li>○ Water Capacity Increase: 3,300,000 CUM</li> <li>○ Beneficiaries: 1,650</li> <li>○ Impact: Maximizes rainwater capture and usage. Rs. 10950 yearly saved/house</li> </ul> </li> <li>• <b>Pond Deepening</b> <ul style="list-style-type: none"> <li>○ Structures: 135</li> <li>○ Water Capacity Increase: 1,028,403 CUM</li> <li>○ Beneficiaries: 18,350</li> <li>○ Impact: Improves water retention and availability.</li> </ul> </li> <li>• <b>Construction of Percolation Wells</b> <ul style="list-style-type: none"> <li>○ Structures: 26</li> <li>○ Ground Water Recharge: Significant</li> <li>○ Beneficiaries: 3,000</li> <li>○ Impact: Boosts groundwater levels and availability.</li> </ul> </li> <li>• <b>Bore/Well Recharge</b> <ul style="list-style-type: none"> <li>○ Structures: 209</li> <li>○ Ground Water Recharge: Significant</li> <li>○ Beneficiaries: 1,045</li> <li>○ Impact: Enhances groundwater recharge and sustainability.</li> </ul> </li> <li>• <b>Construction of New Wells</b> <ul style="list-style-type: none"> <li>○ Structures: 8</li> <li>○ Purpose: Drinking Water</li> <li>○ Beneficiaries: 9,600</li> <li>○ Impact: Provides reliable drinking water sources</li> </ul> </li> <li>➤ <b><u>WATER MANAGEMENT PROJECTS:</u></b> <ul style="list-style-type: none"> <li>○ Percolation Well, Mota Bhadiya: 80 farmers benefited.</li> <li>○ Percolation Bore Cleaning, GPMC Villages: 3150 farmers benefited.</li> </ul> </li> </ul>



Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025
		<ul style="list-style-type: none"> <li>○ Pond Deepening &amp; Road Cleaning, GPVC Villages: 6KM cleaned.</li> <li>➤ <b><u>DRIP IRRIGATION - ENHANCING LIVELIHOODS IN KUTCH:</u></b> <ul style="list-style-type: none"> <li>• The Drip Irrigation Initiative by Adani Foundation promotes efficient water use in farming by providing financial support to farmers for installing drip systems. It helps conserve water, improve crop yield, and encourage sustainable agriculture in Kutch.</li> <li>• In 2024-25, Adani Foundation supported sustainable water management in Kutch by <b>Promoting drip irrigation across 490 villages in Abdasa, Lakhpat, Mandvi, Mundra, and Nakhtrana talukas. Covering a total area of 2,074.53 hectares, the initiative benefited 1,041 farmers.</b> This effort enhanced irrigation efficiency, boosted agricultural productivity, and contributed to water conservation and eco-friendly farming practices in the region.</li> </ul> </li> <li><b>Earlier Completed Activities/Projects:</b> <ul style="list-style-type: none"> <li>• Large number of water harvesting structure (18 Nos. of check dams in coordination with salinity department) and Augmentation of 3 check dams.</li> <li>• Ground recharge activities (pond deepening work for 61 ponds) individually and 26 ponds under Sujlam Suflam Jal Abhiyan were built leading to a significant increase in water table and higher returns to the farmers.</li> <li>• New Pond Deepening Under Ajadi ka Amrut Mahotsav done in Goyarsama village Approx Deepening Capacity is 12000 Cum.</li> <li>• Roof Top Rainwater Harvesting 145 Nos. (40 Nos. current FY 2022-23) which has 10,000 litre storage which is sufficient for one year drinking water purpose for 5 people family.</li> <li>• Recharge Borewell 208 Nos (19 Nos. current FY 2022-23) which is best ever option to direct recharge the soil.</li> <li>• Drip Irrigation approx. 1505 Farmers benefitted in coordination with Gujrat Green Revolution Company till date.</li> <li>• Bund construction on way of Nagmati River could save more than 575 MCFT water quantity which recharged in ground due to which borewell depth decreased by 50-100 Ft in Zarpara, Bhujpur and Navinal Vadi Vistar.</li> </ul> </li> </ul>

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025
		<ul style="list-style-type: none"> <li>• Pond Pipeline work at Prasla Vistar Zarpara which increase recharge capacity more than 25% in 100 hector area.</li> <li>• Check dam gate valve construction at Bhujpur which controlled more than 350 MCFT water to go into sea and get recharged current year.</li> </ul> <p>With the objective of to preserve the rainwater to reduce the impact of salinity and recharge the ground water (the main source of water) to facilitate the Agricultural activities as well as for drinking water.</p> <p>Please refer <b>Annexure - 2</b> for full details of CSR activities carried out by Adani Foundation in the Kutch region. The budget allocated for CSR activities for the financial year 2024-25 was INR 1,564.72 lakh and fully spent during FY 2024-25.</p> <p>APSEZ will also explore the possibility of Rainwater harvesting within port premises during port expansion activities through proper collection of rainwater, if feasible.</p>
1.27	Ensure minimum 5% of total electricity requirement be met through installation of solar energy/ green/ non-conventional in the proposed activity area.	<p>Complied.</p> <p>APSEZ has implemented the following for reduction of renewal source of energy consumption.</p> <ul style="list-style-type: none"> <li>➤ Installed 8.8 MW roof top solar generating plant at various locations and 22.4 MW wind generating plant in SEZ in Mundra.</li> <li>➤ Development of 1000 MW of solar park at Khavda (under process).</li> <li>➤ 217 nos. of Electrical truck Vehicle for internal movement of material (E-ITV's).</li> <li>➤ 10 nos. of Electrical Car for movement of employees and all are working.</li> <li>➤ Replacement of diesel loco by Electrified railway line of approx. 91 km from West port to Adipur Railway station.</li> </ul>
1.28	All the commitments made as part of EMP with the budget provisions shall be implemented. The compliance to the recommendations shall be	<p>Complied.</p> <p>All the commitments made as part of EMP with the budget provisions is being implemented gradually and budget allocated for the EMP will be used for the</p>

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025
	submitted along with 6 monthly compliance report to the regional office of MoEFCC.	<p>implementation of EMP only and the said will not be diverted to any other specific purpose.</p> <p>Budget for environmental management measures (including horticulture) for the FY 2024-25 is to the tune of INR 1340.21 lakh. Approx. INR 1029.51 lakh was spent during the year FY 2024-25.</p> <p>Detailed breakup of the expenditures for the past 3 years is attached as <b>Annexure - 12</b>.</p>
1.29	As per the Ministry's Office Memorandum F.No.22-65/2017-IA.III dated 30th September 2020, the project proponent shall abide by all the commitments made by them to address the concerns raised during the public consultation. The project proponent shall initiate the activities proposed by them, based on the commitment made in the public hearing, and incorporate in the Environmental Management Plan and submit to the Ministry. All other activities including pollution control, environmental protection and conservation, R&R, wildlife and forest conservation/protection measures including the NPV, Compensatory Afforestation etc, either proposed by the project proponent based on the social impact assessment and R&R action plan carried out during the preparation of EIA report or prescribed by EAC, shall also be	<p>Point Noted and Agreed.</p> <p>A public hearing for the said project was exempted by MoEF&amp;CC vide Amendment in ToR dated 10<sup>th</sup> April, 2024.</p> <p>APSEZ is already working in Mundra Since 1995 and people are well aware about the associated environment impacts of the development activities, and how best APSEZ is implementing its Environment Management Plan, through best practices.</p> <p>APSEZ is implementing CSR activity through its CSR arm - Adani Foundation in the following areas</p> <ul style="list-style-type: none"> <li>✓ Education</li> <li>✓ Community Health</li> <li>✓ Sustainable Livelihood Development</li> <li>✓ Community Infrastructure Development</li> <li>✓ Skill Development</li> </ul> <p>The budget allocated for CSR activities for the financial year 2024-25 was INR 1,564.72 lakh and fully spent during FY 2024-25.</p> <p>Till Mar'25, Adani Foundation has done total expenditure of INR 188.41 Cr. for CSR activities in Kutch region since its inception.</p> <p>APSEZ will continue to do the CSR activities. As per O&amp;M dated 30<sup>th</sup> September 2020 and 20<sup>th</sup> October 2020, CER is not applicable. However, APSEZ has carried out many works inline to Sustainable Environment in the areas surrounding the project, with focus on Resource conservation, Waste Minimization, Biodiversity enhancement and conservation, Water conservation, Wastewater Management etc. Same will</p>

**Status of the conditions stipulated in Environment and CRZ Clearance**

<b>Sr. No.</b>	<b>Conditions as per clearance letter</b>	<b>Compliance Status as on 31-03-2025</b>
	implemented and become part of EMP.	also be taken up further, based on the need-based assessment and in consultation with local administration.
1.30	Environmental Clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court of Gujarat, and any other court of law, if any, as May be applicable to this project.	Point Noted and Agreed.
<b>1. Statutory Compliance</b>		
1.1	Construction activity shall be carried out strictly according to the provisions of CRZ Notification, 2011 and the State Coastal Zone Management Plan as drawn up by the State Government. No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.	Being Complied.  Construction work for the project is partially completed & construction activity is in progress for proposed development in accordance with existing rules & regulations of CRZ Notification, 2011 and as amended from time to time.  All the specific conditions provided for construction phase is being considered upon recommencement of construction activity.
1.2	A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.	Complied.  APSEZ's subsidiary unit MUL is supplying power during construction & operation phase, emergency DG sets will only be used for Emergency power shutdown. Emergency DG sets used will confirm CPCB standards.
1.3	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Coast Guard, Civil Aviation Department shall be obtained, as applicable by project proponents from the respective competent authorities.	Complied.  All statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Coast Guard, Civil Aviation Department have been obtained from concern authorities and same will be continued for proposed expansion also.

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025
<b>2. Air Quality Monitoring and Preservation</b>		
2.1	The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the project area at least at four locations, covering upwind and downwind directions.	Complied  For further details regarding ambient air quality monitoring & results, please refer to specific condition no 1.23 of the EC and CRZ clearance.
2.2	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed emission standards	Complied.  For further details regarding the control measures for fugitive emissions, please refer specific condition no 1.15 of the EC and CRZ clearance.
2.3	Shrouding shall be carried out in the work site enclosing the dock/proposed facility area. This will act as dust curtain as well achieving zero dust discharge from the site. These curtain or shroud will be immensely effective in restricting disturbance from wind in affecting the dry dock operations, preventing waste dispersion, improving working conditions through provision of shade for the workers.	Complied.  Proposed Facilities would be covered on all sides to avoid dust discharge from site. APSEZ had provided provision of hydraulic operated spill plate & wind screen to retain any accidental spill of dry cargo into the sea.  Also, administrative control is taken by providing regular training to crane operators to drop the coal from less height to reduce fugitive dust emission.  APSEZ also has a dedicated housekeeping staff doing rigorous dry housekeeping with mechanized sweeping machine round the corner.  Also rest shelter would be provided at the workplace.

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025
2.4	Dust collectors shall be deployed in all areas where blasting (surface cleaning) and painting operations are to be carried out, supplemented by stacks for effective dispersion.	Point Noted and Will be complied.
2.5	The Vessels shall comply the emission norms prescribed from time to time.	<p>Complied.</p> <p>Ships berthing at Mundra Port complies with MARPOL regulations.</p> <p>No discharge such as bilge wastes, sewage or any other liquid wastewater is allowed into marine environment inside port limits.</p> <p>APSEZ has adequate Waste Reception facility as per MARPOL and DG Shipping regulations. The port has reception facility for all MARPOL waste streams (Annex-I, Annex-II, Annex-IV &amp; Annex-V) except Annex-VI that is generated from vessels.</p> <p>APSEZL has not received any sewage/liquid waste from ships / vessels till date.</p> <p>As a general practice APSEZ provide facility for receiving slop / waste oil from vessels through hose connection with oil tankers. These tankers divert slop / waste oil to Oil water separator system where water and oil particles are separated. Separated oil is being sold to authorized recycler /re-processor. However, no slop / waste oil was received during the compliance period.</p>
2.6	Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may	<p>Complied.</p> <p>MUL is supplying uninterrupted power throughout the year. However, DG sets have been kept as stand-by for Emergency power shutdown. DG sets used is confirming to CPCB standards.</p> <p>Nos. of D.G. Sets: 21 Frequency of Monitoring: Six Monthly</p> <p>Summary of DG stack monitoring is mentioned below: -</p>

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025																																		
	be decided with in consultation with State Pollution Control Board.	<p align="center"><b>Results of DG Stack Monitoring</b></p> <p align="center"><b>Monitoring Period: October - 2024 to March - 2025</b></p> <table border="1" data-bbox="683 478 1386 722"> <thead> <tr> <th data-bbox="683 478 732 573">S r. N o.</th> <th data-bbox="737 478 878 573">Parameter</th> <th data-bbox="883 478 992 573">Unit</th> <th data-bbox="997 478 1089 573">MIN</th> <th data-bbox="1094 478 1187 573">MAX</th> <th data-bbox="1192 478 1284 573">AVERA GE</th> <th data-bbox="1289 478 1386 573">Permiss ible Limit</th> </tr> </thead> <tbody> <tr> <td data-bbox="683 579 732 621">1</td> <td data-bbox="737 579 878 621">Particulate Matter</td> <td data-bbox="883 579 992 621">mg/Nm<sup>3</sup></td> <td data-bbox="997 579 1089 621">18.86</td> <td data-bbox="1094 579 1187 621">32.11</td> <td data-bbox="1192 579 1284 621">22.40</td> <td data-bbox="1289 579 1386 621">150</td> </tr> <tr> <td data-bbox="683 625 732 667">2</td> <td data-bbox="737 625 878 667">Sulphur Dioxide</td> <td data-bbox="883 625 992 667">ppm</td> <td data-bbox="997 625 1089 667">6.15</td> <td data-bbox="1094 625 1187 667">18.75</td> <td data-bbox="1192 625 1284 667">9.33</td> <td data-bbox="1289 625 1386 667">100</td> </tr> <tr> <td data-bbox="683 672 732 714">3</td> <td data-bbox="737 672 878 714">Oxide of Nitrogen</td> <td data-bbox="883 672 992 714">ppm</td> <td data-bbox="997 672 1089 714">18.79</td> <td data-bbox="1094 672 1187 714">34.07</td> <td data-bbox="1192 672 1284 714">22.80</td> <td data-bbox="1289 672 1386 714">50</td> </tr> </tbody> </table> <p>Six monthly DG stack monitoring reports for duration Oct'24 to Mar'25 attached as <b>Annexure – 8</b>.</p>							S r. N o.	Parameter	Unit	MIN	MAX	AVERA GE	Permiss ible Limit	1	Particulate Matter	mg/Nm <sup>3</sup>	18.86	32.11	22.40	150	2	Sulphur Dioxide	ppm	6.15	18.75	9.33	100	3	Oxide of Nitrogen	ppm	18.79	34.07	22.80	50
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2.7	A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the	<p>Complied.</p> <p>APSEZ is well connected with a National Highway (NH-8A) and State Highway (SH-6). The National and State highways have connections to other major roads, cities and parts of the country such as the Delhi Mumbai Industrial Corridor, NH-14, SH-48, etc. In addition to them the port has 7 approach roads connecting to state and national highways for easy cargo movement. The port also has a good rail connectivity, and it is the first port in India connected by double stack container rail facility.</p> <p>As part of the traffic assessment, expansion of 8 nos. of roads and laying 9 nos. of internal road connectivity to handle the traffic due to proposed development based on future requirement with obtaining requisite permission from concerned authorities.</p> <p>For the traffic management, the government and APSEZ have already collaborated on an investment of approx. Rs. 321 crores. A bridge is being constructed from Pragpar to our T-junction, and the entire road is being expanded to six lanes. The traffic coming from Gandhidham is being redirected. North corridor road connectivity from North gate parking to Luni State Highway is in progress. Work execution is in three part. One is North gate parking to existing North corridor road length is 350 rmt and 7.00 mtr wide bitumen road , second is Airport to LC 22 connecting road length is 1500 rmt and 7.00 mtr wide bitumen road .Third part is Concor yard to Luni State Highway connectivity road</p>																																		

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025
	participation of these departments.	length is 920 Rmt and 7.00 mtr wide bitumen road. All roads are two lane and cost is 19.00 Cr.
<b>3. Water Quality Monitoring And Preservation</b>		
3.1	The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained.	Complied  For further details please refer compliance to specific condition no 1.13 of the EC and CRZ clearance.
3.2	Appropriate measures must be taken while undertaking digging activities to avoid any likely degradation of water quality. Silt curtains shall be used to contain the spreading of suspended sediment during dredging within the dredging area.	Complied.  During dredging activities all the recommendations such as use of silt curtains, disposing of dredged material at a specific point into offshore location, etc. would be implemented.  Entire quantity of dredged material is being used for reclamation activities only; no disposal is carried out in the sea. Total 1.55 MCuM capital dredging undertaken out of approved 120 MCuM for development of VLCC jetty during this compliance period (Oct'24 to Mar'25).
3.3	No ships docking at the proposed project site will discharge its on-board waste water untreated in to the estuary/ channel. All such wastewater load will be diverted to the proposed Effluent Treatment Plant of the project site.	Point Noted and Agreed  Ships berthing at Mundra Port comply with MARPOL regulations.  No discharge such as bilge wastes, sewage or any other liquid wastewater is allowed into marine environment inside port limits.  APSEZ has adequate Waste Reception facility as per MARPOL and DG Shipping regulations. The port has reception facility for all MARPOL waste streams (Annex-I, Annex-II, Annex-IV & Annex-V) except Annex-VI that is generated from vessels.  APSEZL has not received any sewage/liquid waste from ships / vessels till date.  As a general practice APSEZ provide facility for receiving slop / waste oil from vessels through hose



**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025
		connection with oil tankers. These tankers divert slop / waste oil to Oil water separator system where water and oil particles are separated. Separated oil is being sold to authorized recycler /re-processor. However, no slop / waste oil was received during the compliance period.
3.4	Measures should be taken to contain, control and recover the accidental spills of fuel and cargo handle.	Complied.  For further details regarding oil spill contingency plan, please refer specific condition no 1.17 of the EC and CRZ clearance.
3.5	The project proponents will draw up and implement a plan for the management of temperature differences between intake waters and discharge waters.	Complied.  Marine monitoring is being carried out by the M/s Adani Power (Mundra) Limited at the marine outfall locations and reports is being submitted to the concerned authorities on regular basis. Monitoring Report attached as <b>Annexure - 8</b> .
3.6	Spillage of fuel / engine oil and lubricants from the construction site are a source of organic pollution which impacts marine life. This shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage.	Complied.  For further details regarding oil spill contingency plan, please refer specific condition no 1.18 of the EC and CRZ clearance.
3.7	Total freshwater use shall not exceed the proposed requirement as provided in the project details. Prior permission from competent authority shall be obtained for use of fresh water.	Complied.  APSEZ sources its water for various project activities from the desalination plant of APSEZ and/or water through Gujarat Water Infrastructure Limited (GWIL). Average water consumption for entire APSEZ area is 5.40 MLD during compliance period i.e. Oct'24 to Mar'25.  Additional capacity of desalination plant will be developed to fulfill the freshwater requirement of APSEZ in line with expansion activity as well as future business requirement.
3.8	Sewage Treatment Plant shall be provided to treat the wastewater generated from the project. Treated	Point Noted and Agreed  Entire quantity of sewage generated is being treated in designated ETP / STP and treated sewage

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025																																																																																																						
	water shall be reused for horticulture, flushing, backwash, HVAC purposes and dust suppression.	conforming with GPCB standard is fully utilized for Horticulture purposes.																																																																																																						
3.9	A certificate from the competent authority for discharging treated effluent/ untreated effluents into the public sewer/ disposal/drainage systems along with the final disposal point should be obtained.	<table border="1"> <thead> <tr> <th>Location</th> <th>Capacity</th> <th>Quantity of Treated Water (Avg. from Oct'24 to Mar'25)</th> <th>Type of ETP / STP</th> </tr> </thead> <tbody> <tr> <td>LT</td> <td>265 KLD</td> <td>54.60 KLD</td> <td>Activated Sludge</td> </tr> <tr> <td>West Port</td> <td>55 KLD</td> <td>15.09 KLD</td> <td>FAB</td> </tr> </tbody> </table> <p>Third party analysis of the treated water is being carried out once in a month at ETP &amp; twice in a month at West Port by NABL and MoEF&amp;CC accredited agency namely M/s. Unistar Environment and Research Labs Pvt. Ltd., Vapi. Summary of the same for duration from Oct'24 to Mar'25 is mentioned below.</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Unit</th> <th>Min</th> <th>Max</th> <th>Average</th> <th>Perm. Limit\$</th> </tr> </thead> <tbody> <tr> <td colspan="6"><b>Industrial Effluent / Sewage (For ETP)</b></td> </tr> <tr> <td>pH</td> <td>--</td> <td>7.14</td> <td>7.64</td> <td>7.34</td> <td>6.5 – 8.5</td> </tr> <tr> <td>TSS</td> <td>mg/L</td> <td>18</td> <td>54</td> <td>32</td> <td>100</td> </tr> <tr> <td>TDS</td> <td>mg/L</td> <td>580</td> <td>648</td> <td>622</td> <td>2100</td> </tr> <tr> <td>COD</td> <td>mg/L</td> <td>78.40</td> <td>92.20</td> <td>84.77</td> <td>100</td> </tr> <tr> <td>BOD (3 Days @ 27°C)</td> <td>mg/L</td> <td>23</td> <td>27</td> <td>25.2</td> <td>30</td> </tr> <tr> <td>Ammonical Nitrogen as NH<sub>3</sub>-N</td> <td>mg/L</td> <td>12.10</td> <td>22.40</td> <td>18.45</td> <td>50</td> </tr> <tr> <td colspan="6"><b>Domestic Sewage (For STP)</b></td> </tr> <tr> <td>pH</td> <td>--</td> <td>7.11</td> <td>7.46</td> <td>7.25</td> <td>6.5 – 8.5</td> </tr> <tr> <td>TSS</td> <td>mg/L</td> <td>14.00</td> <td>24.00</td> <td>18.50</td> <td>100</td> </tr> <tr> <td>BOD (3 Days @ 27 °C)</td> <td>mg/L</td> <td>13.00</td> <td>16.80</td> <td>15.16</td> <td>30</td> </tr> <tr> <td>Residual Chlorine</td> <td>ppm</td> <td>0.55</td> <td>0.74</td> <td>0.65</td> <td>Min. 0.5</td> </tr> <tr> <td>Fecal Coliform</td> <td>MPN/ 100 ml</td> <td>50.00</td> <td>70.00</td> <td>60.00</td> <td>&lt;1000</td> </tr> <tr> <td>pH</td> <td>--</td> <td>7.11</td> <td>7.46</td> <td>7.25</td> <td>6.5 – 8.5</td> </tr> </tbody> </table>	Location	Capacity	Quantity of Treated Water (Avg. from Oct'24 to Mar'25)	Type of ETP / STP	LT	265 KLD	54.60 KLD	Activated Sludge	West Port	55 KLD	15.09 KLD	FAB	Parameter	Unit	Min	Max	Average	Perm. Limit\$	<b>Industrial Effluent / Sewage (For ETP)</b>						pH	--	7.14	7.64	7.34	6.5 – 8.5	TSS	mg/L	18	54	32	100	TDS	mg/L	580	648	622	2100	COD	mg/L	78.40	92.20	84.77	100	BOD (3 Days @ 27°C)	mg/L	23	27	25.2	30	Ammonical Nitrogen as NH <sub>3</sub> -N	mg/L	12.10	22.40	18.45	50	<b>Domestic Sewage (For STP)</b>						pH	--	7.11	7.46	7.25	6.5 – 8.5	TSS	mg/L	14.00	24.00	18.50	100	BOD (3 Days @ 27 °C)	mg/L	13.00	16.80	15.16	30	Residual Chlorine	ppm	0.55	0.74	0.65	Min. 0.5	Fecal Coliform	MPN/ 100 ml	50.00	70.00	60.00	<1000	pH	--	7.11	7.46	7.25	6.5 – 8.5
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		<p><sup>§</sup> as per CC&amp;A granted by GPCB Values recorded confirms to the stipulated standards.</p> <p>Monitoring and analysis of ETP and STP treated waste is also carried out regularly through in-house laboratory for the parameters such as pH, TDS, TSS, COD, Chlorides, and residual chlorine.</p>																
3.10	No diversion of the natural course of the river shall be made without prior permission from the Ministry of Water resources.	<p>Complied.</p> <p>For further details please refer specific condition no 1.13 of the EC and CRZ clearance.</p>																
3.1 1	All the erosion control measures shall be taken at water front facilities. Earth protection work shall be carried out to avoid erosion of soil from the shoreline/boundary line from the land area into the marine water body.	<p>Being Complied</p> <p>Shoreline change study was carried out by M/s. Gujarat Institute of Desert Ecology, Bhuj in 2022 as a part of the Environmental Management Plan (EMP) compliance with the CIA study. The cost of said study was INR 17.39 Lacs.</p> <p>In the present study, the rate of shoreline changes statistics on a time series of multiple shoreline positions of a totally 43 km coastline stretches (16 km on the west side and 27 km on the east side of Adani main port) on either side of Adani Ports and Special Economic Zone Ltd (APSEZL) has been taken into account for the calculation by using satellite images.</p> <p>As a part of the NGT direction, the shoreline change analysis has been carried out for the years 2015-2022 to study the immediate changes after the commissioning of the port and initiation of the activities (September 2015) for short-term variation for the year 2015-2022 using EPR method has been carried out.</p> <p>The details of the rate of shoreline changes (Short interval time) recorded from 2015 to 2022 are summarized in below table.</p> <table border="1" data-bbox="688 1738 1388 1883"> <thead> <tr> <th rowspan="2">Period</th> <th rowspan="2">Name of the block</th> <th rowspan="2">Average Shoreline Change (M/Year)</th> <th colspan="2">Shoreline Change(M)</th> </tr> <tr> <th>Maximum Accretion</th> <th>Maximum Erosion</th> </tr> </thead> <tbody> <tr> <td rowspan="2">2015-2022</td> <td>West Port</td> <td>-11.43</td> <td>39.86</td> <td>-78.68</td> </tr> <tr> <td>Eastern side</td> <td>-26.60</td> <td>191.32</td> <td>-165.19</td> </tr> </tbody> </table>	Period	Name of the block	Average Shoreline Change (M/Year)	Shoreline Change(M)		Maximum Accretion	Maximum Erosion	2015-2022	West Port	-11.43	39.86	-78.68	Eastern side	-26.60	191.32	-165.19
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Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025																								
		The Shoreline Change Assessment Study report of GUIDE was submitted during compliance period Apr'24 to Sep'24.																								
<b>4. Noise Monitoring And Prevention</b>																										
4.1	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.	<p>Complied.</p> <p>Ambient Noise monitoring is being carried out by NABL accredited and MoEF&amp;CC authorized agency namely M/s. Unistar Environment and Research Labs Pvt. Ltd.,</p> <p>Summary of the same for duration from Oct'24 to Mar'25 is mentioned below:</p> <table border="1"> <thead> <tr> <th colspan="6">Noise sampling locations &amp; frequency: 10 nos. (once in a month)</th> </tr> <tr> <th>Noise</th> <th>Unit</th> <th>Leq Min</th> <th>Leq Max</th> <th>Leq Ave.</th> <th>Leq Perm. Limit*</th> </tr> </thead> <tbody> <tr> <td>Day Time</td> <td>dB(A)</td> <td>57.30</td> <td>69.30</td> <td>64.53</td> <td>75</td> </tr> <tr> <td>Night Time</td> <td>dB(A)</td> <td>57.20</td> <td>65.70</td> <td>62.19</td> <td>70</td> </tr> </tbody> </table> <p>\$ as per NAAQ standards, 2009 * as per CC&amp;A granted by GPCB Values recorded confirms to the stipulated standards.</p> <p>Please refer <b>Annexure - 8</b> for detailed analysis reports. Approx. INR 17.27 Lakh is spent for all environmental monitoring activities during the FY 2024-25 for overall APSEZ, Mundra.</p> <p>Ambient noise quality monitoring in surrounding villages is being carried out by M/s. Adani Power (Mundra) Limited, Mundra through NABL accredited and MoEF&amp;CC authorized agency namely M/s. UniStar Environment &amp; Research Labs Pvt. Ltd. and monitoring reports of the same are also enclosed in <b>Annexure - 8</b>.</p>	Noise sampling locations & frequency: 10 nos. (once in a month)						Noise	Unit	Leq Min	Leq Max	Leq Ave.	Leq Perm. Limit*	Day Time	dB(A)	57.30	69.30	64.53	75	Night Time	dB(A)	57.20	65.70	62.19	70
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4.2	Noise from vehicles, power machinery and equipment on-site should not exceed the prescribed limit. Equipment should be regularly serviced. Attention should also be given to muffler maintenance and	<p>Complied.</p> <p>This reply covers condition no 4.2 and 4.3.</p> <p>For operation phase, following noise control measures are taken:</p> <ul style="list-style-type: none"> <li>All Emergency DG sets were installed with acoustic enclosures confirming EPA norms.</li> </ul>																								

**Status of the conditions stipulated in Environment and CRZ Clearance**

<b>Sr. No.</b>	<b>Conditions as per clearance letter</b>	<b>Compliance Status as on 31-03-2025</b>
	enclosure of noisy equipment's.	<ul style="list-style-type: none"> <li>• Proper maintenance of equipment's / plant machineries is being done on regular basis.</li> <li>• Green Belt has been developed at roadsides and operational areas.</li> </ul> <p>Traffic control measures such as signage, speed regulation, traffic guides etc. are in place to reduce the unnecessary honking by cargo vehicles.</p>
4.3	Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.	
4.4	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.	<p>Complied.</p> <p>Existing emergency D.G. Sets provided conforming to the standards prescribed under E(P)A Rules, 1986 only and the same will be continued during proposed expansion activity also.</p>
<b>5. Energy Conservation Measures</b>		
5.1	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, streetlights, parking around project area and maintain the same regularly;	<p>Complied.</p> <p>For further details regarding renewable energy installation and usage, please refer specific condition no 1.27 of the EC and CRZ clearance.</p>
5.2	Provide LED lights in offices and project areas.	<p>Complied.</p> <p>The conventional lights have been Switched over from (HPSV) to Energy Efficient LED lighting with automation motion sensor in APSEZ area which has reduced the energy consumption.</p>
<b>6. Waste Management</b>		
6.1	Dredged material shall be disposed safely in the designated areas.	<p>Complied.</p> <p>For further details regarding disposal of dredged material, please refer compliance of Water Quality Monitoring and Preservation condition no 3.2 of the EC and CRZ clearance.</p>
6.2	Shoreline should not be disturbed due to dumping. Periodical study on shore	Being Complied.

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025
	line changes shall be conducted and mitigation carried out, if necessary. The details shall be submitted along with the six monthly monitoring reports.	For further details regarding shoreline change, please refer Water Quality Monitoring and Preservation condition no 3.11 of the EC and CRZ clearance.
6.3	Necessary arrangements for the treatment of the effluents and solid wastes must be made and it must be ensured that they conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986.	Complied  For further details regarding treatment of effluents, please refer Water Quality Monitoring and Preservation condition no 3.8 & 3.9 of the EC and CRZ clearance.
6.4	The solid wastes shall be managed and disposed as per the norms of the Solid Waste Management Rules, 2016.	Complied.  This reply covers condition no 6.4, 6.5, 6.6 & 6.7.  <b>Waste Management</b> – APSEZ has adopted 5R concept for environmentally sound management of different types of solid & liquid wastes. Please refer below details about management of each type of waste.  <b>Non-Hazardous Solid Waste:</b> A well-established system for segregation of dry & wet waste is in place. All wet waste (Organic waste) is being segregated & utilized for compost manufacturing and/or biogas generation for cooking purpose. The compost is further used by in house horticulture team for greenbelt development. Whereas dry recyclable waste is being sorted in various categories. Presently manual sorting is being done for sorting of different types of solid waste. Segregated recyclable materials such as Paper, Plastic, Cardboard, PET Bottles, and Glasses, etc. are then sent to respective recycling units, whereas remaining non-recyclable waste is bailed and sent to cement plant (M/s. Ambuja Cement Ltd., Kodinar) for Co-processing as RDF (Refused Derived Fuel).
6.5	Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.	Complied.  This reply covers condition no 6.4, 6.5, 6.6 & 6.7.  <b>Waste Management</b> – APSEZ has adopted 5R concept for environmentally sound management of different types of solid & liquid wastes. Please refer below details about management of each type of waste.  <b>Non-Hazardous Solid Waste:</b> A well-established system for segregation of dry & wet waste is in place. All wet waste (Organic waste) is being segregated & utilized for compost manufacturing and/or biogas generation for cooking purpose. The compost is further used by in house horticulture team for greenbelt development. Whereas dry recyclable waste is being sorted in various categories. Presently manual sorting is being done for sorting of different types of solid waste. Segregated recyclable materials such as Paper, Plastic, Cardboard, PET Bottles, and Glasses, etc. are then sent to respective recycling units, whereas remaining non-recyclable waste is bailed and sent to cement plant (M/s. Ambuja Cement Ltd., Kodinar) for Co-processing as RDF (Refused Derived Fuel).

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025
6.6	A certificate from the competent authority handling municipal solid wastes should be obtained, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project.	<p>APSEZ, Mundra is certified for Zero Waste to Landfill management system (Certificate No.: CII/ZWL/2025/001) by Confederation of Indian Industry (CII). (valid up to 22.12.2027). The copy of certified for Zero Waste to Landfill management system is attached as <b>Annexure - 13</b>.</p> <p><b>Hazardous &amp; Other Waste:</b></p>
6.7	Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.	<ul style="list-style-type: none"> <li>• Bio medical waste generated from OHCs and Adani Hospital is being disposed at Common Bio Medical Waste Treatment Facility namely M/s. Distromed Kutch Services Pvt. Ltd., Bhuj.</li> <li>• E – Waste is being sold to GPCB registered recyclers namely M/s. Galaxy Recycling, Rajkot.</li> <li>• Used Batteries are being sold to GPCB registered recyclers namely Sabnam Enterprise, Kutch and S K Metal Industries, Rajkot.</li> <li>• Solid Hazardous Waste is being disposed through co-processing / incineration through common facility i.e. M/s. Saurashtra Enviro Projects Pvt. Ltd., Bhachau and/or cement industries of Ambuja Cement Ltd., Kodinar.</li> <li>• Used/Waste Oil is being sold to GPCB authorized recyclers / re-processors namely M/s. Western India Petro Chem Ind – Bhavnagar, K Kasha Enterprises - Ahmedabad, Shana Oil Process - Ahmedabad. It is also being reused within organization for lubrication purpose.</li> <li>• ETP Sludge, Oily Cotton Waste, Pig Waste are being disposed through co-processing in cement industries of Ambuja Cement Ltd., Kodinar.</li> <li>• Discarded drums / barrels was being sold to authorized decontamination facility i.e. M/s. Jawrawala Petroleum, Ahmedabad. It is also being reused within organization for filling hazardous waste.</li> <li>• Solid hazardous waste i.e. Tank bottom sludge was being sold to authorized recycler namely M/s. Mundra Oil Pvt. Ltd., Mundra for recycling.</li> <li>• Expired paint materials was being disposed by incineration through common facility i.e. M/s. Saurashtra Enviro Projects Pvt. Ltd., Bhachau.</li> <li>• Downgrade chemicals generated from cleaning of storage tanks / pipelines were being sold to authorized solvent recovery facilities namely M/s.</li> </ul>

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025																											
		<p>Acquire Chemicals, Ankleshwar.</p> <ul style="list-style-type: none"> <li>• Slop Oil received from vessels is treated to separate water and oil particles in Oil Water Separator system. Separated oil from the same was being sold to authorized recycler / reprocessor namely M/s. Western India Petro Chem Ind - Bhavnagar, Aviation Corporation - Kutch &amp; Aroma Petrochem - Bhavnagar and water is sent to ETP for further treatment. However, during the compliance period, there was no received or disposal of Slope Oil.</li> <li>• However, during the compliance period i.e. Oct'24 to Mar'25 there was no generation and disposal of used battery waste, Sludge &amp; Filters contaminated with oil, Tank Bottom sludge, Asbestos Waste, Glass wool Waste (Thermal Insulation Material), Downgrade Chemicals, Waste Oil and Expired Paint Material.</li> <li>• Horticulture waste is collected from various green belt areas and it is using for making of manure and manure is being utilizing in horticulture purpose within plant premises.</li> </ul> <p>Details of permissions / agreements of hazardous waste authorized vendors was submitted during compliance period Apr'24 to Sep'24 and there is no further change.</p> <p>The following table summarizes the waste management practice (from Oct'24 to Mar'25) for different types of wastes at APSEZ:</p> <table border="1" data-bbox="683 1430 1386 1879"> <thead> <tr> <th>Type of Waste</th> <th>Waste Description</th> <th>Quantity (MT)</th> <th>Disposal Method</th> </tr> </thead> <tbody> <tr> <td rowspan="5">Hazardous Waste</td> <td>ETP/CETP Sludge</td> <td>22.10</td> <td>Co-processing at cement industries</td> </tr> <tr> <td>Oily Cotton Waste</td> <td>41.43</td> <td>Co-processing at cement industries</td> </tr> <tr> <td>Pig Waste</td> <td>9.95</td> <td>Co-processing at cement industries</td> </tr> <tr> <td>Used / Spent / Waste Oil</td> <td>188.34</td> <td>Sell to registered recycler</td> </tr> <tr> <td><b>Total</b></td> <td><b>261.82</b></td> <td></td> </tr> <tr> <td rowspan="2">Non-Hazardous Waste</td> <td>Glass Waste</td> <td>13.64</td> <td>After recovery sent for recycling / Reuse within premises</td> </tr> <tr> <td>Horticulture Waste</td> <td>325.47</td> <td>Used for making of manure and utilize</td> </tr> </tbody> </table>	Type of Waste	Waste Description	Quantity (MT)	Disposal Method	Hazardous Waste	ETP/CETP Sludge	22.10	Co-processing at cement industries	Oily Cotton Waste	41.43	Co-processing at cement industries	Pig Waste	9.95	Co-processing at cement industries	Used / Spent / Waste Oil	188.34	Sell to registered recycler	<b>Total</b>	<b>261.82</b>		Non-Hazardous Waste	Glass Waste	13.64	After recovery sent for recycling / Reuse within premises	Horticulture Waste	325.47	Used for making of manure and utilize
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Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025		
				for horticulture purpose
		Metal Scrap	1095.45	After recovery sent for recycling / Reuse within premises
		Organic / Food Waste	563.17	Converted to Manure for Horticulture use / Biogas for cooking purpose
		Paper Waste	19.91	After recovery sent for recycling / Reuse within premises
		Plastic Waste	86.46	After recovery sent for recycling / Reuse within premises
		RDF (Non Recyclable Waste)	191.42	Co-processing at cement industries
		Rubber Waste	339.14	After recovery sent for recycling / Reuse within premises
		Wooden waste	97.44	After recovery sent for recycling / Reuse within premises
		<b>Total</b>	<b>2732.10</b>	
		<b>Other Waste</b>		
		Bio Medical Waste	3.87	To approved CBWTF Site and registered recyclers
		E-Waste	13.01	Sell to registered recycler
		<b>Total</b>	<b>16.88</b>	
		<b>Grand Total</b>	<b>3010.79</b>	
6.8	Oil spill contingency plan shall be prepared and part of DMP to tackle emergencies. The equipment and recovery of oil from a spill would be assessed. Guidelines given in MARPOL and Shipping Acts for oil spill management would be followed. Mechanism for integration of terminals oil contingency plan with the overall area contingency plan under the co-	Complied.  For further details regarding oil spill contingency plan, please refer specific condition no 1.18 of the EC and CRZ clearance & regarding MARPOL guideline details please refer to Air Quality Monitoring and Preservation condition 2.5.		

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025
	ordination of Coast should be covered.	
<b>7. Green Belt</b>		
7.1	Green belt shall be developed in area as provided in project details with a native tree species in accordance with CPCB guidelines.	Being Complied This reply covers condition no 7.1 and 7.2. APSEZ has developed its own "Dept. of Horticulture" which is taking measures/ steps for terrestrial greening as well as mangrove plantation.
7.2	Topsoil shall be separately stored and used in the development of green belt.	The species such as <i>Ficus Infectoria</i> , <i>Ficus religiosa</i> , <i>Terminalia arjuna</i> , <i>Cocos nucifera</i> , <i>Washingtonia fillifera</i> , <i>Casurina spp.</i> , <i>Azadirachta Indica</i> , <i>Eucalyptus spp.</i> , <i>Jatropha curacus</i> , <i>Ficus bengalensis</i> , <i>Subabool spp.</i> , <i>Casia fistula</i> , <i>Date Palm</i> and <i>Delonix regia</i> are grown within APSEZ area.  Within the port areas approx. 189.41 hectare of greenbelt having 461349 trees with the density of 2435 trees per hectare is developed till date within port premises. So, far APSEZ has developed 457.99 ha. area as greenbelt with plantation of more than 9.06 Lacs saplings within the APSEZ area.  Please refer <b>Annexure - 14</b> for further details regarding greenbelt development, mangrove afforestation and updated green belt development plan.  Budget for Horticulture Department for the FY 2024-25 is to the tune of INR 831 lakh. Out of which, Approx. INR 570 lakh has spent during the year FY 2024-25.  An additional greenbelt will be developed during proposed expansion activity as per feasibility and approved under EC & CRZ Clearance.
<b>8. Marine Ecology</b>		
8.1	Dredging shall not be carried out during the fish breeding and spawning seasons.	Complied. Dredging activity is being done in non-fish breeding and spawning seasons and dredged material is being

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025
		disposed-off in line permission granted in EC & CRZ Clearance.
8.2	Dredging, etc shall be carried out in the confined manner to reduce the impacts on marine environment.	Complied.  For further details regarding dredging activity control measures, please refer Water Quality Monitoring And Preservation condition no 3.2 of the EC and CRZ clearance.
8.3	The dredging schedule shall be so planned that the turbidity developed is dispersed soon enough to prevent any stress on the fish population.	Point Noted and Agreed
8.4	While carrying out dredging, an independent monitoring shall be carried out through a Government Agency/Institute to assess the impact, and necessary measures shall be taken on priority basis if any adverse impact is observed.	Being Complied  All construction and operation activities as well as dredging and reclamation activities would be carried out as per approved permission. Further all the recommendations made in the EIA report would be implemented while carrying out dredging activity.  For further details regarding marine ecology monitoring, please refer specific condition no 1.12 of the EC and CRZ clearance.
8.5	A detailed marine biodiversity management plan shall be prepared through the NIO or any other institute of repute on marine, brackish water and fresh water ecology and biodiversity and submitted to and implemented to the satisfaction of the State Biodiversity Board and the CRZ authority. The report shall be based on a study of the impact of the project activities on the intertidal biotopes, corals and coral communities, molluscs, sea grasses, sea weeds, sub-tidal habitats, fishes, other marine and aquatic micro,	Point Noted and Agreed  We will comply with all the recommendations suggested in EIA study report prepared by NABET accredited agency and validated by reputed agency i.e. GUIDE, Bhuj.  However, A reputed organization will be engaged to prepare marine biodiversity management plan. The same will be submitted to State Biodiversity Board and the CRZ authority for their examination and approval also.

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025
	macro and mega flora and fauna including benthos, plankton, turtles, birds etc. as also the productivity. The data collection and impact assessment shall be as per standards survey methods and include underwater photography.	
8.6	Marine ecology shall be monitored regularly also in terms of sea weeds, sea grasses, mudflats, sand dunes, fisheries, echinoderms, shrimps, turtles, corals, coastal vegetation, mangroves and other marine biodiversity components including all micro, macro and mega floral and faunal components of marine biodiversity.	Complied.  For further details regarding marine ecology monitoring, please refer specific condition no 1.12 of the EC and CRZ clearance.
8.7	The project proponent shall ensure that water traffic does not impact the aquatic wildlife sanctuaries that fall along the stretch of the river.	Being Complied.  A VTMS service for Gulf of Kutch is operated by Directorate General of Lighthouses and Lightships (DGLL), Govt. of India.  APSEZ is practicing well defined traffic control procedure. Marine Control of APSEZ provides traffic update to vessels in Mundra Port Limit on VHF Channel- 77. Arrival and departure information in Gulf of Kutch is provided to VTMS information cell through an agent or directly by sending an e-mail to <a href="mailto:vtsmanagergulfofkutch@yahoo.com">vtsmanagergulfofkutch@yahoo.com</a> and <a href="mailto:vtsgok@yahoo.com">vtsgok@yahoo.com</a> .  Mundra port has subscribed and taking VTMS feed from Kandla from link <a href="http://www.vts.gov.in">www.vts.gov.in</a> .

**9. Public Hearing And Human Health Issues**

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025
9.1	The workspace shall be maintained as per international standards for occupational health and safety with provision of fresh air respirators, blowers, and fans to prevent any accumulation and inhalation of undesirable levels of pollutants including VOCs.	<p>Complied.</p> <p>APSEZ has obtained ISO 45001:2018 certification for Occupational health and safety management systems to systematically manage health and safety risks and is fully implemented. Copy of the same submitted during compliance period Apr'24 to Sep'24.</p> <p>APSEZ has established Occupational Health Center &amp; First Aid facility at different locations within SEZ, which will be utilized during entire construction as well as operation phase of SEZ project. In case of emergency situation requiring higher level of treatment, the facilities at Adani hospital (multi-Specialty) having 100 bedded facilities located with SEZ area can be utilized.</p>
9.2	Workers shall be strictly enforced to wear personal protective equipments like dust mask, earmuffs or ear plugs, whenever and wherever necessary/required. Special visco-elastic gloves will be used by labour exposed to hazards from vibration.	<p>Complied</p> <p>APSEZ has provided job specific safety PPE's to all workers and wearing of safety PPE's is strictly implemented within port premises</p> <p>Further, Safety awareness training is also provided to workers about work related PPE's.</p>
9.3	In case of repair of any old vessels, excessive care shall be taken while handling Asbestos & Freon gas. Besides, fully enclosed covering should be provided for the temporary storage of asbestos materials at site before disposal to CTSDF.	<p>Being Complied.</p> <p>No repair activity of any old vessel is being permitted within APSEZ's Port premises.</p>
9.4	Safety training shall be given to all workers specific to their work area and every worker and employee will be engaged in fire hazard awareness training and mock drills which will be conducted regularly. All standard safety and	<p>Complied</p> <p>Regular Toolbox Talk (TBT) and fire &amp; safety training is being imparted by the fire &amp; safety department.</p> <p>Regular drills are being conducted for the effectiveness of the system. There were 12 drills conducted for various scenarios during compliance period (Oct'24 to Mar'25) as mentioned below.</p>

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025			
		Sr. No.	Month	Location	Scenario
	occupational hazard measures shall be implemented and monitored by the concerned officials to prevent the occurrence of untoward incidents/accidents.	1.	Oct-24	2L20B1 container AICTPL	Scenario was yard checker was going to pick up LMV after correction work of lock stuck in external trailer during the course other external trailer hit him at yard
		2.	Nov-24	5L07, AMCT	Scenario was yard checker was going to pick up LMV after correction work of lock stuck in external trailer during the course other external trailer hit him at yard
		3.	Nov-24	Yard 7A, ACMTPL	Assuming One lasher fell into the See while approaching Vessel Gangway at berth number 09 near STS-017. Wharf Supervisor immediately informed about this to superintendent. Simultaneously informed to POC, OHC, Fire, and Safety & Security (Security Control), Safety, POC and to all concern people.
		4.	Nov-24	Yard 7A, ACMTPL	Assuming fire occurred in hazardous container of Class 5.1 at yard 7A same time one EITV -36 came and contact with one of the lasher and he got minor injury on his right leg supervisor immediately informed about this to superintendent. Simultaneously informed to POC, OHC, Fire, and Safety & Security (Security Control) and to all concern people.
		5.	Dec-24	T3 Berth No 10, Dry Cargo	To conduct a mock drill to test the emergency response plan and preparedness of the team in the event of an accident. Scenario: A person has been hit by dumper (GJ12CT2276) Driver by veer Singh. V.T- Devendra. Wharf Supervisor immediately informed about this to superintendent. Simultaneously informed to ISCR, OHC, and Safety & Security (Security Control), Safety, POC and to all concern people.
		6.	Jan-25	FCC, BU-03804	While doing welding activity at hopper, hot spatters fell on the empty bags placed underneath and caught fire.
		7.	Jan-25	3R194, line 5A, SPRH	Fire observed by checker in container DHLU2003818 and He rushed to informed supervisor during the course He fell down and got injury on head and He became unconscious
		8.	Feb-25	Steel yard track No 04 - WMI 01	Lasher fell down from the trailer bed during Coil lashing and got injured
		9.	Feb-25	Opposite wear house 2 open yard	Fire observed by yard supervisor in dumped tyre opposite off wear house 2 open yard near fencing
		10.	Mar-25	Pump House-04- pump number 102	Fire in pump number 102 (Cargo-PY Gas) at pump house-04 during strainer cleaning activity, catch fire in pump suction line strainer due to presence of unknown ignition source.

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025			
		11.	Mar-25	FCC, MHS workshop area	Power supply problem check activity in workshop area electric panel that time panel door opening time suddenly spark & flash generated and electric current pass in person body.
12.	Mar-25	Close Godown 14 Gate 09	Vehicle hit to Person		
		Safety Mock drill report (latest report) conducted during the compliance period is enclosed as <b>Annexure - 11.</b>			
9.5	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	Complied  An emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan is being implemented. On site Emergency plan submitted during compliance period Apr'24 to Sep'24.			
9.6	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Complied  Workers engaged in construction activities would be mainly from nearby villages hence there would be no requirement of infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP.  Existing facilities for drinking water, toilet & rest shelter would be utilized by workers.			
9.7	Occupational health surveillance of the workers shall be done on a regular basis.	Complied.  Annual health checkup is being carried out on regular basis and submit as a part of Half yearly EC compliance. Latest health checkup report is attached as <b>Annexure - 15.</b>			
<b>10. Environment Responsibility</b>					
10.1	The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for	Complied  Environment Policy duly approved by the Board of Directors is in place and updated copy of Environment Policy submitted during compliance period Apr'24 to Sep'24.			

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025
	<p>standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&amp;CC as a part of six-monthly report.</p>	
10.2	<p>A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.</p>	<p>Complied</p> <p>APSEZL has a well-structured Environment Management Cell, staffed with qualified manpower for implementation of the Environment Management Plan at site. Site environment head reports to site Chief Executive Officer (CEO) and the CEO directly reports to the top management. The updated Environment Management Cell Organogram submitted during compliance period Apr'24 to Sep'24. And there is no further change.</p>
10.3	<p>Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise</p>	<p>Complied</p> <p>Responsibility Matrix for implementation of EMP and Environment conditions has been mentioned in approved EMP and the same would be implemented.</p> <p>Separate budget for the Environment protection measures is earmarked every year. All environment and horticulture activities are considered at corporate level and budget allocation is done accordingly. All the expenses are recorded in advanced accounting system of the organization.</p> <p>Budget for environmental management measures (including horticulture) for the FY 2024-25 is to the</p>



**Status of the conditions stipulated in Environment and CRZ Clearance**

<b>Sr. No.</b>	<b>Conditions as per clearance letter</b>	<b>Compliance Status as on 31-03-2025</b>
	progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.	tune of INR 1340.21 lakh. Out of which, Approx. INR 1029.51 lakh was spent during the year FY 2024-25.  Detailed breakup of the expenditures for the past 3 years is attached as <b>Annexure – 12</b> .
10.4	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.	Point Noted and will be complied.
<b>11. Miscellaneous</b>		
11.1	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.	Complied.  The original copy of the CRZ clearance was obtained on 13.08.2024 and advertisement (containing informing that the EC & CRZ clearance is accorded to the proposed project and a copy of clearance letter is available with the SPCB and may also be seen at the website of MoEF&CC) was given in local Newspaper Kutch Mitra in Gujarati (local) language dated 20.08.2024 & 22.08.2024 and in The Indian Express (English) newspaper dated 20.08.2024. Copy of the newspaper advertisement submitted during compliance period Apr'24 to Sep'24.
11.2	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	Complied  The copy of CRZ clearance letter has been submitted to the respective concerned authorities the District Collector Office, Bhuj, District Industries Centre office, Bhuj, GPCB Reginal Office, Gandhidham, GPCB Head Office, Gandhinagar, Sub District Magistrate office, Mundra, Mamlatdar Office, Mundra, and Taluka Vikas Adhikari office, Mundra. with the request for display at least for 30 days. The acknowledgements copy submitted during compliance period Apr'24 to Sep'24.  A copy of the EC & CRZ Clearance letter is uploaded on APSEZ web site <a href="https://www.adaniports.com/ports-downloads">https://www.adaniports.com/ports-downloads</a> .

**Status of the conditions stipulated in Environment and CRZ Clearance**

<b>Sr. No.</b>	<b>Conditions as per clearance letter</b>	<b>Compliance Status as on 31-03-2025</b>
11.3	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.	Point noted and being complied.  Compliance report of EC conditions is uploaded regularly. A soft copy of last compliance report including results of monitoring data for the period of Apr'24 to Sep'24 was submitted through e-mail to Integrated Regional Office (IRO), MoEF&CC @ Gandhinagar, Zonal Office of CPCB @ Baroda, GPCB @ Gandhinagar & Gandhidham and Dept. of Forests & Env., Gandhinagar vide our letter dated 29.11.2024. The copy of the same is also available on our web site <a href="https://www.adaniports.com/ports-downloads">https://www.adaniports.com/ports-downloads</a> as well as also uploaded on MoEF&CC Parivesh Portal.
11.4	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.	
11.5	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.	Complied.  Environmental statement for each financial year is submitted to GPCB. The same for the FY ending 31.03.2024 in Form-V for existing permission is submitted to GPCB vide our letter dated 2 <sup>nd</sup> September, 2024. The acknowledgement copy of the Environmental Statement (Form V) of FY 2023-24 submitted during compliance period Apr'24 to Sep'24. Copy of the submitted Environmental Statement FY 2023-24 is also available on our web site <a href="https://www.adaniports.com/ports-downloads">https://www.adaniports.com/ports-downloads</a> .
11.6	The criteria pollutant levels namely; PM2.5, PM10, SO2, NOx (ambient levels) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Complied  For further details regarding the ambient air monitoring & results, please refer to specific condition no 1.15 of the EC and CRZ clearance.  Pollutants levels is being displayed at Main gate of Main Port & West Port on regular basis.
11.7	The project authorities must strictly adhere to the	Point Noted and Agreed

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025
	stipulations made by the State Pollution Control Board and the State Government.	
11.8	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.	Point Noted and Agreed.
11.9	No further expansion or modifications in the project shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).	Point Noted and Agreed.
11.10	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Point Noted and Agreed.
11.11	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.	Point Noted and Agreed.
11.12	The Ministry reserves the right to stipulate additional conditions if found	Point Noted and Agreed.

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025
	necessary. The Company in a time bound manner shall implement these conditions.	
11.13	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.	Point Noted and Agreed.
11.14	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.	Point Noted and Agreed.
11.15	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Point Noted and Agreed.

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Conditions as per clearance letter	Compliance Status as on 31-03-2025
<b>12. Specific Conditions</b>		
12.1	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.	<p>Complied</p> <p>With respect to onshore facilities tug (Dolphin-11) has a firefighting system of 1200 m<sup>3</sup>/hr. along with 20-ton lifting "A" frame and diving support facility for support at offshore.</p> <p>With respect to onshore facilities valve station, pumping station and transportation pipeline, foam base fire tender, fire water network is available. Fire-fighting system has been installed and maintained to meet emergency situations. Additionally for emergencies, emergency DG Set is provided for fire water pumps to ensure continuous water supply for firefighting purpose. Detail information on firefighting facility available at APSEZ submitted during compliance period Apr'24 to Sep'24.</p>

 <p><b>adani</b> Ports and Logistics</p>	<p><b>Adani Ports and Special Economic Zone Limited, Mundra.</b></p>	<p><b>From : Oct'24 To : Mar'25</b></p>
<p><b>Status of the conditions stipulated in Environment and CRZ Clearance</b></p>		

**ANNEXURE - A**  
**CRZ Recommendation Compliance**  
**Report of WFDP Expansion**

	<b>Adani Ports and Special Economic Zone Limited, Mundra.</b>	<b>From : Oct'24 To : Mar'25</b>
<b>Status of the conditions stipulated in Environment and CRZ Clearance</b>		

**Half yearly Compliance report of CRZ recommendation for “Proposed expansion of Waterfront Development Plan of Mundra Port” by M/s. Adani Ports and SEZ Limited, Mundra, Kachchh District, Gujarat” vide Letter No. ENV/10/2024/37/T dated 20<sup>th</sup> April, 2024.**

Sr. No.	Specific Conditions	Compliance Status as on 31-03-2025
<b>Specific Conditions</b>		
1	APSEZ shall ensure that all the proposed activities as part of expansion are carried out within the ambit of the earlier approved Waterfront Development Plan and no new additional reclamation will be carried out outside.	<p>Complied.</p> <p>All the proposed activities as part of expansion are being / will be carried out within the ambit of the earlier approved Waterfront Development Plan and no new additional reclamation will be carried out outside the approved area of WFDP EC granted in Jan-2009.</p> <p>Please refer to compliance of EC &amp; CRZ clearance specific condition no 1.1 for further details.</p>
2	APSEZ shall have to comply with all the directions issued by the Ministry of Environment, Forest and Climate Change, Government of India from time to time for APSEZ.	Point Noted and agreed.
3	APSEZ shall carry out 100-Hectare mangroves plantation in consultation with Forest Department.	<p>Point noted &amp; Will be Complied.</p> <p>This reply covers condition no 3 &amp; 4.</p>
4	APSEZ shall participate in Green Credit Programme administrated by the Indian Council of Forestry Research and Education (ICFRE) for carrying out Tree Plantation in 100 Hectare area under this programme. PP shall fund necessary amount for this purpose to	<p>For further details compensatory plantation, please refer to compliance of specific condition no 1.6 of the EC and CRZ clearance.</p>

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Specific Conditions	Compliance Status as on 31-03-2025																					
	Forest Department, GoG.																						
5	APSEZ shall ensure that no natural free flow of water or natural drainage of storm water or creek be disturbed.	Being Complied  For further details regarding status of natural free flow of water, please refer to compliance of specific condition no 1.13 of the EC and CRZ clearance.																					
6	APSEZ shall ensure that no activities are undertaken in violations of any order, if any issued by the Hon'ble NGT/Hon'ble High Court/Hon'ble Supreme Court of India, or any court of laws.	Point Noted and agreed.																					
7	APSEZ shall comply with the conditions stipulated in the recommendation letter GCZMA dated. 13.10.2008 and subsequent environment clearance & CRZ clearance for Waterfront Development Project.	Complied  Compliance status of the recommendations letter GCZMA dated. 13.10.2008 and subsequent EC & CRZ clearance granted for WFDP on 12 <sup>th</sup> & 19 <sup>th</sup> Jan, 2009 is being submitted to all the concern authorities on half yearly basis separately.  Details regarding the past six compliance report submissions are mentioned below: <table border="1" data-bbox="695 1329 1321 1575"> <thead> <tr> <th>Sr. no.</th> <th>Compliance period</th> <th>Date of submission</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Oct'21 to Mar'22</td> <td>30.05.2022</td> </tr> <tr> <td>2.</td> <td>Apr'22 to Sep'22</td> <td>30.11.2022</td> </tr> <tr> <td>3.</td> <td>Oct'22 to Mar'23</td> <td>30.05.2023</td> </tr> <tr> <td>4.</td> <td>Apr'23 to Sep'23</td> <td>29.11.2023</td> </tr> <tr> <td>5.</td> <td>Oct'23 to Mar'24</td> <td>29.05.2024</td> </tr> <tr> <td>6.</td> <td>Apr'24 to Sep'24</td> <td>30.11.2024</td> </tr> </tbody> </table> The copy of the same is also available on our web site <a href="https://www.adaniports.com/ports-downloads">https://www.adaniports.com/ports-downloads</a> as well as also uploaded on MoEF&CC Parivesh Portal.	Sr. no.	Compliance period	Date of submission	1.	Oct'21 to Mar'22	30.05.2022	2.	Apr'22 to Sep'22	30.11.2022	3.	Oct'22 to Mar'23	30.05.2023	4.	Apr'23 to Sep'23	29.11.2023	5.	Oct'23 to Mar'24	29.05.2024	6.	Apr'24 to Sep'24	30.11.2024
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5.	Oct'23 to Mar'24	29.05.2024																					
6.	Apr'24 to Sep'24	30.11.2024																					
8	The provisions of the CRZ notification, 2011 and as amended from time to time shall be strictly adhered to by	Complied.  APSEZ ensures to strictly follow existing rules & regulation of CRZ notification, 2011 and as amended from time to time.																					



**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Specific Conditions	Compliance Status as on 31-03-2025
	the PP.	
9	PP shall obtain all necessary clearances/NOC from concerned competent authorities/ departments before construction and commissioning of the activities.	Complied.  For further details regarding clearances/permissions, please refer to the compliance of specific condition no 1.10 of the EC and CRZ clearance.
10	All the recommendations and suggestions given in the Environment Impact Assessment Study as well as studies undertaken for the project shall be implemented strictly by PP.	Complied.  All recommendations/suggestions given in the Environment Impact Assessment Study as well other technical studies is being complied / will be complied strictly.
11	PP shall obtain consents/ authorization/ permission of the Gujarat Pollution Control Board under applicable Water {Prevention and Control of Pollution) Act, 1974, Air {Prevention and Control of Pollution) Act'1981 and Rules made under Environment (Protection) Act' 1986. Discharge of pollutants shall not exceed the limits prescribed under the environmental Acts/ Rules.	Complied.  For further details regarding permissions/consents/ authorization from Gujarat Pollution Control Board; please refer to compliance of specific condition no.1.10 of the EC & CRZ Clearance.  For further details regarding quality monitoring of pollutants, please refer Water Quality Monitoring and Preservation compliance of condition no 3.8 & 3.9 of the EC and CRZ clearance.
12	There shall no discharge of any kind of wastewater/ sewage / effluent/ wastes into	Complied.  No treated/untreated effluent is being discharged into creek or sea or in CRZ area.

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Specific Conditions	Compliance Status as on 31-03-2025
	the creek or sea or in CRZ areas except allowed by this permission.	Entire quantity of effluent generated is being treated in designated ETP / STP and treated sewage is being fully utilized for Horticulture purposes.  Please refer to compliance of specific condition no 1.12 of EC & CRZ clearance for detailed information.
13	The groundwater shall not be tapped to meet with the water requirements in any case.	Complied  No groundwater is being tapped to meet water requirements. APSEZ sources its water for various project activities from the desalination plant of APSEZ and/or water through Gujarat Water Infrastructure Limited (GWIL). Average water consumption for entire APSEZ area is 5.40MLD during compliance period i.e. Oct'24 to Mar'25.
14	PP shall ensure that there will not disturbance to nearby Ecologically Sensitive area due to their proposed project activities.	Complied.  For further details regarding conservations of nearby Ecologically Sensitive area, please refer to compliance of specific condition no 1.12 of the EC and CRZ clearance.
15	PP shall ensure that the labour construction camps are kept outside the CRZ areas and the construction labour are provided with adequate amenities like drinking water, fuel, sanitation, etc. to ensure that the existing environmental condition is not deteriorated by them.	Complied  Workers engaged in construction activities would be mainly from nearby villages hence there would be no requirement of infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP.  Existing facilities for drinking water, toilet & rest shelter would be utilized by workers.
16	PP shall adopt the necessary soil conservation measures to prevent any exposed soil from being eroded or blown over.	Being Complied  This reply covers condition no 16 & 17.  For further details regarding soil conservations & greenbelt development please refer to compliance of Greenbelt condition no 7.1 & 7.2 of the EC and CRZ clearance.
17	PP shall develop 33% greenbelt within premises and shall maintain greenbelt.	

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Specific Conditions	Compliance Status as on 31-03-2025
18	Project proponent (PP) shall have to carry out marine water quality environment monitoring regularly on quarterly basis and submit the report to GCZMA, GPCB, IRO & MOEF & CC, Gol.	Complied  For further details regarding marine ecology monitoring, please refer to compliance of specific condition no 1.12 of the EC and CRZ clearance.
19	PP shall bear the cost of the external agency that may be appointed by this Department for supervision/ monitoring of proposed activities.	Point noted and agreed
20	PP shall contribute through its CER fund for environmental infrastructure up-gradation, awareness programs etc.	Complied.  CER is not applicable for this project. However APSEZ CSR team is actively working with local community around the project area and provides required support for their livelihood and other concerns through the CSR arm – Adani Foundation.  Adani Foundation (AF) is the CSR arm of the Adani Group actively working for upliftment of the communities in the surroundings of various project sites of Adani Group. AF has prepared a specific action plan to protect livelihood of fishermen at Mundra.  Various initiatives, as stated below are discussed in detail in the report namely "Silent Transformation of Fisher folk at Mundra". Said report also includes the information related to the planned expenses to the tune of approx. 13.5 Cr. INR for various initiatives for the next five years (2016 – 2021) (Budget details provided in Page No. 68 of report). Copy of the same is already submitted to MoEF&CC vide our letter dated 10.09.2016.  Till, Mar'25 approx. 15.79 Cr. INR, has already been invested fisherfolk livelihood. Further, details regarding the expenditure incurred against the commitment are attached as <b>Annexure - 16</b> .  APSEZ is carrying out various initiatives specific to the Fisherfolk community which includes:

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Specific Conditions	Compliance Status as on 31-03-2025
		<ul style="list-style-type: none"> <li>• Educational Kit Support: 686 nos.</li> <li>• Fisherman Shelter Support: 273 nos.</li> <li>• Vehicle transportation Support: 1368 nos.</li> <li>• Cycle Support to high school students: 111 nos.</li> <li>• Scholarship Support: 648 nos.</li> <li>• Youth Employment: 494 nos.</li> <li>• Linkage with Fisheries Scheme: 195 nos.</li> <li>• Ramatotasav Community Engagement: 3534 nos.</li> <li>• Man-Days mangrove plantation: 56523 days</li> </ul> <ul style="list-style-type: none"> <li>• <b>Vidya Deep Yojana</b> Developing school preparedness programme and empowering balwadis at fisherfolk settlement Under this scheme, 4 balwadis at different settlements have been constructed. This programme includes nutrition food, hygiene, awareness of health, cleanliness, discipline, regularity and development of basic age appropriate conception</li> <li>• <b>Youth employment:</b> Our main objective is to offer sustainable employment opportunities to the local fishing community in APSEZ Mundra. We bridge the gap between industries and Fisherfolk youth by facilitating job placements. Acting as a bridge between industries and fisherfolk youth, the Adani Foundation facilitated job placements for 30 fisherfolk as RTG operators, in the HR department, and as supervisors in APSEZ companies. In the APSEZ area and colony, 45 fisherfolk youth have been offered professional painting roles. To ensure they are skilled for the role, they underwent comprehensive training in partnership with Asian Paints.</li> <li>• <b>Vidya Sahay Yojana –</b></li> <li>• <b>Scholarship Support:</b> All basic education supportive facilities have been created to promote education in the fisherfolk community. We are deeply committed to empowering the future of fisherfolk communities through education. To uplift financially challenged communities, we extended scholarships support of Rs. 3,58,765 to 35 students, enabling them to pursue higher secondary and technical education.</li> <li>• <b>Education Kits Support:</b> Equipping 88 fisherfolk students in HSC and Graduation with essential tools for academic success, including notebooks, guides, stationery and study bags, we empower them to pursue their education with no financial barriers.</li> <li>• <b>Vehicle Transportation Facilities:</b> Ensure seamless access to education for 121 school-going children from Modhva, Tragadi, and Zarpara Bandar Fisherfolk Students in reaching the nearest School, eliminating barriers to regular attendance. Additionally, personal cycle support to 5 fisherfolk students.</li> <li>• <b>Adani Vidya Mandir</b> Children of the family with an income of salary less than 1.5 lac/annum are admitted. School focusses on nutrition food, uniform and other services to the children for free.</li> </ul>

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Specific Conditions	Compliance Status as on 31-03-2025
		<ul style="list-style-type: none"> <li>• <b>Fisherman Approach in SEZ</b> After due consultative process, APSEZ has provided 7 fishermen access roads for to approach to the sea for fishing activity.</li> <li>• <b>Machhimar Arogya Yojana</b> The Fisher folk communities are disposed to several water and air abided diseased due to exposure to unhygienic working conditions. Frequently Special Healthcare Camps are organized at Vasahat. Our Mobile health care unit van regularly visit fisherfolk settlements.  <b>Awareness camp on Menstrual health:</b> A menstrual health awareness camp was organized for 200+ women from the fishing communities of Modhva and Tragadi villages.</li> <li>• <b>Machhimar Kaushalya Vardhan Yojana</b> Based on need assessment a number of trades were introduced through the Adani Skill Development Centre in Mundra, where in fisher folk youth could join and get a number of technical and non-technical training.</li> <li>• <b>Machhimar Sadhan Sahay Yojana</b> Fishing material support was provided by AF at Mundra as per the requests of Pagadiya fishermen. According to their needs, fishing nets, ropes, buoys, ice boxes, crates, weighing scales, anchors, solar lights etc., were provided.</li> <li>• <b>Machhimar Awas Yojana</b> Shelters, equipped with basic facilities of a toilet. and pure drinking water has been constructed for living while fishing and to provide a healthy and hygienic residence.</li> <li>• <b>Machhimar Shudhh Jal Yojana</b> This scheme of providing potable water has helped in reducing the drudgery of women and contributed largely towards general wellbeing. <b>Potable water Distribution:</b> Providing access of potable Drinking water Facilities to Nine fisherfolk vasahat on Daily bases, either By Water tanker or Linkage with Nearest Gram panchayat with daily water tanker support.</li> <li>❖ <b>Sughad Yojana</b> Toilets for men and women are constructed at all three Vasahats. Infrastructure was accompanied with continuous awareness campaign on hygiene sanitation and use of toilets in particular.</li> <li>❖ <b>Machhimar Akshay kiran Yojana</b> Solar street lights at each settlement have been installed. For fish landing shed and school extension room have been fitted with solar invertor allowing late evening video shows for awareness and fish sorting work at ease.</li> <li>❖ <b>Machhimar Suraksha Yojana</b> Distance Alarm Transmission System – DATS' project was introduced in order to promote safety of the fishermen. Forced to be at sea to earn their livelihood puts the lives of many fishermen at risk.</li> </ul>

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Specific Conditions	Compliance Status as on 31-03-2025				
		<p>❖ <b>Machhimar Ajivika Uparjan Yojana</b> Mangrove plantation in the area as means of alternate income generating activity for the fisher folk community during the non-fishing months. During the non-fishing months, the fishermen under usual circumstances were benefited by other alternate economic activity to sustain them.</p> <p>❖ <b>Bandar Svachhata Yojana</b> Waste bins have been provided for proper collection and segregation of waste.</p> <p>Adani Foundation is working in main five persuasions as below.</p> <ul style="list-style-type: none"> <li>❖ Education</li> <li>❖ Community Health</li> <li>❖ Rural Infrastructure</li> <li>❖ Sustainability Livelihood</li> <li>❖ Skill Development</li> </ul> <p>Brief information about activities in the main five persuasions is mentioned below. Activities carried out for the same are summarized as below.</p> <table border="1" data-bbox="623 1138 1390 1869"> <thead> <tr> <th data-bbox="623 1138 782 1180">Area</th> <th data-bbox="782 1138 1390 1180">Activity</th> </tr> </thead> <tbody> <tr> <td data-bbox="623 1180 782 1869">Community Health</td> <td data-bbox="782 1180 1390 1869"> <ul style="list-style-type: none"> <li>❖ <b>Mobile Health Care Units and Rural Clinics</b> <ul style="list-style-type: none"> <li>• 7 Rural Clinics</li> <li>• 5 villages of Mundra &amp; 2 village Mandvi block has benefited by rural clinic service.</li> <li>• Total 23799 Patients Benefitted in FY 24-25 (direct &amp; indirect) by Mobile van and rural clinic.</li> <li>• Provided 52,063 medical health services.</li> </ul> </li> <li>❖ <b>45602 nos. patients</b> have been supported for operations, OPD, IPD, Medicines and lab-test at Adani Hospital Mundra Pvt. Ltd.</li> <li>❖ <b>Financial Assistance for Critical Illness</b> <ul style="list-style-type: none"> <li>• Understanding the burden of life- threatening diseases on economically weaker families, the Foundation provides financial support for patients suffering from heart, liver, kidney diseases, and cancer. In the current year alone, 45,602 patients from Mundra, Mandvi, and Anjar Blocks have received critical medical assistance at Adani Hospital, Mundra, in collaboration with Adani GK General Hospital, Bhuj.</li> </ul> </li> <li>❖ <b>General Health Camp</b></li> </ul> </td> </tr> </tbody> </table>	Area	Activity	Community Health	<ul style="list-style-type: none"> <li>❖ <b>Mobile Health Care Units and Rural Clinics</b> <ul style="list-style-type: none"> <li>• 7 Rural Clinics</li> <li>• 5 villages of Mundra &amp; 2 village Mandvi block has benefited by rural clinic service.</li> <li>• Total 23799 Patients Benefitted in FY 24-25 (direct &amp; indirect) by Mobile van and rural clinic.</li> <li>• Provided 52,063 medical health services.</li> </ul> </li> <li>❖ <b>45602 nos. patients</b> have been supported for operations, OPD, IPD, Medicines and lab-test at Adani Hospital Mundra Pvt. Ltd.</li> <li>❖ <b>Financial Assistance for Critical Illness</b> <ul style="list-style-type: none"> <li>• Understanding the burden of life- threatening diseases on economically weaker families, the Foundation provides financial support for patients suffering from heart, liver, kidney diseases, and cancer. In the current year alone, 45,602 patients from Mundra, Mandvi, and Anjar Blocks have received critical medical assistance at Adani Hospital, Mundra, in collaboration with Adani GK General Hospital, Bhuj.</li> </ul> </li> <li>❖ <b>General Health Camp</b></li> </ul>
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		<ul style="list-style-type: none"> <li>• It aims to make quality healthcare accessible to underserved communities by providing free consultations and basic medical services.</li> <li>• Doctors conducted health check-ups, including blood pressure monitoring, respiratory assessments, and screening for seasonal illnesses. Patients were also provided with necessary medicines on the spot, ensuring timely treatment and care. Such camps play a vital role in promoting health awareness and addressing common health issues in rural areas where access to healthcare is limited. In the current year 1922 patients benefited through General Health Camp</li> </ul> <p>❖ <b>Specialty Health Camp</b></p> <ul style="list-style-type: none"> <li>• It organizes to support focused medical care to rural communities through consultations from specialists such as gynecologists, pediatricians, orthopedists, ophthalmologists, and physicians. The primary objective is to address critical health issues among women and children, particularly during pregnancy, to prevent maternal and infant mortality. Additionally, Specialty Health Camps are organized promptly in response to disease outbreaks in villages, ensuring quick medical support and controlling the spread of illnesses. . In the current year 3217 patients benefited through Specialty Health Camp.</li> </ul> <p>❖ <b>Eye Vision Care Initiative</b></p> <ul style="list-style-type: none"> <li>• This year, Adani Foundation, in collaboration with Vision Spring, has launched a comprehensive Eye Vision Care program to address uncorrected refractive errors and improve eye health in the community. The initiative focuses on students ("See to Learn"), SHG women ("See to Earn"), and APSEZ drivers ("See to Be Safe"), ensuring better education, livelihood, and road safety. It also promotes "Vision for All" across the community. It is a holistic eye care campaign starting from the process of registration to eyeglass dispensing, and cataract surgery support. In the current year 10,000 patients benefited through Eye Vision Care program.</li> </ul> <p>❖ <b>Cataract-Free Mundra Initiative</b></p> <ul style="list-style-type: none"> <li>• To combat vision loss among the elderly, the Cataract-Free Mundra campaign has screened 567 individuals at the village level.</li> <li>• Patients identified with cataracts are referred to GK General Hospital, Bhuj, for surgery, followed by post-operative care and follow-ups. This initiative has restored vision for many senior citizens, helping them regain independence and quality of</li> </ul>

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			<p>life. In the current year 68 successful cataract operations through Cataract-Free Mundra campaign.</p> <ul style="list-style-type: none"> <li>❖ <b>Menstrual Hygiene Awareness Camps</b> <ul style="list-style-type: none"> <li>• Promoting health and dignity among adolescent girls and women, menstrual hygiene awareness camps are regularly organized in schools and community centers. These sessions focus on educating participants about menstrual health, hygiene practices, and breaking cultural taboos. Sanitary pads are also distributed to encourage proper menstrual care and improve overall health outcomes for women and girls.</li> </ul> </li> <li>❖ <b>Medical Services Data from April 2024 to March - 2025:</b> <ul style="list-style-type: none"> <li>• Mobile Van – 11066 beneficiaries</li> <li>• Rural Clinic – 2500 beneficiary</li> <li>• Medical Support &amp; Dialysis – 2733 beneficiary</li> <li>• General Health Camp – 1922 beneficiary</li> <li>• Specialty Health Camp – 3217 beneficiaries</li> <li>• Blood Donation Camp – 2902 beneficiary</li> <li>• Cataract Camp – 567 beneficiaries</li> <li>• Eye Vision Care – 10000 beneficiaries</li> <li>• Driver Health Check Up – 7156 beneficiaries</li> </ul> </li> <li>❖ <b>Animal Husbandry:</b> <ul style="list-style-type: none"> <li>• Fodder support to 24 Villages, benefiting 36808 cattle, Dry Fodder Support - 15,74,250 Kg &amp; Green Fodder Support - 51,66,805 Kg</li> <li>• Under the Preventive Health Care program, the Foundation, in partnership with the Animal Husbandry Department, organizes regular cattle health camps across 24 villages. These camps provide veterinary check-ups, vaccinations, and treatments for common diseases. Life-saving vaccines, such as those for Foot-and-Mouth Disease (FMD) and Clostridial infections, help ensure long-term immunity and healthier livestock. Additionally, medicines and vaccines are supplied by the Foundation.</li> <li>• Cattle vaccinated -14,056</li> <li>• Deworming tablet distributed – 1460</li> <li>• Cattle benefited – 15000+</li> </ul> </li> </ul>
	Sustainable Livelihood – Fisher folk, Agriculture & Women		<p>➤ <b>WOMEN EMPOWERMENT:</b></p> <ul style="list-style-type: none"> <li>❖ <b>Self Help Groups</b> <ul style="list-style-type: none"> <li>• 88 Self Help Groups in coordination with National Rural Livelihood Mission.</li> <li>• 920+ Members</li> <li>• Over Rs.39 Lacs Saving Amount Corpus</li> </ul> </li> </ul>



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		<ul style="list-style-type: none"> <li>❖ <b>Job Sourcing - Govt</b> <ul style="list-style-type: none"> <li>• 11 Women supported for application and process of Gram Rakshak Dal, Bank Sakhi, Bima Sakhi and Professional Resource Person.</li> <li>• Average income Rs.7500 Per Month</li> </ul> </li> <li>❖ <b>Making SHG Self Reliant</b> <ul style="list-style-type: none"> <li>• 16 SHG are making strides towards self-reliance. Various handicrafts, dry and fresh food making, stitching, tie and die etc.</li> <li>• 175+ women - Monthly average income @ Rs.7000 of each member/Month</li> </ul> </li> <li>❖ <b>Social Empowerment</b> <ul style="list-style-type: none"> <li>• 4 Livelihood Enhancement Training through RSETI</li> <li>• Financial support for business set up</li> <li>• Legal rights and domestic violence workshops</li> <li>• Family counselling for Job Sourcing</li> </ul> </li> <li>❖ <b>Job Sourcing - Private</b> <ul style="list-style-type: none"> <li>• Coordination for Job by Unnati Portal with Adani Group company companies, Britannia, B Medical and Emphazer company</li> <li>• 758 Women supported till date for job sourcing.</li> <li>• Average income Rs.10,800 Per Month</li> </ul> </li> <li>❖ <b><u>"CHETNA" - INITIATIVE WITH GENDER DIVERSITY</u></b> <ul style="list-style-type: none"> <li>• Adani Foundation, in collaboration with Unnati Portal and Adani Solar, launched an initiative to provide equal opportunities for employment and self-development to women from Kutch.</li> <li>• Till Now 614 women from Kutch are successfully employed at Adani Solar, marking a significant step towards their economic empowerment and fostering gender diversity in the workforce.</li> </ul> </li> <li>❖ <b><u>Highlights of the Work done by our SHG!</u></b> <ul style="list-style-type: none"> <li>• <b>Sathwara'24 - Powering Art, Empowering Artisans:</b> 3 women SHGs from Adani Foundation Mundra participated in the prestigious Sathwara Mela at the Belvedere Club, Ahmedabad, showcasing Mud Art, Bead Art, and Soof Art, along with two artisans specializing in Rabari and Doorji work, achieving an impressive turnover of Rs.1,30,000/-.</li> <li>• <b>New Stitching Centre - Livelihood opportunities for local women:</b> In Vandh Village, by providing advanced stitching and embroidery training, the new stitching center empowers women with skills and employment. Equipped with 11 modern machines, women are producing 5,000 bags, gaining financial independence and professional confidence.</li> </ul> </li> </ul>

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		<ul style="list-style-type: none"> <li>• <b>Women empowerment initiative:</b> Adani Foundation is empowering rural women through skill training, exposure visits, and SHG formation, enabling them to achieve financial independence and entrepreneurship.</li> <li>• <b>Skill Training:</b> Stone Dust Art Training Mud Art Training Beauty &amp; wellness Training. 100+ Local women empowered</li> <li>• <b>Exposure Visit:</b> Visit to Welspun Stitching Centre for women to learn about stitching enterprises</li> <li>• <b>New SHG Formation:</b> <ul style="list-style-type: none"> <li>○ Madhav Saheli" a Food service SHG</li> <li>○ "Gopinath Saheli" a Tailoring SHG</li> <li>○ "Suidhaga" a Tailoring SHG</li> </ul> </li> <li>• <b>CELEBRATED INTERNATIONAL WOMEN'S DAY WITH 1,000 LAKHPATI DIDIS:</b> <ul style="list-style-type: none"> <li>• On 5th March, Adani Foundation celebrated the strength and resilience of women by marking International Women's Day with 1,000 Lakhpati Didis. The event highlighted the Foundation's ongoing efforts to empower rural women through meaningful livelihood opportunities.</li> <li>• Over 614 women have been connected with job opportunities at Adani Solar, while 850+ women entrepreneurs received support to grow their businesses.</li> </ul> </li> <li>❖ <b>MENSTRUAL HYGIENE AWARENESS:</b> <ul style="list-style-type: none"> <li>• Adani Foundation is dedicated to educating and empowering rural girls and women from marginalized communities about menstrual health.</li> <li>• We aim to break negative social stigmas around menstruation and improve their overall well-being.</li> <li>• 61 Villages covered</li> <li>• 8300+ School girls &amp; women participated till now</li> </ul> </li> </ul> <p><b><u>EMPOWERING FISHERFOLK COMMUNITIES THROUGH EDUCATION:</u></b></p> <ul style="list-style-type: none"> <li>❖ <b>PERSISTENT EFFORTS FOR FISHERMAN DEVELOPMENT:</b> <ul style="list-style-type: none"> <li>• Educational Kit Support – 686 beneficiaries</li> <li>• Fisherman Shelter Support – 273 beneficiaries</li> <li>• Vehicle transportation Support – 1368 beneficiaries</li> <li>• Cycle Support to high school going students – 111 beneficiaries</li> <li>• Scholarship Support – 648 beneficiaries</li> <li>• Youth Employment – 494 beneficiaries</li> <li>• Linkage with Fisheries Scheme – 195 beneficiaries</li> </ul> </li> </ul>

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		<ul style="list-style-type: none"> <li>• Ramatotasav Community Engagement – 3534 beneficiaries</li> <li>• Man-Days mangrove plantation - 56,523 beneficiaries</li> <li>❖ <b>Scholarship Support:</b> <ul style="list-style-type: none"> <li>• To uplift financially challenged communities, we extended scholarships support of Rs. 3,58,765 to 35 students, enabling them to pursue higher secondary and technical education. This support is helping break the cycle of poverty and create a brighter future for these students and their families.</li> </ul> </li> <li>❖ <b>Vehicle Transportation Facilities:</b> <ul style="list-style-type: none"> <li>• Ensure seamless access to education for 121 school-going children from Modhva, Tragadi, and Zarpāra Bandar Fisherfolk Students in reaching the nearest School, eliminating barriers to regular attendance. Additionally, personal cycle support to 5 fisherfolk students.</li> </ul> </li> <li>❖ <b>Job opportunity</b> <ul style="list-style-type: none"> <li>• Acting as a bridge between industries and fisherfolk youth, the Adani Foundation facilitated job placements for 30 fisherfolk as RTG operators, in the HR department, and as supervisors in APSEZ companies.</li> <li>• In the APSEZ area and colony, 45 fisherfolk youth have been offered professional painting roles. To ensure they are skilled for the role, they underwent comprehensive training in partnership with Asian Paints.</li> <li>• This initiative has enhanced their livelihoods and provided sustainable employment opportunities.</li> </ul> </li> <li>❖ <b>Awareness camp on Menstrual health:</b> <ul style="list-style-type: none"> <li>• A menstrual health awareness camp was organized for 200+ women from the fishing communities of Modhva and Tragadi villages. The program focused on educating them about menstrual hygiene, PCOD, and menopause management. It promoted healthy practices, offered guidance on managing related health issues, and distributed sanitary products to support their overall well-being.</li> </ul> </li> <li>❖ <b>Potable water Distribution:</b> <ul style="list-style-type: none"> <li>• Providing access of potable Drinking water Facilities to Nine fisherfolk vasahat on Daily bases, either By Water tanker or Linkage with Nearest Gram panchayat.</li> <li>• 5000+ Fisherfolk Population are getting benefit</li> </ul> </li> </ul> <p>➤ <b><u>SUSTAINABLE LIVELIHOOD - AGRICULTURE:</u></b></p>

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		<ul style="list-style-type: none"> <li>❖ <b>BIOGAS PROJECT</b></li> <li>• In our ongoing efforts to promote sustainable and eco-friendly farming practices, we have successfully registered 863 farmers from five different talukas in the Kutch district. Each registered farmer will receive financial support of ₹9,000 for the installation of biogas plants on their farms. This initiative aims to provide farmers with a renewable source of energy, reduce dependency on conventional fuels, and improve overall agricultural productivity.</li> <li>• <b>Benefits of Biogas:</b> <ul style="list-style-type: none"> <li>○ Renewable Energy Source: Biogas is a sustainable and renewable energy source that reduces dependence on fossil fuels.</li> <li>○ Cost Savings: Farmers save on fuel expenses as biogas can be used for cooking, heating, and electricity generation.</li> <li>○ Waste Management: Biogas plants efficiently manage agricultural waste by converting it into useful energy.</li> <li>○ Environmental Impact: Biogas reduces greenhouse gas emissions, contributing to climate change mitigation.</li> <li>○ Soil Health: The by-product, known as digestate, is a nutrient-rich organic fertilizer that enhances soil fertility.</li> <li>○ Improved Livelihoods: Biogas provides farmers with additional income and energy security, improving their overall quality of life.</li> </ul> </li> <li>• <b>Biogas benefit Key Highlights</b> <ul style="list-style-type: none"> <li>○ Total Farmer Registered - 863 Farmers</li> <li>○ Financial Support for each farmer - Rs. 9000</li> <li>○ Geographical coverage in Kutch - 6 Talukas</li> </ul> </li> <li>❖ <b>DRIP IRRIGATION - ENHANCING LIVELIHOODS IN KUTCH:</b></li> <li>• The Drip Irrigation Initiative by Adani Foundation promotes efficient water use in farming by providing financial support to farmers for installing drip systems. It helps conserve water, improve crop yield, and encourage sustainable agriculture in Kutch.</li> <li>• In 2024-25, Adani Foundation supported sustainable water management in Kutch by Promoting drip irrigation across 490 villages in Abdasa, Lakhpat, Mandvi, Mundra, and Nakhtrana talukas. Covering a total area of 2,074,53 hectares, the initiative benefited 1,041 farmers. This effort enhanced irrigation efficiency, boosted agricultural productivity, and contributed to water</li> </ul>

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			<p>conservation and eco-friendly farming practices in the region.</p> <ul style="list-style-type: none"> <li>❖ <b>Natural Farming</b> <ul style="list-style-type: none"> <li>• As part of our commitment to sustainable agriculture, we have focused on promoting natural farming practices to conserve soil health and enhance environmental sustainability.</li> <li>• Till Date 2,275 Farmers trained in</li> <li>• Natural Farming</li> <li>• 226 Farmers successfully transformed to 100% Natural Farming</li> <li>• 857 Farmers linked with GOG to support cattle welfare scheme</li> </ul> </li> <li>❖ <b>Green Carnival</b> <ul style="list-style-type: none"> <li>• Organized an annual Green Carnival, providing farmers with a dedicated marketplace to sell their organic produce directly to consumers. This event is hosted by our employee company and attracts many buyers interested in organic products.</li> </ul> </li> <li>❖ <b>Sales Achievements</b> <ul style="list-style-type: none"> <li>• This year, the Green Carnival was a resounding success, with farmers selling a total of 16,241 kg of organically grown vegetables and fruits at the event. Achieved Rs. 6,49,640+ Total revenue.</li> </ul> </li> </ul>
		Education	<ul style="list-style-type: none"> <li>❖ <b>Enriched reading corners to develop reading habits</b> <ul style="list-style-type: none"> <li>• Library books were issued twice a month, and a dedicated reading corner was established in each school to enhance accessibility. Additionally, over 1,000 books and various magazines were provided</li> <li>• 2,09,640 Books issued between students</li> </ul> </li> <li>❖ <b>Progressive Students: Strengthening foundational literacy, numeracy and skills</b> <ul style="list-style-type: none"> <li>• A total of 6,540 students from Class 3 to 7 were assessed in reading, writing, and math skills, with 2399 students identified as needing additional support.</li> <li>• Targeted interventions helped 1,520 students successfully integrate into regular academic programs</li> </ul> </li> <li>❖ <b>Utthan's Impact: A Data-Driven Overview of Utthan Initiatives</b> <ul style="list-style-type: none"> <li>• Distribution of sports kits, music kits, TLM kits, and stationery kits. to 12K+ Students</li> <li>• Value education is imparted through films that teach important life lessons and moral values to 1K+ Students</li> </ul> </li> </ul>

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		<ul style="list-style-type: none"> <li>• Provide students to engage in fun and educational activities, fostering their holistic development. 8K+ students.</li> <li>• Children toy foundation kit to 5k+ Students</li> <li>• Building as Learning Aid (7K+ Students): BALA transforming school spaces into vibrant learning environments through creative artwork.</li> <li>• Environmental Education Project: 80 Schools, 12000+ Students</li> <li>• Adani Competitive Coaching Center: 27 School, 5000+ Students</li> <li>• Oasis Reading workshop: 700+ Workshop. 20000+ Students</li> <li>• Capacity building of teachers: 150</li> <li>• Teachers, 16000+ Hours</li> <li>❖ <b>Key finding of third-party assessment:</b></li> <li>• The Utthan program assessment employed a quasi-experimental, mixed-methods design with pre- post comparisons and stratified random and purposive sampling to evaluate student outcomes, program impact, and sustainability.</li> <li>• The sample included 288 intervention students, 96 non- intervention students, 53 Sahayak, 30 head teachers, 30 SMC members, 30 parents, and community members, with data collected through FGDs, SSIs, and KIIs. Univariate and bivariate analyses were conducted, and field notes were transcribed to identify themes. These themes were aligned with objectives and compared to past data to uncover discrepancies and analyze their causes. <ul style="list-style-type: none"> <li>○ More than 90% of the students have achieved proficiency in reading, writing and numeracy skills in Utthan Schools.</li> <li>○ <b>Utthan sahayak as catalyst:</b> The introduction of Saha yaks (teacher assistants) ensures personalized student support and bridges gaps between schools and families, fostering greater parental involvement.</li> <li>○ Sahayak have mentioned improvements in their classroom management practices, strong parent and community management and understanding of student child development</li> <li>○ 97% of students reported improved confidence in leadership and communication and 97% of students in Utthan schools have mentioned interest in attending school.</li> <li>○ <b>Teachers' capacity building:</b> Comprehensive teacher training programs enhance instructional quality, equipping educators with tools to deliver FLN-focused curriculum effectively.</li> <li>○ Community engagement through home visits and mothers' meetings, the project strengthens</li> </ul> </li> </ul>

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			<p>parental accountability and participation, directly influencing students' motivation and performance.</p> <p>❖ <b>Holistic Development &amp; Achievements</b></p> <ul style="list-style-type: none"> <li>• <b>Academic and Institutional Developments:</b> Board exam results showcased excellent student performance, with targeted remedial sessions introduced for continuous improvement.</li> <li>• The Housekeeping Training Program (May 28) emphasized cleanliness and hygiene maintenance among staff.</li> <li>• <b>Teacher Development and Training:</b> Teacher Capacity Building Program (June 6) enhanced instructional strategies and curriculum planning.</li> <li>• NABET Accreditation Training (June 12) ensured compliance with national educational standards.</li> <li>• <b>Technological Advancements:</b> Inauguration of a New Computer Lab (Sept 27) enhanced digital learning opportunities.</li> <li>• AI and Google Gemini Training (Nov 16) prepared educators for modern teaching methodologies.</li> <li>• <b>Cultural and Co- Curricular Activities:</b> World Book Day (April 23) promoted reading culture through storytelling and book exhibitions.</li> <li>• International Yoga Day (June 21) emphasized mindfulness and physical wellness.</li> <li>• <b>Student Achievements: SVS Science Exhibition (Oct 4):</b> AVMB students won first place for their research on screen time and its impact.</li> <li>• <b>District-Level Science Fair (Dec 9-10):</b> Students represented Mundra Taluka with innovative projects.</li> <li>• <b>Health and Safety Initiatives:</b> Menstrual Hygiene Awareness Program (June 22) educated girls on personal health and wellness.</li> <li>• School-Wide Health Check-Up (July 8) ensured early detection of health concerns.</li> </ul> <p>❖ <b>Project Udaan - Inspiring Minds</b></p> <ul style="list-style-type: none"> <li>• About Project: Under this project, exposure tours are organized wherein school, college students, faculties, employees from corporates are given a chance to visit the Adani Group facilities.</li> <li>• Total 408 no. of Schools/Colleges/ Institutes participated.</li> <li>• Total 26346 no. of participants participated.</li> </ul>
	Rural Infrastructure & Environmental Sustainability	➤	<p><b>COMMUNITY INFRASTRUCTURE DEVELOPMENT PROJECTS &amp; ITS BENEFICIARIES</b></p> <ul style="list-style-type: none"> <li>• Renovation of Aanganwadi, Goyarsama Village – 40 beneficiaries</li> <li>• Construction of Pipe Culvert, Old Bandar Fisherman Vasahat - 1200 beneficiaries</li> </ul>

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		<ul style="list-style-type: none"> <li>• Open Shed &amp; Community Hall, Sukhpurvah Mundra – 1200 beneficiaries</li> <li>• Open Shed at PTC College, Mundra – 160 beneficiaries</li> <li>• Renovation of High School, Zarapra Village – 550 beneficiaries</li> <li>• Open Shed at Mokha Parking – 2000 beneficiaries</li> <li>• Canal Cleaning &amp; Chamber Renovation, Bhadreswar Village – 120 beneficiaries</li> <li>• Renovation of Approach Road, Shekadiya and Luni – 1200 beneficiaries</li> <li>• R.O. Plant Installation, ITI Mundra &amp; Sanjivni School – 800 beneficiaries</li> <li>• Paver Block Floor Work, Wandi Village – 2000 beneficiaries</li> </ul> <p>➤ <b><u>COMMUNITY INFRASTRUCTURE DEVELOPMENT</u></b> <b><u>KEY COMMUNITY INFRASTRUCTURE DEVELOPMENTS:</u></b></p> <ul style="list-style-type: none"> <li>• <b>Educational Facility Renovations</b> <ul style="list-style-type: none"> <li>○ High School, Zarapra: 550 students benefited.</li> <li>○ Aanganwadi, Goyarsama: 40 students benefited.</li> <li>○ High School, Desalpar: 550 students benefited.</li> <li>○ Kasturba Girls Hostel, Desalpar: 150 girls benefited.</li> </ul> </li> <li>• <b>Infrastructure Improvements:</b> <ul style="list-style-type: none"> <li>○ Pipe Culvert, Old Bandar: 1200 people benefited.</li> <li>○ Box Culvert &amp; CC Road, Zarpara: 12000 people benefited.</li> <li>○ Approach Road, Shekadiya &amp; Luni: 1200 people benefited.</li> <li>○ Approach Road, Vadi Vistar: 800 farmers benefited.</li> </ul> </li> <li>• <b>Water Management Projects:</b> <ul style="list-style-type: none"> <li>○ Percolation Well, Mota Bhadiya: 80 farmers benefited.</li> <li>○ Percolation Bore Cleaning, GPVC Villages: 3150 farmers benefited.</li> <li>○ Pond Deepening &amp; Road Cleaning, GPVC Villages: 6KM cleaned.</li> </ul> </li> <li>• <b>Sanitation and Health Initiatives:</b> <ul style="list-style-type: none"> <li>○ R.O. Plant, ITI Mundra &amp; Sanjivni School: 800 students benefited.</li> <li>○ Toilet Block for Disabled, GPVC Villages: 5 families benefited.</li> <li>○ Painting &amp; Office Work, CHC Mundra: 14600 people benefited.</li> </ul> </li> </ul> <p>➤ <b><u>COMMUNITY RESOURCE CENTRE</u></b></p> <ul style="list-style-type: none"> <li>❖ The Community Resource Centre (CRC), located at the Adani Field Office in Baroi, serves as a vital bridge between government schemes and the beneficiaries who need them most. Functioning as</li> </ul>



**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Specific Conditions	Compliance Status as on 31-03-2025
		<p>a single-window solution, the CRC provides support for online applications and documentation, ensuring that eligible individuals can access various welfare schemes with ease.</p> <ul style="list-style-type: none"> <li>❖ Through the facilitation efforts of the Adani Foundation, a total of 2,334 beneficiaries are currently receiving aid under multiple government programs, including Widow Pension, Senior Citizen and Divyang Pension, and the Palak Mata Pita Scheme. This support results in a combined aid of Rs. 3.37 crore monthly.</li> <li>➤ <b>SWAVLAMBAN - "A STEP TOWARDS INCLUSIVITY"</b></li> <li>❖ Under this initiative, the Adani foundation has pledged annual financial assistance of ₹10 lakh to 500 married female divyangs.</li> <li>❖ <b>Impact</b> <ul style="list-style-type: none"> <li>• Ensuring a future of dignity, security, and stability for beneficiaries.</li> <li>• Strengthening inclusivity and social upliftment through impactful support.</li> </ul> </li> <li>➤ <b>INNOVATIVE ENVIRONMENTAL SOLUTIONS FOR SUSTAINABLE FUTURE:</b></li> <li>❖ <b>TERRESTRIAL BIODIVERSITY</b> <ul style="list-style-type: none"> <li>• Project Adani Van: "Harit Paryavaran ki Ek Pahel" focuses on afforestation and community involvement, transforming barren lands into thriving forests with 88,303 plants, enhancing local biodiversity.</li> </ul> </li> <li>❖ <b>COASTAL BIODIVERSITY</b> <ul style="list-style-type: none"> <li>• The mangrove plantation project at the Luni coastal belt has created 162 hectares of dense mangrove forests, providing a new habitat for various species and showcasing the area's ecological richness.</li> </ul> </li> <li>❖ <b>PLASTIC FREE ENVIRONMENT</b> <ul style="list-style-type: none"> <li>• This initiative educates children about plastic pollution and promotes reducing, reusing, and recycling plastic to foster environmental responsibility.</li> </ul> </li> <li>❖ <b>WATER CONSERVATION</b> <ul style="list-style-type: none"> <li>• The SWAJAL project addresses groundwater depletion in Kutch by constructing rooftop rainwater harvesting systems, benefiting 1,660+ individuals and ensuring access to quality drinking water.</li> </ul> </li> <li>❖ <b>SOLAR PROJECTS:</b> <ul style="list-style-type: none"> <li>• Surya Ghar initiative provides sustainable energy solutions by installing solar panels, significantly</li> </ul> </li> </ul>

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Specific Conditions	Compliance Status as on 31-03-2025
		<p>reducing electricity costs and promoting environmental sustainability in rural communities.</p> <ul style="list-style-type: none"> <li>• <b>Adani Van – Harit Par yavaran ki Ek Pahel:</b> Massive plantation drives to enhance green cover. Transformed barren lands into thriving forests, promoting sustainability.</li> <li>• <b>Biodiversity Enhancement:</b> 78 bird species, 4 mammal species, 12 species of insects and reptiles. Significantly enhanced local biodiversity and ecological health.</li> <li>• <b>Prakruti Rath Community- Led Green Initiatives:</b> Distributed 53,886 saplings, enhancing green cover. Strengthened community connection to nature and empowered environmental stewardship. <b>Plantation Achievements:</b> Total Plants: 88,303 across 35 acres Native Species: 70+ species planted.</li> </ul> <p>❖ <b>Biodiversity Knowledge &amp; Interpretation Center</b></p> <ul style="list-style-type: none"> <li>• <b>Biodiversity &amp; Interpretation Center:</b> The center is dedicated to educating, inspiring, and engaging the community in conserving Gujarat's rich biodiverse.</li> <li>• <b>Nursery Development:</b> A nursery of 10,000 mangrove seeds was established at the Luni site with the active participation of local fishermen.</li> <li>• <b>Training Sessions:</b> 30+ Employee Training on Biodiversity Conservation at Mundra Petrochem LTD.</li> <li>• <b>Awareness Sessions:</b> An awareness lecture was held at Adani Vidya Mandir, Bhadreswar, with 50+ students participating.</li> <li>• <b>Workshop on Coastal Conservation:</b> One-day workshop was held with participation of 200+ students of University.</li> </ul> <p>❖ <b>Nurturing A Plastic-free Generation</b></p> <ul style="list-style-type: none"> <li>• <b>Plastic Free Villages:</b> <ul style="list-style-type: none"> <li>○ 2 villages &amp; 8500 individuals targeted</li> <li>○ 50+ local vendors, 70+ women in SHGs 325+ students were aware by sessions</li> </ul> </li> <li>• <b>Green School Project:</b> <ul style="list-style-type: none"> <li>○ Covering 75+ Schools</li> <li>○ 12000+ Students</li> <li>○ 32000+ Kg Single used plastic recycle at Zero Cost</li> </ul> </li> <li>• <b>Coastal Cleanup Day:</b> <ul style="list-style-type: none"> <li>○ 200+ students and 80 Uthhan Sahayaks led to the successful cleanup of a 1 km stretch of Kashivishvnath Beach, Mandvi.</li> </ul> </li> </ul> <p><b><u>WATER CONSERVATION "SWAJAL PROJECT"</u></b> <b><u>ENHANCING RURAL WATER RESOURCES</u></b></p>

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Specific Conditions	Compliance Status as on 31-03-2025
		<ul style="list-style-type: none"> <li>❖ Adani Foundation has undertaken significant water conservation initiatives to address water scarcity and improve water availability in rural areas.</li> <li>❖ Through the creation of 737 various water structures, the project has increased water capacity by 5,400,735 cubic meters (CUM) and benefited 64,515 people.</li> <li>• <b>Check Dam New/Renovation:</b> <ul style="list-style-type: none"> <li>○ Structures: 29</li> <li>○ Water Capacity Increase: 1,072,332 CUM</li> <li>○ Beneficiaries: 30,870</li> <li>○ Impact: Enhances water storage and irrigation.</li> </ul> </li> <li>• <b>Rainwater Harvesting Structures (RRWS):</b> <ul style="list-style-type: none"> <li>○ Structures: 330</li> <li>○ Water Capacity Increase: 3,300,000 CUM</li> <li>○ Beneficiaries: 1,650</li> <li>○ Impact: Maximizes rainwater capture and usage. Rs. 10950 yearly saved/house</li> </ul> </li> <li>• <b>Pond Deepening:</b> <ul style="list-style-type: none"> <li>○ Structures: 135</li> <li>○ Water Capacity Increase: 1,028,403 CUM</li> <li>○ Beneficiaries: 18,350</li> <li>○ Impact: Improves water retention and availability.</li> </ul> </li> <li>• <b>Construction of Percolation Wells</b> <ul style="list-style-type: none"> <li>○ Structures: 26</li> <li>○ Ground Water Recharge: Significant</li> <li>○ Beneficiaries: 3,000</li> <li>○ Impact: Boosts groundwater levels and availability.</li> <li>○ Bore/Well Recharge</li> <li>○ Structures: 209</li> <li>○ Ground Water Recharge: Significant</li> <li>○ Beneficiaries: 1,045</li> <li>○ Impact: Enhances groundwater recharge and sustainability.</li> </ul> </li> <li>• <b>Construction of New Wells</b> <ul style="list-style-type: none"> <li>○ Structures: 8</li> <li>○ Purpose: Drinking Water</li> <li>○ Beneficiaries: 9,600</li> <li>○ Impact: Provides reliable drinking water sources</li> </ul> </li> </ul> <p><b><u>SURYA GHAR PROJECT - 100% SOLAR VILLAGE</u></b></p> <ul style="list-style-type: none"> <li>• Adani Foundation, through its CSR initiative, has launched the Surya Ghar Project to transform 2 villages into 100% solar-powered communities.</li> <li>• This project aims to provide sustainable energy solutions, enhance energy access, reduce reliance on conventional power sources, and promote</li> </ul>

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Specific Conditions	Compliance Status as on 31-03-2025																																									
			<p>environmental sustainability while significantly lowering electricity costs for villagers.</p> <ul style="list-style-type: none"> <li>❖ The project benefits 4,500+ people.</li> <li>❖ Environmental Benefits               <ul style="list-style-type: none"> <li>• Significant reduction in carbon footprint.</li> <li>• Promotes clean, renewable energy.</li> <li>• Serves as a replicable model for other rural communities</li> </ul> </li> </ul>																																								
	Skill Development	<p>➤ <b><u>ADANI SKILL DEVELOPMENT CENTER (ASDC)</u></b></p> <ul style="list-style-type: none"> <li>• The Adani Skill Development Center (ASDC) in Bhuj and Mundra is dedicated to creating a future fueled by a skilled and empowered Indian workforce, driving economic growth. Focused on bridging the gap between industry demands and workforce capabilities, ASDC offers high-quality vocational training, fosters innovation, and promotes entrepreneurship.</li> <li>• The center's impact is significant, with 887 students in Bhuj &amp; Mundra, where 70% of participants are female, and 258 technical trainees already placed in diverse roles such as General Duty Assistant and Domestic Data Entry Operator etc. Six placement drives and 24 guest lectures have further supported career opportunities. In Mundra, courses like RTG Crane Operator, Tally with GST, and Beauty Therapist training have drawn strong participation, especially among women, resulting in 135 placements in beauty therapy alone.</li> <li>• By equipping youth with relevant skills, facilitating job opportunities, and empowering women, ASDC plays a vital role in driving inclusive growth, promoting gender equality, and contributing to the region's economic progress.</li> </ul> <p>❖ <b>ASDC - MUNDRA</b></p> <table border="1" data-bbox="797 1507 1373 1871"> <tbody> <tr> <td>JOC (RTG Crane Operator)</td> <td>00</td> <td>140</td> <td><b>140</b></td> </tr> <tr> <td>DDEO</td> <td>30</td> <td>14</td> <td><b>44</b></td> </tr> <tr> <td>Tally with GST</td> <td>01</td> <td>00</td> <td><b>01</b></td> </tr> <tr> <td>Beauty Therapist</td> <td>134</td> <td>00</td> <td><b>134</b></td> </tr> <tr> <td>Painting/Drawing Training</td> <td>06</td> <td>09</td> <td><b>15</b></td> </tr> <tr> <td>German Language</td> <td>02</td> <td>00</td> <td><b>02</b></td> </tr> <tr> <td>Advance Excel</td> <td>01</td> <td>10</td> <td><b>11</b></td> </tr> <tr> <td>Mud Work</td> <td>40</td> <td>00</td> <td><b>40</b></td> </tr> <tr> <td>Dori Work</td> <td>40</td> <td>00</td> <td><b>40</b></td> </tr> <tr> <td><b>Total</b></td> <td><b>254</b></td> <td><b>173</b></td> <td><b>427</b></td> </tr> </tbody> </table>	JOC (RTG Crane Operator)	00	140	<b>140</b>	DDEO	30	14	<b>44</b>	Tally with GST	01	00	<b>01</b>	Beauty Therapist	134	00	<b>134</b>	Painting/Drawing Training	06	09	<b>15</b>	German Language	02	00	<b>02</b>	Advance Excel	01	10	<b>11</b>	Mud Work	40	00	<b>40</b>	Dori Work	40	00	<b>40</b>	<b>Total</b>	<b>254</b>	<b>173</b>	<b>427</b>	
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21	A Disaster Management Plan to meet with any eventualities that may arise during construction and/or operation phase shall	Complied.  For further details regarding Disaster Management Plan; please refer to specific condition no 1.21 of the EC and CRZ clearance.																												

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Specific Conditions	Compliance Status as on 31-03-2025
	be prepared through an expert agency and shall execute the Plan in co-ordination with concerned district offices including the District Authorities.	
22	A separate Environmental Cell with qualified personnel shall be created to implement the Environmental Management Plan and a separate budget shall be provided for this purpose.	Complied  For further details regarding Environmental Cell, please refer to compliance of Environment Responsibility condition no 10.2 of the EC and CRZ clearance.
23	PP shall implement programs in line with the commitments made in the Environment Management Plan submitted and shall submit the reports to GCZMA periodically.	Complied  Compliances to the commitments made in EMP will be submitted as a part of Half yearly EC compliance on regular basis.  EMP Compliance attached as <b>Annexure B</b>
24	A separate budget shall be earmarked for environmental management and socio-economic activities and details thereof shall be furnished to this Department. The details with respect to the expenditure from this budget head shall also be furnished.	Complied.  For further details regarding expenditure budget, please refer to compliance of Environment Responsibility condition no 10.3 of the EC and CRZ clearance
25	PP shall take up socio-economic upliftment activities in consultation with the District Collector/ DDO. A separate budget shall	Complied.  For further details regarding CSR activities, please refer to compliance of specific condition no 1.29 of the EC and CRZ clearance

**Status of the conditions stipulated in Environment and CRZ Clearance**

Sr. No.	Specific Conditions	Compliance Status as on 31-03-2025
	be provided for this purpose.	
26	PP shall regularly submit the half-yearly compliance report on the conditions stipulated by this Department/GCZMA/ MoEFCC.	Being complied.  Compliance report of EC conditions is uploaded regularly. A soft copy of last compliance report including results of monitoring data for the period of Apr'24 to Sep'24 was submitted through e-mail to Regional Office of Integrated Regional Office (IRO) @ Gandhinagar, Zonal Office of CPCB @ Baroda, GPCB @ Gandhinagar & Gandhidham and Dept. of Forests & Env., Gandhinagar on dated 29.11.2024. The copy of the same is also available on our web site <a href="https://www.adaniports.com /ports-downloads">https://www.adaniports.com /ports-downloads</a> as well as also uploaded on MoEF&CC Parivesh Portal.
27	Any additional condition that may be imposed by this department/ GCZMA authority/ Ministry of Environment Forest and Climate Change from time to time shall have to be complied with by PP.	Point Noted and Agreed.

# **Annexure – B**



## Compliance Report of EMP & Mitigation Measures

Sr. No.	Suggested Measures	Compliance Status
<b>✎ Construction Phase:</b>		
1	Developments at East Port will be taken up as a future development after obtaining necessary approvals.	Point Noted and agreed
2	The site clearance activities will generate dusts, and this shall be confined within the site by isolating the construction site with fences.	<p>Complied</p> <p>The following control measures for fugitive dust emissions is being adopted/ implemented.</p> <ul style="list-style-type: none"> <li>➤ Isolated storage areas with wind shield is provided for storage of construction materials.</li> <li>➤ Sprinkling of water in the construction sites and stored raw materials as well as vehicle movement accesses.</li> <li>➤ Excavated material/loose material is kept covered with tarpaulin cover.</li> <li>➤ Accidental spillage is immediately removed from workplace.</li> <li>➤ Aggregates &amp; raw material is sourced by nearby places &amp; is transported in vehicle covered with tarpaulin.</li> <li>➤ Dust generating source like batching place is enclosed by all side.</li> <li>➤ Closed conveyor is being used in batching plant</li> <li>➤ Air pollution control mechanism (dust collector) is provided in batching plant</li> <li>➤ Cement is transferred into bulker through closed hopper &amp; from low height.</li> <li>➤ Periodic maintenance of batching plant &amp; cleaning of dust collector on regular basis.</li> <li>➤ The speed limit is implemented within port.</li> <li>➤ Provision of dedicated storm water is there to avoid sludgy formation so that vehicle tyre does not get dusty.</li> <li>➤ Proper housekeeping is ensured to reduce dust emissions.</li> </ul>
3	The vehicles used to carry men and material for transportation during the construction period shall be restricted to certain timings for entry and exit of the port. Since these vehicles are addition to the cargo traffic of the existing infrastructure, the timings	<p>Complied</p> <p>Shift timing is implemented for construction worker to avoid traffic rush.</p> <p>All vehicles used for construction activity conform to Bharat Stage-VI norms laid down by CPCB and are less than 5-year-old in good condition PUC certified.</p> <p>Regular maintenance of vehicles carrying men</p>

Sr. No.	Suggested Measures	Compliance Status
	<p>for vehicle movements will help in reducing the increments of SOx and NOx in the air environment. All the vehicles entering the port shall be checked for the Pollution Under Control (PUC) Certificate. The contractors shall be advised to use the vehicles that comply with the Bharat Stage-VI norms laid down by CPCB that are effective from April 2020. The vehicles shall be well maintained and any vehicle which is older than 15 years or those which were found to emit more pollution shall be brought to the notice of the contractor and may be removed from site. The materials for construction shall be sourced from nearby quarries after obtaining necessary approvals from the competent authorities. The construction materials such as sand, cement bags etc which are transported by trucks shall be covered by tarpaulin so as to avoid any air-borne emissions. The non-paved roads used for transportation of vehicles shall be sprinkled with water often to reduce dust emissions.</p>	<p>and materials is being done on regular interval.</p> <p>Please refer compliance of point no 2 for detailed information on control measures for fugitive dust emissions.</p>
3	<p>The construction materials if stored in open storage shall be covered with tarpaulin and at a minimum height of 3 m so that the wind-borne emissions shall be reduced.</p>	<p>Complied.</p> <p>Construction materials are being stored in covered shed with wind shield having minimum 3-meter height. Required quantity is only taken at site.</p>
4	<p>As per the latest notification of MoEF&amp;CC for the Diesel engine exhaust69, the emissions of the DG sets which have the capacity of more than 75</p>	<p>Complied</p> <p>MUL co-developer entity of Adani group is supplying uninterrupted power during construction activity. DG set is provided as stand-by and used for emergency backup only.</p>

Sr. No.	Suggested Measures	Compliance Status
	<p>kW and upto 800 kW shall have the emission limits of PM:&lt;0.2 g/kW-hr, CO:&lt;3.5 g/kW-hr and NOx+HC: &lt;4.0 g/kW-hr. The CPCB guidelines<sup>70</sup> states that the old DG sets which doesn't have manufacturer's warranty shall not be used and DG sets manufactured on or after 17th May 2002 shall be discarded after 15 years of operation or 50,000 hours of operation whichever is earlier.</p> <p>DG sets shall be serviced and maintained regularly in such a manner that dust accumulation shall be inspected and cleaned once a week. The contractor shall be advised to use good quality fuel and lubricants for the DG sets.</p>	<p>DG set used conforms with standard laid under EPA Act 1986.</p> <p>Low sulphur content diesel is being used and adequate stack height is also provided for proper dispersion of pollutant.</p>
5	<p>The construction activities shall be carried out at daytime and it shall be suspended at the night time.</p>	<p>Complied</p> <p>Construction activity was carried out during daytime only.</p>
6	<p>The dredging activity and frequency shall be scheduled to avoid accumulation of high noise levels.</p>	<p>Point noted and agreed.</p> <p>The dredging activity and its frequency has been scheduled to avoid accumulation of high noise levels.</p>
7	<p>The construction materials shall be stored in paved surfaces so that the runoff from storage yards will not affect the underlying soil and groundwater. Any spillage of concrete or any other construction materials on soil shall be cleaned immediately. Bunds shall be provided around the Excavation and reclamation areas so as to delineate the areas and also to drain the excess water which will reduce the impacts on the surrounding</p>	<p>Complied.</p> <p>All construction materials are being stored in covered shed with paved area only.</p> <p>Accidental spillage is immediately cleared from construction site.</p> <p>Bund will be provided around the excavation and reclamation areas so as to delineate the areas and also to drain the excess water which will reduce the impacts on the surrounding soil environment.</p>

Sr. No.	Suggested Measures	Compliance Status
	soil environment.	
8	The dredged soil to be used for reclamation shall be checked for its quality and any contaminated soil shall be removed as it will alter the quality of the underlying soil.	Point noted and agreed.  Entire quantity of capital dredging material will be used for reclamation / level raising purpose within approved area only while maintenance dredged material will be disposed off into deep sea at identified locations.
9	The vehicle movements in reclamation sites shall be restricted during the process of compaction of soil. Any spillage of construction materials from the vehicles shall be avoided or cleaned immediately.	Compiled  The vehicle movements in reclamation sites is being restricted during the process of compaction of soil. Construction Material is transported in vehicle covered with tarpaulin & accidental spillage is immediately cleaned.
10	Water requirement during the construction phase is less, the existing water source is adequate to meet the water demand during the construction phase of the project. Hence no new water source will be explored.	Compiled  The present source of fresh water for APSEZ is sufficient to meet water demand during construction phase. Hence no new water source is required to be explored.
11	The foundations shall be provided with sheet piles so that there is no flooding of water from the surrounding environment. The runoff from the construction activities, domestic use water by labours and storage yards of construction raw materials will be routed to the STP in the existing facility, if any. The washing of construction equipment and vehicles shall be prevented inside the port during the construction period. Any stagnation of water in any place of the port shall be removed or pumped to ETP/STP for treatment if available in large quantity.	Compiled  The following measures are being taken.  <ul style="list-style-type: none"> <li>✓ Pucca flooring with sheet piles has been provided for construction raw material storage so that there is no flooding of water from the surrounding environment.</li> <li>✓ Workers engaged in construction activities would be mainly from nearby villages hence there would be no requirement of infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP.</li> <li>✓ Existing facilities for drinking water, toilets &amp; rest shelter would be utilized by workers.</li> <li>✓ The washing of construction equipment and vehicles is strictly prevented inside the port during the construction period.</li> </ul>
12	The dredging and the reclamation activities in the intertidal region shall be	Point noted and being complied  Reclamation / level raising activity proposed as

Sr. No.	Suggested Measures	Compliance Status
	carried out with precautions so that the groundwater table shall not be intersected and salinity intrusion can be avoided.	<p>part of the expansion plan will occur in the intertidal, offshore area and approved APSEZ area only. Hence, the possibility of salinity ingress in the groundwater aquifer due to reclamation is low.</p> <p>The vehicle movements over the reclaimed soil are avoided during the initial period so that compaction of soil is not affected which in turn will have an effect on the underlying groundwater table.</p>
13	Clear demarcation of construction area to avoid any unintended material storage or waste dumping in the area.	<p>Complied</p> <p>Dedicated area with demarcation is provided for construction area.</p>
14	Proper and responsible handling of construction machinery, materials, waste, etc.	Complied
15	HDD technology will be used for installing underground pipeline/cables for the sections crossing the creek/mangrove/ mangrove buffer area, with adequate casing and risk mitigation measure causing no impact on the area.	<p>Point noted and agreed.</p> <p>HDD technology or advance gantry girder technology will be used for laying underground pipeline/cables for the sections crossing the creek/ mangrove/ mangrove buffer area, which will have negligible impact on ground.</p>
16	Survival mangrove patches along the bank of the creek at the upstream of the bridge shall be monitored periodically during the operation phase.	<p>Complied</p> <p>Please refer compliance to specific condition no 1.4 of EC &amp; CRZ clearance for detailed information regarding mangrove conservation and monitoring.</p>
17	As an additional measure the possibility of providing fencing for the utility corridor along the creek crossing shall be explored. This will restrict the people's access to the mangrove and creek area and also to avoid the unattended dumping of wastes.	<p>Complied</p> <p>The construction site will be enclosed with barricade/boundary. Provision of security guards is also there for monitoring of unauthorized access to mangroves and CRZ area.</p>
19	The construction wastes and debris from the construction activities will have to be removed	<p>Point noted and agreed</p> <p>Construction debris and waste materials is being handled in line with C&amp;D Waste Rules – 2016.</p>

Sr. No.	Suggested Measures	Compliance Status
	periodically. The wastes that get accumulated to over 20 million tons per day or 300 tons per project in a month have to be disposed as per the Construction and Demolition Rules, 2016.	
20	The solid wastes shall be segregated into biodegradable and non-biodegradable wastes. The biodegradable wastes shall be sent to the existing compost and it can be used as manure for greenbelt. The non-biodegradable wastes shall be managed as per the Hazardous & Other Waste Management rules, 2016, amended till date.	<p>Complied</p> <p>Provision of color code bins is there at site for proper waste segregation.</p> <p>Organic waste is used in biogas for fuel generation &amp; Organic waste converter for manure generation.</p>
21	The hazardous wastes such as used or spent oil, wastes or residues containing oil, process wastes, residues and sludges, empty containers contaminated with hazardous chemicals/wastes, etc as specified in section 2.2.14.4 during the construction period will have to be dealt in accordance to the Hazardous & Other Waste Management rules, 2016, amended till date.	<p>Complied</p> <p>Hazardous waste generated is being handled in line with H&amp;OW Rules - 2016.</p> <p>Please refer compliance to Waste Management condition no 6.4, 6.5, 6.6 &amp; 6.7 of EC&amp;CRZ clearance for detailed information</p>
22	The site of operation shall be marked with buoys/signboards and the nearby fishing communities shall be intimated before commencement of the construction activities for breakwaters and berths.	Point noted and complied
23	The construction equipment and pile driving equipment shall be maintained regularly and old machines shall be replaced. The equipment shall be inspected by qualified professionals to check for any leaks from the	<p>Complied</p> <p>Periodic maintenance is being done of all equipment.</p> <p>Regular inspection of tools &amp; equipment is being carried out by safety team in coordination with project team</p>


Sr. No.	Suggested Measures	Compliance Status
	<p>equipment. The washing of equipment shall not be carried out near the site as the runoff from these will contaminate the water quality. The fueling of the equipment will have to be done onshore at a distance away from the marine waters and there should not be any discharge into the marine environment from this equipment at any point of time. The fuel storage shall not be done at operational site and any required storage of these fuels shall be carried out at a distance away from the site with the lowest possible volumes.</p>	<p>Washing of vehicles/bulkers/equipment is allowed at designated place only.</p> <p>Fuel is being stored in storage areas far away from marine. Proper care is being taken while refueling and is done at offshore only to avoid accidental spill into marine environment</p>
24	<p>The storage of construction materials should be kept at a distance so that runoff from the storage areas will not affect the marine environment. In case of any spillage of construction materials or concrete, the operation maybe temporarily suspended and restarted only after rectification of the same. In case, concrete is pumped through hoses, the same shall be checked for leaks and spills. During rains and on event of natural/man-made disasters, the construction activities shall be suspended. The raw materials shall be covered during the rainy season to avoid runoff and in summer season to avoid wind-borne emissions.</p>	<p>Complied</p> <p>Construction material is stored in covered sheds away from marine environment.</p> <p>Accidental spill is immediately cleared off.</p> <p>Construction activity is restricted during monsoon &amp; raw material at site is covered with tarpaulin.</p>
25	<p>The usage of toxic or hazardous materials in construction shall be avoided. Spill response kits shall be made available near the construction sites to</p>	<p>Complied.</p> <p>The usage of toxic or hazardous materials in construction is avoided. Spill kit &amp; secondary containment is made available at construction site where fuel is used.</p>

Sr. No.	Suggested Measures	Compliance Status
	<p>contain any spills. The sediment screens shall be deployed in the operational site to limit the spread of plumes by the construction of berths and pile driving activities. Weather forecast shall be checked and construction activities during flood tidal conditions may be avoided or shall be carried out with necessary preventive measures.</p>	<p>All the major construction activities is being undertaken after confirming the weather forecast only.</p> <p>Disaster management plan &amp; onsite emergency plan is in place to rescue with emergency situations occurred due to manmade or natural calamities.</p>
26	<p>The marine water quality in the site of operation as well as in the surrounding environment shall be checked regularly and the important parameters that should be tested are Turbidity and Dissolved Oxygen along with other physic-chemical and biological parameters. Any alarming rate of change in the water quality shall be addressed immediately and the operations may be temporarily suspended.</p>	<p>Point noted and agreed</p> <p>Please refer compliance to specific condition no 1.12 of EC&amp;CRZ clearance for detailed information.</p> <p>Till now such situation has not arisen when marine water quality parameter is disturbed, however if it happens APSEZ ensures that it will temporarily stop its activity until the marine water quality parameter becomes normal.</p>
27	<p>Appropriate noise mitigation measures such as bubble barriers/curtains<sup>71</sup>, double pile, filled double pile<sup>72</sup>, double walled air filled sleeve around the pile<sup>73</sup>, can be explored to reduce noise generated from piling.</p>	<p>Point noted and agreed</p>
28	<p>The area of dredging shall be marked and no dredging shall be carried out in areas outside the designated sites. The record of oceanographic information and meteorological information for the operational days of dredging shall be maintained.</p>	<p>Point noted and being complied.</p> <p>Dredging area has already been identified as per location approved in EC&amp;CRZ clearance.</p> <p>Meteorological parameter is being recorded by marine department.</p>
29	<p>The sediment screens shall be provided in the</p>	<p>Complied</p>



Sr. No.	Suggested Measures	Compliance Status
	operational sites to contain the sediment suspension due to the dredging activities.	Please refer compliance to Water Quality Monitoring and Preservation condition no 3.2 of EC&CRZ clearance for detailed information
30	The marine water quality, sediment and ecology shall be tested prior to dredging, during the operation and post-dredging.	Complied  Please refer compliance to specific condition no 1.12 of EC&CRZ clearance for detailed information.
31	The excavated materials from dredging shall be stored with a minimum height of 5m in order to avoid dust emissions. Before commencement of reclamation, the dredged materials shall be tested for quality and contaminated soils shall be treated properly.	Point noted and will be Complied  Please refer compliance to Water Quality Monitoring and Preservation condition no 3.2 of EC&CRZ clearance for detailed information
32	The laying of pipeline and the pile driving activities for SBM/Sea island Jetty shall be carried out in a confined manner by installing sediment screens around the working site.	Point noted and agreed once laying of pipeline and the pile driving activities for SBM/Sea island Jetty undertaken.
33	The subsea pipelines shall be subjected to regular maintenance because any leakages will cause heavy damage to marine environment.	
34	The liquid discharges/waste discharges from the barges shall not be permitted as they will alter the marine water quality.	Complied  Please refer compliance to Water Quality Monitoring and Preservation condition no 3.3 of EC&CRZ clearance for detailed information.
35	The concrete filling/maintenance works/grouting for leakages shall be carried out with containment measures to avoid impacts on the surrounding environment.	Complied  Secondary containment is being placed near construction site to reduce impact on the surrounding in case of accidental spillage.
36	Environmental friendly/water based drilling shall be adopted for pile driving activities.	Point Noted and Complied  The dredging is being carried out using Trailing Suction Hopper Dredger (TSHD).
37	Care should be taken not to overfill piles with concrete and in case of precast piles,	Point noted and agreed

Sr. No.	Suggested Measures	Compliance Status
	the angles of insertion in the seabed shall be checked so that it will not be misplaced or become unstable over time.	
38	There should not be any runoff, discharge or waste dumping in to the marine environment during the construction period.	Complied  No waste is being dumped into marine environment. Waste generated is being disposed as per APSEZ waste management policy
39	The intake and outfall structures along with pumping stations shall be installed by taking precautions in not to disturb the surrounding environment by providing sediment screens and confining the areas.	Point noted and complied  The existing intake and outfall system is adequate for discharge of reject from 300 MLD capacities Desalination Plant.  The requisite measures will be adopted for pipeline system will be provided for additional capacities of desalination plant.
40	The route of the subsea pipelines of the intake and outfall points shall be furnished to Naval Hydrographic Office to include in the Naval Hydrographic Chart as a warning for navigation.	
41	The intake structure shall be provided with fishnets/grits and the velocity at intake point shall be maintained as low as possible to avoid entrapment of the marine organisms into the intake pipeline. The effectiveness of the screens shall be checked regularly and shall be replaced immediately in case of any damage noticed.	Complied  Fishnet/grit is tied at the inlet intake point to avoid any possibility of marine organism getting trapped into intake pipeline
42	The intake and outfall locations shall be marked with buoys so that fishing boats or vessels will not collapse the structures.	Point noted and agreed
43	The intake and outfall structures shall be cleaned regularly to avoid anaerobic decomposition in the pipelines and to remove the waste loads.	Complied  Regular cleaning is being carried out to avoid decomposition in the pipelines and any blockages

Sr. No.	Suggested Measures	Compliance Status
<p> <b>Operation Phase:</b></p>		
1	<p>Dust suppression measures as committed (such as at Ship unloader discharging into hoppers, Stockyards, Discharge and feeding points of conveyors, Rapid loading system etc.) shall be implemented.</p>	<p>Complied</p> <p>This reply cover condition no 1, 2 &amp; 3.</p> <p>Please refer compliance to specific condition 1.15 of EC &amp; CRZ clearance for detailed information</p>
2	<p>The vehicles that carry the dry bulk cargo shall be covered with tarpaulin sheets in order to protect the air environment from air-borne emissions during transportation. The vehicles entering and leaving the coal storage facilities shall undergo wheel-washing in order to avoid dust particles being carried by trucks and getting deposited on the way.</p>	
3	<p>The vehicles that enter and exit the port shall be checked for the valid Pollution Under Control (PUC) Certificate.</p>	
4	<p>The ships entering the port shall be checked for the "International Air Pollution Prevention Certificate".</p>	<p>Complied</p> <p>Please refer compliance to Water Quality Monitoring and Preservation condition no 3.3 of EC&amp;CRZ clearance for detailed information</p>
5	<p>The vehicles and machinery shall be maintained under regular maintenance program to ensure that the noise reducing requirements are met.</p>	<p>Complied</p> <p>Periodic maintenance is being carried out to reduce noise emission. Also, acoustic enclosure, barricading is used for reduction in noise level. Earmuff is provided to worker working in high noise area</p>
6	<p>APSEZ and tenant industries/facilities within the APSEZ are required to undertake noise monitoring at their facility demonstrating their compliance to the noise level standards.</p>	<p>Complied</p> <p>This reply covers condition no 6 &amp; 7.</p> <p>Ambient Air Quality (twice in a week) and Noise (once in a month) monitoring are being carried out by NABL and MoEF&amp;CC accredited agency namely M/s. Unistar Environment and Research Labs Pvt. Ltd., Vapi.</p>
7	<p>Continuous noise recording systems can be installed by APSEZ at facility boundary to address the community</p>	<p>Please refer specific condition no. xi of the EC &amp; CRZ clearance or further details.</p>

Sr. No.	Suggested Measures	Compliance Status
	grievances, when required.	
8	The vibration dampers shall be provided around the source of generation.	Complied
9	The storage yards shall be paved.	Complied
10	The dumping of solid and hazardous wastes on soil will also lead to contamination	Complied
11	The rainwater will be collected separately in stormwater drains.	Complied  APSEZ has implemented storm water drains in the existing facility taking into account the natural gradient to meet the peak rainfall in the area and avoid flooding in neighboring areas
12	The process water drains shall be maintained separately to collect the wastewater from the port activities. The oil and grease from the wastewater of truck parking, workshop area, cargo storage and cargo handling areas shall be collected separately and treated or disposed under hazardous waste.	Complied  Effluent generation from operation is being treated in existing ETP of capacity 265 KLD.  An additional 800 KLD ETP proposed for proposed expansion activities.  Oil and grease from the wastewater of truck parking, workshop area, cargo storage and cargo handling areas is being collected separately and disposed under hazardous waste through selling to registered recyclers.
13	The solid wastes from the port operations shall be segregated into bio-degradable and non-biodegradable	Complied  APSEZ has existing facility conforming to the CPCB standard for storage of hazardous waste.
14	The hazardous chemicals and cargo shall be stored in designated storage areas with concrete paved surfaces. These shall be as per the prescribed/ approved safety norms.	Please refer compliance to Waste Management condition no 6.4, 6.5, 6.6 & 6.7 of EC&CRZ clearance for detailed information
15	The battery wastes used for the equipment and other port operations shall be separately collected and disposed through authorized vendors as per Battery Waste (Management and Handling) Rules, 2010 and subsequent amendments.	

Sr. No.	Suggested Measures	Compliance Status
16	The existing port is utilizing the mechanical handling of cargo and the same shall be followed for the proposed development as well with necessary additional equipment so that there is no spillage in the marine environment.	Point noted and agreed
17	The Ships visiting the port will have to comply with MARPOL convention and avoid any discharges as per the International law. The ballast water discharge is prohibited within the harbor limits.	Complied  This reply covers condition no 17 & 18.  Please refer compliance to Water Quality Monitoring and Preservation condition no 3.3 of EC&CRZ clearance for detailed information
18	During emergency, provision of reception facilities will be explored to receive the residues and oily mixtures generated from ship operations. These wastes will be collected separately and disposed as per applicable waste management rules and guidelines.	
19	Any cargo that is spilled shall be retrieved and deposited at the respective storage areas to the maximum extent possible.	Complied.  Provision of leak bund is already implemented.
20	Environmental Monitoring Programme comprising of monitoring of marine water quality, marine sediment quality and marine ecology will be initiated 1 week prior to commencement of maintenance dredging and will be carried out during the dredging period.	Point Noted and Agreed  Please refer to specific condition no 1.12 of EC & CRZ clearance for detailed information on marine water quality monitoring
21	The wastewater from the port activities will be treated in the ETP and the treated water will be utilized as much as possible within the facility for green belt, dust suppression and excess water from ETP will be disposed as a combined	Complied  Please refer compliance to Water Quality Monitoring And Preservation condition no 3.8 & 3.9 of EC & CRZ clearance for detailed information.

Sr. No.	Suggested Measures	Compliance Status
	discharge along with desalination plant reject in to the offshore after meeting discharge standards.	
22	Screens/bunds shall be provided around the mangrove area if there is any construction activities to be carried out near the region.	Point noted and agreed
23	The health of the mangroves and benthic habitat shall be monitored for detrimental damage. The remediation measures shall be implemented if the rates are alarming.	Complied  Please refer to specific condition no 1.12 of EC & CRZ clearance for detailed information on marine water quality monitoring

# **Annexure – 1**

## **ALGAL REMOVAL WORK FROM MANGROVE AREAS**

Creek area is regularly observed for checking algal encrustations. On the mangrove recruits & where the algal encrustation is found to be substantial, it is removed manually by deployment of required manpower. This operation is performed during the low tide conditions. The main object is to provide better growing condition for the growth of mangroves. Periodically, spread of *Prosopis* sp towards the mangrove areas is also observed as this species will compete with mangrove plants for growth.

### **Photographs of removal of algal encrustations:**





# **Annexure – 2**

# Annual Report 2024-25

CSR Gujarat  
Kutch - Dahej - Hazira



Adani Foundation  
Adani House, Port Road, Mundra – Kutch 370 421  
[info@adanifoundation.com] [www.adanifoundation.com]

**CSR**





## Our Journey by



Mr. Rakshit Shah,  
Executive  
Director APSEZ

From Pledge to Progress Further,

"As your deed is so is your destiny. The larger an organization gets, the more power its deeds wield and the more power its deeds wield greater becomes its responsibility towards the larger society"

I am happy to share that Adani Foundation continued to make significant strides to elevate the sustainability of our CSR operations. This year We prioritize Livelihood enhancement to 2200+ women and supporting for Drip Irrigation to 1000+ Farmers. We raised the bar through our environmental initiatives, Water Conservation, Terrestrial and Coastal Biodiversity. We are also spreading awareness for reducing paper usage, Reducing emissions through firewood cooking, diesel free village drive at Surat district and increasing the green cover by planting trees. We enhanced the impact of our social initiatives by empowering women through Enhancing skill and Livelihood, increasing gender diversity and improving inclusivity. We are working for socio economic upliftment marginalized community i.e. Primitive Tribes at Bharuch and Surat district and fisherman at Kutchh district.

Our commitment to sustainable CSR operations has earned the trust of our stakeholders and contributed to our success. It has also helped us build a more resilient, sustainable and profitable business. I thank our Adani Foundation Team for their continued support and dedication to our commitment to sustainable CSR practices, as we remain focused on driving long-term value for our stakeholders, and the communities in which we operate.

With best wishes,

Rakshit Shah

## CSK KUTCH

Environment Sustainability  
Education  
Sustainable Livelihood Development  
Community Health  
Community Infrastructure Development  
Community Resource Centre  
Swavlamban  
Adani Skill Development Centre  
Flood relief work  
Employee volunteering program  
AKBPTL Tuna  
AGEL Khavda  
AGEL Dayapar & Mandvi  
Adani Cement Sanghi  
Events  
Awards & recognition  
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Case Study  
Beneficiaries list

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Education  
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## CSR DAHEJ

Education  
Community Health  
Sustainable Livelihood Development  
Community Infrastructure Development  
Employee volunteering program  
Climate Action  
Awards & recognition  
Case Study  
Beneficiaries list



# CSR Kutch

# Demographic Details

Block	Villages	No. of HHs	Population
Mundra	61 Village	35192	153179
Anjar	6 Villages	5350	28500
Nakhtrana	22 Villages	14093	36373
Lakhpat	20 Villages	8092	18976
Khavda	22 Villages	8450	35200
Rapar	3 Villages	345	12450
Mandvi	8 Villages	2780	14560
Abdasa	12 Villages	2415	9660

1. Adani Ports and SEZ Limited
2. Adani Power Mundra Limited
3. Adani Wilmar Limited
4. Adani Wilmar – Caster Limited
5. Kutchh Copper Limited
6. Mundra Solar PV Ltd
7. Mundra Petrochem Ltd
8. Adani Kandla Bulk Terminal Private Limited
9. Adani Solar Limited – Bitta, Abdasa
10. Adani Green Energy Limited – Nakhtrana
11. Adani Green Energy Limited - Khavda
12. Adani Energy Solution Limited – Rapar



# Environment Sustainability

“Sustain the earth, sustain life”



# CLIMATE ACTION

for Environmental Sustainability

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**ADANI  
FOUNDATION'S  
COMMITMENT  
TO A GREENER  
FUTURE**



In an era where environmental sustainability is paramount, our commitment to preserving and enhancing the natural world is reflected through our diverse projects. These initiatives not only address critical environmental challenges but also align with the United Nations Sustainable Development Goals (SDGs), ensuring a holistic approach to sustainable development. The Adani Foundation is dedicated to various environmental activities, working on different projects to foster a sustainable future.





# Innovative Environmental Solutions for Sustainable future

Adani Foundation is dedicated to environmental sustainability through impactful initiatives that address critical challenges and align with SDGs. Comprehensive efforts in biodiversity conservation, pollution reduction, water conservation, and renewable energy are crucial for fostering a sustainable and environmentally conscious future.



## TERRESTRIAL BIODIVERSITY



**Project Adani Van** "Harit Paryavaran ki Ek Pahel" focuses on afforestation and community involvement, transforming barren lands into thriving forests with **88,303 plants**, enhancing local biodiversity.

## COASTAL BIODIVERSITY



The mangrove plantation project at the Luni coastal belt has **created 162 hectares of dense mangrove forests**, providing a new habitat for various species and showcasing the area's ecological richness.

## PLASTIC FREE ENVIRONMENT



This initiative educates children about plastic pollution and promotes reducing, reusing, and recycling plastic to foster environmental responsibility.

## WATER CONSERVATION



The **SWAJAL project** addresses groundwater depletion in Kutch by constructing rooftop rainwater harvesting systems, benefiting 1,660+ individuals and ensuring access to quality drinking water.

## SOLAR PROJECTS



**Surya Ghar** initiative provides sustainable energy solutions by installing solar panels, significantly reducing electricity costs and promoting environmental sustainability in rural communities.

# Terrestrial Biodiversity Conservation

Adani Foundation is dedicated to terrestrial biodiversity conservation through comprehensive environmental initiatives. These efforts aim to enhance green cover, restore ecosystems, and promote community involvement in environmental stewardship. By focusing on large-scale afforestation and community-led green initiatives, the Foundation has significantly contributed to the ecological health and sustainability of various regions.

An overview of Adani Van:

Sr. No.	Year	Village	Acre	Total plants
1	2021-22	Nana Kapaya	2.5	5880
2	2022-23	Partappar	6	23388
3	2023-24	Rashapir	3	5350
4	2023-24	Moti Bhujpur	3	8000
5	2023-24	Desalpar	4	10000
6	2024-25	Nani Khakhar	2	800
7	2024-25	Dhrub	3	5150
8	2024-25	Nani Khakhar	2.5	7006
9	2024-25	Pipari	3	10005
10	2024-25	Borana	4	10304
11	2024-25	Khavda	1	1120
12	2024-25	Sanghi	1	1300
		<b>12 Adani Van</b>	<b>35</b>	<b>88303</b>



## Adani Van – Harit Paryavaran ki Ek Pahel

Massive plantation drives to enhance green cover. Transformed barren lands into thriving forests, promoting sustainability.



## Biodiversity Enhancement

78 bird species, 4 mammal species, 12 species of insects and reptiles. Significantly enhanced local biodiversity and ecological health.



## Prakruti Rath: Community-Led Green Initiatives

Distributed 53,886 saplings, enhancing green cover. Strengthened community connection to nature and empowered environmental stewardship.



## Plantation Achievements

Total Plants:

**88,303 across 35 acres**

Native Species:

**70+ species planted**



**ADANI  
VAN**



### HABITAT CREATION

Mangrove plantation has successfully established a new habitat and ecosystem for numerous organisms.

### BIODIVERSITY DOCUMENTATION

PhD students from various institutions have **documented over 65 species** from different phyla, showcasing the site's ecological richness.

### MANGROVE PLANTATION

**A total of 8,22,000 mangroves** have been planted, contributing significantly to coastal protection and biodiversity.

### ENHANCED BIODIVERSITY

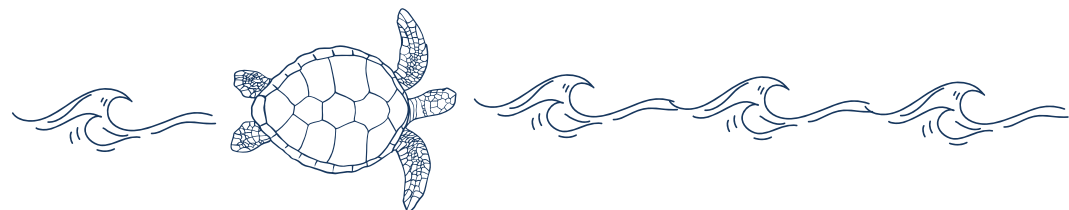
The project has increased the variety of species in the area, supporting a diverse range of flora and fauna.

### COASTAL PROTECTION

Mangroves act as natural barriers against coastal erosion and storm surges, protecting the shoreline and nearby communities.

### CARBON SEQUESTRATION

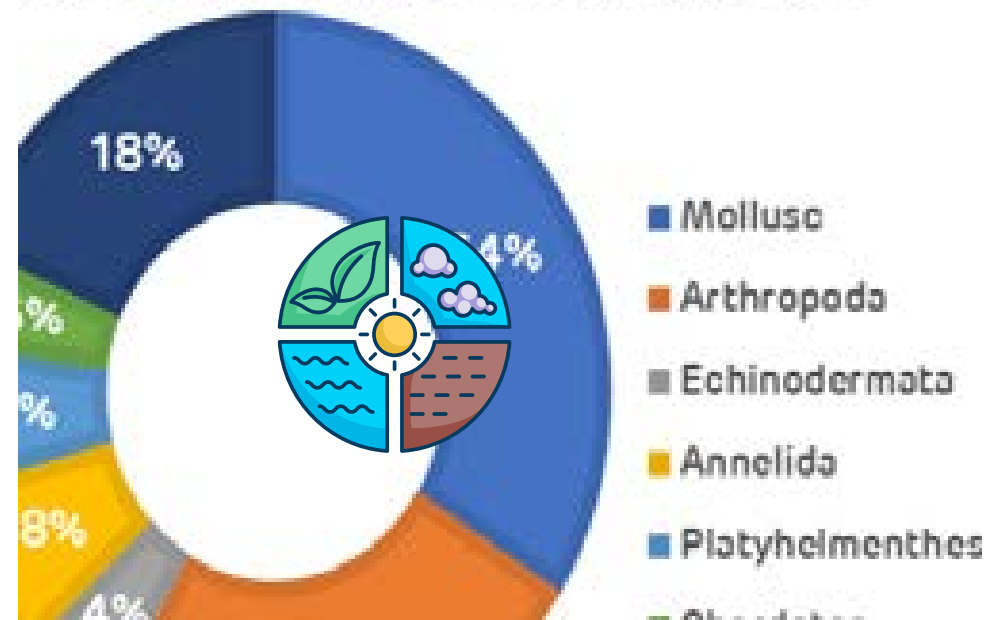
Mangroves play a crucial role in carbon sequestration, helping mitigate climate change by absorbing carbon dioxide from the atmosphere.



## COASTAL BIODIVERSITY CONSERVATION

Since 2010, the Adani Foundation has been dedicated to enhancing coastal biodiversity through a mangrove plantation project at the Luni coastal belt. This initiative has resulted in the creation of **162 hectares of dense mangrove forests**, aimed at promoting ecological sustainability and creating new habitats.

BIODIVERSITY COMPOSITION



# Biodiversity Knowledge & Interpretation Center



## Biodiversity & Interpretation Center

The center is dedicated to educating, inspiring, and engaging the community in conserving Gujarat's rich biodiverse.



## Nursery Development

A nursery of 10,000 mangrove seeds was established at the Luni site with the active participation of local fishermen.



## Training Sessions

30+ Employee Training on Biodiversity Conservation at Mundra Petrochem LTD.



## Awareness Sessions

An awareness lecture was held at Adani Vidya Mandir, Bhadreshwar, with 50+ students participating.



## Workshop on Coastal Conservation

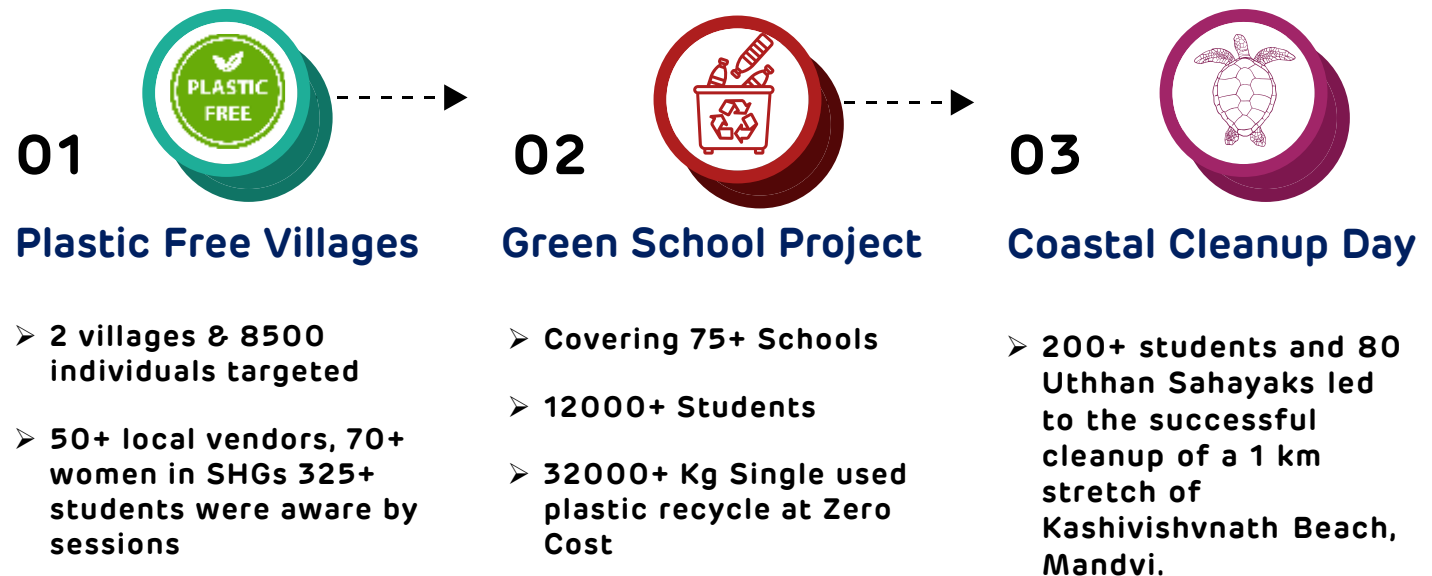
One-day workshop was held with participation of 200+ students of University.





## Nurturing A Plastic-free Generation

Adani Foundation is committed to creating a cleaner, plastic-free future through its "Plastic Free Environment" initiative. By focusing on the principles of reduce, reuse, and recycle, the foundation aims to educate children about the harmful effects of plastic pollution on ecosystems. This initiative empowers the younger generation to take proactive steps towards environmental stewardship, through community engagement and educational programs, the Adani Foundation is making significant strides in reducing plastic waste and promoting a healthier planet.



# Water Conservation "Swajal Project" Enhancing Rural Water Resources

Adani Foundation has undertaken significant water conservation initiatives to address water scarcity and improve water availability in rural areas.

**Through the creation of 737 various water structures, the project has increased water capacity by 5,400,735 cubic meters (CUM) and benefited 64,515 people.** These efforts are crucial for sustainable water management, agricultural productivity, and community well-being.

## Check Dam New/Renovation

- Structures: 29
- Water Capacity Increase: 1,072,332 CUM
- Beneficiaries: 30,870
- Impact: Enhances water storage and irrigation.



## Pond Deepening

- Structures: 135
- Water Capacity Increase: 1,028,403 CUM
- Beneficiaries: 18,350
- Impact: Improves water retention and availability.



## Rainwater Harvesting Structures (RRWHS)

- Structures: 330
- Water Capacity Increase: 3,300,000 CUM
- Beneficiaries: 1,650
- Impact: Maximizes rainwater capture and usage. Rs. 10950 yearly saved/house



## Construction of Percolation Wells

- Structures: 26
- Ground Water Recharge: Significant
- Beneficiaries: 3,000
- Impact: Boosts groundwater levels and availability.



## Bore/Well Recharge

- Structures: 209
- Ground Water Recharge: Significant
- Beneficiaries: 1,045
- Impact: Enhances groundwater recharge and sustainability.



## Construction of New Wells

- Structures: 8
- Purpose: Drinking Water
- Beneficiaries: 9,600
- Impact: Provides reliable drinking water sources.







# Surya Ghar Project 100% Solar Village

Adani Foundation, through its CSR initiative, has launched the **Surya Ghar Project to transform 2 villages into 100% solar-powered communities**. This project aims to provide sustainable energy solutions, enhance energy access, reduce reliance on conventional power sources, and promote environmental sustainability while significantly lowering electricity costs for villagers. **The project benefits 4,500+ people.**



## ✓ Vision & Objectives

- Provide sustainable energy solutions for rural communities.
- Enhance energy access and reduce dependency on conventional power sources.
- Promote environmental sustainability and lower electricity costs.

## ✓ Implementation & Impact

- Solar panels installed in 2 villages, ensuring 100% solar energy under PM Surya Ghar
- Transformed villages into models of sustainable living.

## ✓ Financial Impact:

- Electricity bill reduced to Rs. 0 per household.
- Annual savings of Rs. 12,000 per household.
- **Total annual savings of Rs. 90 lakhs for 750 households.**

## ✓ Environmental Benefits

- Significant reduction in carbon footprint.
- Promotes clean, renewable energy.
- Serves as a replicable model for other rural communities.



# Education

“Empowering minds today  
for a brighter Tomorrow”



# Educational Excellence: Aligned with Adani Foundation's Vision

**Project Utthan**, an initiative by the Adani Foundation, is dedicated to transforming the educational landscape at the grassroots level. Aligned with the Adani Foundation's vision of fostering sustainable and integrated development, **Utthan aims to enhance the learning abilities and outcomes of students in government primary and high schools.** By adopting a holistic approach, the project addresses various aspects of education, including foundational literacy and numeracy, capacity building for teachers, and active parental engagement.

In line with the National Education Policy (NEP) 2020, Utthan emphasizes the development of cognitive skills, critical thinking, and problem-solving abilities among students. This year, the project has introduced several innovative programs to further its mission. These include **Vedica Maths and Abacus for improving mathematical literacy and logical thinking, School Cinema for value-based education, and the Children's Toy Foundation Kit to create a joyful learning environment.** Additionally, collaborations with **Secure Nature and Oasis** have been established to promote environmental education and foster a love for reading among students.

Through interactive teaching methods, activity-based learning, and digital resources, Utthan continues to make significant strides in improving educational standards and nurturing the holistic development of students. This commitment aligns with the NEP's vision of providing high-quality education to all, thereby contributing to character building and national development.



69 Primary Schools

12 High Schools



12,000+



student's life positively impacted

# Utthan's Vision for the Future: Aligning with NEP, SDGs, & Impact Overview

Utthan is revolutionizing government primary education by transforming schools into vibrant centers of learning and development. Through innovative initiatives, Utthan introduces modern teaching methods, state-of-the-art facilities, and engaging co-curricular activities. By actively involving parents, especially mothers, as catalysts in this transformation, Utthan strengthens community bonds and enhances educational outcomes. **These efforts align with the National Education Policy (NEP) 2020 by promoting inclusive, equitable, and quality education, and support the Sustainable Development Goals (SDGs) by fostering lifelong learning opportunities and community engagement.**

Utthan Year wise students' strength



Mainstreaming progressive learners



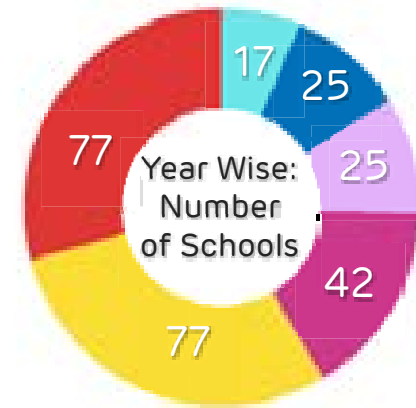
Character building by Co-curriculum activity



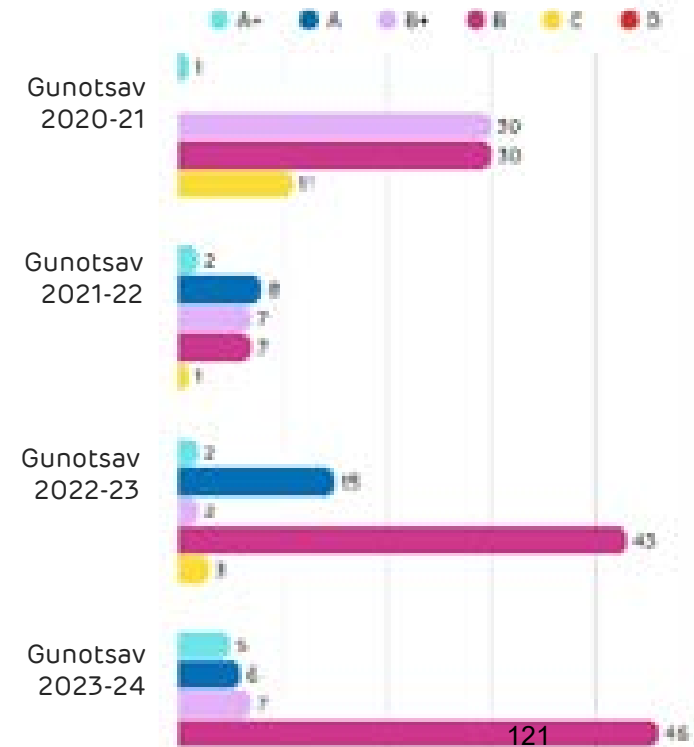
Creating joyful learning spaces



Mothers as catalyst in transformation



Number of Schools in Grades



## Progressive learner



Teaching progressive learners involves using innovative approaches and activity-based learning to mainstream all students, focusing on foundational literacy and numeracy (FLN).

## Library Activity



Conduct library activities on the first and third Saturdays of each month. To increase reading habits, we also planed reading workshops that foster a love for reading among students.

## Competitive exam preparation



Prepare students for various competitive exams such as JNV, NMMS, PSE, CET, and Gyan Sadhana. Our efforts include raising awareness about these exams among the community and parents, ensuring students are well-prepared and supported.

## IT on Wheels

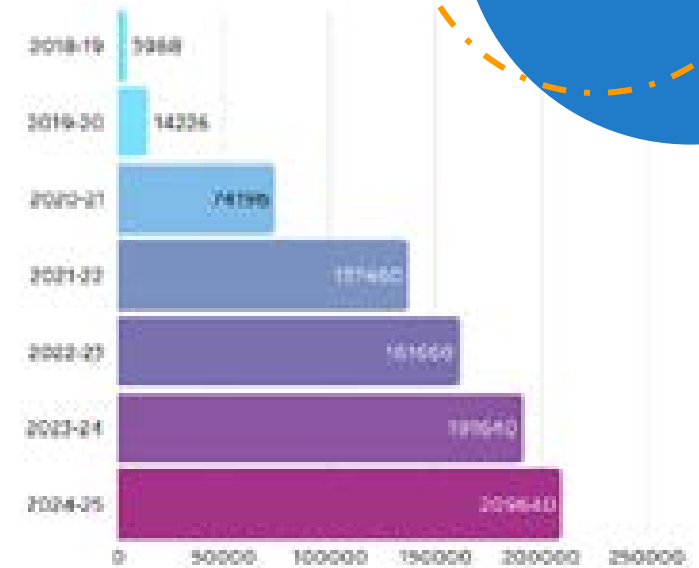


To enhance digital literacy, we introduce "IT On Wheels," a program designed to equip students with essential digital skills crucial for the 21st century. This initiative ensures that students are proficient in using technology, preparing them for future challenges.

## Enriched reading corners to develop reading habits

Library books were issued twice a month, and a dedicated reading corner was established in each school to enhance accessibility. Additionally, over 1,000 books and various magazines were provided, and library activities and Oasis Book Reading Workshops were conducted regularly, enriching the reading experience and fostering a love for reading among students.

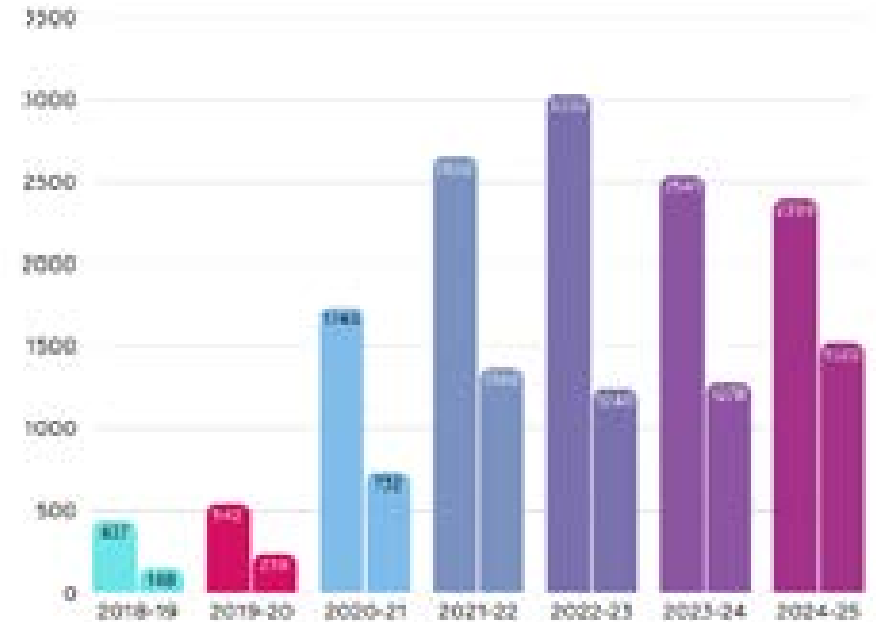
**2,09,640**  
Books issued  
between students



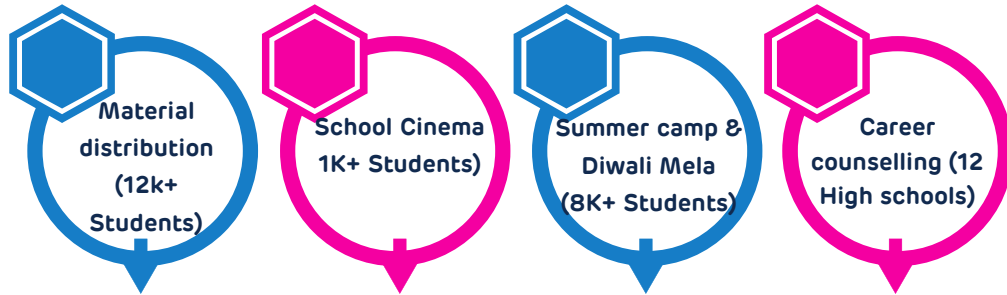
## Progressive Students Strengthening foundational literacy, numeracy and skills

A total of **6,540** students from Class 3 to 7 were assessed in reading, writing, and math skills, with **2399** students identified as needing additional support. Targeted interventions helped

**1,520**  
students successfully  
integrate into regular  
academic programs



# Utthan's Impact: A Data-Driven Overview of Utthan Initiatives

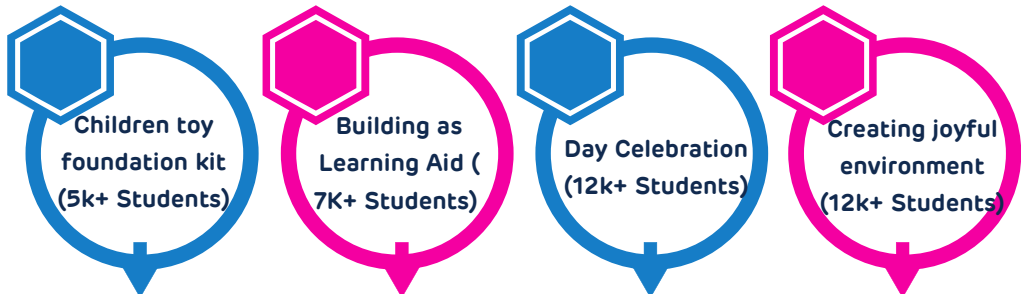


Distribution of sports kits, music kits, TLM kits, and stationery kits.

Value education is imparted through films that teach important life lessons and moral values.

Provide students to engage in fun and educational activities, fostering their holistic development.

for 10th class students to help them make informed decisions about their future.



Mind activities to enhance students' interest and cognitive development.

BALA transforming school spaces into vibrant learning environments through creative artwork.

Initiatives to enhance co-curricular activities and create a joyful learning atmosphere.

Initiatives to enhance co-curricular activities and create a joyful learning atmosphere.

## Environment Education Project

In collaboration with Secure Nature & Green School Competition to educate students about environmental conservation through hands-on activities and projects.

80 Schools  
12000+ Students

## Adani Competitive Coaching Center

Coaching for various competitive exams, helping students prepare effectively. This includes providing study materials, practice tests, and expert guidance.

27 Schools  
5000+ Students

## English as Third language

Promote English proficiency as a third language, equipping students with essential communication skills that are crucial for their future academic and professional success.

69 Schools  
10000+ Students

## Monthly Mother Meetings

Participation of over 18,750 mothers across 750+ meetings. held in the second week of every month, focus on sharing students' progress, engaging mothers through competitions, and providing support through home visits.

80 Schools  
15000+ Students

## Oasis Reading workshop

Utthan sahayak get training & conduct Oasis Reading Workshops to enhance students' reading habits. These workshops are designed to foster a love for reading through engaging activities and discussions.

700+ Workshop  
20000+ Students

## Capacity building of teachers

Throughout the year, we plan various training sessions, including special sahayak programs to enhance Vedic Math's and Abacus skills. We also encourage government teachers to participate in these programs

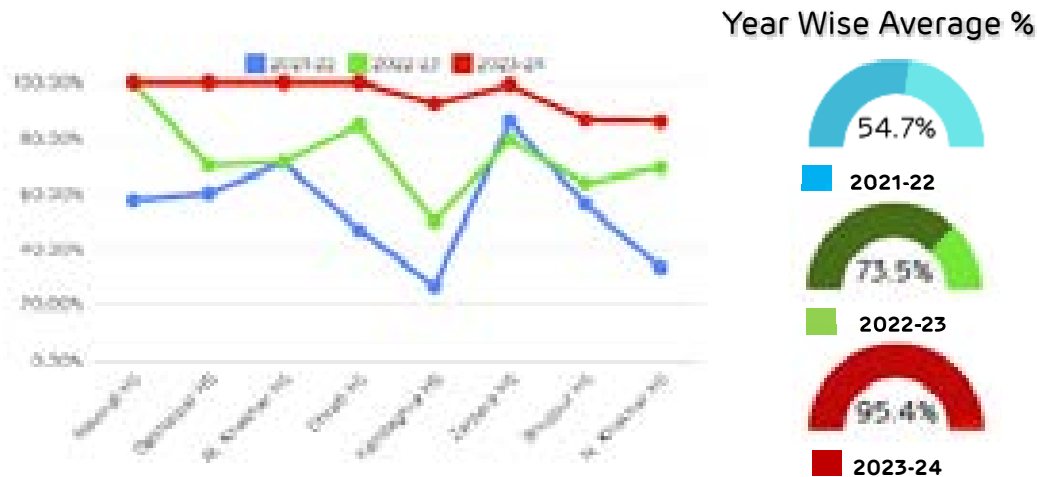
150 Teachers  
16000+ Hours

# High School Result Comparison

Utthan is dedicated to enhancing board results in high schools by implementing a comprehensive approach that includes both scholastic and co-scholastic activities. These initiatives focus on the holistic development of students, fostering self-growth and significantly improving academic performance.

## Yearly Comparison of 10th Board result in 8 High School (HS)

Sr. No.	High School	2021-22	2022-23	2023-24
1	Navinal HS	58%	100%	100%
2	Deshalpar HS	60%	70%	100%
3	M. Khakhar HS	71%	72%	100%
4	Dhrab HS	47%	85%	100%
5	Kandaghra HS	27%	50%	92%
6	Zarpara HS	86%	80%	99%
7	Bhujpur HS	56%	64%	86%
8	N. Khakhar HS	33%	69%	86%



## Enhancing Skills: Vedic Maths & Abacus Programs for Students

### Implementation

- **Abacus program introduced in 58 primary schools.**
- **Vedic Mathematics program introduced in 8 high schools for class 9 students.**
- Fostered critical thinking and logical reasoning.

### Student Participation

- **1,607 students** from classes 5-7 participated in the **Abacus program**.
- **1,302 students** from classes 8-9 participated in the **Vedic Mathematics program**.

### Assessment & Certification

- All students completed Level 1 and received a certificate.
- Students who completed Level 2 were also recognized.

### Program Impact

- Enhanced students' mathematical skills and problem-solving abilities.
- Increased student interest in mathematics.
- Sahayak participants received certificates, boosting their confidence and motivation.



# Key finding of third-party assessment

The Utthan program assessment employed a quasi-experimental, mixed-methods design with pre-post comparisons and stratified random and purposive sampling to evaluate student outcomes, program impact, and sustainability. The sample included 288 intervention students, 96 non-intervention students, 53 Sahayak, 30 head teachers, 30 SMC members, 30 parents, and community members, with data collected through FGDs, SSIs, and KIIs. Univariate and bivariate analyses were conducted, and field notes were transcribed to identify themes. These themes were aligned with objectives and compared to past data to uncover discrepancies and analyze their causes.



**More than 90% of the students have achieved proficiency in reading, writing and numeracy skills in Utthan Schools.**



**Utthan sahayak as catalyst:** The introduction of Saha yaks (teacher assistants) ensures personalized student support and bridges gaps between schools and families, fostering greater parental involvement.



**Sahayak have mentioned improvements in their classroom management practices, strong and parent and community management and understanding of student child development**



**97% of students** reported improved confidence in leadership and communication and **97% of students in Utthan schools have mentioned interest in attending school.**



**Teachers' capacity building :** Comprehensive teacher training programs enhance instructional quality, equipping educators with tools to deliver FLN-focused curriculum effectively.



Community engagement through home visits and mothers' meetings, the project strengthens parental accountability and participation, directly influencing students' motivation and performance.





# Adani Vidya Mandir, Bhadreshwar

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## Empowering Futures through Holistic Education

Adani Vidya Mandir, Bhadreshwar (AVMB) stands as a beacon of hope and excellence, dedicated to transforming the lives through free and quality education. Aligned with the principles of the National Education Policy (NEP) and the National Accreditation Board for Education and Training (NABET), AVMB is committed to fostering an inclusive and holistic learning environment. The 2024-25 academic year has been a testament to our unwavering dedication to the Sustainable Development Goals (SDGs), particularly Goal 4: Quality Education. AVMB has successfully integrated innovative programs, dynamic student engagement, and comprehensive support systems to ensure that every child receives the best possible education and opportunities for personal growth. These efforts reflect our mission to provide a nurturing environment where students can thrive academically, socially, and emotionally.



# Holistic Development & Achievements

## Academic and Institutional Developments

- Board exam results showcased excellent student performance, with targeted remedial sessions introduced for continuous improvement.
- The Housekeeping Training Program (May 28) emphasized cleanliness and hygiene maintenance among staff.

## Teacher Development and Training

- Teacher Capacity Building Program (June 6) enhanced instructional strategies and curriculum planning.
- NABET Accreditation Training (June 12) ensured compliance with national educational standards.

## Technological Advancements

- Inauguration of a New Computer Lab (Sept 27) enhanced digital learning opportunities.
  - AI and Google Gemini Training (Nov 16) prepared educators for modern teaching methodologies.



## Cultural and Co-Curricular Activities

- World Book Day (April 23) promoted reading culture through storytelling and book exhibitions.
- International Yoga Day (June 21) emphasized mindfulness and physical wellness.

## Student Achievements

- SVS Science Exhibition (Oct 4): AVMB students won first place for their research on screen time and its impact.
- District-Level Science Fair (Dec 9-10): Students represented Mundra Taluka with innovative projects.

## Health and Safety Initiatives

- Menstrual Hygiene Awareness Program (June 22) educated girls on personal health and wellness.
- School-Wide Health Check-Up (July 8) ensured early detection of health concerns.

# Empowering Minds & Building Futures at AVMB

## Environmental and Community Initiatives



- World Mangrove Day (July 25) raised awareness about ecological conservation.
- Fortnight-Long Swachhagrah Drive (Sept 17-30) promoted cleanliness and sustainable habits.

## Student Welfare and Community Engagement



- Educational Trips (Dec 3, Feb 18-19) provided real-world learning experiences.
- First Alumni Meet – SANGATH (Oct 26) strengthened ties with former students and inspired current learners.

## Sports and Physical Education



- Inter-House Sports Competitions (Jan 3): Events like Kabaddi and Kho-Kho fostered teamwork and discipline.
- Khel Mahakumbh 3.0 (Jan 15): Over 77 students showcased athletic skills in multiple disciplines.

## Special Recognitions and Awards



- Best Day-Boarding School Award (NSA 2024) recognized AVMB's commitment to quality education.
- Education Excellence Award (Feb 11) reinforced AVMB's role in empowering underprivileged students.

## Teacher Development and Training



- Sanskarotsav Teachers' Training (Nov 12-14) focused on self-development and effective teaching strategies.
- Adobe Express Training (Jan 17) introduced teachers to digital learning tools.

## Cultural and Co-Curricular Activities



- Ashadhi Bij Celebration (July 5) and Guru Purnima (July 19) reinforced cultural values.
- Kala Utsav and Kala Mahakumbh Competitions (Dec 6, 23, 24): Students excelled in music, painting, and performing arts.



# AVMB: A Year of Outstanding Achievements



AVMB Under-14 and 17 teams both won the Mundra Taluka Level Kho-Kho competitions.



A project from AVMB ranked first in the Science Fair at the SVC level and second at the CRC level.



Rathod HardevSinh secured first place in the District Level Athletics Festival at the Taluka level.



At the QDC level, AVMB students achieved first place in Play Music, Singing, and Bal Kavi competitions.



At the BRC level, AVMB students won first place in Singing, Drawing, and the Group Song Competition



641 Students currently shaping their future through dedicated learning at the schoolents .



1171 students who have embarked on their journeys through AVMB





# Udaan Inspiring Minds



adani Foundation



Udaan Progress Report | Apr 23 - Feb 24 | Volume 2 | www.projectudaan.in

## About Project

Udaan is a special project inspired by the life-changing story of Mr. Gautam Adani. As a child, he had visited the Kandla port in Gujarat, and after looking at the expanse of the port, he dreamt of having his own port one day. The rest is history. Under this project, exposure tours are organized wherein school, college students, faculties, employees from corporates are given a chance to visit the Adani Group facilities. Under this project, services are absolutely free of cost for government schools.

### Vision

To create a pool of inspired young minds for nation building at a global scale

### Mission

To motivate young students to dream big by exposing them to world-class industrial facilities



Total no. of Schools/Colleges/Institutes

408

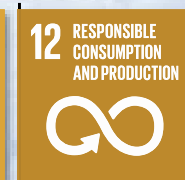
Total no. of participants

26346



# Sustainable Livelihood Projects

“Empowering hands, transforming lives”



# SLD - Animal Husbandry

With decreasing rainfall and rising groundwater salinity, traditional farming faces serious challenges. To support farmers and livestock owners, the Adani Foundation has taken proactive steps to strengthen agriculture and animal husbandry in nearby villages.

## PASHUDHAN INITIATIVE

This initiative focuses on two key areas:

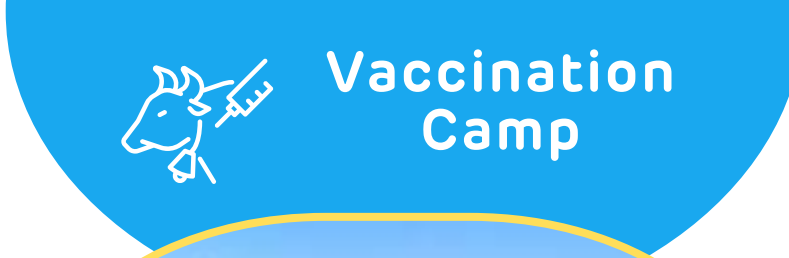
1. Preventive Health Care
2. Fodder Support



# PREVENTIVE HEALTH CARE

Under the Preventive Health Care program, the Foundation, in partnership with the Animal Husbandry Department, organizes regular cattle health camps across 24 villages. These camps provide veterinary check-ups, vaccinations, and treatments for common diseases. Life-saving vaccines, such as those for Foot-and-Mouth Disease (FMD) and Clostridial infections, help ensure long-term immunity and healthier livestock. Additionally, medicines and vaccines are supplied by the Foundation.

These efforts are helping protect livestock health, improve farmers' livelihoods, and build resilience in the community.



14,056  
Cattle vaccinated

1460  
Deworming tablet distributed

15,000+  
Cattle benefited

959  
Cattle owner benefited

# FODDER SUPPORT

The Adani Foundation's Fodder Support Program plays a crucial role in supporting nearby villages during harsh summers, droughts, and crop failures. To ensure livestock health and community well-being, we provide high-quality dry and green fodder to 24 villages.

Adani Foundation provides good quality dry and green fodder to 24 villages in our vicinity, covering 15,005 cattle of 1500+ Cattel owners.

## Grass Land development:

AF converted 5 acres of desolated village common pastureland (Gauchar) into fertile and productive grassland in Zarpara village to transform into Fodder Sustain village with Community participation and responsibility for maintain and Monitoring.

Among that 5 acre of Gauchar land is fenced and sowed with Multispecies Green Fodder with Having Good nutritive value. More than 1500 Cattle will sustain with Improving quality and quantity of milk.



15,74,250kg  
Dry Fodder

51,66,805kg  
Green Fodder



15,005  
Cattle benefited

1500+  
Cattle owner benefited





# SLD - Fisherfolk Community

Persistent efforts  
for Fisherman development



686  
Educational Kit  
Support



111  
Cycle Support  
to high school  
going students



273  
Fisherman Shelter  
Support



648  
Scholarship  
Support



195  
Linkage with  
Fisheries Scheme



1368  
Vehicle transportation  
Support



494  
Youth  
Employment



3534  
Ramatotasav  
Community  
Engagement



56,523  
Man-Days  
mangrove  
plantation



## “ Fisherfolk Community

holds great importance in Mundra, as they are an integral part of the coastal ecosystem and economy. Recognized as a marginalized group, we are committed to their holistic upliftment through various sustainable livelihood initiatives. Our interventions focus on enhancing their education, improving shelter and transportation facilities, supporting youth employment, and connecting them with government fisheries schemes. Through these continuous efforts, we aim to empower the fisherfolk community and ensure their socio-economic development.

### Empowering Fisherfolk Communities through Education



### Scholarship Support:

To uplift financially challenged communities, we extended scholarships support of **Rs. 3,58,765 to 35 students**, enabling them to pursue higher secondary and technical education. This support is helping break the cycle of poverty and create a brighter future for these students and their families.

### Vehicle Transportation Facilities:

Ensure seamless access to education for **121 school-going children** from Modhva, Tragadi, and Zarpara Bandar Fisherfolk Students in reaching the nearest School, eliminating barriers to regular attendance. Additionally, personal **cycle support to 5 fisherfolk students**.



### Education Kits Support:

Equipping **88 fisherfolk students** in HSC and Graduation with essential tools for academic success, including notebooks, guides, stationeries and study bags, we empower them to pursue their education with no financial barriers.

## Job opportunity

Acting as a bridge between industries and fisherfolk youth, the Adani Foundation facilitated job placements for 30 fisherfolk as RTG operators, in the HR department, and as supervisors in APSEZ companies.

In the APSEZ area and colony, 45 fisherfolk youth have been offered professional painting roles. To ensure they are skilled for the role, they underwent comprehensive training in partnership with Asian Paints.

This initiative has enhanced their livelihoods and provided sustainable employment opportunities.

## Awareness camp on Menstrual health:

A menstrual health awareness camp was organized for **200+ women** from the fishing communities of Modhva and Tragadi villages. The program focused on educating them about menstrual hygiene, PCOD, and menopause management. It promoted healthy practices, offered guidance on managing related health issues, and distributed sanitary products to support their overall well-being.



## Potable water Distribution:

Providing access of potable Drinking water Facilities to Nine fisherfolk vasahat on Daily bases, either By Water tanker or Linkage with Nearest Gram panchayat.

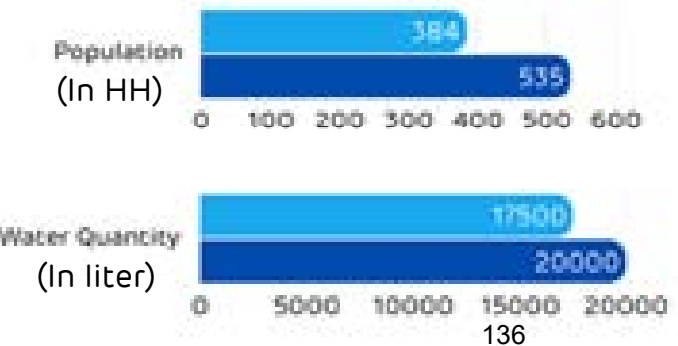


**5000+ Fisherfolk Population** are getting benefit which impact on their health and well-being

## Daily Water Tanker Support:



- Luni Bandar
- Davidi Bandar



# SLD - Agriculture

## BIOGAS PROJECT

In our ongoing efforts to promote sustainable and eco-friendly farming practices, we have successfully registered 863 farmers from five different talukas in the Kutch district. Each registered farmer will receive financial support of ₹9,000 for the installation of biogas plants on their farms. This initiative aims to provide farmers with a renewable source of energy, reduce dependency on conventional fuels, and improve overall agricultural productivity.



### Benefits of Biogas:

#### Renewable Energy Source

Biogas is a sustainable and renewable energy source that reduces dependence on fossil fuels.

#### Cost Savings

Farmers save on fuel expenses as biogas can be used for cooking, heating, and electricity generation.

#### Waste Management

Biogas plants efficiently manage agricultural waste by converting it into useful energy.

#### Environmental Impact

Biogas reduces greenhouse gas emissions, contributing to climate change mitigation.

#### Soil Health

The by-product, known as digestate, is a nutrient-rich organic fertilizer that enhances soil fertility.

#### Improved Livelihoods

Biogas provides farmers with additional income and energy security, improving their overall quality of life.

### Key Highlights

863 Farmers

Total Farmer Registered

Rs. 9000

Financial Support to each farmer

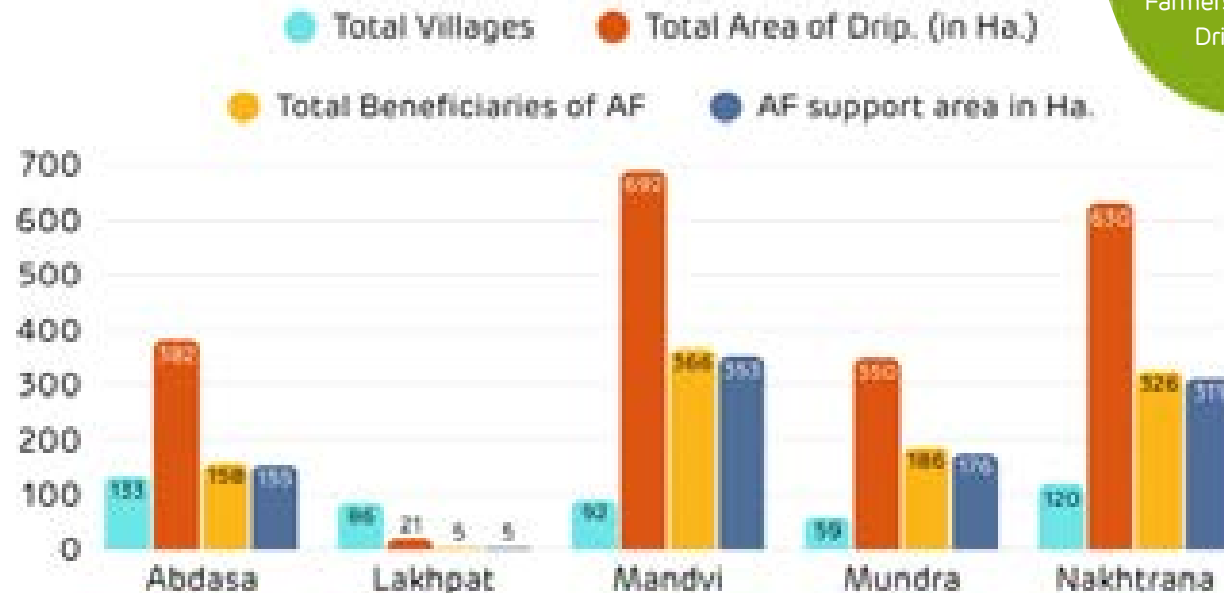
6 Talukas

Geographical coverage in Kutch

## DRIP IRRIGATION: ENHANCING LIVELIHOODS IN KUTCH

The Drip Irrigation Initiative by Adani Foundation promotes efficient water use in farming by providing financial support to farmers for installing drip systems. It helps conserve water, improve crop yield, and encourage sustainable agriculture in Kutch.

### Adani Foundation's Drip Support in FY - 2024-25



**1041**

Farmers connect with  
Drip Support

In 2024-25, Adani Foundation supported sustainable water management in Kutch by **Promoting drip irrigation across 490 villages in Abdasa, Lakhpat, Mandvi, Mundra, and Nakhtrana talukas. Covering a total area of 2,074.53 hectares, the initiative benefited 1,041 farmers.** This effort enhanced irrigation efficiency, boosted agricultural productivity, and contributed to water conservation and eco-friendly farming practices in the region.

## Natural Farming

As part of our commitment to sustainable agriculture, we have focused on promoting natural farming practices to conserve soil health and enhance environmental sustainability.

### Till Date

2,275

Farmers trained in Natural Farming

226

Farmers successfully transformed to 100% Natural Farming

857

Farmers linked with GOG to support cattle welfare scheme



## Green Carnival

Organized an annual Green Carnival, providing farmers with a dedicated marketplace to sell their organic produce directly to consumers. This event is hosted by our employee company and attracts many buyers interested in organic products.

### Sales Achievements

This year, the Green Carnival was a resounding success, with farmers selling a total of **16,241 kg** of organically grown vegetables and fruits at the event.

**Rs. 6,49,640+**  
Total revenue



# SLD - Women Empowerment

The Adani Foundation places women's empowerment at the heart of its initiatives, focusing on skill development, entrepreneurship, and self-reliance. By providing training, essential materials, and market linkages, it creates opportunities for women to enhance their livelihoods. In collaboration with government programs, the foundation strengthens Self-Help Groups (SHGs), promoting savings and sustainable businesses. It also prioritizes women's health and hygiene through targeted awareness initiatives. This holistic approach fosters economic independence, social inclusion, and overall well-being among Women in its project areas.



## Self Help Groups

- 88 Self Help Groups in coordination with National Rural Livelihood Mission.
- 920+ Members
- Over Rs.39 Lacs Saving Amount Corpus



## Job Sourcing - Govt

- 11 Women supported for application and process of Gram Rakshak Dal, Bank Sakhi, Bima Sakhi and Professional Resource Person.
- Average income Rs.7500 Per Month



## Making SHG Self Reliant

- 16 SHG are making strides towards self-reliance. Various handicraft, dry and fresh food making, stitching, tie and die etc.
- 175+ women - Monthly average income @ Rs.7000 of each member/Month



## Social Empowerment

- 4 Livelihood Enhancement Training through RSETI
- Financial support for business set up
- Legal rights and domestic violence workshops
- Family counselling for Job sourcing



## Job Sourcing - Private

- Coordination for Job by Unnati Portal with Adani Group company companies, Britannia, B Medical and Emphazer company
- 758 Women supported till date for job sourcing.
- Average income Rs.10,800 Per Month



## Revenue of each SHG in FY 2024-25

Name of IG activity of SHG/ULG/PPC's	Income 2023-24 (INR)	Cumulative Income (INR)
Sonal Saheli	338700	338700
Sanitary Pad Saheli	256000	262266
Tajawal Saheli	188000	444266
Umang Saheli	54300	291100
Madhav Saheli	59600	349700
Soof Saheli	92000	153000
Meghathasurath Saheli	458000	495000
Saheli Tea Sahay_Auth	105425	902850
Radh Saheli	44000	924850
Shradha Saheli	2600000	507000
Chamunda Saheli	269000	1755000
Food Saver Saheli	1755000	2400000
Jyoti Saheli	44199	89199
Pandjani gas Saheli	457000	1850000
<b>Total</b>	<b>6201124</b>	<b>10443478</b>

# "CHETNA"

Initiative with gender diversity

The Adani Foundation, in partnership with Unnati Portal and Adani Solar, launched the "CHETNA" initiative, aimed at promoting gender diversity by creating equal opportunities for women from Kutch to pursue employment and personal development.

Understanding the cultural and social barriers faced by women in the region, the Foundation took proactive steps to mobilize and counsel potential women candidates. Special efforts were made to engage with their parents, addressing concerns and building trust to encourage families to support women's participation in interviews and formal employment. To ensure smooth onboarding, the Foundation also provided travel assistance and interview support. As a result of these focused efforts, today 614 women from Kutch are successfully employed at Adani Solar, marking a significant step towards their economic empowerment and fostering gender diversity in the workforce.

₹ 1.8 Lakhs/annum  
12th pass candidates

₹ 2.16 Lakhs/annum  
Graduate candidates

**Technical Associates**



## 614

Local female employees in Adani Solar from Kutch





# Highlights of the Work done by our SHG!

## Sathwaro'24

Powering Art, Empowering Artisans

3 women SHGs from Adani Foundation Mundra participated in the prestigious Sathwaro Mela at the Belvedere Club, Ahmedabad, showcasing Mud Art, Bead Art, and Soof Art, along with two artisans specializing in Rabari and Doorri work, achieving an impressive turnover of **Rs.1,30,000/-**



## New Stitching Centre

Livelihood opportunities for local women

In Vandh Village, by providing advanced stitching and embroidery training, the new stitching center empowers women with skills and employment. Equipped with 11 modern machines, women are producing 5,000 bags, gaining financial independence and professional confidence.

## Women empowerment initiative

Adani Foundation is empowering rural women through skill training, exposure visits, and SHG formation, enabling them to achieve financial independence and entrepreneurship.

### Skill Training

Stone Dust Art Training  
Mud Art Training  
Beauty & wellness Training

@ 100+ Local women empowered

### Exposure Visit

Visit to Welspun Stitching Centre for women to learn about stitching enterprises

### New SHG Formation

"Madhav Saheli" a Food service SHG  
"Gopinath Saheli" a Tailoring SHG  
"Suidhaga" a Tailoring SHG



# MENSTRUAL HYGIENE AWARENESS

Adani Foundation is dedicated to educating and empowering rural girls and women from marginalized communities about menstrual health.

We aim to break negative social stigmas around menstruation and improve their overall well-being.

61

Villages covered

8300+

School girls & women participated till now



## CELEBRATED INTERNATIONAL WOMEN'S DAY WITH 1,000 LAKHPATI DIDIS

On 5th March, Adani Foundation celebrated the strength and resilience of women by marking International Women's Day with 1,000 Lakhpati Didis. The event highlighted the Foundation's ongoing efforts to empower rural women through meaningful livelihood opportunities. Over 614 women have been connected with job opportunities at Adani Solar, while 850+ women entrepreneurs received support to grow their businesses.

Women from across Kutch shared their inspiring journeys of transformation, made possible by the Foundation's initiatives.

The celebration was graced by 9 international ambassadors who applauded the impact of these programs. Chief Guest Manisha Chandra - IAS (Principal secretary, Rural Development) had given motivation speech. Ms. Ami Shah ( Director, Adani Public school) had appreciated efforts of Adani foundation and Adani solar for supporting Rural women and opportunities to grow as a technical associates in Adani Solar Mundra.



# Community Health

“A healthy community is a strong community”



# Community Health

Good health is the foundation of a progressing community. In Kutch, the Adani Foundation is committed to improving healthcare access through partnerships with Adani G.K. General Hospital in Bhuj and Adani Hospital in Mundra.

For over a decade, we have supported communities with Mobile Health Care Units, Rural Clinics, and Ayushman Card linkages.

In response to rising cases of viral, kidney, and orthopedic diseases caused by salinity ingress, we have organized specialized health camps to provide treatment and raise awareness about prevention. By focusing on both preventive and curative healthcare, we strive to ensure long-term well-being and economic stability for the communities we serve.



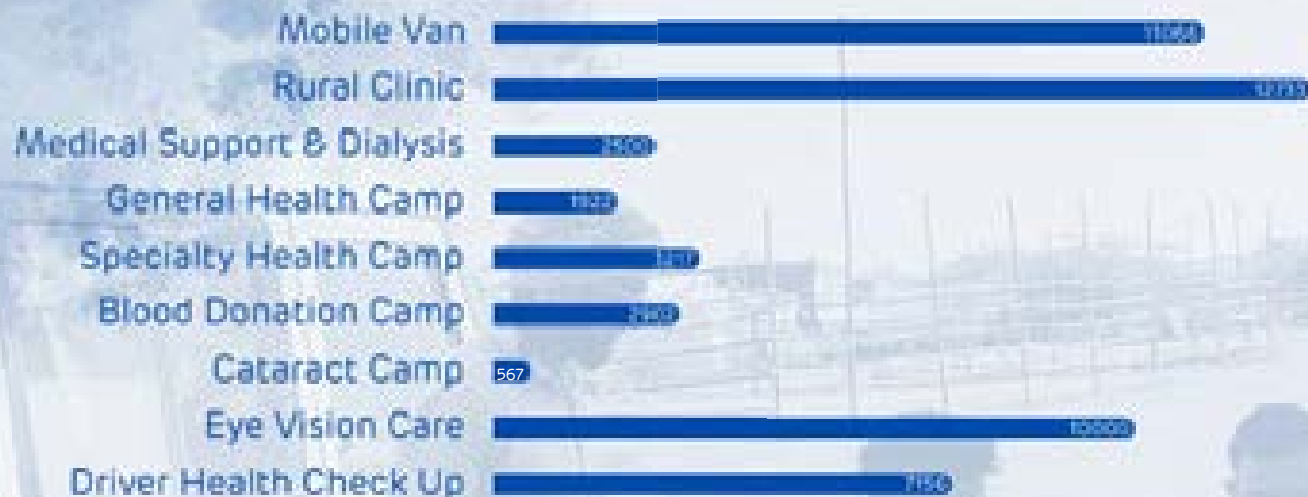
**Hospital** 

**Rural Clinic** 

**Eye Vision Care** 

**Mobile Health Care Unit** 

# Our Service



## Adani Hospital Mundra Pvt. Ltd.



### Mobile Health Care Unit

The Adani Foundation operates Mobile Health Care Units that provide essential healthcare services to 29 villages and 7 fishermen settlements in Kutch. These units are equipped with diagnostic tools for blood pressure, sugar testing, and ECG, along with 90+ lifesaving medicines. By offering affordable healthcare at just ₹20 per visit, the MHUs ensure that primary healthcare reaches even the most remote communities.

**11,066**  
patients benefited



### Rural Clinic Services

To enhance healthcare accessibility in rural areas, Rural Clinics have been set up in 5 villages of Mundra and 2 villages of Mandvi Block. These clinics offer regular medical consultations, basic treatments, and preventive care services. They play a crucial role in bringing consistent healthcare support to communities that otherwise have limited access to medical facilities.

**12,733**  
patients benefited





## Financial Assistance for Critical Illness

Understanding the burden of life-threatening diseases on economically weaker families, the Foundation provides financial support for patients suffering from heart, liver, kidney diseases, and cancer. In the current year alone, 45,602 patients from Mundra, Mandvi, and Anjar Blocks have received critical medical assistance at Adani Hospital, Mundra, in collaboration with Adani GK General Hospital, Bhuj.

**45,602**  
patients benefited



## General Health Camp

It aims to make quality healthcare accessible to underserved communities by providing free consultations and basic medical services. Doctors conducted health check-ups, including blood pressure monitoring, respiratory assessments, and screening for seasonal illnesses. Patients were also provided with necessary medicines on the spot, ensuring timely treatment and care. Such camps play a vital role in promoting health awareness and addressing common health issues in rural areas where access to healthcare is limited.

**1922**  
patients benefited



## Specialty Health Camp

It organizes to support focused medical care to rural communities through consultations from specialists such as gynecologists, pediatricians, orthopedists, ophthalmologists, and physicians. The primary objective is to address critical health issues among women and children, particularly during pregnancy, to prevent maternal and infant mortality. Additionally, Specialty Health Camps are organized promptly in response to disease outbreaks in villages, ensuring quick medical support and controlling the spread of illnesses.

**3217**  
patients benefited





### Eye Vision Care Initiative

This year, Adani Foundation, in collaboration with Vision Spring, has launched a comprehensive Eye Vision Care program to address uncorrected refractive errors and improve eye health in the community. The initiative focuses on students ("See to Learn"), SHG women ("See to Earn"), and APSEZ drivers ("See to Be Safe"), ensuring better education, livelihood, and road safety. It also promotes "Vision for All" across the community. It is a holistic eye care campaign starting from the process of registration to eyeglass dispensing, and cataract surgery support.

10,000 patients benefited



### Menstrual Hygiene Awareness Camps

Promoting health and dignity among adolescent girls and women, menstrual hygiene awareness camps are regularly organized in schools and community centers. These sessions focus on educating participants about menstrual health, hygiene practices, and breaking cultural taboos. Sanitary pads are also distributed to encourage proper menstrual care and improve overall health outcomes for women and girls.



### Cataract-Free Mundra Initiative

To combat vision loss among the elderly, the Cataract-Free Mundra campaign has screened 567 individuals at the village level. Patients identified with cataracts are referred to GK General Hospital, Bhuj, for surgery, followed by post-operative care and follow-ups. This initiative has restored vision for many senior citizens, helping them regain independence and quality of life.

68 successful cataract operations





VisionSpring  
See well. Do well.

adani  
Foundation

# સ્પષ્ટ દૃષ્ટિ ઉજ્જવળ ભવિષ્ય

મફત આંખોનું સ્ક્રીનિંગ અને  
ગુણવત્તાશીલ ચશ્મા

ડ્રી હેલ્પલાઇન **1800-1033-55**

ર ધી શનિવાર સવારે 9:00 થી સાંજે 6:00

ને તમારો સરકારી ઓળખ પુરાવો સાથે





# Facility Highlights of Burn Care Center

- 26 General Beds + 4 ICU Beds.
- Major & Minor OT (Operation Theatres).
- Dressing Room for burn wound management.
- 24x7 Emergency Services.
- Built as per Government District Hospital Standards.



**22 LAKH**  
PEOPLE WILL BE  
BENEFITED

**INCREASE THE  
SURVIVAL RATES**



## Burn & Intensive Care Unit – Adani GK General Hospital, Bhuj

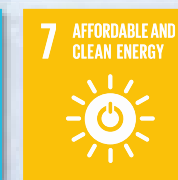
The Adani Foundation, with funding support from Mundra Petrochem Limited (MPL) and Kutch Copper Limited (KCL), has established Kutch's **first-ever Burn & Intensive Care Unit** at Adani GK General Hospital, Bhuj. This state-of-the-art facility addresses a critical healthcare gap in India's largest district, where no specialized burn care previously existed. The center offers immediate and affordable treatment for burn injuries and plastic surgeries, reducing the risk of infections and saving lives by eliminating the need for patients to travel long distances to cities like Ahmedabad or Mumbai.

It is a significant step toward strengthening healthcare infrastructure, benefiting over 22 lakh people in Kutch by providing timely, quality care and easing financial burdens on affected families.



# Community Infrastructure Development

“Infrastructure that connects, empowers, and sustains”



# Community Infrastructure Development



The Adani Foundation has been actively engaged in enhancing community infrastructure through various civil development projects, significantly improving the quality of life for residents. Key initiatives include the renovation of educational facilities, the construction of community gathering spaces, and strategic water management solutions. Upgraded schools now provide better learning environments, while newly built community halls and open sheds serve as essential spaces for social and cultural gatherings. Water infrastructure improvements, such as pipe culverts, have mitigated flooding risks and enhanced accessibility. Additionally, the installation of R.O. plants in educational institutions ensures access to clean drinking water. These initiatives align with global sustainability goals, fostering long-term community resilience and inclusive development.

## CID projects & its beneficiary's tree



# CID - Key Community Infrastructure Developments



## Educational Facility Renovations

- High School, Zarapra: 550 students benefited.
- Aanganwadi, Goyarsama: 40 students benefited.
- High School, Desalpar: 550 students benefited.
- Kasturba Girls Hostel, Desalpar: 150 girls benefited.

**1290**



## Community Gathering Spaces

- Open Shed & Hall, Sukhpurvah Mundra: 1200 people benefited.
- Gathering Place, Wandri: 2000 people benefited.
- Open Shed, Mokha Parking: 2000 people benefited.
- Open Shed, Tuna: 600 people benefited.

**5800**



## Infrastructure Improvements

- Pipe Culvert, Old Bandar: 1200 people benefited.
- Box Culvert & CC Road, Zarpara: 12000 people benefited.
- Approach Road, Shekadiya & Luni: 1200 people benefited.
- Approach Road, Vadi Vistar: 800 farmers benefited.

**15200**



## Water Management Projects

- Percolation Well, Mota Bhadiya: 80 farmers benefited.
- Percolation Bore Cleaning, GPVC Villages: 3150 farmers benefited.
- Pond Deepening & Road Cleaning, GPVC Villages: 6KM cleaned.

**3230**



## Sanitation and Health Initiatives

- R.O. Plant, ITI Mundra & Sanjivni School: 800 students benefited.
- Toilet Block for Disabled, GPVC Villages: 5 families benefited.
- Painting & Office Work, CHC Mundra: 14600 people benefited.

**15430**

# Community Resource Centre

The Community Resource Centre (CRC), located at the Adani Field Office in Baroi, serves as a vital bridge between government schemes and the beneficiaries who need them most. Functioning as a single-window solution, the CRC provides support for online applications and documentation, ensuring that eligible individuals can access various welfare schemes with ease.

Through the facilitation efforts of the Adani Foundation, a total of 2,334 beneficiaries are currently receiving aid under multiple government programs, including Widow Pension, Senior Citizen and Divyang Pension, and the Palak Mata Pita Scheme. This support results in a combined aid of Rs. 3.37 crore monthly.



**Rs. 3.37 crore**  
monthly aid to  
**2,334**  
beneficiaries



Government Scheme Facilitation				
Sr. No	Scheme Detail	Gov. Support Rs/Month.	Total Beneficiaries	Total Amount per Month (INR)
1	Widow Pension	1250	762	24785100
2	Bal seva Ayog	2000	49	3430000
3	Divyang pension	1000	35	670000
5	Niradhar Pension	1000	160	4163000
6	Palak Mata Pita	3000	5	696000
7	Bus pas	Free ST	481	
8	Divyang Govt sadhan sahay	-	175	-
9	Divyang certificate	-	667	-
Total			2334	33744100

# Swavlamban

"A step towards inclusivity"

## 'Mangal Seva' for Divyang Women

### What is 'Mangal Seva' initiative?

On the auspicious occasion of Jeet Adani Sir's wedding, Adani Foundation launched Mangal Seva, a meaningful initiative aimed at empowering differently-abled married women. This transformative program is a reflection of the Foundation's commitment to inclusive and sustainable development.



**Under this initiative, the Adani foundation has pledged annual financial assistance of ₹10 lakh to 500 married female divyangs.**

**₹10 lakh** support to  
**500** female divyangs



## Impact

- Ensuring a future of dignity, security, and stability for beneficiaries.
- Strengthening inclusivity and social upliftment through impactful support.

# Advancing Sustainable Mobility: Electric Vehicle Initiative

Adani Foundation has introduced a highly advanced electric vehicle (New Motion Company) support program, a significant step towards sustainable and inclusive mobility.

Advance Electric vehicle support to **48 Divyangs**



## Livelihood tools support to divyangs

Independence, dignity, and sustainable income opportunities to **50 Divyangs**

Through community outreach, 50 beneficiaries were identified and supported through electric tricycles, wheelchairs, and manual tricycles to enhance mobility, along with other livelihood support such as sewing machines, electrician kits, and handcarts to promote self-employment. Customized support ensured tools matched individual needs.



## Till date endeavor

AF livelihood support to **1140+ Divyangs**

Supported **2104 divyangs** in availing **3144** Government services



# World Divyang Day Celebration - 2024



On the occasion of World Divyang Day, Adani Foundation celebrated the spirit of empowerment at the Swavlamban event held at Gujarat National Law University, Gandhinagar.

The Adani Foundation announced the **support of 1,152 technical kits to divyang students across all ITIs in Gujarat** and showcased its decade-long journey of supporting divyang individuals, particularly in Kutch. As part of this significant event, we also launched the book Swavalamban, which captures the entire journey of the Adani Foundation's initiatives for people with disabilities. The book also features the inspiring case studies of individuals who, with our support, have achieved financial self-sustainability.

**Chief guest Bhanuben Babariya (Cabinet minister, Social Justice & Empowerment, Gujarat), along with other dignitaries, praised the Foundation's efforts.**

**Mr. Jeet Adani sir, Director of Adani Group, emphasized the group's unwavering dedication to empowering divyang persons through sustainable initiatives in areas like education, skill development, and livelihood opportunities.**





# ADANI SKILL DEVELOPMENT CENTER

The Adani Skill Development Center (ASDC) in Bhuj and Mundra is dedicated to creating a future fueled by a skilled and empowered Indian workforce, driving economic growth. Focused on bridging the gap between industry demands and workforce capabilities, ASDC offers high-quality vocational training, fosters innovation, and promotes entrepreneurship. **The center's impact is significant, with 887 students in Bhuj & Mundra, where 70% of participants are female, and 258 technical trainees already placed in diverse roles** such as General Duty Assistant and Domestic Data Entry Operator etc. Six placement drives and 24 guest lectures have further supported career opportunities. In Mundra, courses like RTG Crane Operator, Tally with GST, and Beauty Therapist training have drawn strong participation, especially among women, resulting in 135 placements in beauty therapy alone. By equipping youth with relevant skills, facilitating job opportunities, and empowering women, ASDC plays a vital role in driving inclusive growth, promoting gender equality, and contributing to the region's economic progress.



# Catalysts of Change: Empowering Lives, Creating Opportunities



ASDC aims to empower youth with essential skills, fostering economic growth and enhancing employability through strategic training programs.

Educating youth on the importance of skill development through workshops, seminars, and community engagement initiatives.

Offering a variety of skill enhancement programs tailored to industry needs, ensuring participants gain relevant and practical skills.

Utilizing a professional framework to design and deliver training, ensuring quality and consistency across all programs.

Facilitating job placements for trained individuals, measuring the impact on local employment rates and economic development.



## ASDC - MUNDRA

Course Name	Female	Male	Total
JOC (RTG Crane Operator)	00	140	140
DDEO	30	14	44
Tally with GST	01	00	01
Beauty Therapist	134	00	134
Painting/Drawing Training	06	09	15
German Language	02	00	02
Advance Excel	01	10	11
Mud Work	40	00	40
Dori Work	40	00	40
<b>Total</b>	<b>254</b>	<b>173</b>	<b>427</b>

## ASDC - BHUJ

Course Name	Female	Male	Total
GDA	140	20	140
DL	07	00	07
EDP – Tie up with CED	40	05	45
Skill Up gradation	90	60	150
Domestic Data Entry Operator	61	01	62
First Aid	31	05	36
<b>Total</b>	<b>369</b>	<b>91</b>	<b>460</b>



# Empowering Skills for a Brighter Future

## 01 RTG Crane Operation

Essential for port operations, ensuring safe and efficient cargo handling.



## 02 Data & Financial Management

Includes DDEO & Tally with GST, critical for accurate data management and financial compliance.



## 03 Skill Enhancement Programs

Encompasses all the above programs, ensuring a well-rounded skill set for various industries.



## 04 Personal Care and Safety

Covers Beauty Therapist and First Aid, important for personal care industry and essential safety knowledge.



## 05 Artistic and Craftsmanship Development

Includes Painting/Drawing Training, Mud Work, and Dori Work, enhancing creativity and traditional crafts.



## 06 Language and Software Proficiency

Covers German Language, Advance Excel, and EDP – Tie up with CED, boosting communication and technical skills.



# Adani Foundation's Flood Relief Efforts in Mundra Taluka

In late August 2024, Gujarat faced severe flooding caused by a deep depression that intensified into Cyclonic Storm Asna. The Mundra region of Kutch was severely affected by this natural disaster. In response to the critical situation, the Adani Foundation initiated an extensive relief operation to support the communities in Mundra Taluka.



## Emergency Food Aid

- 1,000 food packets distributed to stranded truck drivers in the APSEZ area.
- 500 food packets provided to 6 labor colonies, supporting workers and their families.
- 1,000 food packets delivered to the Sub-District Magistrate's office for the local population.
- 1,200 ration kits supplied to the Municipality of Mundra.

## Health Care Support

- Medical camps organized to address flood-related health issues.
- 157 patients treated for skin diseases, fever, and cold in labor colonies and affected areas.
- Health awareness sessions conducted to prevent the spread of diseases.

## Civil Work & Infrastructure Recovery

- Machinery and logistical support provided to the Municipality and Farmer groups.
- Assistance accelerated debris clearance and infrastructure restoration efforts.

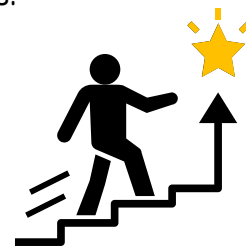
The Adani Foundation's quick response and comprehensive relief efforts provided much-needed support to the people of Mundra Taluka, helping them recover from the devastation caused by the floods. Through food distribution, health care, and civil work, the foundation played a vital role in rebuilding the community.

# Employee Volunteer Program

## Caring for Thalassemia Children

On the occasion of the Adani Foundation's 28th anniversary, employees came together in a heartfelt gesture to support children battling thalassemia. As part of the Employee Volunteer Program, nutritional kits were distributed to **153 thalassemia patients** on August 11, 2024, bringing comfort and hope to these young fighters. This initiative highlights the power of collective compassion, with employees extending their care beyond the workplace to make a meaningful difference in the lives of vulnerable children.

The event was graced by Mr. Dipeshbhai Shroff (President, Kutch Navnirman Abhiyan) and Mr. Dilipbhai Deshmukh (Social Leader and Organ Donor), who applauded the spirit of volunteerism and community service demonstrated by Adani employees.



# **Annexure – 3**

## Radheshyam Singh

---

**From:** Chiragsing Rajput  
**Sent:** Thursday, May 15, 2025 6:56 PM  
**To:** Bhagwat Swaroop Sharma; Radheshyam Singh  
**Cc:** Anil Trivedi  
**Subject:** FW: User is not active - GCP-usq79i

FYIP...

Regards,  
Chiragsing Rajput

---

**From:** query\_gcp@icfre.org <query\_gcp@icfre.org>  
**Sent:** 15 May 2025 09:20  
**To:** Chiragsing Rajput <Chiragsing.Rajput@adani.com>  
**Subject:** RE: User is not active - GCP-usq79i

**\*CAUTION: This mail has originated from outside Adani. Please exercise caution with links and attachments.\***

Dear Sir,

The Green Credit Programme is currently in its pilot stage, hence at this stage only Eco-restoration cum tree plantation based green credit activities in this direction only the PSUs are allowed to participate as entity and State Forest Departments as Implementing Agency. Private entities may be allowed later. We will keep you informed as we progress and expand the program to private entities participation. Your user ID, if created, will be activated accordingly.

Thank you for your understanding and enthusiasm towards Green Credit Programme.

With Regards,

Green Credit Cell, ICFRE

-----"Chiragsing Rajput" <[Chiragsing.Rajput@adani.com](mailto:Chiragsing.Rajput@adani.com)> wrote: -----  
To: "[query\\_gcp@icfre.org](mailto:query_gcp@icfre.org)" <[query\\_gcp@icfre.org](mailto:query_gcp@icfre.org)>  
From: "Chiragsing Rajput" <[Chiragsing.Rajput@adani.com](mailto:Chiragsing.Rajput@adani.com)>  
Date: 05/12/2025 06:54PM  
Cc: "Anil Trivedi" <[Anil.Trivedi@adani.com](mailto:Anil.Trivedi@adani.com)>, "Bhagwat Swaroop Sharma" <[Bhagwat.Sharma1@adani.com](mailto:Bhagwat.Sharma1@adani.com)>  
Subject: RE: User is not active - GCP-usq79i

Dear Sir/ Madam,

Awaiting for your reply in line with trailing mail.

Regards,

Chiragsing Rajput

M No. +91 9687678443

---

**From:** Chiragsing Rajput

**Sent:** 29 April 2025 18:47

**To:** [query\\_gcp@icfre.org](mailto:query_gcp@icfre.org)

**Cc:** Anil Trivedi <[Anil.Trivedi@adani.com](mailto:Anil.Trivedi@adani.com)>; Bhagwat Swaroop Sharma <[Bhagwat.Sharma1@adani.com](mailto:Bhagwat.Sharma1@adani.com)>

**Subject:** RE: User is not active - GCP-usq79i

Dear Sir/ Madam,

In line with trailing mail, is there any update regarding expand the Green Credit program to the private entities participation?

Regards,

Chiragsing Rajput

M No. 9687678443

---

**From:** [query\\_gcp@icfre.org](mailto:query_gcp@icfre.org) <[query\\_gcp@icfre.org](mailto:query_gcp@icfre.org)>

**Sent:** 25 February 2025 15:54

**To:** Chiragsing Rajput <[Chiragsing.Rajput@adani.com](mailto:Chiragsing.Rajput@adani.com)>

**Subject:** RE: User is not active - GCP-usq79i

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With Regards,

Green Credit Cell, ICFRE

-----"Chiragsing Rajput" <[Chiragsing.Rajput@adani.com](mailto:Chiragsing.Rajput@adani.com)> wrote: -----

To: "[query\\_gcp@icfre.org](mailto:query_gcp@icfre.org)" <[query\\_gcp@icfre.org](mailto:query_gcp@icfre.org)>  
From: "Chiragsing Rajput" <[Chiragsing.Rajput@adani.com](mailto:Chiragsing.Rajput@adani.com)>  
Date: 02/17/2025 11:52AM  
Cc: "Anil Trivedi" <[Anil.Trivedi@adani.com](mailto:Anil.Trivedi@adani.com)>, "Bhagwat Swaroop Sharma" <[Bhagwat.Sharma1@adani.com](mailto:Bhagwat.Sharma1@adani.com)>  
Subject: RE: User is not active - GCP-usq79i

Dear Sir/ Madam,

In line with trailing mail, is there any update regarding expand the Green Credit program to the private entities participation?

Regards,

Chiragsing Rajput

M. No. +91 9687678443

---

**From:** Chiragsing Rajput  
**Sent:** Friday, February 7, 2025 5:45 PM  
**To:** [query\\_gcp@icfre.org](mailto:query_gcp@icfre.org)  
**Cc:** Anil Trivedi <[Anil.Trivedi@adani.com](mailto:Anil.Trivedi@adani.com)>; Bhagwat Swaroop Sharma <[Bhagwat.Sharma1@adani.com](mailto:Bhagwat.Sharma1@adani.com)>  
**Subject:** RE: User is not active - GCP-usq79i

Dear Sir/ Madam,

In line with trailing mail, is there any update regarding expand the Green Credit program to the private entities participation?

Regards,

Chiragsing Rajput

---

**From:** [query\\_gcp@icfre.org](mailto:query_gcp@icfre.org) <[query\\_gcp@icfre.org](mailto:query_gcp@icfre.org)>  
**Sent:** Wednesday, October 16, 2024 11:40 AM  
**To:** Chiragsing Rajput <[Chiragsing.Rajput@adani.com](mailto:Chiragsing.Rajput@adani.com)>  
**Cc:** Anil Trivedi <[Anil.Trivedi@adani.com](mailto:Anil.Trivedi@adani.com)>  
**Subject:** RE: User is not active - GCP-usq79i

Some people who received this message don't often get email from [query\\_gcp@icfre.org](mailto:query_gcp@icfre.org). [Learn why this is important](#)

**\*CAUTION: This mail has originated from outside Adani. Please exercise caution with links and attachments.\***

Dear sir,

The Green Credit Programme is currently in its pilot stage, hence at this stage only the PSUs are allowed to participate as entity and State Forest Departments as Implementing Agency. Private entities may be allowed later. We will keep you informed as we progress and expand the program to private entities participation. Your user ID, if created, will be activated accordingly.

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With Regards,

Green Credit Cell, ICFRE

-----"Chiragsing Rajput" <[Chiragsing.Rajput@adani.com](mailto:Chiragsing.Rajput@adani.com)> wrote: -----

To: "[query\\_gcp@icfre.gov.in](mailto:query_gcp@icfre.gov.in)" <[query\\_gcp@icfre.gov.in](mailto:query_gcp@icfre.gov.in)>  
From: "Chiragsing Rajput" <[Chiragsing.Rajput@adani.com](mailto:Chiragsing.Rajput@adani.com)>  
Date: 10/10/2024 11:35AM  
Cc: "Anil Trivedi" <[Anil.Trivedi@adani.com](mailto:Anil.Trivedi@adani.com)>  
Subject: RE: User is not active - GCP-usq79i

Dear Sir,

In line with the discussion held with Dr. Sanjay Singh (Administrator) yesterday, we came to know that, at present the Green Credit Programme scheme is live for Government institutes/ agencies only.

As of now the said scheme is not in existence for private agencies / industrial sectors.

We are requesting you to please let us know, as and when this scheme become live for private agencies / industrial sectors.

**Thanks & Regards,**

**Chiragsing Rajput**

**Environment Department | Adani Ports & Special Economic Zone Ltd.**

**Mob +91 9687678443 | Ext. 59523 | [chiragsing.rajput@adani.com](mailto:chiragsing.rajput@adani.com) | [www.adani.com](http://www.adani.com)**

**Adani Corporate House, 3<sup>rd</sup> Floor, North Wing, Shantigram, Ahmedabad - 382421, Gujarat, India.**



**adani**

Growth  
with  
Goodness

Our Values: Co

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**From:** Chiragsing Rajput  
**Sent:** Friday, September 27, 2024 12:16 PM  
**To:** [query\\_gcp@icfre.gov.in](mailto:query_gcp@icfre.gov.in)  
**Cc:** Anil Trivedi <[Anil.Trivedi@adani.com](mailto:Anil.Trivedi@adani.com)>  
**Subject:** RE: User is not active - GCP-usq79i

Dear Sir / Madam,

Kindly do the needful to resolve the query as per trailing mail.

Regards,

Chiragsing Rajput

---

**From:** Chiragsing Rajput  
**Sent:** Tuesday, September 17, 2024 2:16 PM  
**To:** '[query\\_gcp@icfre.gov.in](mailto:query_gcp@icfre.gov.in)' <[query\\_gcp@icfre.gov.in](mailto:query_gcp@icfre.gov.in)>  
**Cc:** Anil Trivedi <[Anil.Trivedi@adani.com](mailto:Anil.Trivedi@adani.com)>  
**Subject:** RE: User is not active - GCP-usq79i

Dear Sir / Madam,

Kindly do the needful to resolve the query as per trailing mail.

Regards,

Chiragsing Rajput

---

**From:** Chiragsing Rajput  
**Sent:** Wednesday, September 11, 2024 10:41 AM  
**To:** [query\\_gcp@icfre.gov.in](mailto:query_gcp@icfre.gov.in)  
**Cc:** Anil Trivedi <[Anil.Trivedi@adani.com](mailto:Anil.Trivedi@adani.com)>  
**Subject:** RE: User is not active - GCP-usq79i

Dear Sir / Madam,

Kindly do the needful to resolve the query as per trailing mail.

Regards,

Chiragsing Rajput

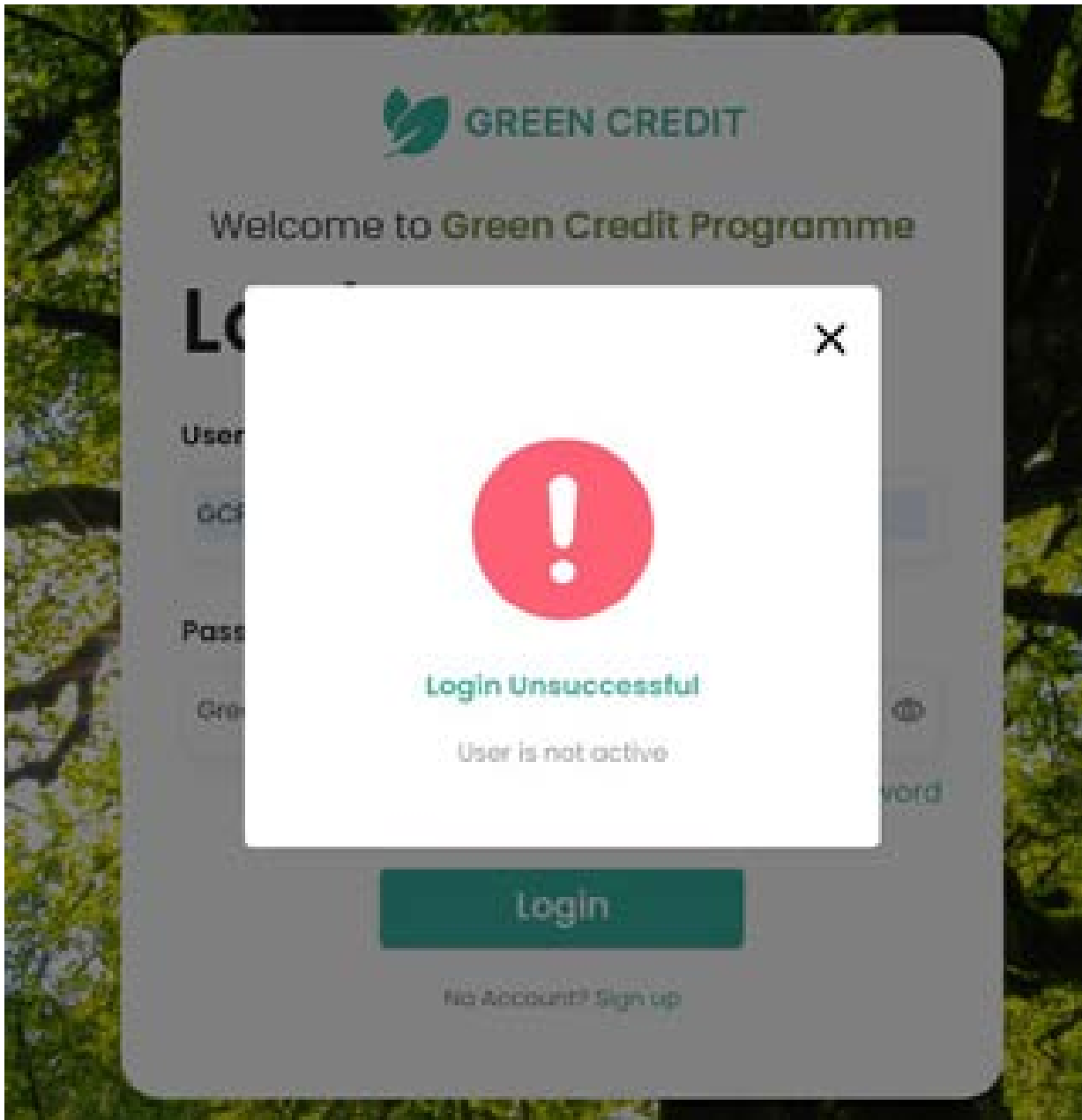
---

**From:** Chiragsing Rajput  
**Sent:** Friday, September 6, 2024 1:59 PM  
**To:** [query\\_gcp@icfre.gov.in](mailto:query_gcp@icfre.gov.in)  
**Cc:** Anil Trivedi <[Anil.Trivedi@adani.com](mailto:Anil.Trivedi@adani.com)>  
**Subject:** User is not active - GCP-usq79i

Dear Sir / Madam,

We have registered under Green Credit Programme and user id generated as **GCP-usq79i**.

However, while trying to login, the error is showing that user is not active. Kindly do the needful to resolve the same.



**Thanks & Regards,**

**Chiragsing Rajput**

**Environment Department | Adani Ports & Special Economic Zone Ltd.**

**Mob +91 9687678443 | Ext. 59523 | [chiragsing.rajput@adani.com](mailto:chiragsing.rajput@adani.com) | [www.adani.com](http://www.adani.com)**

**Adani Corporate House, 3<sup>rd</sup> Floor, North Wing, Shantigram, Ahmedabad - 382421, Gujarat, India.**





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# **Annexure – 4**





# GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN, SECTOR 10-A,

GANDHINAGAR - 382010,

(T) 079-23232152

## CCA-Amendment

(WH-139724)

No. PC/GCA-KUTCH- 582(5)/ GPCB ID-35427/832007

Date: 14/01/2025

To,  
M/s. Adani Port & Special Economic Zone Ltd., (WFDP-West Port)  
Survey no. 141,  
Navinal Island, Mundra,  
Tal: Mundra, Dist: Kutch- 370 421.

- SUB :** Amendment in the consolidated consent & Authorization of the Board.  
**REF :** 1) CCA issued by this office vide order no- AWH- 113458 dated 28/06/2021 valid up to 01/02/2027.  
2) Obtain deemed CTE vide order dated 19/05/2020.  
3) Your CCA Amendment Application Inward ID No.320886 dated 07/11/2024.

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution)-1981 and Authorization under rule 6(2) of the Hazardous And Other Waste (Management and Transboundary) Rules, 2016 & framed under the Environment (Protection) Act-1986, The Board has granted CCA vide order No. AWH- 113458 vide order no. PC/GCA-KUTCH-582(4)/ ID-35427/ 595234 dated 16/07/2021.

The Board has right to review and amend the conditions of the said CCA and its amendment orders. Now, considering your application for CCA amendment inward ID No. 320886 dated 07/11/2024, the said CCA order is amended as below:

1. The order shall be read as CCA amendment Order No.: WH- 139724 Date of Issue: 16/01/2025, valid up to 01/02/2027.
2. The condition no. 2 of the said CCA is amended as below:  
2. The consent shall be valid up to 01/02/2027 for the use of outlet for the discharge of treated effluent and emission due to operation of industrial plant manufacturing following items/ products:

Sr. No.	Product	Existing as per CCA dated 28/06/2021	Total quantity after CCA-Amendment
1.	Dry Cargo Handling	5,00,00,000 MTA	60 MMTPA
2.	Liquid Cargo (including Chemicals, POL Products, all class A, B, C Petroleum Products, toxic & non hazardous chemicals/ liquid)	-	5 MMTPA
3.	Desalination Plant	47 MLD	60 MLD



Page 1 of 3

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# GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN, SECTOR 10-A,

GANDHINAGAR - 382010,

(T) 079-23232152

- 3.9 Treated domestic effluent conforming to above standard shall be discharged on land for gardening and plantation purpose within premises only. In no case waste water shall be discharged outside premises.
- 3.10 Industry shall provide fixed pipeline network with flow meter for even distribution of treated domestic effluent and maintain its record.
- 3.11 Disposal system for storm water shall be provided separately. In no circumstances storm water shall be mixed with the industrial effluent.
4. The condition no. 5.1 & 5.2 of the said CCA is amended as below:

5.1 Authorization order no. WH- 139724 Date of issue: 16/01/2025.

5.2 M/s. Adani Port & Special Economic Zone Ltd., is hereby granted an authorization based on the enclosed signed inspection report for generation, collection, treatment, storage, transport of hazardous waste on the premises situated at Survey no. 141, Navinal Island, Mundra, Tal: Mundra, Dist: Kutch;

Sr. No.	Waste	Quantity		Schedule & Category	Facility
		Existing	After CCA- Amendment		
1.	Used Oil	236 MT	240 MT	I-5.1	Collection, storage, transportation and disposal by selling out to registered recycler.
2.	Discarded Drums & Containers	26 MT	28 MT	I-33.1	Collection, storage, transportation and disposal by selling out to authorised decontaminator.
3.	Contaminated cotton waste rags or other cleaning material	32 MT	31 MT	I-33.2	Collection, storage, transportation and co-processing plant or CHWIF site.
4.	Spent ion exchange resin	--	5 MT	I-35.2	

5. Rest of conditions of Consolidated Consent & Authorization (CC&A) order No: AWH-113458 issued vide this office letter no. PC/CCA-KUTCH-582(4)/ ID-35427/ 595234 dated 16/07/2021 shall remain unchanged and industry shall comply with the same judicially.

For and on behalf of  
GUJARAT POLLUTION CONTROL BOARD

(T. G. Patel)  
Unit Head

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# **Annexure – 5**



# GUJARAT POLLUTION CONTROL BOARD

Regional Office : Kutch - East

Room No. 215-216-217, Deendayal Port Trust Administrative Building, Sector B, Gandhidham - 370205, Kutch-Gujarat  
Ph. No. 02836-230828, E-mail : ro-gpcb-kutch@gujarat.gov.in + sgn site : gpcbagn.gujarat.gov.in

By R.P.A.D

## Consent to Establish (NOC)

CTE NO: CTE-77914 Appl. Type: CTE-Fresh

NO:GPCB/KUT/CTE-/ID-111809/

To,  
M/s. Mundra Petrochem Limited  
Near Adani Solar,  
Industrial Estate: APSEZ, Town: Tunda,  
Tal: Mundra, Dist: Kutch East, Pin: 370 435.

**SUB:** Consent to Establish (NOC) under Section 25 of Water Act 1974 and Section 21 of Air Act 1981.

**REF:** Your NOC application No. 320795 dated 18/10/2024.

Sir,

Without prejudice to the powers of this Board under the Water (Prevention and Control of Pollution) Act-1974, the Air (Prevention and Control of Pollution) Act-1981 and the Environment (Protection) Act-1986 and without reducing your responsibilities under the said Acts in anyway, this is to inform you that this Board grant Consent to Establish (NOC) for setting up of an industrial plant/ activities at Near Adani Solar, Industrial Estate: APSEZ, Town: Tunda, Tal: Mundra, Dist: Kutch East, Pin: 370 435.

1. CTE Order No.: CTE-77914 date of issue 09/12/2024, Valid upto 18/09/2031.
2. The list of proposed product to be manufactured shall be as follows:

Sr. No.	List of Product	Quantity	Unit per Annum	CAS No.	Remarks
1.	DESAL Water	29,200	Million Liter per Annum	7732-18-5	Sea Water Reverse Osmoses Process.

### SPECIFIC CONDITION:

- a. No ground water shall be used for the project coming under dark zone without permission of competent authority.
- b. Industry shall comply with fresh water from valid source having permission of the competent authority.
- c. You shall not carry out any activity which may attract the applicability of EIA notification-2006.
- d. Management of Solid Waste generated from industrial activities shall be as per Solid Waste Management Rules-2016 (solid waste as defined in Rule-3(46)).
- e. As per provision of Rule-18 of Solid Waste Management Rules-2016 all industrial units using fuel and located within 100 km from the refused derived fuel (RDF) plant shall made an arrangement to replace at least five percent of their fuel requirement by refused derived fuel so produced.
- f. Unit shall comply with the Board circular dated 27/08/2021 regarding retrofitting of emission control devices/equipment in D.G. Set with a capacity of 125 KVA and above as per system & procedure for emission compliance testing of Retrofit Emission Control Device (RECD) for D.G. Set issued by CPCB dated 01/02/2022 at the earliest and submit compliance.

- g. Industry shall strictly comply with the submitted undertaking dated 23/09/2024 that lessee & lessor (APSEZ) are both jointly and severally responsible in case of any violation of environmental Acts/laws.
- h. Industry shall not carried out any activity which may attract the CRZ Notification 2011 & amendment therein.
- i. Industry shall strictly comply with all the conditions mention in Environment and CRZ Clearance vide No. EC24A3501GJ5976060N.

### **3. CONDITION UNDER THE WATER ACT:**

- 3.1 The quantity of total water consumption shall not exceed **200,008 KL/Day** as per below break up as mentioned in form D submitted for consent application under the Water Act-1974.
  - a) Industrial: **200,000.00 KL/Day**
  - b) Domestic: **08.00 KL/Day**
- 3.2 Source of water: **Existing Arabian Sea Water Reservoir.**
- 3.3 The quantity of total waste water generation shall not exceed **120,007 KL/Day** as per below break up as mentioned in form D submitted for consent application under the Water Act- 1974.
  - a) Industrial: **120,000.00 KL/Day**
  - b) Domestic: **07.00 KL/Day**
- 3.4 Industrial effluent management:
  - a) Mode of disposal of treated industrial effluent: **Existing Outfall Channel**
  - b) Description for treated industrial effluent disposal: **The quantity of the industrial effluent from the manufacturing process and other ancillary operation (DESAL Plant Rejected water) shall be discharge into the Existing Outfall Channel.**
- 3.5 Domestic sewage management:
  - a) Mode of disposal of treated domestic sewage: **Soak Pit/ Septic Tank.**
  - b) Description for treated domestic sewage disposal: **Generated domestic waste water shall be Disposed into Soak Pit/ Septic Tank.**
- 3.6 Industry shall affix of water meters for the purpose of measuring and recording the quantity of water consumed at such places as may be required and it shall be presumed that the quantity indicated by the meter has been consumed by the industry until the contrary is proved.
- 3.7 Industry shall provide fixed pipeline network with flow meter at inlet and outlet of DESAL Water plant and maintain its records.
- 3.8 Disposal system for storm water shall be provided separately, in no circumstances storm water shall be mixed with the industrial effluent.
- 3.9 The Board reserves the right to review and/or revoke the consent and/or make modifications in the conditions which it seems fit in accordance with provisions of WaterAct-1974.

### **4. CONDITIONS UNDER THE AIR ACT:**

- 4.1 There shall be no use of any fuel anywhere in the manufacturing process and consequently there shall be no flue gas emission from the manufacturing process and any other ancillary industrial operation.
- 4.2 There shall be no process gas emission from the manufacturing process and any other ancillary industrial operation.
- 4.3 The height of vent/exhaust attached with hood of kitchen shall be at least 3m above the building height.
- 4.4 The concentration of the following parameters in the ambient air within the premises of the unit shall not exceed the limits specified here under.



# GUJARAT POLLUTION CONTROL BOARD

Regional Office : Kutch - East

Room No. 215-216-217, Deendayal Port Trust Administrative Building, Sector B, Gandhidham - 370205, Kutch-Gujarat  
Ph. No. 02836-230828, E-mail : ro-gpcb-kute@gujarat.gov.in \* sgn site : gpcbxgn.gujarat.gov.in

Sr. No.	Parameters	Permissible Limit (microgram /m <sup>3</sup> )	
		Annual	24 Hours Average
1.	Particulate Matter (PM <sub>10</sub> )	60	100
2.	Particulate Matter (PM <sub>2.5</sub> )	40	60
3.	Oxides of Sulphur (SO <sub>x</sub> )	50	80
4.	Oxides of Nitrogen (NO <sub>x</sub> )	40	80

- Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.
  - 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year, 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.
- 4.5 Industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75 dB(A) during day time and 70 dB(A) during night time. Daytime is reckoned in between 6 a.m. and 10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.
- 5. CONDITION UNDER HAZARDOUS & OTHER WASTE (MANAGEMENT & TRANSBOUNDARY MOVEMENT) RULES, 2016:**
- 5.1. Unit shall have to comply with provisions of hazardous & other wastes (management & Transboundary Movement) Rules, 2016 as amended from time to time.
  - 5.2. The applicant shall provide temporary storage facilities for each type of Hazardous Waste as per Hazardous & Other Waste (Management & Transboundary Movement) Rules, 2016 as amended from time to time.
  - 5.3. The applicant shall obtain membership of common TSDF site for Hazardous Waste as categorized in Hazardous & other Waste (Management Transboundary Movement) Rules, 2016 as amended from time to time.
- 6. GENERAL CONDITIONS:**
- 6.1 In case of change of ownership/ management the name and address of the new ownership/ partners/ directors/ proprietor should immediately be intimate to the Board. Also, any change in equipment or working conditions as mentioned in the consent form/ order should immediately be intimated to this Board.
  - 6.2 Industry shall put up at the entrance a board displaying the name of the Industry, particulars of the products/ process and the name of proprietor/partners /directors of the Industry and the electricity consumer number as on the record of PGVCL.
  - 6.3 The environmental statements pertaining to the previous year shall be submitting to this State Board latest by 30th June every year.
  - 6.4 Adequate plantation shall be carried out all along the periphery of the industrial premises in such a way that the density of plantation is at least 1000 trees per acre of land and a green belt of 5 meters width is developed.
  - 6.5 The industry shall have to display the relevant information with regard to hazardous waste, waste water & air pollutants as indicated in the Courts Order in W.P. No.657 of 1995 dated 14th October-2003.
  - 6.6 As per "Public Liability Insurance Act - 1991", industry shall get Insurance Policy, if applicable.
  - 6.7 Applicant shall also comply with the general conditions given in annexure I.

- 6.8 The waste generator shall be totally responsible for (I.E. Collection, storage, transportation and ultimate disposal) of the wastes generated.
- 6.9 Records of waste generation, its management and annual return shall be submitted to Gujarat Pollution Control Board in Form - 4 by 31st January of every year.
- 6.10 In case of any accident, details of the same shall be submitted in Form - 5 to Gujarat Pollution Control Board.
- 6.11 Empty drums and containers of toxic and hazards material shall be treated as per guideline published for management & handling of discarded containers". Records of the same shall be maintained and forwarded to Gujarat Pollution Control Board regularly.
- 6.12 In no case any kind of hazardous waste shall be imported without prior approval of appropriate authority.
- 6.13 In case of transport of hazardous waste to a facility for (I.E. Treatment, Storage and disposal) existing in a state other than the state where hazardous waste are generated, the occupier shall obtain "No Objection certificate" from the state pollution Control Board, the Committee of the concerned state or Union territory Administration where the facility exists.
- 6.14 Unit shall take all concrete measures to show tangible results in waste generation reduction, avoidance, reuse and recycle. Action taken in this regard shall be submitted within 03 months and also along with Form 4.
- 6.15 Industry shall have to display online data outside the main factory gate with regard to quantity and nature of hazardous chemicals being handled in the plant, including wastewater and air emissions and solid hazardous waste generated within the factory premises.

For and on behalf of  
**GUJARAT POLLUTION CONTROL BOARD**



(F.M. Modi)  
RO Head, Kutch East

ISSUED TO,  
M/s. Mundra Petrochem Limited  
Near Adani Solar,  
Industrial Estate: APSEZ, Town: Tunda,  
Tal: Mundra, Dist: Kutch East, Pin: 370 435.

# **Annexure – 6**





# GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN, SECTOR 10-A,  
GANDHINAGAR - 382010,  
(T) 079-23232152

CCA-Amendment  
(WH-141598)

No. PC/CCA-KUTCH- 39(9)/ GPCB ID-17739/

Date: 30/04/2025

To,  
M/s. Adani Ports & Special Economic Zone Limited,  
Plot no. 169/P,  
AT: Navina Island, Mundra,  
Tal: Mundra, Dist: Kutch - 370 421.

**SUB:** Amendment in the consolidated consent & Authorization of the Board.

- REF:** 1) CCA issued by this office vide order no- **AWH- 117045** dated 14/02/2022 valid up to 20/11/2026.  
2) EC to CTE vide order dated **18/06/2021**.  
3) Your CCA Amendment Application Inward ID No.**326438** dated **30/01/2025**.

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution)-1981 and Authorization under rule 6(2) of the Hazardous And Other Waste (Management and Transboundary) Rules, 2016 & framed under the Environment (Protection) Act-1986, The Board has granted CCA vide order No. **AWH- 117045** dated 14/02/2022 vide order no. GPCB/CCA-KUTCH-39(7)/ID-17739/625051 dated 09/03/2022.

The Board has right to review and amend the conditions of the said CCA and its amendment orders. Now, considering your application for CCA amendment inward ID No. **326438** dated **30/01/2025**, the said CCA order is amended as below:

1. The order shall be read as CCA amendment Order No.: **WH- 141598** Date of Issue: **04/04/2025**, valid up to **20/11/2026**.
2. The condition no. 2 of the said CCA is amended as below:  
2. The consent shall be valid up to **20/11/2026** for the use of outlet for the discharge of treated effluent and emission due to operation of industrial plant manufacturing following items/ products:

Sr. No.	Product	Existing as per CCA dated 14/02/2022	Total after CCA-Amendment
1	General Cargo Handling	112.8 MMTPA	42 MMTPA regularizing in line with existing port capacity
2	Dry Cargo Handling		
	Liquid Cargo (Chemical/ products) POC	5 MMTPA	20 MMTPA
4	Container Terminal Handling Operation	5.7 Million TEUs/Annum	7.8 Million TEUs/Annum

Page 1 of 3

**SUBJECT TO THE FOLLOWING SPECIFIC CONDITIONS:**

1. There shall be no change in existing quantity of fuel consumption, flue gas emission & process gas emission stacks, due to CTE-Amendment.
  2. Industry shall comply with Environment Clearance granted by MoEF vide letter no. 10-47/2008-IA-(I) dated 13/08/2024.
  3. Industry shall comply with CRZ Clearance granted by MoEF & CC vide letter no. 10-24/2019-IA-III dated 19/01/2019.
  4. No ground water shall be withdrawal without prior permission from CGWA as per Hon'ble NGT order.
  5. Unit shall obtain fresh water from valid source have permission of the competent authority.
  6. Industry shall renew Public Liability Insurance Policy time to time & submit a copy of the same to this office.
  7. Industry shall manage Solid Wastes generated from industrial activities as per Solid Waste Management Rules-2016 (solid waste as defined in Rule-3(46)).
- 3. The condition no. 3 of the said CCA is amended as below:**
- 3.1 Source of Water: -Sea water through desalination & GWIL.
  - 3.2 There shall be no change in existing quantity of industrial water consumption (1254.11 KL/Day), & industrial waste water generation (90.31 KL/Day), due to CCA-Amendment.
  - 3.3 There shall be no change in existing quantity of domestic water consumption (375 KL/Day), & industrial waste water generation (265 KL/Day), due to CCA-Amendment.
  - 3.4 The quantity of the fresh water consumption for gardening purpose shall not exceed 388 KL/Day, due to CCA- Amendment.
  - 3.5 Industry shall operate Effluent Treatment Plant (ETP) adequately so that treated industrial & domestic effluent shall comply with following norms:

PARAMETERS	PRESCRIBED LIMITS
pH	6.5 to 8.5
Temperature	40°C
Colour (Pt. Co. scale) in units	100 units
Total Suspended Solids	100 mg/L
Oil and Grease	10 mg/L
Ammonical Nitrogen	50 mg/L
BOD ( 3 days at 27o C)	30 mg/L
COD	100 mg/L
Chlorides	600 mg/L
Sulphates	1000 mg/L
Total dissolved solids	2100 mg/L
Percent Sodium	60 %
Phenolic Compounds	1 mg/L
Sulphides	5.0 mg/L
Sodium Absorption Ratio	26





# GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN, SECTOR 10-A,

GANDHINAGAR - 382010,

(T) 079-23232152

- 3.6 Treated effluent conforming to above standards shall be discharged on land for gardening / plantation purpose within premises.
- 3.7 Industry shall provide fixed pipeline network with flow meter for even distribution of treated effluent and maintain its record
- 3.8 Domestic effluent shall be treated into ETP along with industrial effluent.
- 3.9 Disposal system for storm water shall be provided separately. In no circumstances storm water shall be mixed with the industrial effluent.

**4. The condition no. 5.1 & 5.2 of the said CCA is amended as below:**

5.1 Authorization order no. **WH-141598** Date of issue: 04/04/2025.

5.2 **M/s. Adani Port & Special Economic Zone Limited** is hereby granted an authorization based on the enclosed signed inspection report for generation, collection, treatment, storage, transport of hazardous waste on the premises situated at Plot no. 169/P. At: Navinal Island, Mundra. Tal: Mundra. Dist: Kutch;

Sr. No.	Waste	Quantity per Annum		Schedule & Amendment	Facility Category
		Existing	After CCA		
1.	Used Oil	360 MT	367 MT	I-5.1	Collection, storage, transportation and disposal to registered recycler or reuse within premises as lubricant.
2.	Waste residue containing oil/ oily rags	150 MT	156 MT	I-33.2	Collection, storage, transportation and disposal by co-processing at cement industries & / or CHWIF site.
3.	Discarded Drums & Containers	16 MT	26 MT	I-33.3	Collection, storage, transportation and disposal by selling out to authorised decontaminator

5. Rest of conditions of Consolidated Consent & Authorization (CC&A) order No: AWH-117045 issued vide this office letter no. GPCB/CCA-KUTCH-39(7)/ID-17739/625051 dated 09/03/2022 shall remain unchanged and industry shall comply with the same judicially.

For and on behalf of  
GUJARAT POLLUTION CONTROL BOARD

(T. C. Patel)  
Unit Head

Page 3 of 3

Outward No: 860456, 30/04/2025

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# GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN, SECTOR 10-A,  
GANDHINAGAR - 382010,  
(T) 079-23232152

CCA-Amendment  
(WH-139724)

No. PC/GCA-KUTCH- 582(5)/ GPCB ID-35427/832003

Date: 14/01/2025

To,  
M/s. Adani Port & Special Economic Zone Ltd., (WFDP-West Port)  
Survey no. 141,  
Navinal Island, Mundra,  
Tal: Mundra, Dist: Kutch- 370 421.

- SUB :** Amendment in the consolidated consent & Authorization of the Board.  
**REF :** 1) CCA issued by this office vide order no- AWH- 113458 dated 28/06/2021 valid up to 01/02/2027.  
2) Obtain deemed CTE vide order dated 19/05/2020.  
3) Your CCA Amendment Application Inward ID No.320886 dated 07/11/2024.

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution)-1981 and Authorization under rule 6(2) of the Hazardous And Other Waste (Management and Transboundary) Rules, 2016 & framed under the Environment (Protection) Act-1986, The Board has granted CCA vide order No. AWH- 113458 vide order no. PC/GCA-KUTCH-582(4)/ ID-35427/ 595234 dated 16/07/2021.

The Board has right to review and amend the conditions of the said CCA and its amendment orders. Now, considering your application for CCA amendment inward ID No. 320886 dated 07/11/2024, the said CCA order is amended as below:

1. The order shall be read as CCA amendment Order No.: WH- 139724 Date of Issue: 16/01/2025, valid up to 01/02/2027.
2. The condition no. 2 of the said CCA is amended as below:  
2. The consent shall be valid up to 01/02/2027 for the use of outlet for the discharge of treated effluent and emission due to operation of industrial plant manufacturing following items/ products:

Sr. No.	Product	Existing as per CCA dated 28/06/2021	Total quantity after CCA-Amendment
1.	Dry Cargo Handling	5,00,00,000 MTA	60 MMTPA
2.	Liquid Cargo (including Chemicals, POL Products, all class A, B, C Petroleum Products, toxic & non hazardous chemicals/ liquid)	-	5 MMTPA
3.	Desalination Plant	47 MLD	60 MLD



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# GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN, SECTOR 10-A,

GANDHINAGAR - 382010,

(T) 079-23232152

- 3.9 Treated domestic effluent conforming to above standard shall be discharged on land for gardening and plantation purpose within premises only. In no case waste water shall be discharged outside premises.
- 3.10 Industry shall provide fixed pipeline network with flow meter for even distribution of treated domestic effluent and maintain its record.
- 3.11 Disposal system for storm water shall be provided separately. In no circumstances storm water shall be mixed with the industrial effluent.
4. The condition no. 5.1 & 5.2 of the said CCA is amended as below:

5.1 Authorization order no. WH- 139724 Date of issue: 16/01/2025.

5.2 M/s. Adani Port & Special Economic Zone Ltd., is hereby granted an authorization based on the enclosed signed inspection report for generation, collection, treatment, storage, transport of hazardous waste on the premises situated at Survey no. 141, Navinal Island, Mundra, Tal: Mundra, Dist: Kutch;

Sr. No.	Waste	Quantity		Schedule & Category	Facility
		Existing	After CCA- Amendment		
1.	Used Oil	236 MT	240 MT	I-5.1	Collection, storage, transportation and disposal by selling out to registered recycler.
2.	Discarded Drums & Containers	26 MT	26 MT	I-33.1	Collection, storage, transportation and disposal by selling out to authorised decontaminator.
3.	Contaminated cotton waste rags or other cleaning material	32 MT	31 MT	I-33.2	Collection, storage, transportation and co-processing plant or CHWIF site.
4.	Spent ion exchange resin	--	5 MT	I-35.2	

5. Rest of conditions of Consolidated Consent & Authorization (CC&A) order No: AWH-113458 issued vide this office letter no. PC/CCA-KUTCH-582(4)/ ID-35427/ 595234 dated 16/07/2021 shall remain unchanged and industry shall comply with the same judicially.

For and on behalf of  
GUJARAT POLLUTION CONTROL BOARD

(T. G. Patel)  
Unit Head

Page 3 of 3

# **Annexure – 7**

## Compliance Report of Marine EMP

Sr. No.	Suggested Measures	Compliance Status
<del>✗</del> <b>Construction Phase:</b>		
<del>✗</del> <b>Dredging and Reclamation Management Plan</b>		
1	Installation of silt screens around the dredging area to prevent dispersion of suspended sediment plume into the adjacent areas and fish species from entering the activity area.	Being Complied  Silt curtains is being provided during dredging activity around the dredging area to prevent dispersion of suspended sediment plume into the adjacent areas and fish species from entering the activity area.  For further details regarding control measures for dredging activity, please refer to Water Quality Monitoring and Preservation condition no 3.2 of the EC and CRZ clearance.
2	Turbidity levels will be maintained as to the baseline data by continuous monitoring and proper care by way of stopping the activities whenever there is increase in turbidity by way of land sliding/bottom turbulence so avoid any impact either to water quality or to marine organisms	Being Complied  Dredging activity is being carried out in proper manner so that turbidity level can be maintained.
3	Dredge Management Programme shall include measures to avoid entrapment of macro marine fauna.	Complied  Dredging activity is being carried out through a well-trained / skilled manpower/ team in line with the SOP / management plan. All the measures are being taken to avoid entrapment of macro marine fauna.
4	Dredging shall be done in a planned manner following grid pattern	Complied  Dredging activity is being carried out in planned manner so no adverse impact will happen on marine ecology.
5	Sheet piling will be done around the project area to avoid spreading and sliding of reclaimed sediments into the marine environment.	Complied  This compliance covers points 5 & 6.
6	The land (mostly inter tidal) to be reclaimed with dredged material will be separated from adjoining land by creating containment bund for effective compaction on the soil	The entire quantity 1.55 MCum of capital dredged material was used for reclamation / level raising within approved area. While carrying out reclamation,

Sr. No.	Suggested Measures	Compliance Status
	and avoid runoff into adjoining land	containment bund / sheet piling will be made for effective compaction on the soil and avoid runoff into adjoining land.
7	Shoreline Protection Techniques such as Sand by passing if any will be carried.	Complied.  Shoreline protection is being taken while carrying out dredging / reclamation activity.
8	Detailed borehole analysis of sub-surface seabed sediments for sediment characteristics analysis to identify heavy metal or other pollutant contamination	Complied.  For further details regarding water & marine monitoring, please refer to specific condition no 1.12 of the EC and CRZ clearance.
9	If the sediment is contaminated it shall be treated before being utilized for reclamation purpose	Point Noted and Agreed  Sediment/ dredged material to be utilized for reclamation / level raising is being analyzed before using.
10	Detailed biological analysis of benthic community richness and population in the sites proposed for reclamation	Complied.  For further details regarding marine monitoring, please refer to specific condition no 1.12 of the EC and CRZ clearance.
11	Dredging shall only be done in fair weather period, daytime and avoid fish breeding and migratory seasons.	Complied  Dredging activity is being done in fair weather, daytime and during none fish breeding and spawning seasons only and dredged material is being disposed-off in line permission granted in EC & CRZ Clearance.
12	To compensate the loss of mangroves in the reclamation area, mangroves afforestation measure is being executed in the nearby areas.	Complied.  There is no mangrove or mangrove buffer area present in the area proposed for reclamation / level raising.  For further details regarding mangrove conservation & afforestation, please refer to specific condition no 1.5 & 1.6 of the EC and CRZ clearance.
13	Utmost care shall be taken to ensure that the drainage pattern of the intertidal areas and creeks are not altered due to the proposed activities.	Complied.  For further details regarding creek conservation, please refer to specific condition no 1.13 of the EC and CRZ



Sr. No.	Suggested Measures	Compliance Status
		clearance.
<b>Construction of Breakwater, SBM, Island Jetty and Berth (quay lengths)</b>		
1	Care should be taken to prevent the contaminated runoff from the construction site entering into the marine environment and nearby natural streams, if any, by isolating the area of development from the surrounding waters.	Complied
2	Proper silt barriers and floater booms shall be deployed around the construction site in water environment to avoid dispersion of debris/ sediment plume.	Recently developed additional quay length in South port @ 615 meter (400 meter Jetty for Liquid / Gas / Cryogenic cargo handling + 215 meter Multi-purpose T2 Jetty extension) along with its related infrastructure facilities / back-up area has been developed for increase in Cargo Handling Capacity i.e. Liquid Cargo & Container Cargo by developing new berths along with its supporting infrastructure facilities/ utilities and regularizing General / Dry Cargo handling capacity in line with existing port capacity.
3	During construction of breakwater and New port the spillage of construction materials and oil spill from these heavy machinery/ equipment shall be well maintained	And balance proposed expansion, construction of new berth/berth quay length extension, backup area and other activity will be carried out phase wise as per future business requirement basis. No new construction of Breakwater, Sea Island jetty and SPM has been undertaken.
4	The best suitable and minimal impact methodology shall be adopted for piling to avoid the impact of noise and vibration on the marine species by controlling the rate of dredging and by isolating the area devoid of any pelagic species.	Advance construction methodology is being applied for construction of berth to avoid marine water contamination as well as isolating the area of development from the surrounding waters.  For further details regarding control measures during construction activity, please refer to specific condition no 1.9, 1.17 & 3.2 of the EC and CRZ clearance.
5	Grab dredging shall be done in areas of sandy stratum.	Point Noted and Agreed
6	Storage areas for sand and soil, and all work areas must be at least 20m away from the high-water mark	Complied.
7	Construction site near water need to be kept tidy to prevent tools and debris from falling into the water and damaging the environment	Point Noted and being complied
8	Project proponent shall appoint a supervisor to be present at construction site for inspection and smooth operation	Point Noted and being complied

Sr. No.	Suggested Measures	Compliance Status
9	Any accidents at site including spillage of construction materials, fuel oil, debris etc shall be contained and removed immediately.	Point Noted and Agreed
10	Any such accidents shall be reported immediately by the site supervisor to keep track and avoid any further incidents.	Point Noted and Agreed
11	Construction activities shall be limited to daytime to prevent the increased possibility of risk due to night time and reduce the impact of artificial lighting on marine ecological environment.	Point noted and being complied.
12	The existing mangrove afforestation program shall be adopted for compensating the loss of mangroves, if any due to the proposed construction.	Complied.  For further details regarding mangrove conservation & afforestation, please refer to specific condition no 1.5 & 1.6 of the EC and CRZ clearance.
13	During installation of offshore SPM's/SBM's and a sea island jetty appropriate mooring system shall be adopted based on detailed engineering study to reduce footprint area	Point Noted and Will be complied
14	Emergency preparedness and spill control measures such as floater booms, skimmers shall be present either in the proposed SPM's/SBM's and a sea island jetty or in readily available manner to prevent any incidents of spill, system failure and transportation facility rupture.	Point Noted and Will be complied
<b>Water Quality Maintenance and Protection of Marine Organisms: Sub-Sea Pipelines and Intake, Outfall Pipeline</b>		
As a part of WFDP-Expansion, we have not undertaken any activity w.r.t. laying of Sub-Sea Pipelines and Intake, Outfall Pipeline. Once it is initiated, we will comply all the measures suggested / recommended in EMP.		
1	During laying of sub-sea pipelines, the major action of concern is the spillage of on-board fuel/oil from vessel or pipe laying instruments	Point Noted and Will be complied
2	Spill control measures shall be available on-board to contain any spill while laying of the pipelines	
3	The installation activity shall be done avoiding peak photosynthesis period of the day to reduce the	

Sr. No.	Suggested Measures	Compliance Status
	impact on plankton population	
4	Marine environmental monitoring shall be done during the pre-installation and post installation stage to analyze the change in baseline environment.	
5	Since the area has very poor algal growth, as the sandy/muddy substratum is associated with relatively high turbidity which does not support the growth of algal species and patchy occurrence of seaweed species minimal temporary impact is envisaged on the marine environment due to pipeline installation	
<b>Operation Phase:</b>		
Dredging Management Plan		
1	Silt screens shall be installed around the maintenance dredging areas and spoil disposal site to contain the sediment plume dispersing into the surrounding environment.	<p>Being Complied</p> <p>The entire quantity of maintenance dredged material will be disposed off in deep sea at identified locations.</p> <p>For further details regarding control measures for dredging activity, please refer to Water Quality Monitoring and Preservation condition no 3.2 of the EC and CRZ clearance.</p>
2	Sediment screens also help in preventing fishes from entering into the activity core zone to avoid any possible injury or death	Point Noted and Agreed
3	Disposal shall be done during fair weather period and avoid peak photosynthesis period avoiding the impact on planktons and other benthic species in the vicinity	Point Noted and Agreed
4	Detailed benthic species analysis shall be done in the identified disposal sites to mitigate the impact on benthic species caused by smothering effect	<p>Point Noted and Being Complied</p> <p>For further details regarding Marine Water Quality Monitoring condition no 1.12 of the EC and CRZ clearance.</p>
5	Due to strong tidal currents and water circulation the disposed sediments will be majorly dispersed into the marine environment causing minimal temporary impact in the disposal site as the benthic species have the ability to	Point Noted and Agreed

Sr. No.	Suggested Measures	Compliance Status
	rejuvenate back to the baseline scenario	
6	The dredged spoil shall be analyzed for heavy metal and other pollutant concentration prior to disposal	Point Noted and Agreed
7	Noise mitigation measures such as bubble barriers/curtains, double pile, filled double pile, double walled air-filled sleeve around the pile, can be used to reduce noise generated from piling.	Point Noted and Agreed
<b>Cargo handling in the proposed Waterfront and Offshore Berths/Jetty:</b>		
<p>Recently developed additional quay length in South port @ 615 meter (400 meter Jetty for Liquid / Gas / Cryogenic cargo handling + 215 meter Multi-purpose T2 Jetty extension) along with its related infrastructure facilities / back-up area has been developed for increase in Cargo Handling Capacity i.e. Liquid Cargo &amp; Container Cargo by developing new berths along with its supporting infrastructure facilities/ utilities and regularizing General / Dry Cargo handling capacity in line with existing port capacity.</p> <p>And balance proposed expansion, construction of new berth/berth quay length extension, backup area and other activity will be carried out phase wise as per future business requirement basis. All the mitigation measures to avoid air, water or land contamination is being taken and the same will be implanted during proposed expansion activity also.</p>		
<b>Multipurpose Cargo Handling in Ports</b>		
1	Handling of Multipurpose cargo (coal, iron ore, limestone, fertilizers, food grains, cement, etc), hazardous cargo (Ethylene, Propylene (Propene), Butadiene, Pentane, etc) and liquid/ gas/ cryogenic cargo (LNG, propane, LPG, etc) has the possibility of contaminating the marine environment when coming into contact	<p>Point Noted and being complied with.</p> <p>APSEZ is being fully implemented the provisions of proper handling of Multipurpose cargo (coal, iron ore, limestone, fertilizers, food grains, cement, etc). Also, we are fully implementing &amp; following coal handling guidelines for coal handling activity.</p> <p>Oil spill contingency plan is in place to handle Tier 1 level oil spills considering different accident scenarios, and the vulnerable areas are identified and mitigation plan is prepared.</p> <p>Oil spill contingency response plan is being updated on regular basis and the same was last updated on 30.07.2022 is in place and implemented. The Oil spill contingency response plan was submitted along with EC Compliance report for the period Apr'24 to Sep'24.</p>

Sr. No.	Suggested Measures	Compliance Status																																																														
		<p>In order to analyzed marine water quality, marine sampling (surface, bottom &amp; sediment) is being carried out at a location nearby SPM by NABL and MoEF&amp;CC accredited agency namely M/s. Unistar Environment and Research Labs Pvt. Ltd., Vapi. Summary of the same for duration from Oct'24 to Mar'25 is mentioned below.</p> <p><b>Total Sampling Locations: 09 Nos. (Frequency: Once a month)</b></p> <table border="1"> <thead> <tr> <th rowspan="2">Parameter</th> <th rowspan="2">Unit</th> <th colspan="3">Surface</th> <th colspan="3">Bottom</th> </tr> <tr> <th>Min</th> <th>Max</th> <th>Avg.</th> <th>Min</th> <th>Max</th> <th>Avg.</th> </tr> </thead> <tbody> <tr> <td>pH</td> <td>--</td> <td>7.98</td> <td>8.34</td> <td>8.18</td> <td>7.85</td> <td>8.12</td> <td>8.01</td> </tr> <tr> <td>BOD (3 Days @ 27 °C)</td> <td>mg /L</td> <td>2.5</td> <td>3.4</td> <td>2.90</td> <td>BDL (MD L 1.0)</td> <td>BDL (MD L 1.0)</td> <td>BDL (MD L 1.0)</td> </tr> <tr> <td>TSS</td> <td>mg /L</td> <td>102</td> <td>144</td> <td>124.02</td> <td>80</td> <td>128</td> <td>101.24</td> </tr> <tr> <td>DO</td> <td>mg /L</td> <td>6.45</td> <td>7.04</td> <td>6.77</td> <td>6.35</td> <td>6.84</td> <td>6.63</td> </tr> <tr> <td>Salinity</td> <td>ppt</td> <td>35.12</td> <td>36.34</td> <td>35.75</td> <td>36.12</td> <td>37.35</td> <td>36.74</td> </tr> <tr> <td>TDS</td> <td>mg /L</td> <td>34560</td> <td>36642</td> <td>35405</td> <td>35180</td> <td>36720</td> <td>36109</td> </tr> </tbody> </table> <p>*BDL – Below Detection Limit *MDL – Minimum Detection Limit</p> <p>Please refer <b>Annexure – 5</b> for detailed analysis reports. Approx. INR 17.27 Lakh is spent for all environmental monitoring activities during the compliance period i.e. FY 2024-25. for overall APSEZ, Mundra.</p>	Parameter	Unit	Surface			Bottom			Min	Max	Avg.	Min	Max	Avg.	pH	--	7.98	8.34	8.18	7.85	8.12	8.01	BOD (3 Days @ 27 °C)	mg /L	2.5	3.4	2.90	BDL (MD L 1.0)	BDL (MD L 1.0)	BDL (MD L 1.0)	TSS	mg /L	102	144	124.02	80	128	101.24	DO	mg /L	6.45	7.04	6.77	6.35	6.84	6.63	Salinity	ppt	35.12	36.34	35.75	36.12	37.35	36.74	TDS	mg /L	34560	36642	35405	35180	36720	36109
Parameter	Unit	Surface			Bottom																																																											
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2	The cargo handling facility and operations shall be monitored by an site supervisor	Point Noted and Agreed																																																														
3	In case of a cargo spill the cargo handling activity shall be kept on halt based on spill quantity and immediate action for removal of cargo spilt shall done	Point Noted and Agreed																																																														
4	Cargo handling shall be done only during fair weather period	Point Noted and Agreed																																																														
5	Spillage or leak of liquid and other hazardous cargo during handling from vessel to onsite facility shall be contained in the manner of utilizing floater booms and skimmers.	Point Noted and being complied with.  For detailed information please refer to specific condition no. 1.18 of EC & CRZ compliance.																																																														
6	In case of a dense liquid utmost care shall be taken to avoid any spill accidents because dense liquid when settling onto seabed destroys the benthos in the region.	Point Noted and Agreed																																																														

Sr. No.	Suggested Measures	Compliance Status
7	Possible dusty cargos shall be water sprayed to reduce the particulate emissions arising during cargo handling	Point Noted and Agreed
8	Mechanization of cargo handling facility will further reduce the possibilities of spillage and accidents	Point Noted and Agreed
9	The Multipurpose cargo include hazardous cargo and liquid/gas/cryogenic cargo emergency response and preparedness plan shall be place	Complied.  For detailed information please refer to specific condition no. 1.19 of EC & CRZ compliance.
10	Online monitoring system for pressure gauges, operation valves, pipeline pressure, transfer point junctions, storage tanks, etc shall be installed and periodically maintained.	Point Noted and being complied with.
11	Floating, marking buoys, Signboards will be displayed to educating the seafarers about the orientation of approach channel	Point Noted and being complied with.
12	Acoustic Barriers and Enclosures and the conveyor galleries will be covered.	Complied.  Please refer to specific condition 1.15 of EC & CRZ compliance report for further details.
<b>Liquid Cargo Handling in Offshore Facilities:</b>		
1	Emergency preparedness plan for handling liquid cargo in the offshore facilities shall be in place	Complied  Please refer to specific condition 1.19 of EC & CRZ compliance report for further details.
2	In case of an unlikely event of spillage of liquid cargo while handling from vessel to facility, it shall be immediately acted upon by containing the spill and removing from the marine environment	Complied  This reply covers condition no 2 & 3
3	If the spillage or leak occurs during transporting the liquid cargo from the offshore facility to the Port, the source shall be cut-off to prevent major disaster and the leak/ spill shall be handled through floater booms, skimmers, biological degradation and suction methods.	Please refer to specific conditions 1.18 & 1.19 of EC & CRZ compliance report for further details.
4	Pressure sensors in the pipeline transportation system shall be	Point Noted and Agreed

Sr. No.	Suggested Measures	Compliance Status
	regularly monitored to ensure no leak in the system.	
5	Periodical monitoring for quality assurance of pipeline system and offshore facility has to be done.	Being Complied
6	Trained personnel shall be employed for liquid cargo handling in areas of manual operation to avoid accidents.	Complied
7	An online monitoring system shall be installed in Port for monitoring the handling/ transportation of liquid cargo from off-shore facility to port.	Point Noted and Agreed
8	The monitoring shall include pipe pressure sensors, valves/ junctions/joints pressure sensors, flow velocity and automatized cut-off systems.	Point Noted and Agreed
9	Emergency response team shall be deployed in such a manner to address any possible event in the shortest response time and period.	Complied Please refer to specific condition 1.19 for further details.
10	Ensure that slop tanks will be provided to barges/ workboats for collection of liquid/ solid waste	Point Noted and Agreed
11	Floating, marking buoys, Signboards will be displayed to educating the seafarers about the orientation of approach channel	Point noted and agreed
<b>Discharge from ETP, Desalination Plant and Bilge Water:</b>		
At present no sea discharge from ETP as well as bilge water. The existing Outfall channel is suitable for 300 MLD Desalination capacity. For additional desalination plant capacity will have intake & outfall with pipeline system.		
1	Continuous online monitoring system of the combined discharge from ETP and Desalination Plant shall be done to ensure that the outfall characteristics does not exceed the CPCB discharge standards.	Will be complied  Continuous online monitoring system of the combined discharge from ETP and Desalination Plant will be provided once pipeline with diffuser system laid.
2	The outfall shall be diluted with raw sea water in an mixing chamber prior to disposal into marine environment to avoid change in baseline conditions	Outfall will be diluted with raw sea water in a mixing chamber prior to disposal into marine environment to avoid change in baseline conditions.
3	The outfall diffusers shall be monitored via flow sensors to ensure proper dispersion of outfall.	Will be complied  Outfall diffusers will be monitored via flow sensors to ensure proper dispersion of outfall once pipeline with diffuser

Sr. No.	Suggested Measures	Compliance Status
		system laid.
4	Periodical monitoring of marine water, sediment and other biological components shall be done to analyze the change in baseline conditions if any.	Complied.  Periodical monitoring of marine water, sediment and other biological components is being carried out at regular interval including existing intake and outfall points. The same will be continued after proposed expansion also.  Please refer to specific condition no 1.12 of EC & CRZ compliance for further details.
5	Maximum utilization of treated waste water from ETP shall be done with the port to reduce the outfall quantity	Will be complied  Maximum utilization of treated water from ETP will be done for horticulture purposes within port premises.  Sea discharge will be done if it does not confirm the permissible norms for on land utilization.
6	Discharge of waste into the sea will be prohibited	Point Noted and Agreed
7	Oil Spill control measures will be adopted	Complied.  Please refer to specific condition no 1.18 of EC & CRZ compliance for further details.
8	Ensure that slop tanks will be provided to barges/ workboats for collection of liquid/ solid waste	Point Noted and Complied
9	Discharge of treated wastewater as per marine discharge standards	Complied  Please refer to Water Quality Monitoring and Preservation condition no 3.3 of EC & CRZ compliance with further details.
10	Ships will be prohibited from discharging wastewater, bilge, oil wastes, etc. into the nearshore as well as harbour waters by adopting International Convention for the Prevention of Pollution from Ships (MARPOL) 1974/1978, Consolidated Edition, IMO, 1991, including 1992 amendments to Annex 1 and 2002 amendments.	Point Noted and Being Complied with.  Please refer to Water Quality Monitoring and Preservation condition no 3.3 of EC & CRZ compliance with further details.
11	Ships shall conduct ballast water exchange at least 200 nautical miles from the nearest land and in	Point Noted



Sr. No.	Suggested Measures	Compliance Status
	water at least 200 m in depth prior to calling at a Shipyard Cum Captive jetties including LNG Terminal.	Please refer to specific condition no 1.21 of EC & CRZ compliance for further details
12	Regular Interactions shall be initiated with the fishing community and conflicts, if any with fishing community shall be amicably resolved in all cases.	Point Noted and being complied with  Please refer to specific condition 1.26 & 1.29 of EC & CRZ compliance for further details regarding CSR activities by Adani foundation.
13	Shoreline Protection Techniques such as Sand by passing if any will be carried.	Point Noted and Agreed
<b>Measures to maintain the Beaches/Sand Dunes and to conserve Turtle Nesting sites</b>		
There are no Beaches, Sand Dunes and Turtle Nesting sites around the project site. Hence, below measures are not applicable to our project.		
1	The fixture will be mounted as low as possible to minimize light trespass and the lowest amount of light needed for the task shall be used.	Not Applicable
2	Long wavelength lights will be used wherever possible. Low pressure sodium (LPS) lights are considered more desirable than HPS sources. Short wavelength (blue) and broad spectrum sources such as metal halide, mercury vapour, fluorescent or halogen lights will be avoided.	
3	Amber filters on HPS lights will be used if HPS lights use cannot be avoided,	
4	White lights that emit ultraviolet light will not be used.	
5	Strong blue or green spectral elements (eg. mercury vapour lights) will be limited as far as possible.	
6	Lights will be directed downward and will be shielded to avoid overhead glow on cloudy nights	
7	To mitigate the erosion related issues, sand by passing / Beach nourishment is considered as one way to mitigate erosion. The classical mitigation measures such as shore walls, groynes, etc is completely avoided since it may prohibit access of sea turtles to nearby nesting beaches.	

Sr. No.	Suggested Measures	Compliance Status
8	Awareness programmes for local fisher population, company laborers and employees shall be undertaken to highlight sea turtle conservation. Awareness regarding fisheries related issues is also necessary among fishing community.	
9	Incidental capture of turtles in shrimp trawls and gill nets account for more deaths than all other human activities combined. In addition to the trawl entanglement, sea turtles have been killed after becoming entangled in other types of fishing gear, such as, gill nets, long lines (hook and line), and lobster or crab pot lines.	
10	Creation of awareness among villagers and fishermen shall be undertaken as part of conservation measures.	

# **Annexure – 8**

### RESULTS OF STP OUTLET WATER

SR.N O.	TEST PARAMETERS	UNIT	WFDP WEST PORT STP OUTLET						GPCB Permissib le Limit	TEST METHOD
			Oct-24		Nov-24		Dec-24			
			09-10-2024	24-10-2024	13-11-2024	23-11-2024	05-12-2024	25-12-2024		
1.	pH @ 25 ° C	--	7.12	7.22	7.32	7.46	7.36	7.28	6.5 to 9	IS 3025 (Part-11):2022
2.	Total Suspended Solids	mg/L	20	18	18	16	18	20	100	APHA 24th Ed.2023,2540 -D
3.	Biochemical Oxygen Demand (BOD) (5 days at 20 ° C)	mg/L	14	13	15.2	16.4	15.5	16.8	30	APHA 24th Ed.2023,5210-B
4.	Residual chlorine	mg/L	0.62	0.64	0.74	0.59	0.66	0.72	0.5 Min.	APHA 24th Ed.2023,4500-CI-G
5.	Fecal Coliform	MPN Index/100 ml	60	70	50	60	60	70	1000	IS 3025 (Part-11):2022



**Mr. Nilesh Patel**  
Sr. Chemist




**Mr. Nitin Tandel**  
Technical Manager

### RESULTS OF STP OUTLET WATER

SR.NO.	TEST PARAMETERS	UNIT	WFDP WEST PORT STP OUTLET						GPCB Permissible Limit	TEST METHOD
			Jan-25		Feb-25		Mar-25			
			07-01-2025	24-01-2025	04-02-2025	18-02-2025	06-03-2025	18-03-2025		
1	pH @ 25 ° C	--	7.12	7.19	7.22	7.24	7.11	7.35	6.5 to 9	IS 3025(Part-11):2022
2	Total Suspended Solids	mg/L	14	18	16	18	14	14	100	APHA 24th Ed.2023,2540
3	Biochemical Oxygen Demand (BOD) (5 days at 20 ° C)	mg/L	15	16	14	15	15	16	30	APHA 24th Ed.2023,5210
4	Residual chlorine	mg/L	0.56	0.62	0.55	0.64	0.68	0.72	0.5 Min.	APHA 24th Ed.2023,4500-Cl-G
5	Total Nitrogen	mg/L	5.3	5.8	7.22	7.24	8.46	12.2	--	APHA 24th Ed.,2023,4500-B, C
6	Total Phosphorus	mg/L	1.6	1.4	16	18	8.5	5.2	--	APHA 24th Ed.,2023,4500-P, D
7	Fecal Coliform	MPN Index/100ml	50	60	60	70	50	60	1000	IS 3025 (Part-11):2022



**Mr. Nilesh Patel**  
Sr. Chemist




**Mr. Nitin Tandel**  
Technical Manager

### RESULTS OF ETP OUTLET WATER

SR.NO.	TEST PARAMETERS	UNIT	LIQUID TERMINAL						GPCB Limit	TEST METHOD
			Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25		
			24-10-2024	25-11-2024	25-12-2024	24-01-2025	18-02-2025	06-03-2025		
1.	Colour	Pt. Co. Scale	40	50	40	40	40	40	100	IS 3025(Part 4):2021
2.	pH @ 27 ° C	--	7.64	7.28	7.14	7.22	7.34	7.42	6.5 to 8.5	IS 3025(Part 11):2022
3.	Temperature	°C	30	30	29	29	30	30.5	40	IS 3025(Part 9):2023
4.	Total Suspended Solid	mg/L	54	36	18	26	24	36	100	APHA 24th Ed.2023,2540 –D
5.	Total Dissolved Solids	mg/L	648	622	580	628	610	644	2100	APHA 24th Ed.2023,2540- C
6.	COD	mg/L	92.2	88.5	78.4	82.2	86.1	81.2	100	IS 3025(Part 58):2023
7.	BOD (3 days at 27 °C)	mg/L	27	26	23	25	26	24	30	IS 3025(Part 44):2023
8.	Chloride (as Cl) -	mg/L	242.2	262.2	302	280	294	274.5	600	IS 3025(Part 32):1988
9.	Oil & Grease	mg/L	BDL(MDL:2.0)	BDL(MDL:2.0)	BDL(MDL:4.0)	BDL(MDL:4.0)	BDL(MDL:4.0)	BDL(MDL:4.0)	10	IS 3025(Part 39):2021
10.	Sulphate (as SO <sub>4</sub> )	mg/L	42	48	52	26	32	42	1000	IS 3025(Part 24):2022
11.	Ammonical Nitrogen	mg/L	22.2	15.6	19.8	12.1	18.6	22.4	50	IS 3025(Part 34):1988,
12.	Phenolic Compound	mg/L	BDL(MDL:0.1)	BDL(MDL:0.1)	BDL(MDL:0.1)	BDL(MDL:0.1)	BDL(MDL:0.1)	BDL(MDL:0.1)	1	IS 3025(Part 43):2022
13.	Copper as Cu	mg/L	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	3	IS 3025(Part 42):1992
14.	Lead as Pb	mg/L	BDL(MDL:0.01)	BDL(MDL:0.01)	BDL(MDL:0.01)	BDL(MDL:0.01)	BDL(MDL:0.01)	BDL(MDL:0.01)	0.1	APHA 24th Ed.2023,3111-B

Continue...

SR.NO.	TEST PARAMETERS	UNIT	LIQUID TERMINAL						GPCB Limit	TEST METHOD
			Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25		
			24-10-2024	25-11-2024	25-12-2024	24-01-2025	18-02-2025	06-03-2025		
15.	Sulphide as S	mg/L	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	2	APHA 24th Ed.2023,4500 S <sup>2</sup> F
16.	Cadmium as Cd	mg/L	BDL(MDL:0.003)	BDL(MDL:0.003)	BDL(MDL:0.003)	BDL(MDL:0.003)	BDL(MDL:0.003)	BDL(MDL:0.003)	2	APHA 24th Ed.2023,3111-B
17.	Fluoride as F	mg/L	1.91	1.28	0.82	0.45	0.37	0.56	2	APHA 24th Ed.2023,4500 F, D
18.	Residual Chlorine	mg/L	BDL(MDL:0.1)	BDL(MDL:0.1)	BDL(MDL:0.1)	BDL(MDL:0.1)	BDL(MDL:0.1)	BDL(MDL:0.1)	0.5 Min.	APHA 24th Ed.2023,4500-Cl-G
19.	Percent Sodium	%	47.64	47.49	46.15	46.86	46.05	47.13	60	By Calculation
20.	Sodium Absorption ratio	--	3.20	3.2	3.3	3.4	3.1	2.9	26	By Calculation



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### MARINE WATER MONITORING SUMMARY REPORT

#### RESULTS OF MARINE WATER [M1 LEFT SIDE OF BOCHA CREEK - N 22°45'183" E 069°43'241"]

SR. NO.	TEST PARAMETERS	UNIT	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
1.	pH	--	2.7	BDL(MDL :1.0)	2.8	BDL(MDL :1.0)	2.5	BDL(MDL :1.0)	2.7	BDL(MDL :1.0)	2.8	BDL(MDL :1.0)	3.1	BDL(MDL :1.0)	IS 3025(Part 11):2022
2.	Temperature	°C	7.04	6.73	6.9	6.8	6.82	6.72	6.75	6.65	6.81	6.71	6.66	6.57	IS 3025 (Part 9):2023
3.	Total Suspended Solids	mg/L	35.65	36.71	35.74	36.51	36.02	36.74	36.12	36.81	36.18	36.88	36.22	36.94	APHA 24th Ed., 2023,2540- D
4.	BOD (3 Days @ 27°C)	mg/L	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	IS 3025 (Part 44):2023
5.	Dissolved Oxygen	mg/L	2.42	2.1	2.32	2.93	2.74	2.58	2.9	2.74	2.74	2.58	2.58	2.26	APHA 24th Ed.2023,4500-O, B
6.	Salinity	ppt	0.391	0.348	0.379	0.31	0.413	0.391	0.348	0.304	0.326	0.304	0.304	0.283	By Calculation
7.	Oil & Grease	mg/L	3.39	3.32	2.59	2.32	3.39	3.26	3.9	3.8	3.59	3.48	3.64	3.53	IS 3025 (Part 39):2021
8.	Nitrate as NO <sub>3</sub>	µmol/L	1.37	1.26	1.16	1.05	1.37	1.26	1.05	BDL(MDL :0.4)	1.37	1.16	1.16	1.05	APHA 24th Ed. 2023,4500 NO3-B
9.	Nitrite as NO <sub>2</sub>	µmol/L	6.201	5.768	5.289	5.56	6.543	6.231	7.148	6.844	6.656	6.364	6.524	6.073	APHA 24th Ed.2023,4500NO <sub>2</sub> B
10.	Ammonical Nitrogen as NH <sub>3</sub>	µmol/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	APHA 24th Ed. 2023,4500- NH3 B
11.	Phosphates as PO <sub>4</sub>	µmol/L	34820	35760	34620	35420	34840	35510	35130	35720	35140	35746	35160	35780	APHA 24th Ed.2023,4500-P, D
12.	Total Nitrogen	µmol/L	28.3	16.2	20.2	8.1	24	8	20.1	16.1	32	20	28.6	16.3	APHA 24th Ed. 2023,4500 NH3 - B
13.	Petroleum Hydrocarbon	µg/L	2.7	BDL(MDL :1.0)	2.8	BDL(MDL :1.0)	2.5	BDL(MDL :1.0)	2.7	BDL(MDL :1.0)	2.8	BDL(MDL :1.0)	3.1	BDL(MDL :1.0)	APHA 24th ED.2023,5520 F
14.	Total Dissolved Solids	mg/L	7.04	6.73	6.9	6.8	6.82	6.72	6.75	6.65	6.81	6.71	6.66	6.57	IS 3025(Part 16):2023
15.	COD	mg/L	35.65	36.71	35.74	36.51	36.02	36.74	36.12	36.81	36.18	36.88	36.22	36.94	IS 3025(Part 58):2023

Continue...



**RESULTS OF MARINE WATER [M1 LEFT SIDE OF BOCHA CREEK - N 22°45'183" E 069°43'241"]**

SR. NO	TEST PARAMETER S	UNIT	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
<b>Phytoplankton</b>															
1.	Chlorophyll	mg/m <sup>3</sup>	3.06	3.26	3.07	3.24	3.06	3.28	3.07	3.27	3.06	3.26	3.07	3.27	APHA (24th Ed. 2023)10200A-G
2.	Phaeophytin	mg/m <sup>3</sup>	7	1.55	8	1.59	9	1.57	8	1.55	7	1.54	6	1.55	APHA (24th Ed. 2023)10200A-G
3.	Cell Count	No. x 10 <sup>3</sup> /L	114	91	112	92	113	91	112	91	114	92	112	91	APHA (24th Ed. 2023)10200A-G
4	Name of Group Number and name of group species of each group	--	<i>Coscinodiscus</i>	<i>Odentella</i>	<i>Nitzschia</i>	<i>Biddulphia</i>	<i>Nitzschia</i>	<i>Biddulphia</i>	<i>Thalassiothrix</i>	<i>Dinophysis</i>	<i>Thalassiothrix</i>	<i>Dinophysis</i>	<i>Thalassiothrix</i>	<i>Dinophysis</i>	APHA (24th Ed. 2023)10200A-G
			<i>Diploneis</i>	<i>Rhizosolenia</i>	<i>Diploneis</i>	<i>Rhizosolenia</i>	<i>Pinnularia</i>	<i>Rhizosolenia</i>	<i>Surirella</i>	<i>Pinnularia</i>	<i>Surirella</i>	<i>Pinnularia</i>	<i>Biddulphia</i>	<i>Pinnularia</i>	
			<i>Rhizosolenia</i>	<i>Coscinodiscus</i>	<i>Rhizosolenia</i>	<i>Coscinodiscus</i>	<i>Rhizosolenia</i>	<i>Coscinodiscus</i>	<i>Navicula</i>	<i>Thalassiothrix</i>	<i>Navicula</i>	<i>Thalassiothrix</i>	<i>Navicula</i>	<i>Thalassiothrix</i>	
			<i>Dinophysis</i>	<i>Grammatophora</i>	<i>Dinophysis</i>	<i>Grammatophora</i>	<i>Dinophysis</i>	<i>Grammatophora</i>	<i>Thalassiosira</i>	<i>Grammatophora</i>	<i>Nitzschia</i>	<i>Grammatophora</i>	<i>Nitzschia</i>	<i>Grammatophora</i>	
			<i>Thalassionema</i>	<i>Thalassiosira</i>	<i>Biddulphia</i>	<i>Navicula</i>	<i>Biddulphia</i>	<i>Navicula</i>	<i>Skeletonema</i>	<i>Ceratium</i>	<i>Skeletonema</i>	<i>Ceratium</i>	<i>Skeletonema</i>	<i>Ceratium</i>	
<b>Zooplankton</b>															
1	Abundance(Population)	noX103/100 m3	65		66		67		65		66		64		APHA (24rd Ed. 2023)10200 G
2	Name of Group Number and name of group species of each group		<i>Crustacean Larvae</i>		<i>Oikoplura</i>		<i>Oikoplura</i>		<i>Egg(Fish and Shrimps)</i>		<i>Egg(Fish and Shrimps)</i>		<i>Egg(Fish and Shrimps)</i>		
			<i>Egg(Fish and Shrimps)</i>		<i>Pinnularia</i>		<i>Pinnularia</i>		<i>Oikoplura</i>		<i>Oikoplura</i>		<i>Oikoplura</i>		
			<i>Copepods</i>		<i>Copepods</i>		<i>Copepods</i>		<i>Copepods nauplii</i>		<i>Copepods nauplii</i>		<i>Copepods nauplii</i>		
			<i>Crustacean</i>		<i>Copepods nauplii</i>		<i>Copepods nauplii</i>		<i>Crustacean</i>		<i>Crustacean</i>		<i>Crustacean</i>		
			<i>Bivalve Larvae</i>		<i>Thalassionema</i>		<i>Thalassionema</i>		<i>Bivalve Larvae</i>		<i>Bivalve Larvae</i>		<i>Bivalve Larvae</i>		
3	Total Biomass	ml/100 m <sup>3</sup>	13.66		13.65		13.66		13.67		13.68		13.67		

Continue...

**RESULTS OF MARINE WATER [M1 LEFT SIDE OF BOCHA CREEK - N 22°45'183" E 069°43'241"]**

SR. NO	TEST PARAMETERS	UNIT	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
<b>Microbiological</b>															
1	Total Bacterial Count	CFU/ml	112	114	112	111	112	111	112	114	112	114	112	114	APHA 24 <sup>th</sup> Ed.2023,9215-C
2	Total Coliform	/100ml	14	13	12	13	12	13	12	13	12	13	13	13	APHA 24 <sup>th</sup> Ed.2023,9222-B
3	Ecoli	/100ml	9	8	9	8	9	8	87	88	87	88	88	88	IS :15185:2016
4	Enterococcus	/100ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	IS:15186:2002
5	Salmonella	/100ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	IS:15187:2016
6	Shigella	/100ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	APHA 24 <sup>th</sup> Ed.2023,9260-E
7	Vibrio	/100ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	IS: 5887 (Part V):1976



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**RESULTS OF SEDIMENT ANALYSIS [M1 LEFT SIDE OF BOCHA CREEK - N 22°45'183" E 069°43'241"]**

SR. NO.	TEST PARAMETERS	UNIT	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	TEST METHOD
			SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	
1.	Organic Matter	%	0.48	0.44	0.48	0.46	0.49	0.44	IS: 2720 (Part 22):1972
2.	Phosphorus as P	µg/g	532.5	542.3	535.3	540.6	562.1	542.5	IS: 10158 :1982, Method B
3.	Texture	--	Sandy	Sandy	Sandy	Sandy	Sandy	Sandy	Lab SOP No. UERL/CHM/LTM/108
4.	Petroleum Hydrocarbon	µg/g	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	APHA 24th Ed.2023,5520 F
5.0	Heavy Metals								
5.1	Aluminum as Al	%	3.91	3.88	3.92	3.96	3.95	3.98	IS3025(Part 55):2003
5.2	Total Chromium as Cr+3	µg/g	135.2	142.3	146.2	142.4	148.6	152.5	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.3	Manganese as Mn	µg/g	684.2	702.5	686	702.2	690.8	650.8	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.4	Iron as Fe	%	4.12	3.94	3.95	3.98	3.91	3.88	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.5	Nickel as Ni	µg/g	48.62	44.25	42.3	44.5	46.2	42.6	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.6	Copper as Cu	µg/g	52.21	46.35	44.6	48.6	52.1	54.2	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.7	Zinc as Zn	µg/g	111.4	102.5	110.5	114.5	120.5	106.2	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.8	Lead as Pb	µg/g	2.41	2.24	2.22	2.29	2.11	1.86	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.9	Mercury as Hg	µg/g	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	EPA 7471B (Extraction &Analytical Method) :2007

Continue...

**RESULTS OF SEDIMENT ANALYSIS [M1 LEFT SIDE OF BOCHA CREEK - N 22°45'183" E 069°43'241"]**

SR. NO.	TEST PARAMETERS	UNIT	Oct-24 SEDIMENT	Nov-24 SEDIMENT	Dec-24 SEDIMENT	Jan-25 SEDIMENT	Feb-25 SEDIMENT	Mar-25 SEDIMENT	TEST METHOD
D	Benthic Organisms								
1	Macrobenthos	--	<i>Isopods</i>	<i>Isopods</i>	<i>Isopods</i>	<i>Foraminiferan</i>	<i>Foraminiferan</i>	<i>Foraminiferan</i>	APHA (24th Ed. 2023)10500
			<i>Polychates</i>	<i>Polychates</i>	<i>Polychates</i>	<i>Decapods Larvae</i>	<i>Decapods Larvae</i>	<i>Decapods Larvae</i>	
			<i>Sipunculids</i>	<i>Sipunculids</i>	<i>Sipunculids</i>	<i>Amphipods</i>	<i>Gastropods</i>	<i>Gastropods</i>	
			<i>Amphipods</i>	<i>Foraminiferan</i>	<i>Foraminiferan</i>	<i>Polychates</i>	<i>Polychates</i>	<i>Polychates</i>	
2	MeioBenthos	--	<i>Herpectacoids</i>	<i>Gastropods</i>	<i>Herpectacoids</i>	<i>Turbellarians</i>	<i>Turbellarians</i>	<i>Turbellarians</i>	
			<i>Decapods Larvae</i>	<i>Decapods Larvae</i>	<i>Decapods Larvae</i>	<i>Foraminiferan</i>	<i>Foraminiferan</i>	<i>Foraminiferan</i>	
3	Population	no/m <sup>2</sup>	366	367	368	367	368	367	

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**RESULTS OF MARINE WATER [M2 MOUTH OF BOCHA & NAVINAL CREEK - N 22°44'239" E 069°43'757"]**

SR. NO.	TEST PARAMETERS	UNIT	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
1.	pH	--	8.11	8.01	8.09	7.94	8.15	7.99	8.17	8.03	8.15	8.04	8.18	8.08	IS 3025(Part 11):2022
2.	Temperature	°C	29.9	29.8	29.8	29.7	29.7	29.6	29.6	29.5	29.7	29.6	29.8	29.7	IS 3025(Part 9):2023
3.	Total Suspended Solids	mg/L	128	102	142	114	132	102	142	114	130	116	124	106	APHA 24th Ed.,2023,2540- D
4.	BOD (3 Days @ 27°C)	mg/L	2.6	BDL(MDL :1.0)	2.5	BDL(MDL :1.0)	2.9	BDL(MDL :1.0)	2.6	BDL(MDL :1.0)	2.7	BDL(MDL :1.0)	2.9	BDL(MDL :1.0)	IS 3025(Part 44):2023
5.	Dissolved Oxygen	mg/L	6.84	6.53	6.7	6.6	6.62	6.52	6.45	6.35	6.71	6.5	6.57	6.37	APHA 24th Ed.2023,4500-O, B
6.	Salinity	ppt	35.64	36.88	35.28	36.65	35.42	36.72	35.56	36.81	35.67	36.84	35.72	36.89	By Calculation
7.	Oil & Grease	mg/L	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	IS 3025(Part 39):2021
8.	Nitrate as NO <sub>3</sub>	µmol/L	2.26	1.94	2.76	2.59	3.23	3.06	3.39	3.06	3.23	3.06	3.06	2.9	APHA 24th Ed.2023,4500 NO3-B
9.	Nitrite as NO <sub>2</sub>	µmol/L	0.261	0.239	0.379	0.276	0.37	0.348	0.413	0.391	0.456	0.413	0.413	0.391	APHA 24th Ed.2023,4500NO <sub>2</sub> B
10.	Ammonical Nitrogen as NH <sub>3</sub>	µmol/L	3.42	3.32	2.32	1.56	3.42	3.39	4.01	3.9	3.74	3.64	3.64	3.59	APHA 24th Ed.2023,4500-NH3 B
11.	Phosphates as PO <sub>4</sub>	µmol/L	1.26	1.16	1.37	1.26	1.58	1.47	1.16	BDL(MDL :0.4)	1.05	BDL(MDL :0.4)	1.16	BDL(MDL :0.4)	APHA 24th Ed.2023,4500-P, D
12.	Total Nitrogen	µmol/L	5.941	5.499	5.459	4.426	7.02	6.798	7.813	7.351	7.426	7.113	7.113	6.881	APHA 24th Ed.2023,4500 NH3 - B
13.	Petroleum Hydrocarbon	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	APHA 24th ED.2023,5520 F
14.	Total Dissolved Solids	mg/L	35810	36550	35640	36120	35550	36080	35840	36240	35910	36264	36010	36310	IS 3025(Part 16):2023
15.	COD	mg/L	32.4	20.2	24.2	12.1	27.9	12	32.1	20.1	36	24	32.7	20.4	IS 3025(Part 58):2023

Continue...

**RESULTS OF MARINE WATER [M2 MOUTH OF BOCHA & NAVINAL CREEK - N 22°44'239" E 069°43'757"]**

SR. NO.	TEST PARAMETERS	UNIT	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
<b>A Phytoplankton</b>															
1.	Chlorophyll	mg/m <sup>3</sup>	2.97	2.67	2.98	2.68	2.97	2.69	2.98	2.68	2.97	2.67	2.96	2.66	APHA (24th Ed. 2023)10200A-G
2.	Phaeophytin	mg/m <sup>3</sup>	2.05	2.03	2.06	2.03	2.07	2.04	2.06	2.03	2.07	2.02	2.06	2.01	APHA (24th Ed. 2023)10200A-G
3.	Cell Count	No. x 10 <sup>3</sup> /L	93	148	92	147	91	148	92	147	91	145	92	144	APHA (24th Ed. 2023)10200A-G
4	Name of Group Number and name of group species of each group	--	<i>Thalassiothrix</i>	<i>Pinnularia</i>	<i>Thalassiothrix</i>	<i>Pinnularia</i>	<i>Dinophysis</i>	<i>Pinnularia</i>	<i>Navicula</i>	<i>Thalassiothrix</i>	<i>Surirella</i>	<i>Thalassiothrix</i>	<i>Surirella</i>	<i>Thalassiothrix</i>	APHA (24th Ed. 2023)10200A-G
			<i>Surirella</i>	<i>Biddulphia</i>	<i>Surirella</i>	<i>Biddulphia</i>	<i>Surirella</i>	<i>Biddulphia</i>	<i>Skeletonema</i>	<i>Surirella</i>	<i>Pinnularia</i>	<i>Surirella</i>	<i>Pinnularia</i>	<i>Surirella</i>	
			<i>Navicula</i>	<i>Navicula</i>	<i>Navicula</i>	<i>Navicula</i>	<i>Nitzschia</i>	<i>Navicula</i>	<i>Rhizosolenia</i>	<i>Navicula</i>	<i>Rhizosolenia</i>	<i>Navicula</i>	<i>Melosira</i>	<i>Navicula</i>	
			<i>Thalassiosira</i>	<i>Rhizosolenia</i>	<i>Cyclotella</i>	<i>Rhizosolenia</i>	<i>Cyclotella</i>	<i>Rhizosolenia</i>	<i>Dinophysis</i>	<i>Thalassiosira</i>	<i>Dinophysis</i>	<i>Thalassiosira</i>	<i>Dinophysis</i>	<i>Thalassiosira</i>	
			<i>Skeletonema</i>	<i>Skeletonema</i>	<i>Skeletonema</i>	<i>Thalassiosira</i>	<i>Skeletonema</i>	<i>Thalassiosira</i>	<i>Thalassionema</i>	<i>Skeletonema</i>	<i>Thalassionema</i>	<i>Skeletonema</i>	<i>Thalassionema</i>	<i>Skeletonema</i>	
<b>B Zooplankton</b>															
1	Abundance (Population)	noX10 <sup>3</sup> /100 m <sup>3</sup>	44		43		44		43		42		41		APHA (24rd Ed. 2023)10200 G
2	Name of Group Number and name of group species of each group		<i>Egg(Fish and Shrimps)</i>		<i>Egg(Fish and Shrimps)</i>		<i>Egg(Fish and Shrimps)</i>		<i>Crustacean Larvae</i>		<i>Crustacean Larvae</i>		<i>Crustacean Larvae</i>		
			<i>Copepods</i>		<i>Oikoplura</i>		<i>Nitzschia</i>		<i>Egg(Fish and Shrimps)</i>		<i>Egg(Fish and Shrimps)</i>		<i>Egg(Fish and Shrimps)</i>		
			<i>Copepods nauplii</i>		<i>Copepods nauplii</i>		<i>Copepods nauplii</i>		<i>Copepods</i>		<i>Copepods</i>		<i>Copepods</i>		
			<i>Crustacean</i>		<i>Crustacean</i>		<i>Pinnularia</i>		<i>Crustacean</i>		<i>Crustacean</i>		<i>Copepods nauplii</i>		
3	Total Biomass	ml/100 m <sup>3</sup>	<i>Bivalve Larvae</i>		<i>Bivalve Larvae</i>		<i>Bivalve Larvae</i>		<i>Bivalve Larvae</i>		<i>Bivalve Larvae</i>		<i>Bivalve Larvae</i>		
			15.2		15.1		15.2		15.2		15.1		15.2		

Continue...

**RESULTS OF MARINE WATER [M2 MOUTH OF BOCHA & NAVINAL CREEK - N 22°44'239" E 069°43'757"]**

SR. NO	TEST PARAMETER S	UNIT	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
<b>Microbiological</b>															
1	Total Bacterial Count	CFU/ml	124		126		128		127		128		130		APHA 24 <sup>th</sup> Ed.2023,9215 -C
2	Total Coliform	/100ml	35		36		35		36		37		37		APHA 24 <sup>th</sup> Ed.2023, 9222-B
3	E.coli	/100ml	13		12		11		10		11		13		IS :15185:2016
4	Enterococcus	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS:15186:2002
5	Salmonella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS:15187:2016
6	Shigella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		APHA 24 <sup>th</sup> Ed.2023, 9260-E
7	Vibrio	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS: 5887 (Part V):1976

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### RESULTS OF SEDIMENT ANALYSIS [M2 MOUTH OF BOCHA & NAVINAL CREEK - N 22°44'239" E 069°43'757"]

SR. NO.	TEST PARAMETERS	UNIT	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	TEST METHOD
			SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	
1.	Organic Matter	%	0.52	0.48	0.52	0.48	0.41	0.48	IS: 2720 (Part 22):1972
2.	Phosphorus as P	µg/g	602.2	582.4	594.2	602.8	596.2	580.3	IS: 10158 :1982, Method B
3.	Texture	--	Sandy	Sandy	Sandy	Sandy	Sandy	Sandy	Lab SOP No. UERL/CHM/LTM/108
4.	Petroleum Hydrocarbon	µg/g	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	APHA 24th Ed.2023,5520 F
5.0	Heavy Metals								
5.1	Aluminum as Al	%	3.92	3.84	3.86	3.89	4.04	3.92	IS3025(Part 55):2003
5.2	Total Chromium as Cr+3	µg/g	144.3	135.2	142.3	146.7	138.4	142.5	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.3	Manganese as Mn	µg/g	702.4	672.4	682.6	694.3	702.5	680.3	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.4	Iron as Fe	%	4.11	3.87	4.01	4.06	4.11	4.06	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.5	Nickel as Ni	µg/g	42.25	48.65	49.36	50.34	48.2	44.1	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.6	Copper as Cu	µg/g	42.65	51.35	52.3	48.36	46.9	44.8	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.7	Zinc as Zn	µg/g	122.5	106.5	110.4	113.4	118.4	104.2	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.8	Lead as Pb	µg/g	1.95	2.02	2.12	2.09	2.14	1.96	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.9	Mercury as Hg	µg/g	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	EPA 7471B (Extraction &Analytical Method) :2007

Continue...



**RESULTS OF SEDIMENT ANALYSIS [M2 MOUTH OF BOCHA & NAVINAL CREEK - N 22°44'239" E 069°43'757"]**

SR. NO.	TEST PARAMETERS	UNIT	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	TEST METHOD
			SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	
D			Benthic Organisms						
1	Macrobenthos	--	<i>Decapods Larvae</i>	<i>Polychates</i>	<i>Polychates</i>	<i>Foraminiferan</i>	<i>Foraminiferan</i>	<i>Foraminiferan</i>	APHA (24th Ed. 2023)10500
			<i>Isopods</i>	<i>Isopods</i>	<i>Isopods</i>	<i>Gastropods</i>	<i>Gastropods</i>	<i>Gastropods</i>	
			<i>Amphipods</i>	<i>Amphipods</i>	<i>Gastropods</i>	<i>Isopods</i>	<i>Isopods</i>	<i>Isopods</i>	
			<i>Sipunculids</i>	<i>Sipunculids</i>	<i>Sipunculids</i>	<i>Sipunculids</i>	<i>Amphipods</i>	<i>Amphipods</i>	
2	MeioBenthos	--	<i>Foraminiferan</i>	<i>Foraminiferan</i>	<i>Decapods Larvae</i>	<i>Herpectacoids</i>	<i>Sipunculids</i>	<i>Sipunculids</i>	
			<i>Herpectacoids</i>	<i>Herpectacoids</i>	<i>Herpectacoids</i>	<i>Polychates</i>	<i>Polychates</i>	<i>Polychates</i>	
3	Population	no/m <sup>2</sup>	302	303	301	302	301	302	

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**RESULTS OF MARINE WATER [M3 EAST OF BOCHASLANOT DETECTED - N 22°46'530" E 069°41'690"]**

SR. NO.	TEST PARAMETERS	UNIT	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
1.	pH	--	8.21	7.98	8.18	8.03	8.27	8.09	8.23	8.04	8.19	8.09	8.22	8.05	IS 3025(Part 11):2022
2.	Temperature	°C	30	29.9	29.9	29.8	29.8	29.7	29.7	29.6	29.8	29.7	29.7	29.6	IS 3025(Part 9):2023
3.	Total Suspended Solids	mg/L	134	106	102	88	110	92	124	88	118	96	126	98	APHA 24th Ed.,2023,2540- D
4.	BOD (3 Days @ 27°C)	mg/L	2.8	BDL(MDL: 1.0)	2.7	BDL(MDL: 1.0)	3.1	BDL(MDL: 1.0)	3.2	BDL(MDL: 1.0)	3.1	BDL(MDL: 1.0)	2.8	BDL(MDL: 1.0)	IS 3025(Part 44):2023
5.	Dissolved Oxygen	mg/L	6.94	6.73	6.8	6.7	6.72	6.62	6.65	6.55	6.71	6.6	6.57	6.47	APHA 24th Ed.2023,4500-O, B
6.	Salinity	ppt	35.29	36.54	35.33	36.12	35.42	36.22	35.62	36.38	35.74	36.52	35.79	36.64	By Calculation
7.	Oil & Grease	mg/L	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	IS 3025(Part 39):2021
8.	Nitrate as NO <sub>3</sub>	µmol/L	2.58	2.26	2.67	2.41	2.42	2.26	3.23	2.9	3.55	3.23	3.39	3.06	APHA 24th Ed.2023,4500 NO3-B
9.	Nitrite as NO <sub>2</sub>	µmol/L	0.37	0.326	0.475	0.365	0.326	0.304	0.37	0.326	0.435	0.391	0.456	0.435	APHA 24th Ed.2023,4500NO <sub>2</sub> B
10.	Ammonical Nitrogen as NH <sub>3</sub>	µmol/L	3.42	3.26	2.62	2.58	3.59	3.53	3.85	3.8	4.06	3.95	3.8	3.74	APHA 24th Ed.2023,4500-NH3 B
11.	Phosphates as PO <sub>4</sub>	µmol/L	1.16	1.05	1.26	1.16	1.26	1.05	1.37	1.26	1.47	1.26	1.37	1.26	APHA 24th Ed.2023,4500-P, D
12.	Total Nitrogen	µmol/L	6.37	5.846	5.765	5.355	6.336	6.094	7.45	7.026	8.045	7.571	7.646	7.235	APHA 24th Ed.2023,4500 NH3
13.	Petroleum Hydrocarbon	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	APHA 24th ED.2023,5520 F
14.	Total Dissolved Solids	mg/L	35230	36610	35290	36080	35430	36140	35524	36180	35540	36218	35460	36180	IS 3025(Part 16):2023
15.	COD	mg/L	24.3	12.1	16.1	4	20	8	24.1	12	28	16	24.5	12.3	IS 3025(Part 58):2023

Continue...

**RESULTS OF MARINE WATER [M3 EAST OF BOCHAISLANOT DETECTED - N 22°46'530" E 069°41'690"]**

SR. NO.	TEST PARAMETERS	UNIT	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
<b>A</b>			<b>Phytoplankton</b>												
1.	Chlorophyll	mg/m <sup>3</sup>	2.42	2.45	2.44	2.47	2.43	2.46	2.42	2.47	2.41	2.48	2.42	2.47	APHA (24th Ed. 2023)10200A-G
2.	Phaeophytin	mg/m <sup>3</sup>	1.66	1.43	1.67	1.42	1.65	1.41	1.66	1.42	1.65	1.41	1.66	1.42	APHA (24th Ed. 2023)10200A-G
3.	Cell Count	No. x 10 <sup>3</sup> /L	156	96	155	97	154	96	155	97	154	98	155	97	APHA (24th Ed. 2023)10200A-G
4	Name of Group Number and name of group species of each group	--	<i>Pinnularia</i>	<i>Coscino discus</i>	<i>Pinnularia</i>	<i>Coscino discus</i>	<i>Pinnularia</i>	<i>Coscino discus</i>	<i>Melosira</i>	<i>Cyclotella</i>	<i>Melosira</i>	<i>Cyclotella</i>	<i>Melosira</i>	<i>Cyclotella</i>	APHA (24th Ed. 2023)10200A-G
			<i>Biddulphia</i>	<i>Pinnularia</i>	<i>Biddulphia</i>	<i>Pinnularia</i>	<i>Biddulphia</i>	<i>Pinnularia</i>	<i>Pinnularia</i>	<i>Pinnularia</i>	<i>Pinnularia</i>	<i>Pinnularia</i>	<i>Pinnularia</i>	<i>Pinnularia</i>	
			<i>Navicula</i>	<i>Rhizosolenia</i>	<i>Navicula</i>	<i>Rhizosolenia</i>	<i>Navicula</i>	<i>Rhizosolenia</i>	<i>Skeletonema</i>	<i>Skeletonema</i>	<i>Rhizosolenia</i>	<i>Skeletonema</i>	<i>Rhizosolenia</i>	<i>Skeletonema</i>	
			<i>Thalassiosira</i>	<i>Dinophysis</i>	<i>Thalassiosira</i>	<i>Dinophysis</i>	<i>Thalassiosira</i>	<i>Dinophysis</i>	<i>Thalassiosira</i>	<i>Thalassiosira</i>	<i>Thalassiosira</i>	<i>Thalassiosira</i>	<i>Thalassiosira</i>	<i>Thalassiosira</i>	
			<i>Skeletonema</i>	<i>Thalassionema</i>	<i>Skeletonema</i>	<i>Thalassionema</i>	<i>Skeletonema</i>	<i>Thalassionema</i>	<i>Thalassionema</i>	<i>Thalassionema</i>	<i>Thalassionema</i>	<i>Thalassionema</i>	<i>Thalassionema</i>	<i>Thalassionema</i>	
<b>B</b>			<b>Zooplankton</b>												
1	Abundance (Population)	noX10 <sup>3</sup> /100 m <sup>3</sup>	43		41		43		41		42		43		APHA (24rd Ed. 2023)10200 G
2	Name of Group Number and name of group species of each group		<i>Copepods</i>		<i>Copepods</i>		<i>Rhizosolenia</i>		<i>Crustacean</i>		<i>Crustacean</i>		<i>Crustacean</i>		
			<i>Copepods nauplii</i>		<i>Copepods nauplii</i>		<i>Crustacean Larvae</i>		<i>Copepods nauplii</i>		<i>Copepods nauplii</i>		<i>Copepods nauplii</i>		
			<i>Egg(Fish and Shrimps)</i>		<i>Egg(Fish and Shrimps)</i>		<i>Egg(Fish and Shrimps)</i>		<i>Crustacean Larvae</i>		<i>Crustacean Larvae</i>		<i>Crustacean Larvae</i>		
			<i>Crustacean</i>		<i>Pinnularia</i>		<i>Oikoplura</i>		<i>Crustacean</i>		<i>Crustacean</i>		<i>Egg(Fish and Shrimps)</i>		
			<i>Bivalve Larvae</i>		<i>Bivalve Larvae</i>		<i>Thalassionema</i>		<i>Bivalve Larvae</i>		<i>Bivalve Larvae</i>		<i>Bivalve Larvae</i>		
3	Total Biomass	ml/100 m <sup>3</sup>	15.4		15.3		15.1		15.1		15.3		15.4		

Continue...

**RESULTS OF MARINE WATER [M3 EAST OF BOCHASLANOT DETECTED - N 22°46'530" E 069°41'690"]**

SR. NO	TEST PARAMETERS	UNIT	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM			
C			Microbiological												
1	Total Bacterial Count	CFU/ml	134		136		137		136		138		140		APHA 24 <sup>th</sup> Ed.2023,9215-C
2	Total Coliform	/100ml	31		32		33		31		32		33		APHA 24 <sup>th</sup> Ed.2023, 9222-B
3	E.coli	/100ml	20		21		22		21		20		22		IS :15185:2016
4	Enterococcus	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS:15186:2002
5	Salmonella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS:15187:2016
6	Shigella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		APHA 24 <sup>th</sup> Ed.2023, 9260-E
7	Vibrio	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS: 5887 (Part V):1976

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**RESULTS OF SEDIMENT ANALYSIS [M3 EAST OF BOCHASLANOT DETECTED - N 22°46'530" E 069°41'690"]**

SR. NO.	TEST PARAMETERS	UNIT	Oct-24 SEDIMENT	Nov-24 SEDIMENT	Dec-24 SEDIMENT	Jan-25 SEDIMENT	Feb-25 SEDIMENT	Mar-25 SEDIMENT	TEST METHOD
1.	Organic Matter	%	0.54	0.58	0.62	0.58	0.55	0.58	IS: 2720 (Part 22):1972
2.	Phosphorus as P	µg/g	624.2	610.2	611.4	590.5	608.4	598.5	IS: 10158 :1982, Method B
3.	Texture	--	Sandy	Sandy	Sandy	Sandy	Sandy	Sandy	Lab SOP No. UERL/CHM/LTM/108
4.	Petroleum Hydrocarbon	µg/g	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	APHA 24th Ed.2023,5520 F
5.0	<b>Heavy Metals</b>								
5.1	Aluminum as Al	%	3.95	3.82	3.86	3.94	3.97	4.08	IS3025(Part 55):2003
5.2	Total Chromium as Cr+3	µg/g	143.5	132.4	134.2	128.4	113.5	124.5	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.3	Manganese as Mn	µg/g	546.5	542.2	544.3	536.4	498.6	510.6	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.4	Iron as Fe	%	4.05	3.95	3.98	4.08	4.12	3.82	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.5	Nickel as Ni	µg/g	35.94	36.25	37.2	38.4	42.44	40.39	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.6	Copper as Cu	µg/g	38.24	34.22	34.35	35.26	36.28	37.88	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.7	Zinc as Zn	µg/g	124.3	108.5	112.4	118.4	122.2	120.21	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.8	Lead as Pb	µg/g	2.11	1.98	2.03	2.14	2.09	2.14	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.9	Mercury as Hg	µg/g	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	EPA 7471B (Extraction &Analytical Method) :2007

Continue...

**RESULTS OF SEDIMENT ANALYSIS [M3 EAST OF BOCHASLANOT DETECTED - N 22°46'530" E 069°41'690"]**

SR. NO.	TEST PARAMETERS	UNIT	Oct-24 SEDIMENT	Nov-24 SEDIMENT	Dec-24 SEDIMENT	Jan-25 SEDIMENT	Feb-25 SEDIMENT	Mar-25 SEDIMENT	TEST METHOD
<b>Benthic Organisms</b>									
1	Macrobenthos	--	Polychates <i>Polychates</i> <i>Gastropods</i> <i>Isopods</i> <i>Sipunculids</i>	<i>Polychates</i> <i>Gastropods</i> <i>Isopods</i> <i>Sipunculids</i>	<i>Amphipods</i> <i>Gastropods</i> <i>Isopods</i> <i>Sipunculids</i>	<i>Gastropods</i> <i>Isopods</i> <i>Amphipods</i> <i>Sipunculids</i>	<i>Gastropods</i> <i>Isopods</i> <i>Amphipods</i> <i>Sipunculids</i>	<i>Decapods Larvae</i> <i>Isopods</i> <i>Amphipods</i> <i>Sipunculids</i>	APHA (24th Ed. 2023)10500
2	MeioBenthos	--	<i>Herpectacoids</i> <i>Polychates</i>	<i>Herpectacoids</i> <i>Polychates</i>	<i>Herpectacoids</i> <i>Polychates</i>	<i>Polychates</i> <i>Herpectacoids</i>	<i>Polychates</i> <i>Herpectacoids</i>	<i>Foraminiferan</i> <i>Herpectacoids</i>	
3	Population	no/m <sup>2</sup>	298	296	298	297	295	294	

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**RESULTS OF MARINE WATER [M4 JUNA BANOT DETECTEDAR N 22°47'577" E 069°43'620"]**

SR. NO.	TEST PARAMETERS	UNIT	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
1.	pH	--	8.22	8.06	8.21	8.02	8.22	8.06	8.16	8	8.21	8.04	8.24	8.09	IS 3025(Part 11):2022
2.	Temperature	°C	30	29.9	29.8	29.7	29.7	29.6	29.6	29.5	29.7	29.6	29.6	29.5	IS 3025(Part 9):2023
3.	Total Suspended Solids	mg/L	122	104	116	94	106	88	128	114	122	108	132	114	APHA 24th Ed.,2023,2540- D
4.	BOD (3 Days @ 27°C)	mg/L	3.1	BDL(MDL: 1.0)	2.8	BDL(MDL: 1.0)	2.7	BDL(MDL: 1.0)	2.8	BDL(MDL: 1.0)	2.9	BDL(MDL: 1.0)	3.2	BDL(MDL: 1.0)	IS 3025(Part 44):2023
5.	Dissolved Oxygen	mg/L	7.04	6.84	6.9	6.8	6.82	6.72	6.75	6.55	6.91	6.71	6.76	6.57	APHA 24th Ed.2023,4500-O, B
6.	Salinity	ppt	35.88	36.74	35.64	36.74	35.71	36.81	35.89	36.98	36.02	37.11	36.12	37.18	By Calculation
7.	Oil & Grease	mg/L	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	IS 3025(Part 39):2021
8.	Nitrate as NO <sub>3</sub>	µmol/L	2.1	1.77	3.45	2.59	3.39	3.23	3.23	2.9	3.39	3.06	3.23	2.9	APHA 24th Ed.2023,4500 NO3-B
9.	Nitrite as NO <sub>2</sub>	µmol/L	0.196	0.174	0.431	0.328	0.391	0.37	0.435	0.391	0.391	0.37	0.456	0.413	APHA 24th Ed.2023,4500NO2B
10.	Ammonical Nitrogen as NH <sub>3</sub>	µmol/L	3.32	3.26	2.84	2.62	3.69	3.64	4.11	4.06	4.22	4.11	3.95	3.9	APHA 24th Ed.2023,4500-NH3 B
11.	Phosphates as PO <sub>4</sub>	µmol/L	1.05	BDL(MDL: 0.4)	1.16	BDL(MDL: 0.4)	1.26	1.16	1.47	1.37	1.05	BDL(MDL: 0.4)	1.05	BDL(MDL: 0.4)	APHA 24th Ed.2023,4500-P, D
12.	Total Nitrogen	µmol/L	5.616	5.204	6.721	5.538	7.471	7.24	7.775	7.351	8.001	7.54	7.636	7.213	APHA 24th Ed.2023,4500 NH3 - B
13.	Petroleum Hydrocarbon	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	APHA 24th ED.2023,5520 F
14.	Total Dissolved Solids	mg/L	35590	36720	35160	35920	35240	36100	35610	36210	36642	36228	36320	36710	IS 3025(Part 16):2023
15.	COD	mg/L	28.3	16.2	20.2	8.1	24	12	28.1	16.1	32	20	28.6	16.3	IS 3025(Part 58):2023

Continue...

**RESULTS OF MARINE WATER [M4 JUNA BANOT DETECTEDAR N 22°47'57" E 069°43'620"]**

SR. NO.	TEST PARAMETERS	UNIT	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25		TEST METHOD
			SURFAC E	BOTTO M	SURFAC E	BOTTO M	SURFAC E	BOTTO M	SURFAC E	BOTTO M	SURFAC E	BOTTO M	SURFAC E	BOTTO M	
<b>A</b>															
<b>Phytoplankton</b>															
1.	Chlorophyll	mg/m <sup>3</sup>	2.34	3.1	2.33	3.2	2.36	3.1	2.35	3.2	2.36	3.1	2.37	3.2	APHA (24th Ed. 2023)10200A-G
2.	Phaeophytin	mg/m <sup>3</sup>	2.4	5	2.3	6	2.2	7	2.1	8	2.2	9	2.1	8	APHA (24th Ed. 2023)10200A-G
3.	Cell Count	No. x 10 <sup>3</sup> /L	157	87	158	88	157	89	156	88	157	87	156	88	APHA (24th Ed. 2023)10200A-G
4	Name of Group Number and name of group species of each group	--	<i>Coscino discus</i>	<i>Surirella</i>	<i>Surirella</i>	<i>Surirella</i>	<i>Coscino discus</i>	<i>Surirella</i>	<i>Thalassiosira</i>	<i>Coscino discus</i>	<i>Thalassiosira</i>	<i>Coscino discus</i>	<i>Thalassiosira</i>	<i>Coscino discus</i>	APHA (24th Ed. 2023)10200A-G
			<i>Diploneis</i>	<i>Biddulphia</i>	<i>Diploneis</i>	<i>Biddulphia</i>	<i>Diploneis</i>	<i>Biddulphia</i>	<i>Melosira</i>	<i>Diploneis</i>	<i>Melosira</i>	<i>Diploneis</i>	<i>Melosira</i>	<i>Diploneis</i>	
			<i>Rhizosolenia</i>	<i>Navicula</i>	<i>Thalassiothrix</i>	<i>Coscino discus</i>	<i>Skeletonema</i>	<i>Coscino discus</i>	<i>Nitzschia</i>	<i>Rhizosolenia</i>	<i>Nitzschia</i>	<i>Rhizosolenia</i>	<i>Nitzschia</i>	<i>Rhizosolenia</i>	
			<i>Dinophysis</i>	<i>Thalassiosira</i>	<i>Navicula</i>	<i>Thalassiosira</i>	<i>Navicula</i>	<i>Thalassiosira</i>	<i>Rhizosolenia</i>	<i>Dinophysis</i>	<i>Rhizosolenia</i>	<i>Dinophysis</i>	<i>Rhizosolenia</i>	<i>Dinophysis</i>	
			<i>Thalassionema</i>	<i>Skeletonema</i>	<i>Thalassionema</i>	<i>Skeletonema</i>	<i>Thalassionema</i>	<i>Skeletonema</i>	<i>Pleurosigma</i>	<i>Thalassionema</i>	<i>Pleurosigma</i>	<i>Thalassionema</i>	<i>Pleurosigma</i>	<i>Thalassionema</i>	
<b>B</b>															
<b>Zooplankton</b>															
1	Abundance (Population)	noX10 <sup>3</sup> / 100 m <sup>3</sup>	37		38		39		38		37		36		APHA (24rd Ed. 2023)10200 G
2	Name of Group Number and name of group species of each group		<i>Oikoplura</i>		<i>Oikoplura</i>		<i>Copepods nauplii</i>		<i>Copepods nauplii</i>		<i>Copepods nauplii</i>		<i>Copepods nauplii</i>		
			<i>Copepods nauplii</i>		<i>Rhizosolenia</i>		<i>Rhizosolenia</i>		<i>Crustacean Larvae</i>		<i>Crustacean Larvae</i>		<i>Egg(Fish and Shrimps)</i>		
			<i>Crustacean Larvae</i>		<i>Crustacean Larvae</i>		<i>Egg(Fish and Shrimps)</i>		<i>Oikoplura</i>		<i>Oikoplura</i>		<i>Oikoplura</i>		
			<i>Crustacean</i>		<i>Crustacean</i>		<i>Crustacean</i>		<i>Bivalve Larvae</i>		<i>Bivalve Larvae</i>		<i>Copepods nauplii</i>		
			<i>Bivalve Larvae</i>		<i>Bivalve Larvae</i>		<i>Bivalve Larvae</i>		<i>Oikoplura</i>		<i>Oikoplura</i>		<i>Oikoplura</i>		
3	Total Biomass	ml/100 m <sup>3</sup>	14.26		14.27		14.26		14.25		14.26		14.27		

Continue...



**RESULTS OF MARINE WATER [M4 JUNA BANOT DETECTEDAR N 22°47'57" E 069°43'620"]**

SR. NO	TEST PARAMETER S	UNIT	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
<b>Microbiological</b>															
1	Total Bacterial Count	CFU/ml	102		103		104		103		102		104		APHA 24 <sup>th</sup> Ed.2023,9215 -C
2	Total Coliform	/100ml	42		43		44		42		41		40		APHA 24 <sup>th</sup> Ed.2023, 9222-B
3	E.coli	/100ml	11		12		11		12		11		12		IS :15185:2016
4	Enterococcus	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS:15186:2002
5	Salmonella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS:15187:2016
6	Shigella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		APHA 24 <sup>th</sup> Ed.2023, 9260-E
7	Vibrio	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS: 5887 (Part V):1976



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**RESULTS OF SEDIMENT ANALYSIS [M4 JUNA BANOT DETECTEDAR N 22°47'577" E 069°43'620"]**

SR. NO.	TEST PARAMETERS	UNIT	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	TEST METHOD
			SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	
1.	Organic Matter	%	0.46	0.43	0.51	0.48	0.42	0.46	IS: 2720 (Part 22):1972
2.	Phosphorus as P	µg/g	544.6	541.3	562.2	544.6	562.3	550.2	IS: 10158 :1982, Method B
3.	Texture	--	Sandy	Sandy	Sandy	Sandy	Sandy	Sandy	Lab SOP No. UERL/CHM/LTM/108
4.	Petroleum Hydrocarbon	µg/g	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	APHA 24th Ed.2023,5520 F
5.0	<b>Heavy Metals</b>								
5.1	Aluminum as Al	%	4.06	3.99	4.02	4.08	4.01	4.09	IS3025(Part 55):2003
5.2	Total Chromium as Cr+3	µg/g	144.5	151.2	142.3	148.6	139.8	146.5	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.3	Manganese as Mn	µg/g	512.4	524.3	530.4	518.6	512.2	521.3	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.4	Iron as Fe	%	3.91	3.97	4.03	3.92	3.98	4.06	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.5	Nickel as Ni	µg/g	45.6	44.2	45.8	44.2	48.6	44.2	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.6	Copper as Cu	µg/g	42.8	49.8	50.6	46.8	48.2	52.36	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.7	Zinc as Zn	µg/g	152.3	142.6	148.6	438.5	444.2	435.2	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.8	Lead as Pb	µg/g	2.22	2.02	2.11	1.86	1.88	1.96	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.9	Mercury as Hg	µg/g	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	EPA 7471B (Extraction &Analytical Method) :2007

Continue...

**RESULTS OF SEDIMENT ANALYSIS [M4 JUNA BANOT DETECTEDAR N 22°47'577" E 069°43'620"]**

SR. NO.	TEST PARAMETERS	UNIT	Oct-24 SEDIMENT	Nov-24 SEDIMENT	Dec-24 SEDIMENT	Jan-25 SEDIMENT	Feb-25 SEDIMENT	Mar-25 SEDIMENT	TEST METHOD
D	<b>Benthic Organisms</b>								
1	Macrobenthos	--	<i>Foraminiferan</i>	<i>Amphipods</i>	<i>Amphipods</i>	<i>Sipunculids</i>	<i>Sipunculids</i>	<i>Sipunculids</i>	APHA (24th Ed. 2023)10500
			<i>Gastropods</i>	<i>Gastropods</i>	<i>Gastropods</i>	<i>Decapods Larvae</i>	<i>Decapods Larvae</i>	<i>Decapods Larvae</i>	
			<i>Isopods</i>	<i>Isopods</i>	<i>Isopods</i>	<i>Polychates</i>	<i>Polychates</i>	<i>Polychates</i>	
			<i>Sipunculids</i>	<i>Sipunculids</i>	<i>Turbellarians</i>	<i>Isopods</i>	<i>Isopods</i>	<i>Foraminiferan</i>	
2	MeioBenthos	--	<i>Herpectacoids</i>	<i>Herpectacoids</i>	<i>Herpectacoids</i>	<i>Turbellarians</i>	<i>Gastropods</i>	<i>Gastropods</i>	
			<i>Polychates</i>	<i>Turbellarians</i>	<i>Decapods Larvae</i>	<i>Herpectacoids</i>	<i>Herpectacoids</i>	<i>Herpectacoids</i>	
3	Population	no/m <sup>2</sup>	307	306	305	304	303	302	

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**RESULTS OF MARINE WATER [M5 TOWARDS WESTERN SIDE OF EAST PORT – N 22°46'041" E 069°47'296"]**

SR. NO.	TEST PARAMETERS	UNIT	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
1.	pH	--	8.14	7.98	8.21	8.03	8.14	7.98	8.19	8.01	8.24	8.11	8.19	8.03	IS 3025(Part 11):2022
2.	Temperature	°C	30.1	29.9	29.8	29.7	29.7	29.6	29.6	29.5	29.7	29.6	29.6	29.5	IS 3025(Part 9):2023
3.	Total Suspended Solids	mg/L	132	110	124	104	136	112	126	108	132	112	126	108	APHA 24th Ed.,2023,2540- D
4.	BOD (3 Days @ 27oC)	mg/L	2.9	BDL(MDL: 1.0)	2.5	BDL(MDL: 1.0)	2.8	BDL(MDL: 1.0)	2.6	BDL(MDL: 1.0)	3.2	BDL(MDL: 1.0)	3.1	BDL(MDL: 1.0)	IS 3025(Part 44):2023
5.	Dissolved Oxygen	mg/L	6.84	6.63	6.7	6.6	6.62	6.52	6.65	6.45	6.6	6.5	6.47	6.37	APHA 24th Ed.2023,4500-O, B
6.	Salinity	ppt	35.12	36.33	35.19	36.48	35.28	36.52	35.44	36.66	35.56	36.71	35.42	36.74	By Calculation
7.	Oil & Grease	mg/L	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	IS 3025(Part 39):2021
8.	Nitrate as NO3	µmol/L	2.74	2.42	2.8	2.37	2.9	2.74	3.23	2.9	3.71	3.39	3.55	3.39	APHA 24th Ed.2023,4500 NO3-B
9.	Nitrite as NO2	µmol/L	0.283	0.239	0.259	0.189	0.304	0.261	0.348	0.326	0.391	0.37	0.37	0.348	APHA 24th Ed.2023,4500NO2 B
10.	Ammonical Nitrogen as NH3	µmol/L	3.74	3.59	4.05	3.83	3.74	3.69	4.11	4.01	3.95	3.85	4.11	4.06	APHA 24th Ed.2023,4500-NH3 B
11.	Phosphates as PO4	µmol/L	1.05	BDL(MDL: 0.4)	1.05	BDL(MDL: 0.4)	1.16	1.05	1.05	BDL(MDL: 0.4)	1.16	1.05	1.37	1.26	APHA 24th Ed.2023,4500-P, D
12.	Total Nitrogen	µmol/L	6.763	6.249	7.109	6.389	6.944	6.691	7.688	7.236	8.051	7.61	8.03	7.798	APHA 24th Ed.2023,4500 NH3 - B
13.	Petroleum Hydrocarbon	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	APHA 24th ED.2023,5520 F
14.	Total Dissolved Solids	mg/L	34840	35980	34560	35230	34620	35180	34980	35640	35060	35710	35140	35742	IS 3025(Part 16):2023
15.	COD	mg/L	16.2	12.1	8.1	4	12	8	16.1	12	20	16	16.3	12.3	IS 3025(Part 58):2023

Continue...

**RESULTS OF MARINE WATER [M5 TOWARDS WESTERN SIDE OF EAST PORT – N 22°46'041" E 069°47'296"]**

SR. NO.	TEST PARAMETERS	UNIT	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
<b>A</b>			<b>Phytoplankton</b>												
1.	Chlorophyll	mg/m <sup>3</sup>	3.11	3.16	3.12	3.15	3.13	3.14	3.12	3.13	3.11	3.12	3.12	3.13	APHA (24th Ed. 2023)10200A-G
2.	Phaeophytin	mg/m <sup>3</sup>	2.2	1.21	2.1	1.21	2.2	1.22	2.1	1.21	2.2	1.22	2.1	1.23	APHA (24th Ed. 2023)10200A-G
3.	Cell Count	No. x 10 <sup>3</sup> /L	124	112	123	113	124	112	123	113	122	112	121	113	APHA (24th Ed. 2023)10200A-G
4	Name of Group Number and name of group species of each group	--	<i>Diploneis</i>	<i>Navicula</i>	<i>Diploneis</i>	<i>Navicula</i>	<i>Navicula</i>	<i>Navicula</i>	<i>Navicula</i>	<i>Pinnularia</i>	<i>Navicula</i>	<i>Pinnularia</i>	<i>Navicula</i>	<i>Pinnularia</i>	APHA (24th Ed. 2023)10200A-G
			<i>Rhizosolenia</i>	<i>Skeletonema</i>	<i>Rhizosolenia</i>	<i>Skeletonema</i>	<i>Biddulphia</i>	<i>Skeletonema</i>	<i>Biddulphia</i>	<i>Biddulphia</i>	<i>Biddulphia</i>	<i>Biddulphia</i>	<i>Biddulphia</i>	<i>Rhizosolenia</i>	
			<i>Nitzschia</i>	<i>Rhizosolenia</i>	<i>Nitzschia</i>	<i>Rhizosolenia</i>	<i>Nitzschia</i>	<i>Rhizosolenia</i>	<i>Nitzschia</i>	<i>Navicula</i>	<i>Nitzschia</i>	<i>Navicula</i>	<i>Odentella</i>	<i>Dinophysis</i>	
			<i>Cyclotella</i>	<i>Dinophysis</i>	<i>Cyclotella</i>	<i>Biddulphia</i>	<i>Cyclotella</i>	<i>Biddulphia</i>	<i>Cyclotella</i>	<i>Thalassiosira</i>	<i>Cyclotella</i>	<i>Thalassiosira</i>	<i>Cyclotella</i>	<i>Coscinodiscus</i>	
			<i>Pleurosigma</i>	<i>Thalassionema</i>	<i>Pleurosigma</i>	<i>Thalassionema</i>	<i>Pleurosigma</i>	<i>Thalassionema</i>	<i>Pleurosigma</i>	<i>Skeletonema</i>	<i>Pleurosigma</i>	<i>Skeletonema</i>	<i>Pleurosigma</i>	<i>Skeletonema</i>	
<b>B</b>			<b>Zooplankton</b>												
1	Abundance (Population)	noX10 <sup>3</sup> /100 m <sup>3</sup>	52		51		52		51		52		51		APHA (24rd Ed. 2023)10200 G
2	Name of Group Number and name of group species of each group		<i>Copepods nauplii</i>		<i>Nitzschia</i>		<i>Nitzschia</i>		<i>Crustacean Larvae</i>		<i>Crustacean Larvae</i>		<i>Crustacean Larvae</i>		
			<i>Crustacean Larvae</i>		<i>Crustacean Larvae</i>		<i>Crustacean Larvae</i>		<i>Egg(Fish and Shrimps)</i>		<i>Egg(Fish and Shrimps)</i>		<i>Egg(Fish and Shrimps)</i>		
			<i>Oikoplura</i>		<i>Oikoplura</i>		<i>Oikoplura</i>		<i>Copepods</i>		<i>Copepods</i>		<i>Copepods nauplii</i>		
			<i>Bivalve Larvae</i>		<i>Bivalve Larvae</i>		<i>Bivalve Larvae</i>		<i>Crustacean</i>		<i>Crustacean</i>		<i>Crustacean</i>		
3	Total Biomass	ml/100 m <sup>3</sup>	14.11		14.12		14.11		14.12		14.11		14.12		
			<i>Oikoplura</i>		<i>Oikoplura</i>		<i>Oikoplura</i>		<i>Bivalve Larvae</i>		<i>Bivalve Larvae</i>		<i>Bivalve Larvae</i>		

Continue...

**RESULTS OF MARINE WATER [M5 TOWARDS WESTERN SIDE OF EAST PORT – N 22°46'041" E 069°47'296"]**

SR. NO	TEST PARAMETER S	UNIT	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
C			Microbiological												
1	Total Bacterial Count	CFU/ml	142		144		144		143		144		148		APHA 24 <sup>th</sup> Ed.2023,9215 -C
2	Total Coliform	/100ml	30		31		32		31		32		31		APHA 24 <sup>th</sup> Ed.2023, 9222-B
3	E.coli	/100ml	16		17		18		17		16		17		IS :15185:2016
4	Enterococcus	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS:15186:2002
5	Salmonella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS:15187:2016
6	Shigella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		APHA 24 <sup>th</sup> Ed.2023, 9260-E
7	Vibrio	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS: 5887 (Part V):1976

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**RESULTS OF SEDIMENT ANALYSIS [M5 TOWARDS WESTERN SIDE OF EAST PORT – N 22°46'041" E 069°47'296"]**

SR. NO.	TEST PARAMETERS	UNIT	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	TEST METHOD
			SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	
1.	Organic Matter	%	0.42	0.48	0.44	0.48	0.52	0.56	IS: 2720 (Part 22):1972
2.	Phosphorus as P	µg/g	608	612.2	602	586	594.2	612.3	IS: 10158 :1982, Method B
3.	Texture	--	Sandy	Sandy	Sandy	Sandy	Sandy	Sandy	Lab SOP No. UERL/CHM/LTM/108
4.	Petroleum Hydrocarbon	µg/g	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	APHA 24th Ed.2023,5520 F
5.0	<b>Heavy Metals</b>								
5.1	Aluminum as Al	%	3.99	4.06	4.02	3.86	4.05	4.11	IS3025(Part 55):2003
5.2	Total Chromium as Cr+3	µg/g	142.6	135.6	144.2	136	142.2	140.6	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.3	Manganese as Mn	µg/g	574.2	602.2	610.8	596.5	614.2	610.5	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.4	Iron as Fe	%	4.16	4.03	4.06	3.74	3.86	4.01	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.5	Nickel as Ni	µg/g	44.82	42.1	48.6	46.2	42.5	44.6	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.6	Copper as Cu	µg/g	42.9	44.8	52.4	54.3	51.2	55.9	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.7	Zinc as Zn	µg/g	124.3	131.2	142.6	140.5	124.6	103.5	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.8	Lead as Pb	µg/g	2.16	2.18	2.09	2.11	2.02	1.75	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.9	Mercury as Hg	µg/g	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	EPA 7471B (Extraction &Analytical Method) :2007

Continue...

**RESULTS OF SEDIMENT ANALYSIS [M5 TOWARDS WESTERN SIDE OF EAST PORT – N 22°46'041" E 069°47'296"]**

SR. NO.	TEST PARAMETERS	UNIT	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	TEST METHOD
			SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	
D			Benthic Organisms						
1	Macrobenthos	--	<i>Amphipods</i>	<i>Amphipods</i>	<i>Amphipods</i>	<i>Isopods</i>	<i>Isopods</i>	<i>Isopods</i>	APHA (24th Ed. 2023)10500
			<i>Polychates</i>	<i>Sipunculids</i>	<i>Polychates</i>	<i>Polychates</i>	<i>Polychates</i>	<i>Gastropods</i>	
			<i>Isopods</i>	<i>Isopods</i>	<i>Isopods</i>	<i>Sipunculids</i>	<i>Sipunculids</i>	<i>Sipunculids</i>	
			<i>Gastropods</i>	<i>Gastropods</i>	<i>Gastropods</i>	<i>Amphipods</i>	<i>Amphipods</i>	<i>Amphipods</i>	
2	MeioBenthos	--	Decapods Larvae	Decapods Larvae	Foraminiferan	Polychates	Herpectacoids	<i>Herpectacoids</i>	
			<i>Herpectacoids</i>	<i>Gastropods</i>	<i>Herpectacoids</i>	<i>Foraminiferan</i>	<i>Foraminiferan</i>	<i>Polychates</i>	
3	Population	no/m <sup>2</sup>	306	307	308	307	306	307	



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### RESULTS OF MARINE WATER [M7 EAST PORT N 22°47'120" E 069°47'110"]

SR. NO.	TEST PARAMETERS	UNIT	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
1.	pH	--	8.05	7.86	8.17	7.98	7.98	7.86	8.26	8.04	8.18	8.06	8.24	8.11	IS 3025(Part 11):2022
2.	Temperature	°C	29.9	29.8	29.8	29.7	29.7	29.6	29.6	29.5	29.7	29.6	29.6	29.5	IS 3025(Part 9):2023
3.	Total Suspended Solids	mg/L	118	90	108	94	114	98	109	86	120	96	118	99	APHA 24th Ed.,2023,2540- D
4.	BOD (3 Days @ 27°C)	mg/L	2.8	BDL(MDL: 1.0)	2.9	BDL(MDL: 1.0)	3	BDL(MDL: 1.0)	3.2	BDL(MDL: 1.0)	2.8	BDL(MDL: 1.0)	2.8	BDL(MDL: 1.0)	IS 3025(Part 44):2023
5.	Dissolved Oxygen	mg/L	7.04	6.73	6.9	6.8	6.82	6.72	6.65	6.55	6.81	6.71	6.66	6.57	APHA 24th Ed.2023,4500-O, B
6.	Salinity	ppt	35.72	36.47	35.64	36.25	35.76	36.35	35.82	36.44	35.74	36.48	35.65	36.49	By Calculation
7.	Oil & Grease	mg/L	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	IS 3025(Part 39):2021
8.	Nitrate as NO <sub>3</sub>	µmol/L	3.06	2.74	3.23	2.59	3.06	2.9	2.74	2.42	3.23	3.06	3.55	3.23	APHA 24th Ed.,2023,4500 NO3-B
9.	Nitrite as NO <sub>2</sub>	µmol/L	0.348	0.326	0.293	0.259	0.283	0.261	0.326	0.304	0.348	0.326	0.391	0.37	APHA 24th Ed.2023,4500NO <sub>2</sub> B
10.	Ammonical Nitrogen as NH <sub>3</sub>	µmol/L	3.85	3.74	3.97	3.84	3.64	3.59	3.9	3.8	4.16	4.06	3.95	3.9	APHA 24th Ed.2023,4500-NH <sub>3</sub> B
11.	Phosphates as PO <sub>4</sub>	µmol/L	1.16	BDL(MDL: 0.4)	1.16	1.05	1.16	BDL(MDL: 0.4)	1.05	BDL(MDL: 0.4)	1.16	BDL(MDL: 0.4)	1.05	BDL(MDL: 0.4)	APHA 24th Ed.2023,4500-P, D
12.	Total Nitrogen	µmol/L	7.258	6.806	7.493	6.689	6.983	6.751	6.966	6.524	7.738	7.446	7.891	7.5	APHA 24th Ed.2023,4500 NH <sub>3</sub>
13.	Petroleum Hydrocarbon	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	APHA 24th ED.2023,5520 F
14.	Total Dissolved Solids	mg/L	35470	36240	35410	36320	35520	36140	35850	36320	35890	36356	35924	36380	IS 3025(Part 16):2023
15.	COD	mg/L	20.2	16.2	12.1	8.1	16	12	20.1	16.1	24	20	20.4	16.3	IS 3025(Part 58):2023

Continue...

**RESULTS OF MARINE WATER [M7 EAST PORT N 22°47'120" E 069°47'110"]**

SR. NO.	TEST PARAMETERS	UNIT	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
<b>A</b>			<b>Phytoplankton</b>												
1.	Chlorophyll	mg/m <sup>3</sup>	3.06	2.7	3.07	2.6	3.08	2.7	3.07	2.6	3.06	2.7	3.07	2.6	APHA (24th Ed. 2023)10200A-G
2.	Phaeophytin	mg/m <sup>3</sup>	2.7	1.77	2.6	1.78	2.7	1.77	2.6	1.78	2.7	1.77	2.6	1.76	APHA (24th Ed. 2023)10200A-G
3.	Cell Count	No. x 10 <sup>3</sup> /L	91	121	92	122	91	121	92	122	91	123	92	122	APHA (24th Ed. 2023)10200A-G
4	Name of Group Number and name of group species of each group	--	<i>Nitzschia</i>	<i>Thalassiothrix</i>	<i>Nitzschia</i>	<i>Rhizosolenia</i>	<i>Nitzschia</i>	<i>Rhizosolenia</i>	<i>Diploneis</i>	<i>Coscinodiscus</i>	<i>Diploneis</i>	<i>Coscinodiscus</i>	<i>Diploneis</i>	<i>Coscinodiscus</i>	APHA (24th Ed. 2023)10200A-G
			<i>Pinnularia</i>	<i>Surirella</i>	<i>Pinnularia</i>	<i>Surirella</i>	<i>Odontella</i>	<i>Surirella</i>	<i>Rhizosolenia</i>	<i>Diploneis</i>	<i>Rhizosolenia</i>	<i>Diploneis</i>	<i>Rhizosolenia</i>	<i>Diploneis</i>	
			<i>Odontella</i>	<i>Navicula</i>	<i>Dinophysis</i>	<i>Navicula</i>	<i>Dinophysis</i>	<i>Navicula</i>	<i>Nitzschia</i>	<i>Rhizosolenia</i>	<i>Nitzschia</i>	<i>Rhizosolenia</i>	<i>Nitzschia</i>	<i>Rhizosolenia</i>	
			<i>Dinophysis</i>	<i>Thalassiosira</i>	<i>Pleurosigma</i>	<i>Thalassionema</i>	<i>Pleurosigma</i>	<i>Thalassionema</i>	<i>Thalassiothrix</i>	<i>Dinophysis</i>	<i>Thalassiothrix</i>	<i>Dinophysis</i>	<i>Thalassiothrix</i>	<i>Dinophysis</i>	
			<i>Surirella</i>	<i>Skeletonema</i>	<i>Surirella</i>	<i>Skeletonema</i>	<i>Cyclotella</i>	<i>Skeletonema</i>	<i>Pleurosigma</i>	<i>Thalassionema</i>	<i>Pleurosigma</i>	<i>Thalassionema</i>	<i>Cyclotella</i>	<i>Thalassionema</i>	
<b>B</b>			<b>Zooplankton</b>												
1	Abundance (Population)	noX10 <sup>3</sup> /100 m <sup>3</sup>	41		44		43		42		41		42		APHA (24rd Ed. 2023)10200 G
2	Name of Group Number and name of group species of each group		<i>Nitzschia</i>		<i>Nitzschia</i>		<i>Egg(Fish and Shrimps)</i>		<i>Egg(Fish and Shrimps)</i>		<i>Egg(Fish and Shrimps)</i>		<i>Egg(Fish and Shrimps)</i>		
			<i>Pinnularia</i>		<i>Pinnularia</i>		<i>Coscinodiscus</i>		<i>Oikoplura</i>		<i>Oikoplura</i>		<i>Oikoplura</i>		
			<i>Odontella</i>		<i>Odontella</i>		<i>Odontella</i>		<i>Copepods nauplii</i>		<i>Copepods nauplii</i>		<i>Copepods nauplii</i>		
			<i>Dinophysis</i>		<i>Dinophysis</i>		<i>Dinophysis</i>		<i>Crustacean</i>		<i>Crustacean</i>		<i>Crustacean</i>		
<i>Surirella</i>		<i>Surirella</i>		<i>Bivalve Larvae</i>		<i>Bivalve Larvae</i>		<i>Bivalve Larvae</i>		<i>Bivalve Larvae</i>		<i>Bivalve Larvae</i>			
3	Total Biomass	ml/100 m <sup>3</sup>	16.58		16.57		16.58		16.57		16.58		16.59		

Continue...

**RESULTS OF MARINE WATER [M7 EAST PORT N 22°47'120" E 069°47'110"]**

SR. NO	TEST PARAMETER S	UNIT	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
<b>Microbiological</b>															
1	Total Bacterial Count	CFU/ml	94		96		98		99		98		96		APHA 24 <sup>th</sup> Ed.2023,9215 -C
2	Total Coliform	/100ml	24		26		27		26		27		26		APHA 24 <sup>th</sup> Ed.2023, 9222-B
3	E.coli	/100ml	13		11		12		11		12		11		IS :15185:2016
4	Enterococcus	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS:15186:200 2
5	Salmonella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS:15187:201 6
6	Shigella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		APHA 24 <sup>th</sup> Ed.2023, 9260-E
7	Vibrio	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS: 5887 (Part V):1976



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**RESULTS OF MARINE WATER [M8 RIGHT SIDE OF BOCHA CREEK N 22°45'98" E 069°43'119"]**

SR. NO.	TEST PARAMETERS	UNIT	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
1.	pH	--	8.24	8.08	8.18	8.01	8.06	7.85	8.11	7.95	8.17	7.99	8.14	7.96	IS 3025(Part 11):2022
2.	Temperature	°C	30	29.9	29.9	29.8	29.8	29.7	29.7	29.6	29.8	29.7	29.7	29.6	IS 3025(Part 9):2023
3.	Total Suspended Solids	mg/L	128	98	116	84	122	80	128	86	124	104	132	112	APHA 24th Ed.,2023,2540- D
4.	BOD (3 Days @ 27°C)	mg/L	3.4	BDL(MDL: 1.0)	3.1	BDL(MDL: 1.0)	3.2	BDL(MDL: 1.0)	3.1	BDL(MDL: 1.0)	2.9	BDL(MDL: 1.0)	2.6	BDL(MDL: 1.0)	IS 3025(Part 44):2023
5.	Dissolved Oxygen	mg/L	7.04	6.84	6.9	6.8	6.82	6.72	6.85	6.65	6.91	6.71	6.76	6.57	APHA 24th Ed.2023,4500-O, B
6.	Salinity	ppt	35.55	36.62	35.62	36.74	35.74	36.82	35.83	36.94	35.75	36.97	35.78	37.02	By Calculation
7.	Oil & Grease	mg/L	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	IS 3025(Part 39):2021
8.	Nitrate as NO <sub>3</sub>	µmol/L	3.23	2.9	3.02	2.59	2.74	2.42	3.06	2.9	2.9	2.58	3.23	3.06	APHA 24th Ed.2023,4500 NO3-
9.	Nitrite as NO <sub>2</sub>	µmol/L	0.348	0.326	0.276	0.215	0.304	0.283	0.391	0.37	0.413	0.37	0.391	0.37	APHA 24th Ed.2023,4500NO <sub>2</sub> B
10.	Ammonical Nitrogen as NH <sub>3</sub>	µmol/L	3.95	3.8	3.79	3.36	3.8	3.74	3.9	3.74	4.11	4.01	4.16	4.06	APHA 24th Ed.2023,4500-NH <sub>3</sub>
11.	Phosphates as PO <sub>4</sub>	µmol/L	1.16	BDL(MDL: 0.4)	1.05	BDL(MDL: 0.4)	1.16	BDL(MDL: 0.4)	1.16	1.05	1.37	1.16	1.05	BDL(MDL: 0.4)	APHA 24th Ed.2023,4500-P, D
12.	Total Nitrogen	µmol/L	7.528	7.026	7.086	6.165	6.844	6.443	7.351	7.01	7.423	6.96	7.781	7.49	APHA 24th Ed.2023,4500 NH <sub>3</sub>
13.	Petroleum Hydrocarbon	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	APHA 24th ED.2023,5520 F
14.	Total Dissolved Solids	mg/L	35120	36250	34830	35640	35090	35840	35420	36204	35440	36340	35390	36388	IS 3025(Part 16):2023
15.	COD	mg/L	20.2	12.1	12.1	4	16	8	20.1	12	24	16	20.4	12.3	IS 3025(Part 58):2023

Continue...

**RESULTS OF MARINE WATER [M8 RIGHT SIDE OF BOCHA CREEK N 22°45'987" E 069°43'119"]**

SR. NO.	TEST PARAMETERS	UNIT	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
A			Phytoplankton												
1.	Chlorophyll	mg/m <sup>3</sup>	3.3	3.12	3.2	3.14	3.1	3.12	3.2	3.11	3.1	3.12	3.2	3.11	APHA (24th Ed. 2023)10200A-G
2.	Phaeophytin	mg/m <sup>3</sup>	1.7	1.6	1.8	1.38	1.7	1.8	1.6	1.7	1.7	1.6	1.6	1.7	APHA (24th Ed. 2023)10200A-G
3.	Cell Count	No. x 10 <sup>3</sup> /L	114	107	113	109	114	107	113	106	112	107	113	106	APHA (24th Ed. 2023)10200A-G
4	Name of Group Number and name of group species of each group	--	<i>Odontella</i>	<i>Cyclotella</i>	<i>Odontella</i>	<i>Cyclotella</i>	<i>Odontella</i>	<i>Cyclotella</i>	<i>Nitzschia</i>	<i>Diploneis</i>	<i>Nitzschia</i>	<i>Diploneis</i>	<i>Nitzschia</i>	<i>Diploneis</i>	APHA (24th Ed. 2023)10200A-G
			<i>Rhizosolenia</i>	<i>Pinnularia</i>	<i>Rhizosolenia</i>	<i>Pinnularia</i>	<i>Rhizosolenia</i>	<i>Pinnularia</i>	<i>Grammatophora</i>	<i>Rhizosolenia</i>	<i>Grammatophora</i>	<i>Rhizosolenia</i>	<i>Grammatophora</i>	<i>Rhizosolenia</i>	
			<i>Coscinodiscus</i>	<i>Skeletonema</i>	<i>Coscinodiscus</i>	<i>Skeletonema</i>	<i>Coscinodiscus</i>	<i>Skeletonema</i>	<i>Diploneis</i>	<i>Nitzschia</i>	<i>Diploneis</i>	<i>Nitzschia</i>	<i>Diploneis</i>	<i>Nitzschia</i>	
			<i>Grammatophora</i>	<i>Thalassiosira</i>	<i>Grammatophora</i>	<i>Thalassiosira</i>	<i>Grammatophora</i>	<i>Thalassiosira</i>	<i>Thalassiosira</i>	<i>Cyclotella</i>	<i>Thalassiosira</i>	<i>Cyclotella</i>	<i>Thalassiosira</i>	<i>Grammatophora</i>	
			<i>Thalassiosira</i>	<i>Thalassionema</i>	<i>Thalassiosira</i>	<i>Thalassionema</i>	<i>Thalassiosira</i>	<i>Thalassionema</i>	<i>Pleurosigma</i>	<i>Pleurosigma</i>	<i>Pleurosigma</i>	<i>Pleurosigma</i>	<i>Pleurosigma</i>	<i>Pleurosigma</i>	
B			Zooplankton												
1	Abundance (Population)	noX10 <sup>3</sup> /100 m <sup>3</sup>	32		31		32		31		32		30		APHA (24rd Ed. 2023)10200 G
2	Name of Group Number and name of group species of each group		<i>Coscinodiscus</i>		<i>Coscinodiscus</i>		<i>Odontella</i>		<i>Oikoplura</i>		<i>Oikoplura</i>		<i>Oikoplura</i>		
			<i>Diploneis</i>		<i>Egg(Fish and Shrimps)</i>		<i>Egg(Fish and Shrimps)</i>		<i>Copepods nauplii</i>		<i>Copepods nauplii</i>		<i>Egg(Fish and Shrimps)</i>		
			<i>Rhizosolenia</i>		<i>Rhizosolenia</i>		<i>Rhizosolenia</i>		<i>Crustacean Larvae</i>		<i>Crustacean Larvae</i>		<i>Crustacean Larvae</i>		
			<i>Dinophysis</i>		<i>Bivalve Larvae</i>		<i>Bivalve Larvae</i>		<i>Crustacean</i>		<i>Crustacean</i>		<i>Crustacean</i>		
		<i>Thalassionema</i>		<i>Thalassionema</i>		<i>Thalassionema</i>		<i>Bivalve Larvae</i>		<i>Bivalve Larvae</i>		<i>Bivalve Larvae</i>			
3	Total Biomass	ml/100 m <sup>3</sup>	14.77		14.76		14.77		14.76		14.77		14.78		

Continue...

**RESULTS OF MARINE WATER [M8 RIGHT SIDE OF BOCHA CREEK N 22°45'987" E 069°43'119"]**

SR. NO	TEST PARAMETER S	UNIT	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
C			Microbiological												
1	Total Bacterial Count	CFU/ml	92		94		10		11		12		16		APHA 24 <sup>th</sup> Ed.2023,9215 -C
2	Total Coliform	/100ml	12		13		14		13		12		14		APHA 24thEd.2023, 9222-B
3	E.coli	/100ml	11		12		11		10		11		11		IS :15185:2016
4	Enterococcus	/100ml	6		5		6		5		6		5		IS:15186:2002
5	Salmonella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS:15187:2016
6	Shigella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		APHA 24thEd.2023, 9260-E
7	Vibrio	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS: 5887 (Part V):1976



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**RESULTS OF SEDIMENT ANALYSIS [M8 RIGHT SIDE OF BOCHA CREEK N 22°45'98" E 069°43'119"]**

SR. NO.	TEST PARAMETERS	UNIT	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	TEST METHOD
			SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	
1.	Organic Matter	%	0.51	0.48	0.52	0.46	0.51	0.56	IS: 2720 (Part 22):1972
2.	Phosphorus as P	µg/g	578.6	602.4	610.8	598.4	618.4	620.3	IS: 10158 :1982, Method B
3.	Texture	--	Sandy	Sandy	Sandy	Sandy	Sandy	Sandy	Lab SOP No. UERL/CHM/LTM/108
4.	Petroleum Hydrocarbon	µg/g	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	APHA 24th Ed.2023,5520 F
5.0	<b>Heavy Metals</b>								
5.1	Aluminum as Al	%	4.12	4.15	4.09	4.12	4.1	4.11	IS3025(Part 55):2003
5.2	Total Chromium as Cr+3	µg/g	138.5	132.2	138.4	146.2	134.6	142.3	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.3	Manganese as Mn	µg/g	602.5	594.2	576.2	608.4	588.5	602.8	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.4	Iron as Fe	%	4.11	3.89	3.48	3.69	3.88	4.03	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.5	Nickel as Ni	µg/g	44.6	42.2	38.9	42.2	44.6	45	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.6	Copper as Cu	µg/g	54.2	52.4	49.9	45.8	48.9	48.1	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.7	Zinc as Zn	µg/g	134	124.2	120.3	115.2	124.3	116.3	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.8	Lead as Pb	µg/g	2.38	2.12	2.09	2.14	2.16	1.95	EPA 3050B/7000B (Extraction &Analytical Method):2007
5.9	Mercury as Hg	µg/g	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	BDL(MDL:0.05)	EPA 7471B (Extraction &Analytical Method) :2007

Continue...

**RESULTS OF SEDIMENT ANALYSIS [M8 RIGHT SIDE OF BOCHA CREEK N 22°45'987" E 069°43'119"]**

SR. NO.	TEST PARAMETERS	UNIT	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	TEST METHOD
			SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	SEDIMENT	
D			Benthic Organisms						
1	Macrobenthos	--	<i>Polychates</i>	<i>Gastropods</i>	<i>Gastropods</i>	<i>Polychates</i>	<i>Polychates</i>	<i>Polychates</i>	APHA (24th Ed. 2023)10500
			<i>Decapods Larvae</i>	<i>Decapods Larvae</i>	<i>Decapods Larvae</i>	<i>Amphipods</i>	<i>Amphipods</i>	<i>Amphipods</i>	
			<i>Isopods</i>	<i>Isopods</i>	<i>Isopods</i>	<i>Isopods</i>	<i>Isopods</i>	<i>Sipunculids</i>	
			<i>Sipunculids</i>	<i>Sipunculids</i>	<i>Sipunculids</i>	<i>Sipunculids</i>	<i>Herpectacoids</i>	<i>Herpectacoids</i>	
2	MeioBenthos	--	<i>Herpectacoids</i>	<i>Herpectacoids</i>	<i>Herpectacoids</i>	<i>Foraminiferan</i>	<i>Foraminiferan</i>	<i>Foraminiferan</i>	
			<i>Turbellarians</i>	<i>Turbellarians</i>	<i>Turbellarians</i>	<i>Turbellarians</i>	<i>Turbellarians</i>	<i>Turbellarians</i>	
3	Population	no/m <sup>2</sup>	365	364	366	367	368	367	



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### RESULTS OF MARINE WATER [M11 MPT T1 JETTY N 22°42'27" E 069°43'45"]

SR. NO.	TEST PARAMETERS	UNIT	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
1.	pH	--	8.17	7.99	8.24	8.04	8.33	8.12	8.34	8.06	8.27	8.11	8.21	8.02	IS 3025 (Part 11):2022
2.	Temperature	°C	29.9	29.8	29.8	29.7	29.7	29.6	29.6	29.5	29.7	29.6	29.8	29.7	IS 3025 (Part 9):2023
3.	Total Suspended Solids	mg/L	136	120	132	114	144	128	126	102	122	110	118	104	APHA 24th Ed.,2023,2540- D
4.	BOD (3 Days @ 27°C)	mg/L	2.6	BDL(MDL: 1.0)	2.8	BDL(MDL: 1.0)	3.4	BDL(MDL: 1.0)	3.2	BDL(MDL: 1.0)	3.1	BDL(MDL: 1.0)	3.2	BDL(MDL: 1.0)	IS 3025 (Part 44):2023
5.	Dissolved Oxygen	mg/L	6.94	6.73	6.8	6.7	6.72	6.62	6.55	6.45	6.6	6.5	6.47	6.37	APHA 24th Ed.2023,4500-O, B
6.	Salinity	ppt	35.75	36.81	35.81	36.74	36.08	37.2	36.14	37.35	36.21	37.12	36.34	37.14	By Calculation
7.	Oil & Grease	mg/L	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	BDL(MDL: 2.0)	IS 3025 (Part 39):2021
8.	Nitrate as NO <sub>3</sub>	µmol/L	3.39	3.06	3.36	2.8	3.23	3.06	3.71	3.55	3.55	3.23	3.39	3.23	APHA 24th Ed. 2023,4500 NO3-B
9.	Nitrite as NO <sub>2</sub>	µmol/L	0.283	0.261	0.328	0.276	0.326	0.283	0.456	0.435	0.435	0.413	0.413	0.391	APHA 24th Ed.2023,4500NO <sub>2</sub> B
10.	Ammonical Nitrogen as NH <sub>3</sub>	µmol/L	3.8	3.69	3.62	3.32	3.69	3.64	4.01	3.9	4.27	4.16	4.27	4.11	APHA 24th Ed. 2023,4500- NH3 B
11.	Phosphates as PO <sub>4</sub>	µmol/L	BDL(MDL: 0.4)	BDL(MDL: 0.4)	1.26	1.16	1.05	BDL(MDL: 0.4)	1.58	1.37	1.16	BDL(MDL: 0.4)	1.16	1.05	APHA 24th Ed.2023,4500-P, D
12.	Total Nitrogen	µmol/L	7.473	7.011	7.308	6.396	7.246	6.983	8.176	7.885	8.255	7.803	8.073	7.731	APHA 24th Ed. 2023,4500 NH3 - B
13.	Petroleum Hydrocarbon	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	APHA 24th ED.2023,5520 F
14.	Total Dissolved Solids	mg/L	35460	36710	35190	35960	35210	35850	35490	36310	35410	36280	35480	36310	IS 3025(Part 16):2023
15.	COD	mg/L	20.2	16.2	12.1	8.1	16	12	20.1	16.1	24	20	20.4	16.3	IS 3025(Part 58):2023

Continue...

### RESULTS OF MARINE WATER [M11 MPT T1 JETTY N 22°42'278" E 069°43'450"]

SR. NO.	TEST PARAMETERS	UNIT	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25		TEST METHOD
			SURFACE	BOTTO M	SURFACE	BOTTO M	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTO M	
A			Phytoplankton												
1.	Chlorophyll	mg/m <sup>3</sup>	2.8	2.7	2.7	2.6	2.6	2.7	2.5	2.6	2.6	2.7	2.7	2.8	APHA (24th Ed. 2023)10200A-G
2.	Phaeophytin	mg/m <sup>3</sup>	2.6	1.5	2.7	1.6	2.5	1.5	2.4	1.4	2.3	1.3	2.4	1.2	APHA (24th Ed. 2023)10200A-G
3.	Cell Count	No. x 10 <sup>3</sup> /L	131	119	132	120	133	122	132	121	131	122	132	123	APHA (24th Ed. 2023)10200A-G
4	Name of Group Number and name of group species of each group	--	<i>Dinophysis</i>	<i>Navicula</i>	<i>Odontella</i>	<i>Cyclotella</i>	<i>Cyclotella</i>	<i>Surirella</i>	<i>Odontella</i>	<i>Nitzschia</i>	<i>Odontella</i>	<i>Nitzschia</i>	<i>Odontella</i>	<i>Nitzschia</i>	APHA (24th Ed. 2023)10200A-G
			<i>Pinnularia</i>	<i>Skeletonema</i>	<i>Rhizosolenia</i>	<i>Pinnularia</i>	<i>Pinnularia</i>	<i>Skeletonema</i>	<i>Rhizosolenia</i>	<i>Pinnularia</i>	<i>Rhizosolenia</i>	<i>Pinnularia</i>	<i>Rhizosolenia</i>	<i>Pinnularia</i>	
			<i>Thalassiothrix</i>	<i>Rhizosolenia</i>	<i>Coscinodiscus</i>	<i>Skeletonema</i>	<i>Thalassiothrix</i>	<i>Rhizosolenia</i>	<i>Coscinodiscus</i>	<i>Odontella</i>	<i>Coscinodiscus</i>	<i>Odontella</i>	<i>Coscinodiscus</i>	<i>Odontella</i>	
			<i>Grammatophora</i>	<i>Dinophysis</i>	<i>Grammatophora</i>	<i>Thalassiosira</i>	<i>Rhizosolenia</i>	<i>Cyclotella</i>	<i>Grammatophora</i>	<i>Dinophysis</i>	<i>Grammatophora</i>	<i>Dinophysis</i>	<i>Pleurosigma</i>	<i>Dinophysis</i>	
			<i>Ceratium</i>	<i>Thalassionema</i>	<i>Thalassiosira</i>	<i>Thalassionema</i>	<i>Ceratium</i>	<i>Thalassionema</i>	<i>Thalassiosira</i>	<i>Surirella</i>	<i>Thalassiosira</i>	<i>Surirella</i>	<i>Thalassiosira</i>	<i>Surirella</i>	
B			Zooplankton												
1	Abundance(Population)	noX103/ 100 m3	35		34		33		32		33		31		APHA (24rd Ed. 2023)10200 G
2	Name of Group Number and name of group species of each group		<i>Diploneis</i>		<i>Diploneis</i>		<i>Diploneis</i>		<i>Decapoda</i>		<i>Decapoda</i>		<i>Decapoda</i>		
			<i>Rhizosolenia</i>		<i>Rhizosolenia</i>		<i>Rhizosolenia</i>		<i>Copepods</i>		<i>Copepods</i>		<i>Oikoplura</i>		
			<i>Nitzschia</i>		<i>Nitzschia</i>		<i>Nitzschia</i>		<i>Crustacean Larvae</i>		<i>Crustacean Larvae</i>		<i>Crustacean Larvae</i>		
			<i>Thalassiothrix</i>		<i>Coscinodiscus</i>		<i>Coscinodiscus</i>		<i>Crustacean</i>		<i>Crustacean</i>		<i>Bivalve Larvae</i>		
			<i>Pleurosigma</i>		<i>Pleurosigma</i>		<i>Pleurosigma</i>		<i>Oikoplura</i>		<i>Oikoplura</i>				
3	Total Biomass	ml/100 m <sup>3</sup>	15.24		15.23		15.22		15.21		15.22		15.21		

Continue...

**RESULTS OF MARINE WATER [M11 MPT T1 JETTY N 22°42'27" E 069°43'45"]**

SR. NO	TEST PARAMETER S	UNIT	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
C			Microbiological												
1	Total Bacterial Count	CFU/ml	232	234	236	235	234	234	234	234	234	234	234	234	APHA 24 <sup>th</sup> Ed.2023,9215 -C
2	Total Coliform	/100ml	42	41	42	41	42	41	42	41	42	41	41	41	APHA 24thEd.2023, 9222-B
3	E.coli	/100ml	30	33	34	33	32	31	32	31	32	31	31	31	IS :15185:2016
4	Enterococcus	/100ml	12	11	12	11	12	11	12	11	12	11	11	11	IS:15186:2002
5	Salmonella	/100ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	IS:15187:2016
6	Shigella	/100ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	APHA 24thEd.2023, 9260-E
7	Vibrio	/100ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	Absent	IS: 5887 (Part V):1976



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**RESULTS OF MARINE WATER [M12 SPM N 22°40'938" E 069°39'191"]**

SR. NO.	TEST PARAMETERS	UNIT	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
1.	pH	--	8.21	8.03	8.12	7.95	8.26	8.09	8.21	8.05	8.24	8.08	8.19	8.04	IS 3025 (Part 11):2022
2.	Temperature	°C	30	29.9	29.8	29.7	29.7	29.6	29.6	29.5	29.7	29.6	29.8	29.7	IS 3025 (Part 9):2023
3.	Total Suspended Solids	mg/L	122	90	110	88	114	90	138	110	132	118	126	104	APHA 24th Ed.,2023,2540- D
4.	BOD (3 Days @ 27°C)	mg/L	2.7	BDL(MDL :1.0)	3.1	BDL(MDL :1.0)	2.9	BDL(MDL :1.0)	2.8	BDL(MDL :1.0)	2.9	BDL(MDL :1.0)	3.2	BDL(MDL :1.0)	IS 3025 (Part 44):2023
5.	Dissolved Oxygen	mg/L	7.04	6.84	6.9	6.8	6.82	6.72	6.75	6.65	6.81	6.71	6.66	6.57	APHA 24th Ed.2023,4500-O, B
6.	Salinity	ppt	35.72	36.58	35.62	36.54	35.94	36.82	36.08	37.21	36.14	37.02	36.25	37.14	By Calculation
7.	Oil & Grease	mg/L	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	BDL(MDL :2.0)	IS 3025 (Part 39):2021
8.	Nitrate as NO <sub>3</sub>	µmol/L	2.74	2.42	3.45	2.8	3.39	3.23	3.55	3.39	3.87	3.71	3.71	3.55	APHA 24th Ed. 2023,4500 NO3-B
9.	Nitrite as NO <sub>2</sub>	µmol/L	0.413	0.37	0.345	0.276	0.348	0.326	0.413	0.37	0.478	0.456	0.37	0.348	APHA 24th Ed.2023,4500NO <sub>2</sub> B
10.	Ammonical Nitrogen as NH <sub>3</sub>	µmol/L	3.9	3.8	3.28	3.1	3.59	3.53	4.06	3.9	4.27	4.16	4.22	4.16	APHA 24th Ed. 2023,4500- NH3 B
11.	Phosphates as PO <sub>4</sub>	µmol/L	1.37	1.16	1.16	1.05	1.26	1.16	1.26	BDL(MDL :0.4)	1.58	1.47	1.47	1.37	APHA 24th Ed.2023,4500-P, D
12.	Total Nitrogen	µmol/L	7.053	6.59	7.075	6.176	7.328	7.086	8.023	7.66	8.618	8.326	8.3	8.058	APHA 24th Ed. 2023,4500 NH3 - B
13.	Petroleum Hydrocarbon	µg/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	APHA 24th ED.2023,5520 F
14.	Total Dissolved Solids	mg/L	35460	36140	35510	36140	35430	36100	35760	36420	35680	36450	35720	36520	IS 3025(Part 16):2023
15.	COD	mg/L	24.3	20.2	16.1	12.1	20	16	24.1	20.1	28	24	24.5	20.4	IS 3025(Part 58):2023

Continue...

**RESULTS OF MARINE WATER [M12 SPM N 22°40'938" E 069°39'191"]**

SR. NO.	TEST PARAMETERS	UNIT	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
<b>A</b>															
<b>Phytoplankton</b>															
1.	Chlorophyll	mg/m <sup>3</sup>	2.2	2.3	2.3	2.2	2.4	2.1	2.3	2.1	2.2	2.2	2.1	2.1	APHA (24th Ed. 2023)10200A-G
2.	Phaeophytin	mg/m <sup>3</sup>	1.16	1.48	1.17	1.47	1.18	1.46	1.17	1.47	1.18	1.48	1.19	1.49	APHA (24th Ed. 2023)10200A-G
3.	Cell Count	No. x 10 <sup>3</sup> /L	78	133	77	132	76	131	77	132	78	131	77	132	APHA (24th Ed. 2023)10200A-G
4	Name of Group Number and name of group species of each group	--	<i>Ceratiu m</i>	<i>Melosira</i>	<i>Ceratiu m</i>	<i>Rhizosol enia</i>	<i>Surirella</i>	<i>Rhizosol enia</i>	<i>Skeleton ema</i>	<i>Odentell a</i>	<i>Skeleton ema</i>	<i>Odentell a</i>	<i>Skeleton ema</i>	<i>Odentell a</i>	APHA (24th Ed. 2023)10200A-G
			<i>Pinnulari a</i>	<i>Dinophy sis</i>	<i>Pinnulari a</i>	<i>Dinophy sis</i>	<i>Pinnulari a</i>	<i>Dinophy sis</i>	<i>Gramma tophora</i>	<i>Rhizosol enia</i>	<i>Gramma tophora</i>	<i>Rhizosol enia</i>	<i>Gramma tophora</i>	<i>Rhizosol enia</i>	
			<i>Odontell a</i>	<i>Skeleton ema</i>	<i>Odontell a</i>	<i>Skeleton ema</i>	<i>Gramma tophora</i>	<i>Skeleton ema</i>	<i>Nitzschia</i>	<i>Coscinod iscus</i>	<i>Nitzschia</i>	<i>Coscinod iscus</i>	<i>Nitzschia</i>	<i>Coscinod iscus</i>	
			<i>Thalassi othrix</i>	<i>Thalassi osira</i>	<i>Thalassi othrix</i>	<i>Thalassi osira</i>	<i>Thalassi othrix</i>	<i>Thalassi osira</i>	<i>Thalassi othrix</i>	<i>Gramma tophora</i>	<i>Thalassi othrix</i>	<i>Gramma tophora</i>	<i>Coscinod iscus</i>	<i>Pinnulari a</i>	
			<i>Thalassi osira</i>	<i>Thalassi onema</i>	<i>Thalassi osira</i>	<i>Melosira</i>	<i>Rhizosol enia</i>	<i>Melosira</i>	<i>Pleurosi gma</i>	<i>Thalassi osira</i>	<i>Pleurosi gma</i>	<i>Thalassi osira</i>	<i>Pleurosi gma</i>	<i>Thalassi osira</i>	
<b>B</b>															
<b>Zooplankton</b>															
1	Abudance (Population)	noX10 <sup>3</sup> / 100 m <sup>3</sup>	72		73		72		71		72		71		APHA (24rd Ed. 2023)10200 G
2	Name of Group Number and name of group species of each group		<i>Nitzschia</i>		<i>Nitzschia</i>		<i>Nitzschia</i>		<i>Copepods</i>		<i>Copepods</i>		<i>Copepods</i>		
			<i>Grammatophora</i>		<i>Grammatophora</i>		<i>Grammatophora</i>		<i>Oikoplura</i>		<i>Oikoplura</i>		<i>Oikoplura</i>		
			<i>Diploneis</i>		<i>Diploneis</i>		<i>Egg(Fish and Shrimps)</i>		<i>Crustacean Larvae</i>		<i>Crustacean Larvae</i>		<i>Crustacean Larvae</i>		
			<i>Thalassiothrix</i>		<i>Thalassiothrix</i>		<i>Thalassiothrix</i>		<i>Crustacean</i>		<i>Crustacean</i>		<i>Crustacean</i>		
<i>Pleurosigma</i>		<i>Pleurosigma</i>		<i>Pleurosigma</i>		<i>Bivalve Larvae</i>		<i>Bivalve Larvae</i>		<i>Egg(Fish and Shrimps)</i>					
3	Total Biomass	ml/100 m <sup>3</sup>	14.56		14.57		14.58		14.57		14.56		14.57		

Continue...

**RESULTS OF MARINE WATER [M12 SPM N 22°40'938" E 069°39'191"]**

SR. NO	TEST PARAMETER S	UNIT	Oct-24		Nov-24		Dec-24		Jan-25		Feb-25		Mar-25		TEST METHOD
			SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	SURFACE	BOTTOM	
			Microbiological												
1	Total Bacterial Count	CFU/ml	256		51		260		262		264		266		APHA 24 <sup>th</sup> Ed.2023,9215 -C
2	Total Coliform	/100ml	52		43		52		51		50		52		APHA 24 <sup>th</sup> Ed.2023, 9222-B
3	E.coli	/100ml	42		33		41		40		41		40		IS :15185:2016
4	Enterococcus	/100ml	32		Absent		34		33		34		33		IS:15186:2002
5	Salmonella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS:15187:2016
6	Shigella	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		APHA 24 <sup>th</sup> Ed.2023, 9260-E
7	Vibrio	/100ml	Absent		Absent		Absent		Absent		Absent		Absent		IS: 5887 (Part V):1976

Mr. Nilesh Patel  
Sr. Chemist



Mr. Nitin Tandel  
Technical Manager

### Results of Ambient Air Quality Monitoring

Name of Location		West Port – West Basin Main Gate						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>	HC µg/m <sup>3</sup>	Benzene µg/m <sup>3</sup>
1.	03-10-2024	65.48	27.73	23.85	26.41	0.63	--	NOT DETECTED
2.	07-10-2024	68.42	28.53	24.63	28.48	0.62	3.89	NOT DETECTED
3.	10-10-2024	66.39	27.53	23.74	27.49	0.66	3.96	NOT DETECTED
4.	14-10-2024	70.46	31.23	24.91	28.52	0.72	4.12	NOT DETECTED
5.	17-10-2024	74.38	33.26	25.43	29.68	0.74	4.29	NOT DETECTED
6.	21-10-2024	72.49	30.84	24.8	28.63	0.69	4.15	NOT DETECTED
7.	24-10-2024	75.49	33.36	25.97	29.76	0.73	4.31	NOT DETECTED
8.	28-10-2024	73.12	31.39	25.11	28.88	0.67	4.24	NOT DETECTED
9.	31-10-2024	70.83	30.52	24.38	28.13	0.64	4.1	NOT DETECTED
10.	04-11-2024	74.26	31.61	23.83	27.11	0.68	4.16	NOT DETECTED
11.	07-11-2024	76.38	32.75	24.68	28.14	0.7	4.37	NOT DETECTED
12.	11-11-2024	71.53	31.38	25.47	29.73	0.67	4.24	NOT DETECTED
13.	14-11-2024	74.75	35.42	26.28	30.81	0.74	4.45	NOT DETECTED
14.	18-11-2024	76.21	37.15	27.89	31.37	0.76	4.61	NOT DETECTED
15.	21-11-2024	72.53	34.85	25.41	29.64	0.71	4.37	NOT DETECTED

Continue...

Name of Location		West Port – West Basin Main Gate						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>	HC µg/m <sup>3</sup>	Benzene µg/m <sup>3</sup>
16.	25-11-2024	75.17	36.14	26.19	30.32	0.75	4.49	NOT DETECTED
17.	28-11-2024	73.82	33.91	25.38	29.46	0.7	4.31	NOT DETECTED
18.	02-12-2024	76.37	34.15	26.49	30.37	0.77	4.36	NOT DETECTED
19.	05-12-2024	80.37	37.25	29.11	33.57	0.81	4.47	NOT DETECTED
20.	09-12-2024	74.82	32.69	25.36	29.15	0.74	4.32	NOT DETECTED
21.	12-12-2024	77.64	34.79	27.34	31.83	0.76	4.4	NOT DETECTED
22.	16-12-2024	82.36	36.28	30.19	34.1	0.83	4.54	NOT DETECTED
23.	19-12-2024	79.64	34.98	28.42	32.63	0.79	4.42	NOT DETECTED
24.	23-12-2024	81.27	37.46	29.38	33.26	0.81	4.6	NOT DETECTED
25.	26-12-2024	77.46	35.35	26.47	30.56	0.76	4.49	NOT DETECTED
26.	30-12-2024	80.41	36.77	28.16	32.73	0.78	4.56	NOT DETECTED
27.	02-01-2025	78.25	32.61	27.42	32.11	0.87	--	NOT DETECTED
28.	06-01-2025	73.41	29.83	24.79	29.53	0.93	3.84	NOT DETECTED
29.	09-01-2025	70.64	28.51	23.98	27.85	0.85	3.71	NOT DETECTED
30.	13-01-2025	72.92	29.43	24.75	29.41	0.97	3.64	NOT DETECTED

Continue...



Name of Location		West Port – West Basin Main Gate						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>	HC µg/m <sup>3</sup>	Benzene µg/m <sup>3</sup>
31.	16-01-2025	76.56	31.78	26.42	31.26	0.9	3.8	NOT DETECTED
32.	20-01-2025	80.37	33.64	28.24	33.69	0.96	3.94	NOT DETECTED
33.	23-01-2025	75.81	30.48	26.77	31.53	0.91	3.72	NOT DETECTED
34.	27-01-2025	72.38	28.74	24.35	29.74	0.82	3.67	NOT DETECTED
35.	30-01-2025	74.63	31.26	26.19	31.87	0.87	3.77	NOT DETECTED
36.	03-02-2025	74.48	30.14	25.73	30.45	0.81	3.62	NOT DETECTED
37.	06-02-2025	77.85	33.65	27.24	32.83	0.78	3.76	NOT DETECTED
38.	10-02-2025	72.37	29.19	25.14	29.88	0.75	3.7	NOT DETECTED
39.	13-02-2025	75.94	31.42	26.84	31.27	0.82	3.8	NOT DETECTED
40.	17-02-2025	82.36	35.47	28.66	32.35	0.87	3.84	NOT DETECTED
41.	20-02-2025	80.16	34.13	26.58	31.17	0.8	3.76	NOT DETECTED
42.	24-02-2025	76.42	31.26	25.63	30.46	0.77	3.71	NOT DETECTED
43.	27-02-2025	79.64	33.75	26.19	31.27	0.87	3.82	NOT DETECTED
44.	03-03-2025	76.63	31.48	24.93	29.12	0.79	3.77	NOT DETECTED
45.	06-03-2025	79.16	32.73	25.38	30.64	0.84	3.84	NOT DETECTED

Continue...

Name of Location		West Port – West Basin Main Gate						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>	HC µg/m <sup>3</sup>	Benzene µg/m <sup>3</sup>
46.	10-03-2025	74.36	29.83	23.69	27.94	0.72	3.7	NOT DETECTED
47.	13-03-2025	76.17	30.28	24.49	29.35	0.77	3.79	NOT DETECTED
48.	17-03-2025	80.81	34.56	26.31	31.28	0.81	3.83	NOT DETECTED
49.	20-03-2025	74.15	28.97	23.74	27.69	0.74	3.75	NOT DETECTED
50.	24-03-2025	77.58	30.21	25.84	30.26	0.78	3.81	NOT DETECTED
51.	27-03-2025	82.37	34.72	27.53	31.67	0.82	3.89	NOT DETECTED
52.	31-03-2025	79.16	31.63	26.48	29.88	0.75	3.72	NOT DETECTED
Permissible Value as per NAAQMS		100.0	60.0	80.0	80.0	2.0	---	5.0
Test Method		IS - 5182, Part- 23	UERL/AIR/ SOP/11	IS - 5182, Part - 2	IS - 5182, Part - 6	IS - 5182, Part - 10	Gas analyzer	IS – 5182, Part – 11



**Nikunj D. Patel**  
(Chemist)




**Jaivik S. Tandel**  
(Manager - Operations)

### Results of Ambient Air Quality Monitoring

Name of Location		West Port – Horti Culture						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>	HC µg/m <sup>3</sup>	Benzene µg/m <sup>3</sup>
1.	03-10-2024	70.21	32.48	22.43	25.83	0.65	--	NOT DETECTED
2.	07-10-2024	68.75	31.24	22.81	26.12	0.67	2.62	NOT DETECTED
3.	10-10-2024	73.28	33.69	23.46	27.35	0.7	2.71	NOT DETECTED
4.	14-10-2024	76.47	34.61	24.38	28.61	0.73	2.79	NOT DETECTED
5.	17-10-2024	81.26	36.19	25.93	29.81	0.77	2.88	NOT DETECTED
6.	21-10-2024	78.64	35.82	24.63	28.58	0.75	2.8	NOT DETECTED
7.	24-10-2024	75.49	34.32	23.89	27.54	0.7	2.76	NOT DETECTED
8.	28-10-2024	77.64	35.29	24.36	28.29	0.73	2.86	NOT DETECTED
9.	31-10-2024	80.13	36.41	25.96	29.88	0.78	2.94	NOT DETECTED
10.	04-11-2024	78.53	35.21	25.15	29.32	0.73	2.71	NOT DETECTED
11.	07-11-2024	75.49	33.58	23.97	27.43	0.8	2.63	NOT DETECTED
12.	11-11-2024	77.84	34.92	25.41	28.64	0.7	2.75	NOT DETECTED
13.	14-11-2024	81.26	37.64	27.43	31.26	0.81	2.84	NOT DETECTED
14.	18-11-2024	84.63	39.16	28.24	32.1	0.83	2.96	NOT DETECTED
15.	21-11-2024	77.46	35.46	25.37	30.28	0.75	2.86	NOT DETECTED

Continue...

Name of Location		West Port – Horti Culture						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>	HC µg/m <sup>3</sup>	Benzene µg/m <sup>3</sup>
16.	25-11-2024	80.63	37.52	27.11	31.37	0.82	2.94	NOT DETECTED
17.	28-11-2024	78.15	35.46	26.08	30.82	0.77	2.83	NOT DETECTED
18.	02-12-2024	80.14	37.31	27.12	31.83	0.82	2.9	NOT DETECTED
19.	05-12-2024	83.27	38.94	28.65	33.26	0.87	3.12	NOT DETECTED
20.	09-12-2024	80.46	36.28	26.86	30.79	0.8	2.93	NOT DETECTED
21.	12-12-2024	78.19	34.25	25.14	30.21	0.77	2.84	NOT DETECTED
22.	16-12-2024	75.63	33.29	24.39	29.63	0.73	2.77	NOT DETECTED
23.	19-12-2024	80.72	36.42	26.37	31.91	0.82	2.82	NOT DETECTED
24.	23-12-2024	82.47	37.52	27.49	30.58	0.85	2.94	NOT DETECTED
25.	26-12-2024	79.64	35.13	26.55	30.61	0.78	2.81	NOT DETECTED
26.	30-12-2024	81.54	36.85	28.74	32.16	0.83	2.88	NOT DETECTED
27.	02-01-2025	82.48	39.31	28.46	33.17	0.87	--	NOT DETECTED
28.	06-01-2025	84.10	40.83	31.73	36.32	0.93	3.29	NOT DETECTED
29.	09-01-2025	80.47	37.28	27.35	32.47	0.84	3.18	NOT DETECTED
30.	13-01-2025	83.91	41.11	29.98	33.85	0.87	3.14	NOT DETECTED

Continue...

Name of Location		West Port – Horti Culture						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>	HC µg/m <sup>3</sup>	Benzene µg/m <sup>3</sup>
31.	16-01-2025	78.64	35.83	26.41	31.36	0.81	2.94	NOT DETECTED
32.	20-01-2025	81.36	36.57	28.49	33.25	0.85	3.07	NOT DETECTED
33.	23-01-2025	84.36	38.87	31.75	36.47	0.90	3.19	NOT DETECTED
34.	27-01-2025	82.82	36.78	29.82	34.36	0.83	3.10	NOT DETECTED
35.	30-01-2025	79.94	34.53	27.46	33.54	0.78	2.97	NOT DETECTED
36.	03-02-2025	79.53	35.81	25.38	29.41	0.78	2.86	NOT DETECTED
37.	06-02-2025	82.45	37.47	28.18	32.46	0.83	2.94	NOT DETECTED
38.	10-02-2025	77.59	36.13	26.95	29.53	0.75	2.75	NOT DETECTED
39.	13-02-2025	80.65	40.63	27.47	31.26	0.81	2.82	NOT DETECTED
40.	17-02-2025	84.63	42.39	30.71	34.14	0.88	2.96	NOT DETECTED
41.	20-02-2025	82.38	41.72	29.14	33.18	0.84	2.88	NOT DETECTED
42.	24-02-2025	78.97	37.58	27.64	31.36	0.75	2.8	NOT DETECTED
43.	27-02-2025	81.46	39.13	28.47	31.52	0.79	2.86	NOT DETECTED
44.	03-03-2025	81.35	38.49	28.13	33.26	0.82	2.96	NOT DETECTED
45.	06-03-2025	76.48	35.71	26.84	31.53	0.73	2.82	NOT DETECTED

Continue...

Name of Location		West Port – Horti Culture						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>	HC µg/m <sup>3</sup>	Benzene µg/m <sup>3</sup>
46.	10-03-2025	80.37	36.69	27.35	32.49	0.78	2.9	NOT DETECTED
47.	13-03-2025	83.15	39.46	30.17	35.03	0.85	3.1	NOT DETECTED
48.	17-03-2025	81.92	38.14	29.23	34.62	0.8	2.97	NOT DETECTED
49.	20-03-2025	78.46	35.24	27.57	32.14	0.75	2.81	NOT DETECTED
50.	24-03-2025	82.65	37.83	28.64	34.1	0.82	2.85	NOT DETECTED
51.	27-03-2025	84.59	40.15	30.61	35.73	0.87	2.94	NOT DETECTED
52.	31-03-2025	81.25	36.73	27.52	32.38	0.84	2.88	NOT DETECTED
Permissible Value as per NAAQMS		100.0	60.0	80.0	80.0	2.0	---	5.0
Test Method		IS - 5182, Part- 23	UERL/AIR/ SOP/11	IS - 5182, Part - 2	IS - 5182, Part - 6	IS - 5182, Part - 10	Gas analyzer	IS – 5182, Part – 11



**Nikunj D. Patel**  
(Chemist)




**Jaivik S. Tandel**  
(Manager - Operations)

### Results of Ambient Air Quality Monitoring

Name of Location		WEST PORT - PMC OFFICE						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>	HC µg/m <sup>3</sup>	Benzene µg/m <sup>3</sup>
1.	03-10-2024	73.29	27.83	24.39	28.83	0.67	--	NOT DETECTED
2.	07-10-2024	76.12	29.73	25.36	29.53	0.72	3.62	NOT DETECTED
3.	10-10-2024	80.53	32.41	25.96	30.81	0.81	3.7	NOT DETECTED
4.	14-10-2024	74.38	28.47	24.38	29.11	0.7	3.78	NOT DETECTED
5.	17-10-2024	76.83	30.58	25.74	29.53	0.74	3.83	NOT DETECTED
6.	21-10-2024	82.36	33.67	26	30.85	0.81	4.03	NOT DETECTED
7.	24-10-2024	77.53	32.47	25.93	29.16	0.77	3.86	NOT DETECTED
8.	28-10-2024	75.91	29.87	24.63	28.94	0.71	3.73	NOT DETECTED
9.	31-10-2024	78.42	31.37	25.73	29.48	0.74	3.79	NOT DETECTED
10.	04-11-2024	77.52	30.63	24.15	29.24	0.76	3.87	NOT DETECTED
11.	07-11-2024	80.63	32.24	26.83	31.64	0.86	3.95	NOT DETECTED
12.	11-11-2024	82.37	34.19	28.42	33.64	0.91	4.16	NOT DETECTED
13.	14-11-2024	79.18	31.74	25.48	30.75	0.83	3.87	NOT DETECTED
14.	18-11-2024	83.48	33.91	27.98	32.75	0.88	3.98	NOT DETECTED
15.	21-11-2024	81.91	32.36	27.29	31.62	0.81	3.82	NOT DETECTED

Continue...

Name of Location		WEST PORT - PMC OFFICE						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>	HC µg/m <sup>3</sup>	Benzene µg/m <sup>3</sup>
16.	25-11-2024	78.46	31.65	26.17	30.89	0.78	3.75	NOT DETECTED
17.	28-11-2024	80.31	33.72	27.83	31.25	0.84	3.91	NOT DETECTED
18.	02-12-2024	82.71	35.62	28.13	32.83	0.87	3.86	NOT DETECTED
19.	05-12-2024	78.64	31.48	25.47	29.35	0.80	3.71	NOT DETECTED
20.	09-12-2024	80.36	33.25	27.13	31.36	0.83	3.77	NOT DETECTED
21.	12-12-2024	76.91	30.85	25.13	28.98	0.75	3.64	NOT DETECTED
22.	16-12-2024	79.42	32.63	26.95	30.25	0.79	3.74	NOT DETECTED
23.	19-12-2024	81.56	34.92	27.53	31.72	0.83	3.82	NOT DETECTED
24.	23-12-2024	84.13	37.1	29.71	34.15	0.86	3.87	NOT DETECTED
25.	26-12-2024	82.36	35.14	27.36	31.57	0.82	3.75	NOT DETECTED
26.	30-12-2024	84.29	36.82	29.68	33.84	0.87	3.89	NOT DETECTED
27.	02-01-2025	84.73	37.12	27.81	30.46	0.90	--	NOT DETECTED
28.	06-01-2025	81.64	35.75	25.58	29.43	0.84	3.85	NOT DETECTED
29.	09-01-2025	83.49	37.52	29.13	32.51	0.87	3.97	NOT DETECTED
30.	13-01-2025	77.36	33.93	24.82	28.39	0.77	3.47	NOT DETECTED

Continue...



Name of Location		WEST PORT - PMC OFFICE						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>	HC µg/m <sup>3</sup>	Benzene µg/m <sup>3</sup>
31.	16-01-2025	80.13	34.84	25.69	30.18	0.81	3.59	NOT DETECTED
32.	20-01-2025	84.13	37.42	29.54	33.27	0.86	3.77	NOT DETECTED
33.	23-01-2025	82.46	36.35	26.41	30.64	0.78	3.52	NOT DETECTED
34.	27-01-2025	79.77	34.91	25.64	28.49	0.8	3.45	NOT DETECTED
35.	30-01-2025	82.57	35.64	27.12	31.78	0.85	3.62	NOT DETECTED
36.	03-02-2025	81.64	35.39	26.84	30.13	0.84	3.64	NOT DETECTED
37.	06-02-2025	84.38	38.92	29.32	32.65	0.91	3.78	NOT DETECTED
38.	10-02-2025	82.73	36.28	28.46	31.73	0.87	3.71	NOT DETECTED
39.	13-02-2025	78.48	34.52	25.89	29.62	0.79	3.6	NOT DETECTED
40.	17-02-2025	80.83	36.26	27.53	31.57	0.81	3.67	NOT DETECTED
41.	20-02-2025	82.47	37.1	28.17	31.82	0.9	3.75	NOT DETECTED
42.	24-02-2025	84.37	39.85	30.64	33.36	0.95	3.89	NOT DETECTED
43.	27-02-2025	81.29	37.42	29.31	32.59	0.92	3.81	NOT DETECTED
44.	03-03-2025	80.37	36.13	27.82	31.27	0.79	3.76	NOT DETECTED
45.	06-03-2025	82.48	37.83	28.51	33.06	0.85	3.83	NOT DETECTED

Continue...

Name of Location		WEST PORT - PMC OFFICE						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>	HC µg/m <sup>3</sup>	Benzene µg/m <sup>3</sup>
46.	10-03-2025	78.93	35.19	25.32	29.51	0.77	3.71	NOT DETECTED
47.	13-03-2025	80.15	36.48	27.15	31.38	0.81	3.79	NOT DETECTED
48.	17-03-2025	82.38	37.85	28.49	31.17	0.86	3.88	NOT DETECTED
49.	20-03-2025	85.16	39.14	30.11	34.31	0.88	3.96	NOT DETECTED
50.	24-03-2025	79.12	35.41	26.89	30.62	0.8	3.81	NOT DETECTED
51.	27-03-2025	76.58	34.92	25.77	29.13	0.75	3.74	NOT DETECTED
52.	31-03-2025	80.71	36.47	27.36	31.25	0.82	3.85	NOT DETECTED
Permissible Value as per NAAQMS		100.0	60.0	80.0	80.0	2.0	---	5.0
Test Method		IS - 5182, Part- 23	UERL/AIR/SOP/11	IS - 5182, Part - 2	IS - 5182, Part - 6	IS - 5182, Part - 10	Gas analyzer	IS - 5182, Part - 11



**Nikunj D. Patel**  
(Chemist)




**Jaivik S. Tandel**  
(Manager - Operations)

### Results of Ambient Air Quality Monitoring

Name of Location		LPG Terminal Substation						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>	HC µg/m <sup>3</sup>	Benzene µg/m <sup>3</sup>
1.	03-10-2024	64.38	28.71	20.74	23.58	0.72	--	NOT DETECTED
2.	07-10-2024	67.63	29.78	21.32	25.2	0.76	3.73	NOT DETECTED
3.	10-10-2024	63.93	28.56	20.54	23.57	0.74	3.68	NOT DETECTED
4.	14-10-2024	66.48	30.46	21.26	24.47	0.75	3.7	NOT DETECTED
5.	17-10-2024	71.59	32.47	23.52	26.81	0.8	3.76	NOT DETECTED
6.	21-10-2024	74.36	33.64	24.43	27.56	0.83	3.81	NOT DETECTED
7.	24-10-2024	72.17	32.24	23.61	26.18	0.77	3.78	NOT DETECTED
8.	28-10-2024	76.59	34.68	24.88	27.36	0.81	3.86	NOT DETECTED
9.	31-10-2024	75.16	33.42	24.15	27.63	0.78	3.82	NOT DETECTED
10.	04-11-2024	72.46	30.78	22.37	26.15	0.8	3.79	NOT DETECTED
11.	07-11-2024	75.62	31.46	23.15	27.63	0.86	3.88	NOT DETECTED
12.	11-11-2024	78.82	33.46	25.83	29.37	0.82	3.91	NOT DETECTED
13.	14-11-2024	81.54	36.11	26.77	31.16	0.91	3.98	NOT DETECTED
14.	18-11-2024	76.49	34.51	25.63	29.38	0.88	3.82	NOT DETECTED
15.	21-11-2024	74.38	33.26	24.37	28.63	0.83	3.76	NOT DETECTED

Continue...

Name of Location		LPG Terminal Substation						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>	HC µg/m <sup>3</sup>	Benzene µg/m <sup>3</sup>
16.	25-11-2024	70.42	31.79	22.97	26.48	0.79	3.72	NOT DETECTED
17.	28-11-2024	73.28	33.91	24.12	29.38	0.84	3.81	NOT DETECTED
18.	02-12-2024	75.17	34.83	23.47	27.15	0.83	3.8	NOT DETECTED
19.	05-12-2024	78.45	36.11	24.13	28.38	0.89	3.93	NOT DETECTED
20.	09-12-2024	82.36	38.1	26.59	30.42	0.86	3.99	NOT DETECTED
21.	12-12-2024	77.82	35.71	23.94	27.54	0.8	3.86	NOT DETECTED
22.	16-12-2024	80.24	36.58	25.73	30.55	0.84	3.91	NOT DETECTED
23.	19-12-2024	83.91	38.25	27.19	31.27	0.91	3.96	NOT DETECTED
24.	23-12-2024	79.65	35.27	24.35	29.11	0.87	3.86	NOT DETECTED
25.	26-12-2024	75.17	33.48	23.92	27.31	0.77	3.78	NOT DETECTED
26.	30-12-2024	77.31	34.23	25.88	30.36	0.82	3.85	NOT DETECTED
27.	02-01-2025	81.52	35.13	28.36	31.84	1.00	--	NOT DETECTED
28.	06-01-2025	78.65	34.21	26.14	30.11	0.95	3.73	NOT DETECTED
29.	09-01-2025	75.49	31.48	25.73	28.57	0.89	3.67	NOT DETECTED
30.	13-01-2025	71.28	29.84	23.58	27.12	0.83	3.58	NOT DETECTED

Continue...

Name of Location		LPG Terminal Substation						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>	HC µg/m <sup>3</sup>	Benzene µg/m <sup>3</sup>
31.	16-01-2025	74.84	31.56	24.79	27.8	0.88	3.64	NOT DETECTED
32.	20-01-2025	79.48	33.58	27.69	30.52	0.93	3.75	NOT DETECTED
33.	23-01-2025	76.17	31.79	25.37	28.46	0.85	3.69	NOT DETECTED
34.	27-01-2025	80.83	34.71	28.52	31.64	0.97	3.79	NOT DETECTED
35.	30-01-2025	74.38	32.1	25.32	28.56	0.90	3.72	NOT DETECTED
36.	03-02-2025	79.54	31.83	26.39	29.15	0.87	3.76	NOT DETECTED
37.	06-02-2025	75.37	30.13	24.68	27.27	0.81	3.8	NOT DETECTED
38.	10-02-2025	78.64	33.11	25.53	28.76	0.85	3.71	NOT DETECTED
39.	13-02-2025	71.26	28.63	23.91	26.48	0.79	3.67	NOT DETECTED
40.	17-02-2025	74.37	29.63	24.79	27.51	0.83	3.72	NOT DETECTED
41.	20-02-2025	68.54	28.42	23.57	27.11	0.78	3.68	NOT DETECTED
42.	24-02-2025	72.54	29.75	24.46	28.07	0.85	3.74	NOT DETECTED
43.	27-02-2025	75.82	30.54	26.91	29.64	0.89	3.81	NOT DETECTED
44.	03-03-2025	76.83	30.61	25.74	30.02	0.84	3.78	NOT DETECTED
45.	06-03-2025	80.42	34.37	28.64	32.45	0.9	3.84	NOT DETECTED
46.	10-03-2025	78.64	31.58	27.41	30.95	0.77	3.73	NOT DETECTED

Name of Location		LPG Terminal Substation						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>	HC µg/m <sup>3</sup>	Benzene µg/m <sup>3</sup>
47.	13-03-2025	75.15	29.94	26.57	30.16	0.75	3.67	NOT DETECTED
48.	17-03-2025	81.37	33.52	28.85	32.36	0.86	3.79	NOT DETECTED
49.	20-03-2025	78.12	31.91	27.25	31.57	0.81	3.75	NOT DETECTED
50.	24-03-2025	69.84	29.35	24.98	29.32	0.75	3.7	NOT DETECTED
51.	27-03-2025	72.53	30.32	25.37	29.82	0.84	3.73	NOT DETECTED
52.	31-03-2025	76.42	32.56	27.21	31.75	0.89	3.8	NOT DETECTED
<b>Permissible Value as per NAAQMS</b>		<b>100.0</b>	<b>60.0</b>	<b>80.0</b>	<b>80.0</b>	<b>2.0</b>	<b>---</b>	<b>5.0</b>
<b>Test Method</b>		<b>IS - 5182, Part- 23</b>	<b>UERL/AIR/ SOP/11</b>	<b>IS - 5182, Part - 2</b>	<b>IS - 5182, Part - 6</b>	<b>IS - 5182, Part - 10</b>	<b>Gas analyzer</b>	<b>IS - 5182, Part - 11</b>



**Nikunj D. Patel**  
(Chemist)




**Jaivik S. Tandel**  
(Manager - Operations)

### Results of Ambient Air Quality Monitoring

Name of Location		Adani Guest House				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>
1.	03-10-2024	58.51	16.85	11.73	14.12	NOT DETECTED
2.	07-10-2024	61.38	17.62	12.14	14.75	--
3.	10-10-2024	63.27	18.41	12.94	16.11	--
4.	14-10-2024	60.37	17.24	11.73	15.31	--
5.	17-10-2024	67.88	19.74	13.47	16.05	--
6.	21-10-2024	64.38	18.64	12.53	15.65	--
7.	24-10-2024	66.15	19.47	13.38	16.12	--
8.	28-10-2024	70.71	20.37	14.03	16.78	--
9.	31-10-2024	67.63	19.25	13.42	15.89	--
10.	04-11-2024	65.39	18.86	13.11	16.37	--
11.	07-11-2024	67.28	19.35	14.18	17.52	--
12.	11-11-2024	64.31	18.48	13.24	16.84	--
13.	14-11-2024	67.38	20.13	14.47	17.15	--
14.	18-11-2024	65.28	19.12	13.41	16.37	--
15.	21-11-2024	63.29	17.75	12.36	15.61	--

Continue...

Name of Location		Adani Guest House				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>
16.	25-11-2024	66.48	19.57	14.31	17.57	--
17.	28-11-2024	64.89	18.85	12.74	15.83	--
18.	02-12-2024	63.94	17.73	12.85	16.49	--
19.	05-12-2024	65.83	18.27	13.21	17.83	--
20.	09-12-2024	69.24	18.98	14.29	18.53	--
21.	12-12-2024	71.42	20.58	14.91	18.86	--
22.	16-12-2024	67.58	18.11	13.68	17.36	--
23.	19-12-2024	64.35	17.83	12.71	16.37	--
24.	23-12-2024	70.49	20.14	14.63	18.12	--
25.	26-12-2024	67.3	18.74	13.89	17.35	--
26.	30-12-2024	69.77	19.25	14.72	18.21	--
27.	02-01-2025	72.63	21.35	15.68	19.27	NOT DETECTED
28.	06-01-2025	75.49	22.61	16.13	20.53	--
29.	09-01-2025	68.57	20.53	14.38	18.62	--
30.	13-01-2025	70.52	21.47	15.29	19.88	--
31.	16-01-2025	65.48	18.79	13.65	17.31	--



Name of Location		Adani Guest House				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>
32.	20-01-2025	68.19	19.87	14.2	18.47	--
33.	23-01-2025	73.27	21.53	15.72	19.69	--
34.	27-01-2025	67.65	18.76	14.11	18.73	--
35.	30-01-2025	70.81	20.93	15.14	19.58	--
36.	03-02-2025	69.52	18.15	13.84	17.37	--
37.	06-02-2025	65.48	17.64	12.93	16.74	--
38.	10-02-2025	71.38	18.79	14.11	17.58	--
39.	13-02-2025	74.28	20.35	15.27	19.58	--
40.	17-02-2025	67.64	17.58	13.74	17.27	--
41.	20-02-2025	72.47	20.14	14.52	18.76	--
42.	24-02-2025	76.49	21	15.39	19.35	--
43.	27-02-2025	70.81	19.38	14.1	17.95	--
44.	03-03-2025	72.36	19.73	14.68	18.31	--
45.	06-03-2025	75.46	21.38	15.63	19.56	--
46.	10-03-2025	70.91	18.43	14.57	18.38	--
47.	13-03-2025	73.28	19.96	14.88	19.11	--

Name of Location		Adani Guest House				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>
48.	17-03-2025	76.49	21.85	16.12	20.53	--
49.	20-03-2025	72.37	20.18	15.75	19.64	--
50.	24-03-2025	68.56	18.74	14.65	18.27	--
51.	27-03-2025	72.93	22.01	15.28	19.69	--
52.	31-03-2025	70.24	20.58	14.97	18.63	--
<b>Permissible Value as per NAAQMS</b>		<b>100.0</b>	<b>60.0</b>	<b>80.0</b>	<b>80.0</b>	<b>2.0</b>
<b>Test Method</b>		<b>IS - 5182, Part- 23</b>	<b>UERL/AIR/ SOP/11</b>	<b>IS - 5182, Part - 2</b>	<b>IS - 5182, Part - 6</b>	<b>IS - 5182, Part - 10</b>



**Nikunj D. Patel**  
(Chemist)




**Jaivik S. Tandel**  
(Manager - Operations)

### Results of Ambient Air Quality Monitoring

Name of Location		CT-4 RMU-2						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>	HC µg/m <sup>3</sup>	Benzene µg/m <sup>3</sup>
1.	03-10-2024	70.41	24.22	17.65	20.97	0.60	--	NOT DETECTED
2.	07-10-2024	72.38	24.95	18.06	22.24	0.63	3.68	NOT DETECTED
3.	10-10-2024	75.48	26.15	19.14	23.51	0.62	3.74	NOT DETECTED
4.	14-10-2024	78.74	28.45	19.88	23.93	0.67	3.79	NOT DETECTED
5.	17-10-2024	74.39	26.37	18.54	22.48	0.65	3.72	NOT DETECTED
6.	21-10-2024	76.59	27.79	19.36	23.41	0.68	3.81	NOT DETECTED
7.	24-10-2024	81.26	29.19	20.58	24.72	0.72	3.87	NOT DETECTED
8.	28-10-2024	77.64	28.37	19.93	23.32	0.67	3.80	NOT DETECTED
9.	31-10-2024	75.24	26.44	18.26	21.57	0.68	3.82	NOT DETECTED
10.	04-11-2024	76.29	26.83	19.14	23.31	0.69	3.78	NOT DETECTED
11.	07-11-2024	78.63	27.28	19.93	23.78	0.71	3.83	NOT DETECTED
12.	11-11-2024	80.64	28.13	20.58	24.63	0.76	3.89	NOT DETECTED
13.	14-11-2024	84.38	30.62	22.13	26.48	0.82	3.96	NOT DETECTED
14.	18-11-2024	82.47	29.63	21.15	25.24	0.78	3.91	NOT DETECTED
15.	21-11-2024	75.47	26.39	19.28	23.74	0.73	3.81	NOT DETECTED

Continue...

Name of Location		CT-4 RMU-2						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>	HC µg/m <sup>3</sup>	Benzene µg/m <sup>3</sup>
16.	25-11-2024	79.75	27.48	20.26	24.35	0.79	3.90	NOT DETECTED
17.	28-11-2024	76.18	26.91	19.74	23.19	0.71	3.84	NOT DETECTED
18.	02-12-2024	78.16	27.53	21.87	25.43	0.74	3.81	NOT DETECTED
19.	05-12-2024	81.35	28.74	22.46	27.11	0.78	3.89	NOT DETECTED
20.	09-12-2024	83.29	30.61	23.75	27.94	0.84	3.97	NOT DETECTED
21.	12-12-2024	77.45	27.49	21.36	25.17	0.75	3.82	NOT DETECTED
22.	16-12-2024	75.47	26.89	20.07	24.58	0.72	3.76	NOT DETECTED
23.	19-12-2024	78.52	28.69	21.4	25.55	0.76	3.80	NOT DETECTED
24.	23-12-2024	81.48	31.34	23.63	27.19	0.81	3.85	NOT DETECTED
25.	26-12-2024	75.37	27.53	19.97	24.48	0.73	3.77	NOT DETECTED
26.	30-12-2024	77.19	28.32	20.41	26.13	0.77	3.82	NOT DETECTED
27.	02-01-2025	80.53	31.48	23.61	27.17	0.85	--	NOT DETECTED
28.	06-01-2025	76.49	28.53	22.28	25.83	0.77	3.87	NOT DETECTED
29.	09-01-2025	74.92	27.73	21.69	26.14	0.75	3.76	NOT DETECTED
30.	13-01-2025	78.59	29.17	23.42	27.26	0.80	3.92	NOT DETECTED
31.	16-01-2025	81.64	31.75	25.48	29.06	0.84	4.12	NOT DETECTED

Name of Location		CT-4 RMU-2						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>	HC µg/m <sup>3</sup>	Benzene µg/m <sup>3</sup>
32.	20-01-2025	84.38	33.51	26.3	30.64	0.87	4.18	NOT DETECTED
33.	23-01-2025	79.47	28.64	23.14	27.53	0.78	3.97	NOT DETECTED
34.	27-01-2025	82.37	31.78	24.57	28.49	0.84	4.07	NOT DETECTED
35.	30-01-2025	84.39	32.91	26.37	30.72	0.90	4.16	NOT DETECTED
36.	03-02-2025	83.16	32.75	26.38	31.29	0.91	3.97	NOT DETECTED
37.	06-02-2025	80.73	30.82	23.84	28.61	0.84	3.89	NOT DETECTED
38.	10-02-2025	82.37	31.58	24.14	29.46	0.81	3.84	NOT DETECTED
39.	13-02-2025	77.95	28.64	23.91	27.87	0.79	3.80	NOT DETECTED
40.	17-02-2025	81.38	32.16	25.12	30.45	0.85	3.94	NOT DETECTED
41.	20-02-2025	79.64	30.24	24.86	28.74	0.82	3.84	NOT DETECTED
42.	24-02-2025	84.63	34.85	26.57	31.65	0.90	3.92	NOT DETECTED
43.	27-02-2025	81.05	32.48	25.62	30.18	0.86	3.87	NOT DETECTED
44.	03-03-2025	80.91	30.83	28.13	32.46	0.85	4.13	NOT DETECTED
45.	06-03-2025	84.36	33.57	30.24	34.83	0.94	4.27	NOT DETECTED
46.	10-03-2025	78.37	29.96	28.74	33.15	0.81	4.03	NOT DETECTED
47.	13-03-2025	81.63	30.98	29.64	32.89	0.88	4.15	NOT DETECTED

Name of Location		CT-4 RMU-2						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM <sub>10</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	CO mg/m <sup>3</sup>	HC µg/m <sup>3</sup>	Benzene µg/m <sup>3</sup>
48.	17-03-2025	83.29	34.57	31.51	35.64	0.92	4.23	NOT DETECTED
49.	20-03-2025	85.91	36.21	34.01	38.46	0.97	4.37	NOT DETECTED
50.	24-03-2025	81.63	34.79	30.27	34.68	0.84	4.20	NOT DETECTED
51.	27-03-2025	83.37	36.13	32.41	36.32	0.89	4.12	NOT DETECTED
52.	31-03-2025	84.89	32.42	33.56	37.54	0.85	4.26	NOT DETECTED
Permissible Value as per NAAQMS		100.0	60.0	80.0	80.0	2.0	---	5.0
Test Method		IS - 5182, Part- 23	UERL/AIR/ SOP/11	IS - 5182, Part - 2	IS - 5182, Part - 6	IS - 5182, Part - 10	Gas analyzer	IS - 5182, Part - 11



**Nikunj D. Patel**  
(Chemist)




**Jaivik S. Tandel**  
(Manager - Operations)

### Results of Noise Level Monitoring

Location Name		West Port – West Basin Main Gate					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Day Time					
		21-10-2024	21-11-2024	19-12-2024	20-01-2025	20-02-2025	20-03-2025
1	06:00 to 07:00	63.7	62.2	61.8	61.3	60.7	61.2
2	07:00 to 08:00	66.3	64.9	63.4	62.9	61.9	62.7
3	08:00 to 09:00	62.5	61.8	65.3	64.7	65.4	63.4
4	09:00 to 10:00	68.1	67.4	66.2	65.4	64.8	63.8
5	10:00 to 11:00	65.9	66.5	64.3	66.3	66.3	61.5
6	11:00 to 12:00	67.7	67.3	65.8	64.5	65.7	63.7
7	12:00 to 13:00	65.6	66.2	64.5	66.8	64.2	66.3
8	13:00 to 14:00	64.2	65.8	67.1	65.1	64.8	65.3
9	14:00 to 15:00	67.5	67.3	65.4	66.4	65.4	63.2
10	15:00 to 16:00	68.5	68.4	67.6	67.8	66.1	65.8
11	16:00 to 17:00	63.8	65.3	65.2	64.3	65.3	66.4
12	17:00 to 18:00	66.5	65.8	67.4	65.7	63.2	62.6
13	18:00 to 19:00	62.6	64.1	65.2	64.5	65.6	66.7
14	19:00 to 20:00	65.9	64.3	65.8	64.3	63.8	64.5
15	20:00 to 21:00	63.5	62.9	63.4	64.9	60.7	63.8
16	21:00 to 22:00	63.2	63.4	63.2	62.7	60.6	58.6
<b>Day Time</b>		<b>&lt;75 dB (A)</b>					

Location Name		West Port – West Basin Main Gate					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) – Night Time					
		21-10-2024	21-11-2024	19-12-2024	20-01-2025	20-02-2025	20-03-2025
1	22:00 to 23:00	62.3	61.1	62.6	63.1	60.7	61.2
2	23:00 to 24:00	60.8	62.3	64.2	62.5	61.3	63.5
3	24:00 to 01:00	62.4	61.8	61.6	63.4	61.7	62.3
4	01:00 to 02:00	64.5	63.5	63.4	62.4	63.8	63.4
5	02:00 to 03:00	63.2	61.9	64.4	61.9	62.5	60.8
6	03:00 to 04:00	61.9	63.4	62.8	60.4	63.1	61.3
7	04:00 to 05:00	58.5	60.3	63.1	62.4	61.8	62.3
8	05:00 to 06:00	61.8	59.6	61.5	60.5	58.7	59.5
<b>Night Time</b>		<b>&lt;70 dB (A)</b>					
<b>Test Method</b>		<b>IS: 9989 : 1981</b>					



**Nikunj D. Patel**  
(Chemist)




**Jaivik S. Tandel**  
(Manager - Operations)



### Results of Noise Level Monitoring

Location Name		West Port – Horti Culture					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Day Time					
		24-10-2024	25-11-2024	23-12-2024	23-01-2025	24-02-2025	24-03-2025
1	06:00 to 07:00	64.5	64.1	63.5	63.5	63.2	63.8
2	07:00 to 08:00	65.4	64.8	65.8	64.7	63.5	65.2
3	08:00 to 09:00	68.2	67.5	66.4	65.9	67.5	66.8
4	09:00 to 10:00	66.7	68.7	67.7	66.1	66.3	65.4
5	10:00 to 11:00	64.3	66.9	65.4	64.3	65.4	67.5
6	11:00 to 12:00	65.9	67.4	68.3	66.8	67.2	66.7
7	12:00 to 13:00	68.2	67.2	66.8	67.5	65.4	67.3
8	13:00 to 14:00	67.5	68.6	66.3	64.7	66.3	66.5
9	14:00 to 15:00	64.3	65.7	64.8	65.2	64.3	65.1
10	15:00 to 16:00	67.4	66.4	67.3	66.4	65.1	64.8
11	16:00 to 17:00	67.1	68.3	65.4	65.7	63.4	64.7
12	17:00 to 18:00	64.8	66.4	65.3	66.3	65.8	65.1
13	18:00 to 19:00	66.5	65.3	64.3	65.4	64.1	63.2
14	19:00 to 20:00	64.8	62.8	64.7	62.7	64.6	62.9
15	20:00 to 21:00	61.3	64.5	63.2	62.4	63.8	64.7
16	21:00 to 22:00	61.8	62.1	64.1	63.6	61.7	60.5
<b>Day Time</b>		<b>&lt;75 dB (A)</b>					

Location Name		West Port – Horti Culture					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Night Time					
		24-10-2024	25-11-2024	23-12-2024	23-01-2025	24-02-2025	24-03-2025
1	22:00 to 23:00	61.8	59.3	60.4	62.8	62.5	63.1
2	23:00 to 24:00	63.4	60.7	61.3	64.8	63.8	62.3
3	24:00 to 01:00	65.7	64.3	63.5	62.4	64.2	63.4
4	01:00 to 02:00	63.4	65.1	65.5	64.8	62.4	62.8
5	02:00 to 03:00	64.8	63.2	62.8	64.2	64.5	63.5
6	03:00 to 04:00	63.2	64.8	63.4	63.8	62.3	63.4
7	04:00 to 05:00	61.4	62.1	61.3	63.1	63.7	61.3
8	05:00 to 06:00	62.3	61.4	59.9	61.7	61.2	59.7
<b>Night Time</b>		<b>&lt;70 dB (A)</b>					

<b>Test Method</b>	<b>IS: 9989 : 1981</b>
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**Nikunj D. Patel**  
(Chemist)




**Jaivik S. Tandel**  
(Manager - Operations)

### Results of Noise Level Monitoring

Location Name		WEST PORT - PMC OFFICE					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Day Time					
		28-10-2024	28-11-2024	26-12-2024	27-01-2025	27-02-2025	27-03-2025
1	06:00 to 07:00	62.4	61.8	61.4	59.2	57.8	58.4
2	07:00 to 08:00	64.3	62.4	63.5	60.5	61.4	60.5
3	08:00 to 09:00	67.4	64.3	63.9	61.4	63.2	64.2
4	09:00 to 10:00	68.8	65.8	64.3	65.8	62.8	64.7
5	10:00 to 11:00	66.5	67.8	65.3	62.5	64.7	66.2
6	11:00 to 12:00	68.2	64.1	66.7	64.7	65.8	65.3
7	12:00 to 13:00	69.3	68.7	65.4	65.4	64.2	66.4
8	13:00 to 14:00	68.5	65.3	67.3	66.3	65.7	64.3
9	14:00 to 15:00	67.4	68.9	66.5	66.7	66.4	65.9
10	15:00 to 16:00	65.3	64.6	68.2	64.6	64.2	65.3
11	16:00 to 17:00	65.5	66.9	65.4	68.2	61.3	63.1
12	17:00 to 18:00	65.7	64.3	66.7	64.5	63.3	64.5
13	18:00 to 19:00	67.2	63.6	65.4	63.2	62.7	64.8
14	19:00 to 20:00	64.9	65.7	63.2	65.9	62.3	60.8
15	20:00 to 21:00	63.9	64.1	65.1	64.7	59.3	62.3
16	21:00 to 22:00	62.5	64.3	63.5	61.4	58.1	59.2
<b>Day Time</b>		<b>&lt;75 dB (A)</b>					

Location Name		WEST PORT - PMC OFFICE					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Night Time					
		28-10-2024	28-11-2024	26-12-2024	27-01-2025	27-02-2025	27-03-2025
1	22:00 to 23:00	61.3	61.8	62.2	60.3	61.3	61.8
2	23:00 to 24:00	60.5	62.4	63.6	62.4	60.9	62.3
3	24:00 to 01:00	60.8	61.5	64.1	63.5	61.5	60.5
4	01:00 to 02:00	62.5	63.8	62.3	61.3	61.8	63.4
5	02:00 to 03:00	63.8	62.4	64.3	63.4	63.2	62.5
6	03:00 to 04:00	60.4	61.9	60.8	62.5	60.7	60.2
7	04:00 to 05:00	62.4	61.2	63.4	61.8	59.4	60.7
8	05:00 to 06:00	58.7	59.1	61.7	62.4	61.6	60.2
Day Time		<70 dB (A)					

Test Method	IS: 9989 : 1981
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**Nikunj D. Patel**  
(Chemist)




**Jaivik S. Tandel**  
(Manager - Operations)

### Results of Noise Level Monitoring

Location Name		LPG Terminal Substation					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Day Time					
		17-10-2024	18-11-2024	16-12-2024	16-01-2025	17-02-2025	17-03-2025
1	06:00 to 07:00	64.2	63.5	63.4	62.8	63.1	63.4
2	07:00 to 08:00	63.8	62.8	65.1	66.3	62.5	63.2
3	08:00 to 09:00	66.7	64.5	63.7	65.3	63.8	64.5
4	09:00 to 10:00	65.2	67.1	65.5	65.8	66.6	65.2
5	10:00 to 11:00	67.1	68.4	67.1	65.3	64.5	65.8
6	11:00 to 12:00	65.8	66.5	65.4	66.2	66.3	65.4
7	12:00 to 13:00	64.5	67.8	66.7	65.4	65.7	64.5
8	13:00 to 14:00	67.3	66.3	65.7	67.4	65.3	66.8
9	14:00 to 15:00	66.8	65.7	64.5	64.7	65.8	64.5
10	15:00 to 16:00	63.1	65.1	63.2	64.3	67.2	67.1
11	16:00 to 17:00	65.8	62.8	64.5	65.7	66.4	65.6
12	17:00 to 18:00	68.1	64.9	66.7	66.2	64.7	64.3
13	18:00 to 19:00	64.8	65.8	67.2	65.7	63.9	64.2
14	19:00 to 20:00	65.3	66.1	65.4	65.3	66.4	65.7
15	20:00 to 21:00	63.9	65.2	63.2	62.8	63.2	62.3
16	21:00 to 22:00	62.3	62.7	61.9	61.2	63.3	61.8
<b>Day Time</b>		<b>&lt;75 dB (A)</b>					

Location Name		LPG Terminal Substation					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) – Night Time					
		17-10-2024	18-11-2024	16-12-2024	16-01-2025	17-02-2025	17-03-2025
1	22:00 to 23:00	59.8	60.5	63.3	62.5	63.1	61.8
2	23:00 to 24:00	61.9	59.5	61.3	63.7	62.5	61.3
3	24:00 to 01:00	60.8	60.4	62.8	61.8	63.2	63.4
4	01:00 to 02:00	62.4	61.3	64.5	63.5	64.5	64.5
5	02:00 to 03:00	63.7	62.6	63.8	64.5	63.1	62.8
6	03:00 to 04:00	61.3	61.5	61.3	64.3	61.8	60.5
7	04:00 to 05:00	60.3	61.8	62.4	63.2	63.7	61.3
8	05:00 to 06:00	58.3	59.4	60.7	61.7	61.3	60.8
<b>Night Time</b>		<b>&lt;70 dB (A)</b>					

<b>Test Method</b>	<b>IS: 9989 : 1981</b>
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**Nikunj D. Patel**  
(Chemist)




**Jaivik S. Tandel**  
(Manager - Operations)

### Results of Noise Level Monitoring

Location Name		Adani Guest House					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Day Time					
		16-10-2024	23-11-2024	18-12-2024	18-01-2025	18-02-2025	14-03-2025
1	06:00 to 07:00	61.6	61.2	59.8	57.5	58.8	57.5
2	07:00 to 08:00	63.8	62.8	60.7	59.3	61.3	59.4
3	08:00 to 09:00	64.9	63.7	62.4	61.3	60.4	60.3
4	09:00 to 10:00	63.4	65.7	67.5	60.8	59.7	62.4
5	10:00 to 11:00	62.1	63.8	64.3	62.4	64.7	63.7
6	11:00 to 12:00	64.5	65.9	66.2	65.7	63.5	64.8
7	12:00 to 13:00	64.7	66.4	64.8	64.3	62.3	64.2
8	13:00 to 14:00	62.8	63.8	65.7	65.8	64.8	65.7
9	14:00 to 15:00	65.4	64.2	62.6	61.4	63.8	64.5
10	15:00 to 16:00	64.8	64.3	65.1	64.2	66.1	66.6
11	16:00 to 17:00	63.9	65.1	64.3	65.7	64.5	65.8
12	17:00 to 18:00	63.6	64.2	63.9	62.7	64.7	66.3
13	18:00 to 19:00	64.7	62.8	65.2	64.3	65.3	64.1
14	19:00 to 20:00	62.8	63.8	61.7	60.8	63.7	64.5
15	20:00 to 21:00	60.2	61.3	60.8	61.4	60.8	62.3
16	21:00 to 22:00	59.9	58.6	59.4	58.7	58.2	58.3
<b>Day Time</b>		<b>&lt;75 dB (A)</b>					

Location Name		Adani Guest House					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) – Night Time					
		16-10-2024	23-11-2024	18-12-2024	18-01-2025	18-02-2025	14-03-2025
1	22:00 to 23:00	58.8	57.3	57.6	57.2	57.6	58.3
2	23:00 to 24:00	59.4	59.1	58.4	57.8	58.2	59.1
3	24:00 to 01:00	64.3	60.5	63.2	59.4	60.4	59.5
4	01:00 to 02:00	62.3	62.4	60.5	61.1	59.4	62.3
5	02:00 to 03:00	63.6	61.8	62.4	63.6	61.3	60.6
6	03:00 to 04:00	61.2	60.3	61.8	60.5	62.3	59.7
7	04:00 to 05:00	60.5	61.8	62.3	61.3	60.7	61.2
8	05:00 to 06:00	58.3	58.2	59.2	58.7	57.9	58.5
<b>Night Time</b>		<b>&lt;70 dB (A)</b>					

<b>Test Method</b>	<b>IS: 9989 : 1981</b>
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**Nikunj D. Patel**  
(Chemist)




**Jaivik S. Tandel**  
(Manager - Operations)



### Results of Noise Level Monitoring

Location Name		CT-4 RMU-2					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Day Time					
		19-10-2024	26-11-2024	21-12-2024	21-01-2025	22-02-2025	18-03-2025
1	06:00 to 07:00	62.3	62.6	64.1	63.8	63.2	63.1
2	07:00 to 08:00	64.5	61.9	64.3	65.4	66.2	64.5
3	08:00 to 09:00	65.4	63.5	62.8	66.8	64.8	65.7
4	09:00 to 10:00	66.1	64.8	65.6	64.8	65.7	65.3
5	10:00 to 11:00	64.7	67.5	67.8	65.2	67.4	66.2
6	11:00 to 12:00	65.6	67.3	65.4	67.8	67.2	66.5
7	12:00 to 13:00	66.2	68.4	67.5	67.2	65.4	67.4
8	13:00 to 14:00	67.2	64.2	66.9	66.4	65.7	66.2
9	14:00 to 15:00	65.4	65.7	64.3	65.8	63.4	64.9
10	15:00 to 16:00	66.9	68.4	66.9	65.7	65.1	65.7
11	16:00 to 17:00	65.4	66.7	65.2	67.3	66.8	66.2
12	17:00 to 18:00	66.2	64.3	66.4	65.9	66.2	65.4
13	18:00 to 19:00	64.3	65.8	67.8	65.2	63.5	65.2
14	19:00 to 20:00	64.7	62.6	64.3	63.5	64.5	62.4
15	20:00 to 21:00	63.5	65.3	62.8	64.1	63.4	64.5
16	21:00 to 22:00	63.1	62.9	63.1	61.5	62.6	61.8
<b>Day Time</b>		<b>&lt;75 dB (A)</b>					

Location Name		CT-4 RMU-2					
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) – Night Time					
		19-10-2024	26-11-2024	21-12-2024	21-01-2025	22-02-2025	18-03-2025
1	22:00 to 23:00	62.3	61.9	61.3	62.5	61.8	61.5
2	23:00 to 24:00	63.5	64.2	63.2	62.4	63.6	63.2
3	24:00 to 01:00	66.4	64.8	61.8	63.7	64.7	63.9
4	01:00 to 02:00	64.3	65.1	64.7	62.5	63.2	64.7
5	02:00 to 03:00	65.8	63.8	62.7	64.5	62.8	64.2
6	03:00 to 04:00	64.3	62.7	63.5	63.1	63.5	62.4
7	04:00 to 05:00	62.1	63.4	61.3	60.8	61.5	60.5
8	05:00 to 06:00	61.5	61.5	60.4	61.4	61.1	60.8
Night Time		<70 dB (A)					

Test Method	IS: 9989 : 1981
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**Nikunj D. Patel**  
(Chemist)




**Jaivik S. Tandel**  
(Manager - Operations)

### Results of Stack Monitoring

Sr. No.	Parameter	Unit	Mar – 2025		GPCB LIMIT	Method of Test
			D.G.Set No. S-1 (1500 KVA )	D.G.Set No. S-2 (1500 KVA )		
			27-03-2025	27-03-2025		
1	Particulate Matter	mg/Nm <sup>3</sup>	23.71	25.11	150	IS 11255 (Part - 1)
2	Sulfur Dioxide as SO <sub>2</sub>	ppm	18.75	18.21	100	IS 11255 (Part - 2)
3	Oxides of Nitrogen as NO <sub>x</sub>	ppm	27.42	24.74	50	IS 11255 (Part - 7)



**Nikunj D. Patel**  
(Chemist)




**Jaivik S. Tandel**  
(Manager - Operations)

Sr. No.	Parameter	Unit	Mar-25	GPCB LIMIT	Method of Test
			D.G. Set-1 (2000 KVA)		
			27-03-2025		
1	Particulate Matter	mg/Nm <sup>3</sup>	32.11	150	IS 11255 (Part - 1)
2	Sulphur Dioxide	ppm	14.32	100	IS 11255 (Part - 2)
3	Oxide of Nitrogen	ppm	27.5	50	IS 11255 (Part - 7)
4	Carbon Monoxide	mg/Nm <sup>3</sup>	4.8	--	UERL/AIR/SOP/18
5	Non Methyl Hydro Carbon	ppm	Not Detected	--	UERL/AIR/SOP/27



**Nikunj D. Patel**  
(Chemist)




**Jaivik S. Tandel**  
(Manager - Operations)

## Minimum Detection Limit

### Ambient Air Quality Monitoring

Sr. No.	Test Parameter	Unit	MDL
1	Particulate Matter (PM10)	µg/m <sup>3</sup>	5 µg/m <sup>3</sup>
2	Particulate Matter (PM10)	µg/m <sup>3</sup>	5 µg/m <sup>3</sup>
3	Sulphur Dioxide (SO <sub>2</sub> )	µg/m <sup>3</sup>	4 µg/m <sup>3</sup>
4	Nitrogen Dioxide (NO <sub>2</sub> )	µg/m <sup>3</sup>	5 µg/m <sup>3</sup>
5	Carbon Monoxide (CO)	mg/m <sup>3</sup>	0.01 mg/m <sup>3</sup>
6	Ammonia (NH <sub>3</sub> )	µg/m <sup>3</sup>	5 µg/m <sup>3</sup>
7	Ozone (O <sub>3</sub> )	µg/m <sup>3</sup>	5 µg/m <sup>3</sup>
8	Lead (Pb)	µg/m <sup>3</sup>	0.5 µg/m <sup>3</sup>
9	Nickle (Ni)	ng/m <sup>3</sup>	1 ng/m <sup>3</sup>
10	Arsenic (As)	ng/m <sup>3</sup>	1 ng/m <sup>3</sup>
11	Benzene	µg/m <sup>3</sup>	1µg/m <sup>3</sup>
12	Benzo(o)Pyrene	ng/m <sup>3</sup>	0.1 ng/m <sup>3</sup>
14	Hydro Carbon	µg/m <sup>3</sup>	1 µg/m <sup>3</sup>

### Stack Emission Monitoring

Sr. No.	Test Parameter	Unit	MDL
1	Suspended particulate matter	mg/Nm <sup>3</sup>	2 mg/Nm <sup>3</sup>
2	Sulphur Dioxide SO <sub>2</sub>	mg/Nm <sup>3</sup>	4 mg/Nm <sup>3</sup>
3	Oxides of Nitrogen NO <sub>x</sub>	mg/Nm <sup>3</sup>	5 mg/Nm <sup>3</sup>

STP Outlet			
Sr. No.	Test Parameter	Unit	MDL
1	pH @ 25 ° C	--	2
2	Total Suspended Solids	mg/L	4
3	Biochemical Oxygen Demand (BOD) (5 days at 20 ° C)	mg/L	1
4	Residual chlorine	mg/L	0.1
5	Fecal Coliform	MPN/100	<2

### ETP Outlet

Sr. No.	Test Parameter	Unit	MDL
1	Colour	Pt. Co. Scale	5
2	pH @ 27 ° C	--	2
3	Temperature	0c	5
4	Total Suspended Solids	mg/L	4
5	Total Dissolved Solids	mg/L	4
6	COD	mg/L	2
7	BOD (3 days at 27 °C)	mg/L	1
8	Chloride (as Cl) -	mg/L	1
9	Oil & Grease	mg/L	4
10	Sulphate (as SO <sub>4</sub> )	mg/L	1
11	Ammonical Nitrogen	mg/L	5
12	Phenolic Compound	mg/L	0.1
13	Copper as Cu	mg/L	0.05
14	Lead as Pb	mg/L	0.01
15	Sulphide as S	mg/L	0.05
16	Cadmium as Cd	mg/L	0.003
17	Fluoride as F	mg/L	0.2
18	Residual Chlorine	mg/L	0.1
19	Percent Sodium	%	--
20	Sodium Absorption ratio	--	--

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Auditor (Schedule-11)

ISO 9001 : 2015  
Certified Company

ISO 45001 : 2018  
Certified Company

### Monthly Average Report

#### AMBIENT AIR MONITORING

Name and Address of Client

M/s. Adani Power Limited, Mundra

Village: Tunda & Siracha,  
Tal. Mundra, Dist.: Kutch.  
GUJARAT – 370 435.

Month of Monitoring

: October - 2024

Name of Location

: Village - Siracha

ID No.

: URA/ID/A-24/10/001

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{m}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	01/10/2024	60.3	30.3	15.3	17.4	--	--
2.	04/10/2024	52.0	26.8	12.8	14.9	--	--
3.	08/10/2024	65.9	32.2	16.3	20.2	--	--
4.	11/10/2024	60.3	27.5	14.1	17.6	--	--
5.	15/10/2024	53.1	21.1	13.9	16.1	18.5	BDL
6.	18/10/2024	58.9	28.5	11.5	14.6	--	--
7.	22/10/2024	54.5	25.1	14.2	16.9	--	--
8.	25/10/2024	61.3	28.2	16.4	18.5	--	--
9.	29/10/2024	56.7	25.6	17.1	18.1	--	--
<b>Average</b>		<b>58.1</b>	<b>27.3</b>	<b>14.6</b>	<b>17.1</b>	--	--

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample

**Analysis Method Reference:** SPM – IS: 5182 (Part 4), 1999, PM<sub>10</sub> – IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- Guidelines by CPCB (Vol-1), SO<sub>2</sub> – IS: 5182 (Part 2), 2001, NO<sub>x</sub> – IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O<sub>3</sub>: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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### Monthly Average Report

#### AMBIENT AIR MONITORING

**Name and Address of Client** : M/s. Adani Power Limited, Mundra  
Village: Tunda & Siracha,  
Tal. Mundra, Dist.: Kutch.  
GUJARAT – 370 435.

**Month of Monitoring** : October - 2024

**Name of Location** : Village – Kandagara

**ID No.** : URA/ID/A-24/10/002

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{m}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		<b>100</b>	<b>60</b>	<b>80</b>	<b>80</b>	<b>100</b>	<b>N.A.</b>
1.	01/10/2024	58.4	24.1	11.1	15.9	--	--
2.	04/10/2024	62.0	31.4	12.1	16.0	--	--
3.	08/10/2024	66.0	34.9	15.7	19.9	--	--
4.	11/10/2024	54.2	24.3	13.6	16.7	--	--
5.	15/10/2024	52.8	28.9	16.5	21.2	19.3	BDL
6.	18/10/2024	68.9	35.3	14.4	18.3	--	--
7.	22/10/2024	57.5	29.3	13.6	17.8	--	--
8.	25/10/2024	54.3	26.0	15.2	18.9	--	--
9.	29/10/2024	49.7	21.8	16.1	18.3	--	--
<b>Average</b>		<b>59.3</b>	<b>28.4</b>	<b>14.3</b>	<b>18.1</b>	--	--

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

**Analysis Method Reference:** SPM– IS: 5182 (Part 4), 1999, PM<sub>10</sub>– IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- Guidelines by CPCB (Vol-1), SO<sub>2</sub>– IS: 5182 (Part 2), 2001, NO<sub>x</sub>– IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O<sub>3</sub>: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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Consultant Organization

GPCB Recognized Environmental  
Auditor (Schedule-11)

ISO 9001 : 2015  
Certified Company

ISO 45001 : 2018  
Certified Company

### Monthly Average Report

#### AMBIENT AIR MONITORING

**Name and Address of Client** : M/s. Adani Power Limited, Mundra  
Village: Tunda & Siracha,  
Tal. Mundra, Dist.: Kutch.  
GUJARAT – 370 435.

**Month of Monitoring** : October - 2024

**Name of Location** : Village - Wandh

**ID No.** : URA/ID/A-24/10/003

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{m}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	01/10/2024	64.0	29.0	14.3	17.2	--	--
2.	04/10/2024	70.0	33.1	17.2	20.2	--	--
3.	08/10/2024	51.2	24.0	16.4	17.7	--	--
4.	11/10/2024	73.0	30.6	14.0	16.3	--	--
5.	15/10/2024	50.9	25.2	15.9	21.2	20.5	BDL
6.	18/10/2024	76.6	34.5	13.7	15.8	--	--
7.	22/10/2024	58.7	31.1	18.6	20.4	--	--
8.	25/10/2024	65.6	32.1	15.9	19.1	--	--
9.	29/10/2024	71.6	37.5	15.7	17.9	--	--
<b>Average</b>		<b>64.6</b>	<b>30.8</b>	<b>15.7</b>	<b>18.4</b>	--	--

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample

**Analysis Method Reference:** SPM - IS: 5182 (Part 4), 1999, PM<sub>10</sub> - IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- Guidelines by CPCB (Vol-1), SO<sub>2</sub> - IS: 5182 (Part 2), 2001, NO<sub>x</sub> - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O<sub>3</sub>: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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ISO 9001 : 2015  
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### Monthly Average Report

#### AMBIENT AIR MONITORING

**Name and Address of Client** : **M/s. Adani Power Limited, Mundra**  
Village: Tunda & Siracha,  
Tal. Mundra, Dist.: Kutch.  
GUJARAT – 370 435.

**Month of Monitoring** : October - 2024

**Name of Location** : Nr.20 MLD Plant

**ID No.** : **URA/ID/A-24/10/004**

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{m}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		<b>100</b>	<b>60</b>	<b>80</b>	<b>80</b>	<b>100</b>	<b>N.A.</b>
1	21/10/2024	70.5	26.3	16.4	23.7	22.7	BDL
<b>Average</b>		<b>70.5</b>	<b>26.3</b>	<b>16.4</b>	<b>23.7</b>	<b>22.7</b>	<b>BDL</b>

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

**Analysis Method Reference:** SPM - IS: 5182 (Part 4), 1999, PM<sub>10</sub> - IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- Guidelines by CPCB (Vol-1), SO<sub>2</sub> - IS: 5182 (Part 2), 2001, NO<sub>x</sub> - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O<sub>3</sub>: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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ISO 9001 : 2015  
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### Monthly Average Report

#### AMBIENT AIR MONITORING

**Name and Address of Client** : M/s. Adani Power Limited, Mundra  
Village: Tunda & Siracha,  
Tal. Mundra, Dist.: Kutch.  
GUJARAT – 370 435.

**Month of Monitoring** : October - 2024

**Name of Location** : Nr. Shantiniketan - 1

**ID No.** : URA/ID/A-24/10/005

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{m}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1	21/10/2024	61.7	22.4	12.3	17.6	20.5	BDL
<b>Average</b>		<b>61.7</b>	<b>22.4</b>	<b>12.3</b>	<b>17.6</b>	<b>20.5</b>	<b>BDL</b>

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

**Analysis Method Reference:** SPM - IS: 5182 (Part 4), 1999, PM<sub>10</sub> - IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- Guidelines by CPCB (Vol-1), SO<sub>2</sub> - IS: 5182 (Part 2), 2001, NO<sub>x</sub> - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O<sub>3</sub>: IS – 5182 (Part 9) 2009Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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### Monthly Average Report

#### AMBIENT AIR MONITORING

Name and Address of Client

M/s. Adani Power Limited, Mundra

Village: Tunda & Siracha,

Tal. Mundra, Dist.: Kutch.

GUJARAT – 370 435.

Month of Monitoring

: November - 2024

Name of Location

: Village - Siracha

ID No.

: URA/ID/A-24/11/001

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{m}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	01/11/2024	58.8	33.3	11.6	15.4	--	--
2.	05/11/2024	63.6	22.7	16.5	22.2	--	--
3.	08/11/2024	54.5	29.1	13.4	16.2	--	--
4.	12/11/2024	60.4	31.7	13.7	17.2	17.4	BDL
5.	15/11/2024	53.0	21.1	16.3	20.6	--	--
6.	19/11/2024	55.8	29.0	10.8	14.7	--	--
7.	22/11/2024	61.0	32.9	14.5	17.3	--	--
8.	26/11/2024	59.9	26.4	15.7	20.8	--	--
9.	29/11/2024	58.2	28.4	13.2	17.9	--	--
<b>Average</b>		<b>58.4</b>	<b>28.3</b>	<b>14.0</b>	<b>18.0</b>	--	--

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample

**Analysis Method Reference:** SPM – IS: 5182 (Part 4), 1999, PM<sub>10</sub> – IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- Guidelines by CPCB (Vol-1), SO<sub>2</sub> – IS: 5182 (Part 2), 2001, NO<sub>x</sub> – IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O<sub>3</sub>: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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### Monthly Average Report

#### AMBIENT AIR MONITORING

**Name and Address of Client** : M/s. Adani Power Limited, Mundra  
Village: Tunda & Siracha,  
Tal. Mundra, Dist.: Kutch.  
GUJARAT – 370 435.

**Month of Monitoring** : November - 2024

**Name of Location** : Village – Kandagara

**ID No.** : URA/ID/A-24/11/002

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{m}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		<b>100</b>	<b>60</b>	<b>80</b>	<b>80</b>	<b>100</b>	<b>N.A.</b>
1.	01/11/2024	66.1	30.2	12.1	16.2	--	--
2.	05/11/2024	53.8	29.2	18.6	24.6	--	--
3.	08/11/2024	52.8	23.0	17.7	21.4	--	--
4.	12/11/2024	55.7	27.1	13.2	18.7	18.2	BDL
5.	15/11/2024	63.4	35.2	12.5	16.1	--	--
6.	19/11/2024	64.4	26.9	11.6	15.7	--	--
7.	22/11/2024	73.1	33.3	19.4	22.3	--	--
8.	26/11/2024	56.0	29.4	15.3	21.6	--	--
9.	29/11/2024	59.7	25.6	14.1	17.3	--	--
<b>Average</b>		<b>60.5</b>	<b>28.9</b>	<b>14.9</b>	<b>19.3</b>	--	--

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

**Analysis Method Reference:** SPM– IS: 5182 (Part 4), 1999, PM<sub>10</sub>– IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- Guidelines by CPCB (Vol-1), SO<sub>2</sub>– IS: 5182 (Part 2), 2001, NO<sub>x</sub>– IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O<sub>3</sub>: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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### Monthly Average Report

#### AMBIENT AIR MONITORING

**Name and Address of Client** : M/s. Adani Power Limited, Mundra  
Village: Tunda & Siracha,  
Tal. Mundra, Dist.: Kutch.  
GUJARAT – 370 435.

**Month of Monitoring** : November - 2024

**Name of Location** : Village - Wandh

**ID No.** : URA/ID/A-24/11/003

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{m}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	01/11/2024	68.0	31.7	14.1	15.7	--	--
2.	05/11/2024	74.5	39.5	22.4	25.5	--	--
3.	08/11/2024	64.1	32.4	17.6	21.1	--	--
4.	12/11/2024	58.9	28.3	16.3	19.3	23.8	BDL
5.	15/11/2024	60.1	25.5	14.9	20.7	--	--
6.	19/11/2024	60.4	27.4	12.7	15.2	--	--
7.	22/11/2024	65.2	36.4	13.6	17.5	--	--
8.	26/11/2024	71.5	39.9	15.6	22.1	--	--
9.	29/11/2024	61.5	34.5	18.3	23.7	--	--
<b>Average</b>		<b>64.9</b>	<b>32.8</b>	<b>16.2</b>	<b>20.1</b>	--	--

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample

**Analysis Method Reference:** SPM - IS: 5182 (Part 4), 1999, PM<sub>10</sub> - IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- Guidelines by CPCB (Vol-1), SO<sub>2</sub> - IS: 5182 (Part 2), 2001, NO<sub>x</sub> - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O<sub>3</sub>: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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### Monthly Average Report

#### AMBIENT AIR MONITORING

**Name and Address of Client** : M/s. Adani Power Limited, Mundra  
Village: Tunda & Siracha,  
Tal. Mundra, Dist.: Kutch.  
GUJARAT – 370 435.

**Month of Monitoring** : November - 2024

**Name of Location** : Nr.20 MLD Plant

**ID No.** : URA/ID/A-24/11/004

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{m}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1	26/11/2024	67.3	24.8	15.2	21.4	26.8	BDL
<b>Average</b>		<b>67.3</b>	<b>24.8</b>	<b>15.2</b>	<b>21.4</b>	<b>26.8</b>	<b>BDL</b>

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

**Analysis Method Reference:** SPM - IS: 5182 (Part 4), 1999, PM<sub>10</sub> - IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- Guidelines by CPCB (Vol-1), SO<sub>2</sub> - IS: 5182 (Part 2), 2001, NO<sub>x</sub> - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O<sub>3</sub>: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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### Monthly Average Report

#### AMBIENT AIR MONITORING

**Name and Address of Client** : M/s. Adani Power Limited, Mundra  
Village: Tunda & Siracha,  
Tal. Mundra, Dist.: Kutch.  
GUJARAT – 370 435.

**Month of Monitoring** : November - 2024

**Name of Location** : Nr. Shantiniketan - 1

**ID No.** : URA/ID/A-24/11/005

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{m}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1	27/11/2024	59.7	20.5	13.6	18.5	23.4	BDL
<b>Average</b>		<b>59.7</b>	<b>20.5</b>	<b>13.6</b>	<b>18.5</b>	<b>23.4</b>	<b>BDL</b>

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

**Analysis Method Reference:** SPM - IS: 5182 (Part 4), 1999, PM<sub>10</sub> - IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- Guidelines by CPCB (Vol-1), SO<sub>2</sub> - IS: 5182 (Part 2), 2001, NO<sub>x</sub> - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O<sub>3</sub>: IS – 5182 (Part 9) 2009Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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**Monthly Average Report**

**AMBIENT AIR MONITORING**

**Name and Address of Client** : **M/s. Adani Power Limited, Mundra**  
 : Village: Tunda & Siracha,  
 : Tal. Mundra, Dist.: Kutch.  
 : GUJARAT – 370 435.

**Month of Monitoring** : December - 2024

**Name of Location** : Village - Siracha

**ID No.** : **URA/ID/A-24/12/001**

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{m}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		<b>100</b>	<b>60</b>	<b>80</b>	<b>80</b>	<b>100</b>	<b>N.A.</b>
1.	03/12/2024	63.8	31.0	18.1	24.7	--	--
2.	06/12/2024	49.5	27.3	16.1	21.7	--	--
3.	10/12/2024	52.0	23.8	13.9	18.2	--	--
4.	13/12/2024	61.4	34.1	11.7	14.9	--	--
5.	17/12/2024	57.9	27.3	16.7	22.5	--	--
6.	20/12/2024	57.5	30.0	14.5	18.4	15.4	BDL
7.	24/12/2024	58.8	25.6	15.9	19.4	--	--
8.	27/12/2024	58.7	28.2	16.1	20.6	--	--
9.	31/12/2024	64.1	33.0	14.5	19.3	--	--
<b>Average</b>		<b>58.2</b>	<b>28.9</b>	<b>15.3</b>	<b>20.0</b>	--	--

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample

**Analysis Method Reference:** SPM – IS: 5182 (Part 4), 1999, PM<sub>10</sub> – IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- Guidelines by CPCB (Vol-1), SO<sub>2</sub> – IS: 5182 (Part 2), 2001, NO<sub>x</sub> – IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O<sub>3</sub>: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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**Monthly Average Report**

**AMBIENT AIR MONITORING**

**Name and Address of Client** : **M/s. Adani Power Limited, Mundra**  
 Village: Tunda & Siracha,  
 Tal. Mundra, Dist.: Kutch.  
 GUJARAT – 370 435.

**Month of Monitoring** : December - 2024

**Name of Location** : Village – Kandagara

**ID No.** : **URA/ID/A-24/12/002**

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{M}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		<b>100</b>	<b>60</b>	<b>80</b>	<b>80</b>	<b>100</b>	<b>N.A.</b>
1.	03/12/2024	66.1	34.8	15.2	20.2	--	--
2.	06/12/2024	57.0	31.7	17.2	20.8	--	--
3.	10/12/2024	46.0	25.7	16.5	22.4	--	--
4.	13/12/2024	66.5	31.7	18.3	23.7	--	--
5.	17/12/2024	68.2	34.3	13.0	17.1	--	--
6.	20/12/2024	54.5	25.0	13.7	18.4	16.3	BDL
7.	24/12/2024	50.4	24.6	16.5	22.5	--	--
8.	27/12/2024	65.5	30.9	14.7	19.5	--	--
9.	31/12/2024	58.8	22.7	17.5	24.3	--	--
<b>Average</b>		<b>59.2</b>	<b>29.0</b>	<b>15.8</b>	<b>21.0</b>	--	--

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

**Analysis Method Reference:** SPM– IS: 5182 (Part 4), 1999, PM<sub>10</sub>– IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- Guidelines by CPCB (Vol-1), SO<sub>2</sub>– IS: 5182 (Part 2), 2001, NO<sub>x</sub>– IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O<sub>3</sub>: IS – 5182 (Part 9) 2009Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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**Monthly Average Report**

**AMBIENT AIR MONITORING**

**Name and Address of Client** : M/s. Adani Power Limited, Mundra  
 Village: Tunda & Siracha,  
 Tal. Mundra, Dist.: Kutch.  
 GUJARAT – 370 435.

**Month of Monitoring** : December - 2024

**Name of Location** : Village - Wandh

**ID No.** : URA/ID/A-24/12/003

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{M}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		<b>100</b>	<b>60</b>	<b>80</b>	<b>80</b>	<b>100</b>	<b>N.A.</b>
1.	03/12/2024	55.3	32.3	12.4	16.8	--	--
2.	06/12/2024	60.3	29.7	17.3	23.9	--	--
3.	10/12/2024	66.4	34.7	14.2	17.8	--	--
4.	13/12/2024	60.6	31.0	19.8	25.1	--	--
5.	17/12/2024	74.6	39.2	16.0	21.3	--	--
6.	20/12/2024	63.4	32.5	13.5	16.2	26.9	BDL
7.	24/12/2024	57.4	28.0	15.6	20.4	--	--
8.	27/12/2024	65.7	33.7	18.8	22.5	--	--
9.	31/12/2024	69.5	37.6	15.2	17.8	--	--
<b>Average</b>		<b>63.7</b>	<b>33.2</b>	<b>15.9</b>	<b>20.2</b>	<b>--</b>	<b>--</b>

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample

**Analysis Method Reference:** SPM - IS: 5182 (Part 4), 1999, PM<sub>10</sub> - IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- Guidelines by CPCB (Vol-1), SO<sub>2</sub> - IS: 5182 (Part 2), 2001, NO<sub>x</sub> - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O<sub>3</sub>: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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**Monthly Average Report**

**AMBIENT AIR MONITORING**

**Name and Address of Client** : **M/s. Adani Power Limited, Mundra**  
 Village: Tunda & Siracha,  
 Tal. Mundra, Dist.: Kutch.  
 GUJARAT – 370 435.

**Month of Monitoring** : December - 2024

**Name of Location** : Nr.20 MLD Plant

**ID No.** : **URA/ID/A-24/12/004**

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{m}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		<b>100</b>	<b>60</b>	<b>80</b>	<b>80</b>	<b>100</b>	<b>N.A.</b>
1	26/12/2024	68.9	27.9	16.8	24.8	31.2	BDL
<b>Average</b>		<b>68.9</b>	<b>27.9</b>	<b>16.8</b>	<b>24.8</b>	<b>31.2</b>	<b>BDL</b>

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

**Analysis Method Reference:** SPM - IS: 5182 (Part 4), 1999, PM<sub>10</sub> - IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- Guidelines by CPCB (Vol-1), SO<sub>2</sub> - IS: 5182 (Part 2), 2001, NO<sub>x</sub> - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O<sub>3</sub>: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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### Monthly Average Report

#### AMBIENT AIR MONITORING

**Name and Address of Client** : M/s. Adani Power Limited, Mundra  
 Village: Tunda & Siracha,  
 Tal. Mundra, Dist.: Kutch.  
 GUJARAT – 370 435.

**Month of Monitoring** : December - 2024

**Name of Location** : Nr. Shantiniketan - 1

**ID No.** : URA/ID/A-24/12/005

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{m}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1	26/12/2024	62.4	23.5	15.2	20.7	25.7	BDL
<b>Average</b>		<b>62.4</b>	<b>23.5</b>	<b>15.2</b>	<b>20.7</b>	<b>25.7</b>	<b>BDL</b>

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

**Analysis Method Reference:** SPM - IS: 5182 (Part 4), 1999, PM<sub>10</sub> - IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- Guidelines by CPCB (Vol-1), SO<sub>2</sub> - IS: 5182 (Part 2), 2001, NO<sub>x</sub> - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O<sub>3</sub>: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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**Monthly Average Report**

**AMBIENT AIR MONITORING**

**Name and Address of Client** : **M/s. Adani Power Limited, Mundra**  
 : Village: Tunda & Siracha,  
 : Tal. Mundra, Dist.: Kutch.  
 : GUJARAT – 370 435.

**Month of Monitoring** : January - 2025

**Name of Location** : Village - Siracha

**ID No.** : **URA/ID/A-25/01/001**

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{m}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		<b>100</b>	<b>60</b>	<b>80</b>	<b>80</b>	<b>100</b>	<b>N.A.</b>
1.	03/01/2025	55.7	29.4	16.7	21.5	--	--
2.	07/01/2025	65.7	24.8	17.9	23.8	--	--
3.	10/01/2025	63.2	27.8	18.5	24.2	--	--
4.	13/01/2025	52.8	29.9	15.7	20.7	--	--
5.	17/01/2025	69.4	32.7	16.2	21.5	--	--
6.	21/01/2025	48.8	24.3	18.1	23.2	18.5	BDL
7.	24/01/2025	61.2	27.5	16.5	20.7	--	--
8.	28/01/2025	54.5	23.8	14.3	21.6	--	--
9.	31/01/2025	59.1	28.2	16.2	22.5	--	--
<b>Average</b>		<b>57.3</b>	<b>27.6</b>	<b>16.7</b>	<b>22.2</b>	<b>--</b>	<b>--</b>

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample

**Analysis Method Reference:** SPM – IS: 5182 (Part 4), 1999, PM<sub>10</sub> – IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- Guidelines by CPCB (Vol-1), SO<sub>2</sub> – IS: 5182 (Part 2), 2001, NO<sub>x</sub> – IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O<sub>3</sub>: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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**Monthly Average Report**

**AMBIENT AIR MONITORING**

**Name and Address of Client** : **M/s. Adani Power Limited, Mundra**  
 Village: Tunda & Siracha,  
 Tal. Mundra, Dist.: Kutch.  
 GUJARAT – 370 435.

**Month of Monitoring** : January - 2025

**Name of Location** : Village – Kandagara

**ID No.** : **URA/ID/A-25/01/002**

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{M}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		<b>100</b>	<b>60</b>	<b>80</b>	<b>80</b>	<b>100</b>	<b>N.A.</b>
1.	03/01/2025	66.1	30.2	14.1	19.8	--	--
2.	07/01/2025	54.4	29.2	16.5	22.5	--	--
3.	10/01/2025	44.8	23.0	15.2	20.3	--	--
4.	13/01/2025	55.7	27.1	17.5	21.5	22.3	BDL
5.	17/01/2025	64.8	35.2	16.3	22.6	--	--
6.	21/01/2025	54.4	26.9	15.1	19.2	--	--
7.	24/01/2025	63.1	33.3	17.5	23.1	--	--
8.	28/01/2025	56.0	29.4	18.2	24.5	--	--
9.	31/01/2025	51.4	25.6	16.5	21.6	--	--
<b>Average</b>		<b>56.7</b>	<b>28.9</b>	<b>16.3</b>	<b>21.7</b>	--	--

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

**Analysis Method Reference:** SPM– IS: 5182 (Part 4), 1999, PM<sub>10</sub>– IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- Guidelines by CPCB (Vol-1), SO<sub>2</sub>– IS: 5182 (Part 2), 2001, NO<sub>x</sub>– IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O<sub>3</sub>: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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**Monthly Average Report**

**AMBIENT AIR MONITORING**

**Name and Address of Client** : M/s. Adani Power Limited, Mundra  
 Village: Tunda & Siracha,  
 Tal. Mundra, Dist.: Kutch.  
 GUJARAT – 370 435.

**Month of Monitoring** : January - 2025

**Name of Location** : Village - Wandh

**ID No.** : URA/ID/A-25/01/003

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{m}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		<b>100</b>	<b>60</b>	<b>80</b>	<b>80</b>	<b>100</b>	<b>N.A.</b>
1.	03/01/2025	59.8	31.9	19.5	24.2	--	--
2.	07/01/2025	76.8	28.9	18.1	23.5	--	--
3.	10/01/2025	64.1	26.5	17.8	24.5	--	--
4.	13/01/2025	67.1	36.3	18.2	21.8	28.7	BDL
5.	17/01/2025	60.3	23.2	19.8	24.5	--	--
6.	21/01/2025	59.5	30.4	20.5	23.8	--	--
7.	24/01/2025	55.9	29.4	17.4	22.3	--	--
8.	28/01/2025	68.6	32.9	16.3	21.5	--	--
9.	31/01/2025	58.8	27.5	17.1	22.4	--	--
<b>Average</b>		<b>63.4</b>	<b>29.7</b>	<b>18.3</b>	<b>23.2</b>	<b>--</b>	<b>--</b>

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample

**Analysis Method Reference:** SPM - IS: 5182 (Part 4), 1999, PM<sub>10</sub> - IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- Guidelines by CPCB (Vol-1), SO<sub>2</sub> - IS: 5182 (Part 2), 2001, NO<sub>x</sub> - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O<sub>3</sub>: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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**Monthly Average Report**

**AMBIENT AIR MONITORING**

**Name and Address of Client** : **M/s. Adani Power Limited, Mundra**  
 Village: Tunda & Siracha,  
 Tal. Mundra, Dist.: Kutch.  
 GUJARAT – 370 435.

**Month of Monitoring** : January - 2025

**Name of Location** : Nr.20 MLD Plant

**ID No.** : **URA/ID/A-25/01/004**

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{m}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		<b>100</b>	<b>60</b>	<b>80</b>	<b>80</b>	<b>100</b>	<b>N.A.</b>
1	20/01/2025	64.7	25.2	18.9	22.6	33.7	BDL
<b>Average</b>		<b>64.7</b>	<b>25.2</b>	<b>18.9</b>	<b>22.6</b>	<b>33.7</b>	<b>BDL</b>

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

**Analysis Method Reference:** SPM - IS: 5182 (Part 4), 1999, PM<sub>10</sub> - IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- Guidelines by CPCB (Vol-1), SO<sub>2</sub> - IS: 5182 (Part 2), 2001, NO<sub>x</sub> - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O<sub>3</sub>: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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**Monthly Average Report**

**AMBIENT AIR MONITORING**

**Name and Address of Client** : M/s. Adani Power Limited, Mundra  
 Village: Tunda & Siracha,  
 Tal. Mundra, Dist.: Kutch.  
 GUJARAT – 370 435.

**Month of Monitoring** : January - 2025

**Name of Location** : Nr. Shantiniketan - 1

**ID No.** : URA/ID/A-25/01/005

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{m}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1	20/01/2025	59.6	20.4	14.2	19.5	26.8	BDL
<b>Average</b>		<b>59.6</b>	<b>20.4</b>	<b>14.2</b>	<b>19.5</b>	<b>26.8</b>	<b>BDL</b>

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

**Analysis Method Reference:** SPM - IS: 5182 (Part 4), 1999, PM<sub>10</sub> - IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- Guidelines by CPCB (Vol-1), SO<sub>2</sub> - IS: 5182 (Part 2), 2001, NO<sub>x</sub> - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O<sub>3</sub>: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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### Monthly Average Report

#### AMBIENT AIR MONITORING

**Name and Address of Client** : **M/s. Adani Power Limited, Mundra**  
 : Village: Tunda & Siracha,  
 : Tal. Mundra, Dist.: Kutch.  
 : GUJARAT – 370 435.

**Month of Monitoring** : February - 2025

**Name of Location** : Village - Siracha

**ID No.** : **URA/ID/A-25/02/001**

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{m}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		<b>100</b>	<b>60</b>	<b>80</b>	<b>80</b>	<b>100</b>	<b>N.A.</b>
1.	04/02/2025	63.2	29.9	14.8	19.3	--	--
2.	07/02/2025	49.8	22.7	16.2	21.8	--	--
3.	11/02/2025	67.1	25.6	15.3	20.6	15.4	BDL
4.	14/02/2025	53.1	22.4	18.1	24.1	--	--
5.	18/02/2025	61.9	21.1	17.5	22.8	--	--
6.	21/02/2025	50.1	29.0	15.3	20.5	--	--
7.	25/02/2025	60.8	32.0	13.8	18.2	--	--
8.	28/02/2025	54.5	23.8	15.2	19.8	--	--
<b>Average</b>		<b>57.6</b>	<b>25.8</b>	<b>15.8</b>	<b>20.9</b>	--	--

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample

**Analysis Method Reference:** SPM – IS: 5182 (Part 4), 1999, PM<sub>10</sub>-IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- IS - 5182,Part-24,  
 SO<sub>2</sub> – IS: 5182 (Part 2), 2001, NO<sub>x</sub> – IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison &  
 Hg: 2 ppb, O<sub>3</sub>: IS – 5182 (Part 9) 2009, Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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**Monthly Average Report  
 AMBIENT AIR MONITORING**

**Name and Address of Client** : **M/s. Adani Power Limited, Mundra**  
 Village: Tunda & Siracha,  
 Tal. Mundra, Dist.: Kutch.  
 GUJARAT – 370 435.

**Month of Monitoring** : February - 2025

**Name of Location** : Village – Kandagara

**ID No.** : **URA/ID/A-25/02/002**

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{m}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		<b>100</b>	<b>60</b>	<b>80</b>	<b>80</b>	<b>100</b>	<b>N.A.</b>
1.	04/02/2025	62.5	27.9	17.8	23.3	--	--
2.	07/02/2025	51.5	30.0	20.3	26.7	--	--
3.	11/02/2025	51.1	25.3	18.5	23.9	20.2	BDL
4.	14/02/2025	55.6	28.9	15.8	20.6	--	--
5.	18/02/2025	69.6	37.7	17.4	23.8	--	--
6.	21/02/2025	72.3	35.3	16.2	21.4	--	--
7.	25/02/2025	44.3	23.6	19.7	25.2	--	--
8.	28/02/2025	59.0	29.4	16.4	22.7	--	--
<b>Average</b>		<b>58.2</b>	<b>29.8</b>	<b>17.8</b>	<b>23.5</b>	<b>--</b>	<b>--</b>

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

**Analysis Method Reference:** SPM – IS: 5182 (Part 4), 1999, PM<sub>10</sub>-IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- IS - 5182,Part-24, SO<sub>2</sub> – IS: 5182 (Part 2), 2001, NO<sub>x</sub> – IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb, O<sub>3</sub>: IS – 5182 (Part 9) 2009, Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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**Monthly Average Report**  
**AMBIENT AIR MONITORING**

**Name and Address of Client** : M/s. Adani Power Limited, Mundra  
 Village: Tunda & Siracha,  
 Tal. Mundra, Dist.: Kutch.  
 GUJARAT – 370 435.

**Month of Monitoring** : February - 2025

**Name of Location** : Village - Wandh

**ID No.** : URA/ID/A-25/02/003

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{m}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	04/02/2025	69.8	29.1	17.5	23.7	--	--
2.	07/02/2025	75.2	21.4	16.3	21.4	--	--
3.	11/02/2025	64.1	21.1	21.8	27.8	25.2	BDL
4.	14/02/2025	57.1	19.7	19.1	24.5	--	--
5.	18/02/2025	60.8	26.9	22.5	29.1	--	--
6.	21/02/2025	59.5	35.8	21.7	26.5	--	--
7.	25/02/2025	65.9	30.7	18.4	23.9	--	--
8.	28/02/2025	63.3	32.9	20.5	24.7	--	--
<b>Average</b>		<b>64.5</b>	<b>27.2</b>	<b>19.7</b>	<b>25.2</b>	<b>--</b>	<b>--</b>

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample

**Analysis Method Reference:** SPM – IS: 5182 (Part 4), 1999, PM<sub>10</sub>-IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- IS - 5182,Part-24, SO<sub>2</sub> – IS: 5182 (Part 2), 2001, NO<sub>x</sub> – IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb, O<sub>3</sub>: IS – 5182 (Part 9) 2009, Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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### Monthly Average Report

#### AMBIENT AIR MONITORING

**Name and Address of Client** : M/s. Adani Power Limited, Mundra  
 Village: Tunda & Siracha,  
 Tal. Mundra, Dist.: Kutch.  
 GUJARAT – 370 435.

**Month of Monitoring** : February - 2025

**Name of Location** : Nr.20 MLD Plant

**ID No.** : URA/ID/A-25/02/004

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{m}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1	24/02/2025	70.1	29.4	20.4	25.3	33.7	BDL
<b>Average</b>		<b>70.1</b>	<b>29.4</b>	<b>20.4</b>	<b>25.3</b>	<b>33.7</b>	<b>BDL</b>

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

**Analysis Method Reference:** SPM – IS: 5182 (Part 4), 1999, PM<sub>10</sub>-IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- IS - 5182,Part-24, SO<sub>2</sub> – IS: 5182 (Part 2), 2001, NO<sub>x</sub> – IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb, O<sub>3</sub>: IS – 5182 (Part 9) 2009, Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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**Monthly Average Report**

**AMBIENT AIR MONITORING**

**Name and Address of Client** : M/s. Adani Power Limited, Mundra  
 Village: Tunda & Siracha,  
 Tal. Mundra, Dist.: Kutch.  
 GUJARAT – 370 435.

**Month of Monitoring** : February - 2025

**Name of Location** : Nr. Shantiniketan - 1

**ID No.** : URA/ID/A-25/02/005

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{m}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1	24/02/2025	63.7	22.9	15.9	21.3	27.3	BDL
<b>Average</b>		<b>63.7</b>	<b>22.9</b>	<b>15.9</b>	<b>21.3</b>	<b>27.3</b>	<b>BDL</b>

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

**Analysis Method Reference:** SPM – IS: 5182 (Part 4), 1999, PM<sub>10</sub>-IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- IS - 5182,Part-24, SO<sub>2</sub> – IS: 5182 (Part 2), 2001, NO<sub>x</sub> – IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb, O<sub>3</sub>: IS – 5182 (Part 9) 2009, Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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**Monthly Average Report**  
**AMBIENT AIR MONITORING**

**Name and Address of Client** : **M/s. Adani Power Limited, Mundra**  
 : Village: Tunda & Siracha,  
 : Tal. Mundra, Dist.: Kutch.  
 : GUJARAT – 370 435.

**Month of Monitoring** : March - 2025

**Name of Location** : Village - Siracha

**ID No.** : **URA/ID/A-25/03/001**

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{m}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		<b>100</b>	<b>60</b>	<b>80</b>	<b>80</b>	<b>100</b>	<b>N.A.</b>
1.	04/03/2025	57.9	20.8	16.3	20.9	--	--
2.	07/03/2025	43.8	34.0	19.1	24.3	--	--
3.	11/03/2025	72.4	30.2	17.4	22.7	18.7	BDL
4.	14/03/2025	52.5	22.5	18.9	24.2	--	--
5.	18/03/2025	49.5	23.9	22.4	27.1	--	--
6.	21/03/2025	42.0	33.2	20.7	24.8	--	--
7.	25/03/2025	59.1	27.2	16.3	22.4	--	--
8.	28/03/2025	70.4	23.8	19.5	25.2	--	--
<b>Average</b>		<b>56.0</b>	<b>26.9</b>	<b>18.8</b>	<b>24.0</b>	--	--

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample

**Analysis Method Reference:** SPM – IS: 5182 (Part 4), 1999, PM<sub>10</sub>-IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- IS - 5182,Part-24, SO<sub>2</sub> – IS: 5182 (Part 2), 2001, NO<sub>x</sub> – IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb, O<sub>3</sub>: IS – 5182 (Part 9) 2009, Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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### Monthly Average Report

#### AMBIENT AIR MONITORING

**Name and Address of Client** : M/s. Adani Power Limited, Mundra  
 Village: Tunda & Siracha,  
 Tal. Mundra, Dist.: Kutch.  
 GUJARAT – 370 435.

**Month of Monitoring** : March - 2025

**Name of Location** : Village – Kandagara

**ID No.** : URA/ID/A-25/03/002

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{m}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	04/03/2025	58.4	29.7	18.8	22.7	--	--
2.	07/03/2025	56.1	23.9	23.2	28.1	--	--
3.	11/03/2025	63.4	27.4	20.5	25.6	23.9	BDL
4.	14/03/2025	58.2	22.5	17.1	23.2	--	--
5.	18/03/2025	50.6	17.3	22.8	27.8	--	--
6.	21/03/2025	62.1	22.6	20.3	25.3	--	--
7.	25/03/2025	60.7	27.1	15.9	21.3	--	--
8.	28/03/2025	57.1	23.2	18.5	24.7	--	--
<b>Average</b>		<b>58.3</b>	<b>24.2</b>	<b>19.6</b>	<b>24.8</b>	--	--

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

**Analysis Method Reference:** SPM – IS: 5182 (Part 4), 1999, PM<sub>10</sub>-IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- IS - 5182,Part-24, SO<sub>2</sub> – IS: 5182 (Part 2), 2001, NO<sub>x</sub> – IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb, O<sub>3</sub>: IS – 5182 (Part 9) 2009, Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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**Monthly Average Report**

**AMBIENT AIR MONITORING**

**Name and Address of Client** : M/s. Adani Power Limited, Mundra  
 Village: Tunda & Siracha,  
 Tal. Mundra, Dist.: Kutch.  
 GUJARAT – 370 435.

**Month of Monitoring** : March - 2025

**Name of Location** : Village - Wandh

**ID No.** : URA/ID/A-25/03/003

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{m}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	04/03/2025	57.8	28.2	19.3	23.5	--	--
2.	07/03/2025	55.7	25.2	22.1	26.4	--	--
3.	11/03/2025	61.1	23.6	25.3	29.2	28.9	BDL
4.	14/03/2025	52.8	22.2	23.8	26.7	--	--
5.	18/03/2025	49.7	26.6	18.6	23.9	--	--
6.	21/03/2025	66.5	34.4	21.4	26.3	--	--
7.	25/03/2025	72.0	34.6	24.8	29.6	--	--
8.	28/03/2025	69.8	35.5	19.6	25.3	--	--
<b>Average</b>		<b>60.7</b>	<b>28.8</b>	<b>21.9</b>	<b>26.4</b>	--	--

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample

**Analysis Method Reference:** SPM – IS: 5182 (Part 4), 1999, PM<sub>10</sub>-IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- IS - 5182,Part-24, SO<sub>2</sub> – IS: 5182 (Part 2), 2001, NO<sub>x</sub> – IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb, O<sub>3</sub>: IS – 5182 (Part 9) 2009, Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

UniStar Environment &  
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**Monthly Average Report  
 AMBIENT AIR MONITORING**

**Name and Address of Client** : **M/s. Adani Power Limited, Mundra**  
 Village: Tunda & Siracha,  
 Tal. Mundra, Dist.: Kutch.  
 GUJARAT – 370 435.

**Month of Monitoring** : March - 2025

**Name of Location** : Nr.20 MLD Plant

**ID No.** : **URA/ID/A-25/03/004**

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{m}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		<b>100</b>	<b>60</b>	<b>80</b>	<b>80</b>	<b>100</b>	<b>N.A.</b>
1	19/03/2025	67.6	25.9	15.2	22.4	30.2	BDL
<b>Average</b>		<b>67.6</b>	<b>25.9</b>	<b>15.2</b>	<b>22.4</b>	<b>30.2</b>	<b>BDL</b>

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

**Analysis Method Reference:** SPM – IS: 5182 (Part 4), 1999, PM<sub>10</sub>-IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- IS - 5182,Part-24, SO<sub>2</sub> – IS: 5182 (Part 2), 2001, NO<sub>x</sub> – IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb, O<sub>3</sub>: IS – 5182 (Part 9) 2009, Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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### Monthly Average Report

#### AMBIENT AIR MONITORING

**Name and Address of Client** : M/s. Adani Power Limited, Mundra  
 Village: Tunda & Siracha,  
 Tal. Mundra, Dist.: Kutch.  
 GUJARAT – 370 435.

**Month of Monitoring** : March - 2025

**Name of Location** : Nr. Shantiniketan - 1

**ID No.** : URA/ID/A-25/02/005

Sr. No.	Sampling Date	Concentration in Ambient Air ( $\mu\text{g}/\text{m}^3$ )					
		PM <sub>10</sub> $\mu\text{g}/\text{M}^3$	PM <sub>2.5</sub> $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO <sub>2</sub> ) $\mu\text{g}/\text{M}^3$	Ozone (O <sub>3</sub> ) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1	19/03/2025	61.7	22.4	12.3	17.6	24.2	BDL
<b>Average</b>		<b>61.7</b>	<b>22.4</b>	<b>12.3</b>	<b>17.6</b>	<b>24.2</b>	<b>BDL</b>

**Remark:** Calibrated equipment & instruments were used during monitoring & analysis of above identified sample.

**Analysis Method Reference:** SPM – IS: 5182 (Part 4), 1999, PM<sub>10</sub>-IS: 5182 (Part 23), 2006, PM<sub>2.5</sub>- IS - 5182,Part-24, SO<sub>2</sub> – IS: 5182 (Part 2), 2001, NO<sub>x</sub> – IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb, O<sub>3</sub>: IS – 5182 (Part 9) 2009, Ozone BDL limit: 5  $\mu\text{g}/\text{m}^3$

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# MARINE MONITORING REPORT

December 2024 - March 2025



**Submitted to**

**Adani Power Ltd. (APL), Mundra**

Village Tunda & Sirach

Taluka Mundra

District Kutch- 370 435

Gujarat

**Prepared By:**

**M/s. UniStar Environment and Research Labs. Pvt. Ltd.**

215 - Royal Arcade, Near GIDC Office, Char Rasta, Vapi,

District Valsad - 396 195

Gujarat

## PREFACE

**Adani Power Ltd., Mundra (APL, Mundra)** is coal-based Thermal Power plant located near village Tunda and Siracha, Taluka Mundra District Kutch, Gujarat. with capacity of 4620 MW in Phased manner. Currently, APL is a largest coal based Thermal power plant in private sector in INDIA. APL-Mundra has commissioned the first supercritical 660 MW unit (Phase III) in the country. This is also the World's First supercritical technology project to have received the 'Clean Development Mechanism (CDM) Project' certification from United Nations Framework Convention on Climate Change (UNFCCC). Currently, the total power production capacity of the APL-Mundra has increased to 4620 MW.

APL-Mundra has engaged **M/s. UniStar Environment and Research Labs Pvt. Ltd., Vapi** to **carry out the** seasonal Marine Monitoring Study along with the seawater intake and outfall (discharge) channels of APL-Mundra plant. This marine monitoring study involved the assessment of Physio-chemical parameters at the earlier prescribed locations. The distribution and diversity of marine flora and fauna were assessed through water sampling from sub-tidal regions. Furthermore, the distribution of the benthic community was evaluated from the sediment samples collected along the sub-tidal and inter-tidal regions. The overall objective of this study is to monitor the status of prevailing ecology along the intake and discharge (outfall) channels, in terms of water and sediment quality through assessment of physico-chemical parameters and marine biota. This marine monitoring report provides a comprehensive analysis of the data obtained through a monitoring study undertaken during post-monsoon (December 2024) and pre-monsoon (March 2025) seasons.

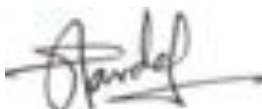
**Date:**

**M/S. UniStar Environment and Research Labs Pvt. Ltd.**

White House, Char Rasta,

Vapi-396 191

**Approved by**



**Mr. Jaivik Tandel**  
(Authorized By)

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## 1. INTRODUCTION

### 1.1 OVERVIEW

Adani Power Limited (APL-Mundra) is an imported coal-based thermal power plant located near village Tunda and Siracha, Taluka Mundra, District Kutch, Gujarat, India. APL-Mundra is the largest single location private coal-based power plant in India. The capacity of APL-Mundra plant is 4620 MW, and it comprises of 9 units with 4 units of 330 MW (Phase I and II) and 5 units of 660MW (Phase III and IV). The 330 MW units are based on subcritical technology and the 660 MW units are based on supercritical technology. APL-Mundra has created history by synchronizing the first super-critical technology-based 660 MW generating unit. This is not only the first super-critical generating unit in the country but also the fastest project implementation ever by any power developer in the country. The Power plant is situated within “Adani Port Special Economic Zone LTD.” APSEZL, closed to the sea but out of CRZ area. The sea is perennial source of cooling water & other utility for the power plant.

**M/S. UniStar Environment and Research Labs Pvt. Ltd.**, Vapi, India have carried out the routine Marine Monitoring Study in the vicinity of the APL-Mundra Mundra plant during the post-monsoon (27<sup>th</sup>-28<sup>th</sup> December 2024) and pre-monsoon (7<sup>th</sup>-8<sup>th</sup> December 2024) seasons. The sampling was carried out along the integrated sea intake channel (2 stations) and at vicinity of discharge/outfall channel water mixing region (2 stations). These integrated intake and outfall channels were developed and maintained by Adani Port and SEZ (APSEZ). One station was situated in between these two locations. This assessment involves the collection of Physico-chemical parameters from 5 subtidal locations (Table 1). The distribution and diversity of marine microflora (phytoplankton and pigments) and fauna (zooplankton) were assessed from water samples collected from 5 subtidal stations (Table 1). The assemblage of the macrobenthic community was studied from 5 sub-tidal and 3 inter-tidal stations. The present report presents a detailed account of the results observed during the Marine Monitoring Study at the vicinity of the APL-Mundra during post-(December 2024) and pre-monsoon (March 2025) seasons.

### 1.2 OBJECTIVES

- a) To analyses the physico-chemical seawater parameter for understanding the water quality in the study area.
- b) Evaluation of the prevailing status of marine biota through the quantitative and qualitative analysis of marine flora (phytoplankton and pigments) and fauna (zooplankton and macrobenthos).
- c) To recommend adequate marine environmental management measures.

## 2. STUDY PROGRAM

### 2.1 STUDY PERIOD

The field investigations were carried out on 27<sup>th</sup>-28<sup>th</sup> December 2024 (post-monsoon season) and 7<sup>th</sup>-8<sup>th</sup> March 2025 (pre-monsoon season). The sampling strategy was planned in such a manner as to get a detailed characteristic of the marine environment of the study area. Sampling and analysis for the marine environment have been carried out by **M/s. UniStar Environment and Research Labs Pvt. Ltd, Vapi, India.**

### 2.2 SAMPLING LOCATIONS

Sampling was carried out at 5 subtidal stations and 3 intertidal transects along with the sea intake and outfall channels. Out of 5 subtidal stations, 2 were in the sea intake channel, 2 along the discharge mixing (outfall channel) region and remaining 1 in between these two locations. One intertidal station was located along the sea intake channel and 2 were along the discharge region. The detailed geographic coordinates of sampling stations are given in Table 1 and Figure 1.1.

**Table 1: Geographic coordinates, water, and sediment parameters at the subtidal sampling stations, APL-Mundra during December 2024 and March 2025.**

Station	Station code	Locations	Coordinates		Water Depth (in m)	
1	St-1	Intake point	22°48'30.50"N	69°32'57.84"E	3.8	3.6
2	St-2	Mouth of intake point	22°47'07.20"N	69°32'06.50"E	4.4	4.1
3	St-3	West port area	22°45'27.70"N	69°34'50.63"E	4.8	5.0
4	St-4	Outfall area	22°44'40.56"N	69°36'26.61"E	3.6	3.9
5	St-5	Outfall area	22°45'12.60"N	69°36'44.54"E	3.4	3.8

**Table 2: Geographic coordinates, water, and sediment parameters at the intertidal sampling stations, APL-Mundra during December 2024 and March 2025.**

Station	Station code	Tide Level	Coordinates		December 2024		March 2025	
					Intertidal exposed area	Sediment texture	Intertidal exposed area	Sediment texture
I	IT-1 (HW)	High Tidewater level	22°47'07.55" N	69°32'16.91" E	4.0 m	Silty sand	4.0 m	Silty sand
	IT-1 (LW)	Low Tide water level	22°47'06.38" N	69°32'11.62" E		Silty sand		Silty sand
II	IT-2 (HW)	High Tidewater level	22°45'58.72" N	69°34'35.41" E	3.8 m	Silty Sandy	3.7 m	Silty Sandy
	IT-2 (LW)	Low Tidewater level	22°45'57.74" N	69°34'35.05" E		Silty sand		Silty sand
III	IT-3 (HW)	High Tidewater level	22°44'52.21" N	69°36'41.64" E	3.9 m	Sandy	4.2 m	Sandy
	IT-3 (LW)	Low Tidewater level	22°44'51.23" N	69°36'39.28" E		Sandy		Sandy



**Figure 1: Map of the study area illustrating the subtidal and intertidal sampling stations.**

## 2.3 SAMPLING STRATEGY

### 2.3.1 Sampling frequency

A sampling at the subtidal stations was carried out during the flood to ebb tides. Surface and bottom water samples were collected in duplicate for assessing water quality and marine biota. Intertidal samples were collected in duplicate during low tide at each transect.

### 2.3.2 Sampling methodology

For estimation of Physico-chemical parameters and marine flora (phytoplankton and pigments), subsurface samples were collected using the Niskin water sampler (5 L capacity) with a mechanism for closing at the desired depth. Surface water samples were collected using a clean polyethylene bucket. Phytoplankton samples were collected in clean polyethylene bottles (1 L) fitted with inert cap liners and preserved with 4% Lugol's iodine solution. For pigment analysis, water samples were stored in clean, dark polyethylene cans (5 L). Chemical parameters samples were collected in polyethylene or glass bottles. Samples for phenol were collected in polyethylene or glass bottles and Petroleum Hydrocarbon samples collected in glass bottles. Dissolve oxygen (DO) and Biological Oxygen Demand (BOD) samples were collected in glass BOD bottles. The temperature was measured on the field with a calibrated thermometer. Analysis of other parameters was carried out in the laboratory.

For zooplankton, oblique hauls were made using Heron Tranter net attached with calibrated flow meter. Samples were stored in clean polyethylene bottles (0.5 L) and fixed with 5% formaldehyde.

For the analysis of macrobenthos, subtidal sediment samples were collected using a Van Veen grab covering an area of 0.04 m<sup>2</sup>. Intertidal samples were collected using a metal quadrant. Samples were sieved with a 500  $\mu$  metal sieve and preserved with Rose Bengal-formalin solution and stored in plastic zip-lock bags.

## 2.4 SAMPLE ANALYSIS METHODS

### 2.4.1 Physico-chemical parameter:

Samples were analysed by using different analytical methods for estimations of Temperature, Turbidity, PH, Suspended Solid (SS), Salinity, DO, BOD, COD, Phosphate, Total nitrogen, Nitrite, Nitrate, Phenols and PHc. The samples collected during the field visit were brought to the laboratory for further analysis of physico-chemical parameters. The standard methods used for the analysis of water quality parameters are given in Table 3a, b.

#### **2.4.2 Sediment Quality parameters:**

Sediment texture, Petroleum Hydrocarbon (PHc), Phosphorus, Organic Carbon, Aluminium, Iron, Chromium, Nickel, Zinc, Lead, Copper, Cobalt, Cadmium, Mercury, Arsenic. The standard methods used for the analysis of each parameter.

#### **2.4.3 Biological parameters:**

##### **2.4.3a Phytoplankton:**

The Lugol's preserved samples were allowed to settle for 48-72 hrs. The identification and enumeration of phytoplankton cells were carried out under a compound microscope using the Sedgwick Rafter slide. Species were identified to the genus level.

##### **2.4.3b Phytoplankton pigments:**

For the estimation of Chlorophyll *a* (Chl *a*) and Pheophytin, a known volume of field-collected water sample was filtered through Whatman glass microfiber filters (GF/F). Then filter paper was macerated in 90% acetone and stored overnight in the dark at 4°C. For estimation of Chl *a* fluorescence of the extract was measured using Turner Fluorometer. For phaeophytin fluorescence was measured after acidification with 0.1 N HCl.

##### **2.4.3c Zooplankton:**

Formalin preserved sample was divided into 4 equal portions using the Folsom Plankton Splitter. One portion of the samples was used to determine biomass using the volume displacement method. Another portion was used for enumeration and identification of (25-50%) faunal composition.

For the quantification of zooplankton, 4-5 ml of the sample was taken in a zooplankton counting chamber. The identification was carried out under Stereomicroscope. The zooplankton were identified at the group level.

##### **2.4.3d Benthos:**

For enumeration and identification of the macrobenthos, the organisms were handpicked using forceps and a paintbrush. After sorting, organisms were preserved in 10% formalin. Identification of the organisms was done to the group level under a stereomicroscope.

### 3 WATER QUALITY MONITORING

#### 3.1 RESULT OF PHYSICO-CHEMICAL WATER PARAMETER ANALYSIS

The monsoonal influx plays an important role in controlling the variation in the physico-chemical characteristic. Surface and bottom water temperatures observed in the study area were in a range between 24.4°C to 25.4°C in December 2024 (Table 3a) and 25.5°C to 26.3°C during March 2025 (Table 3b). The water temperature generally varied in accordance with the prevailing air temperature, tidal activity, and seasonality. The pH of the water is generally buffering effect, influenced by the freshwater and anthropogenic discharge from land. The observed pH in the study area was in the range of 7.9 to 8.2 in December 2024 and 7.9 to 8.1 during March 2025. Seawater turbidity is the cloudiness caused by large numbers of individual particles such as very fine clay and minute marine organisms. This also varies seasonally due to intrusion of land runoff and/or sediment resuspension. The turbidity was in a range between 0.1 to 5 NTU in December and 0.1 to 1 NTU during March. The suspended solids generally constitute silt and clay eroded from the land or shore erosions and suspension of the benthic layers from the seabed. Anthropogenic discharges also contribute to suspended solids in the form of contaminants such as oil and solid waste in a polluted area. On a seasonal basis, high TSS in seawater could be observed during the active monsoon season. In the study area, TSS was 26.0 to 104 mg/L during December 2024 and 41.2 to 84 mg/ during March 2025. Salinity is an indicator of (saline or freshwater) water masses intrusion within the region. The salinity of seawater may vary with the riverine or inland influx, rains, or evaporation in the region. The salinity variation during the present sampling was 35.8 to 36.5 in December 2024 and 35.9 to 37.2 during March 2025.

High DO level is an indication of good oxidizing conditions in an aquatic environment. In unpolluted waters equilibrium is maintained through oxygen production during photosynthesis, dissolution from the atmosphere, consumption by the respiration and decay of organic matter in order the DO levels kept close to or above saturation value. The DO level of the study area was varied from 3.8 to 5.2 mg/L in December 2024 and 5.8 to 6.5 mg/L during March 2025. The average DO value was 4.3 mg/L (in December) and 6.1 (in March), which indicates the oxygenated conditions in the study region. BOD is generally indicating the effective consumption of oxidizable matter in that water body. The industrial effluents contain high BOD levels. Thus, high BOD is also an indication of the intrusion of industrial polluted effluent into natural waters. BOD levels in the study area were varied from 2.4 to 4.3 mg/L in December 2024 and 2.6 to 3.9 mg/L during March 2025. Dissolved phosphorus and nitrogen compounds serve as the nutrients for phytoplankton growth. The high nutrient concentrations in the seawater generally could be attributed to the

anthropogenic and industrial influx. This could lead to further eutrophication and further deterioration of the pristine ecosystem. In the present study, Phosphate concentration was range from 0.1 to 0.3  $\mu\text{mol/L}$  in December 2024 and 0.2 to 0.3  $\mu\text{mol/L}$  in March 2025. Nitrate concentration was range from 2.9 to 4.8  $\mu\text{mol/L}$  during December 2024 and 2.3 to 3.9  $\mu\text{mol/L}$  in March 2025. Nitrite concentration was range from 0.2 to 0.9  $\mu\text{mol/L}$  in December 2024 and 0.5 to 0.8  $\mu\text{mol/L}$  in March 2025. The Phenol compounds and PHc were not detected in the present investigation.



**Table 3a: Water quality parameters reported during December 2024.**

Sr. No.	Parameters	St-1		St-2		St-3		St- 4		St-5		Test Method Permissible
		S	B	S	B	S	B	S	B	S	B	
<b>PHYSICAL QUALITY</b>												
1	pH @ 25°C	8.2	8.2	8.2	7.9	8.2	8.0	8.2	8.0	8.2	8.0	IS 3025(Part 11)1983
2	Temperature (°C)	25.2	24.4	25.2	24.6	24.9	24.4	25.1	24.6	25.4	24.8	IS 3025(Part 9)1984
3	Turbidity (NTU)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1	5	1	IS 3025(Part 10)1984
<b>CHEMICAL QUALITY</b>												
1	Total Suspended Solids (mg/l)	74	90	48	64	46	30	26	66	62	104	APHA 24th Ed.,2023,2540- D
2	Salinity	35.8	36.2	36.1	36.3	35.8	36.2	36.1	36.5	36.2	36.3	By Calculation
3	Dissolved Oxygen (mg/l)	4.2	4	5.2	4.7	4.6	3.9	4.2	3.8	4.6	3.9	APHA 24th Ed.,2023,4500-O, B
4	Biochemical Oxygen Demand (BOD) (mg/l)	4.3	2.4	2.8	2.6	3.1	2.6	3.2	3	2.7	3.5	IS 3025(Part 44)1993Amd.01
5	Sulphate as SO <sub>4</sub> (mg/l)	1952	2122	1909	2232	1871	2221	1962	2129	1732	1956	APHA 24th Ed.,2023,4500- SO <sub>4</sub> E
6	Ammonical Nitrogen (µmol/l)	1.2	0.8	1.6	2.1	2.2	0.5	0.5	1.1	1.2	1.1	APHA 24th Ed.,2023,4500- NH <sub>3</sub> B
7	Total Nitrogen (µmol/l)	9.5	10.8	6.3	8.3	6.8	9.1	7.4	11.2	9.8	11.8	By Calculation
8	PO <sub>4</sub> <sup>3-</sup> -P (µmol/l)	0.2	0.23	0.31	0.2	0.13	0.11	0.16	0.12	0.17	0.19	APHA 24th Ed.,2023,4500 -P,D
9	(NO <sub>3</sub> <sup>-</sup> -N) (µmol/l)	3.6	4.3	3.9	4.8	3.7	4.2	3.9	4.0	2.9	4.8	APHA 24th Ed.,2023,4500 NO <sub>3</sub> -B
10	(NO <sub>2</sub> <sup>-</sup> -N) Nitrite (µmol/l)	0.4782	0.2608	0.9129	0.6521	0.9564	0.7825	0.81	0.6086	0.2174	0.4565	APHA 24th Ed.,2023,4500 NO <sub>2</sub> B
11	Phenol (mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	IS 3025(Part 43):2020
12	PHc (ppb)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	APHA 24th ED,2023,5520 F

Note: St= Station  
 S=Surface; B=Bottom  
 BDL = Below Detection Limit and N.D. = Not detectable  
 BDL(MDL:0.01)  
 Turbidity= 0.1=1 to 10 NTU; 1=10 to 40 NTU; 5=40-100 NTU

**Table 3b: Water quality parameters reported during March 2025.**

Sr. No.	Parameters	St-1		St-2		St-3		St- 4		St-5		Test Method Permissible
		S	B	S	B	S	B	S	B	S	B	
<b>PHYSICAL QUALITY</b>												
1	pH @ 25°C	8	8.06	8.05	8.1	7.9	7.8	7.9	7.9	7.9	8	IS 3025(Part 11)1983
2	Temperature (°C)	26.3	25.9	26.1	25.8	26.1	25.6	26.1	25.5	26.2	25.7	IS 3025(Part 9)1984
3	Turbidity (NTU)	1	0.1	1	1	0.1	0.1	0.1	1	0.1	1	IS 3025(Part 10)1984
<b>CHEMICAL QUALITY</b>												
1	Total Suspended Solids (mg/l)	53.8	65.6	56	70.3	41.2	54.4	72.4	84	61.8	73.5	APHA 24th Ed.,2023,2540- D
2	Salinity	36.2	36.7	35.9	36.4	36.6	36.8	36.9	37	36.8	37.2	By Calculation
3	Dissolved Oxygen (mg/l)	6.5	6	6.4	5.8	6.3	5.8	6	6.3	5.9	6.2	APHA 24th Ed.,2023,4500-O, B
4	Biochemical Oxygen Demand (BOD) (mg/l)	3.9	3	3.2	2.6	3.1	3	3.4	3.5	2.8	3.3	IS 3025(Part 44)1993Amd.01
5	Sulphate as SO <sub>4</sub> (mg/l)	2040	2124	1993	2238	1857.8	1988.5	2162	2212.6	1912.6	2102.4	APHA 24th Ed.,2023,4500- SO <sub>4</sub> E
6	Ammonical Nitrogen (µmol/l)	0.6	1.1	0.9	1.3	0.8	0.8	1.2	1.6	0.5	0.6	APHA 24th Ed.,2023,4500- NH <sub>3</sub> B
7	Total Nitrogen (µmol/l)	8.6	10.2	7.3	9.6	6.2	8.9	6.7	10.5	8.1	10.6	By Calculation
8	PO <sub>4</sub> <sup>3-</sup> -P (µmol/l)	0.28	0.32	0.29	0.34	0.36	0.22	0.28	0.34	0.31	0.37	APHA 24th Ed.,2023,4500 -P,D
9	(NO <sub>3</sub> <sup>-</sup> -N) (µmol/l)	2.3	2.5	2.3	3	3.1	2.8	2.5	3	3.9	2.8	APHA 24th Ed.,2023,4500 NO <sub>3</sub> -B
10	(NO <sub>2</sub> <sup>-</sup> -N) Nitrite (µmol/l)	0.6	0.82	0.52	0.73	0.63	0.8	0.53	0.73	0.51	0.78	APHA 24th Ed.,2023,4500 NO <sub>2</sub> B
11	Phenol (mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	IS 3025(Part 43):2020
12	PHc (ppb)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	APHA 24th Ed.,2023,5520 F

Note: St= Station  
 S=Surface; B=Bottom  
 BDL = Below Detection Limit and N.D. = Not detectable  
 BDL (MDL:0.01)  
 Turbidity= 0.1=1 to 10 NTU; 1=10 to 40 NTU; 5=40-100 NTU

#### 4 SEDIMENT QUALITY MONITORING

The sediment quality at different sampling stations was analysed only during March 2024 sampling. The results are presented in Table 4. The sediment in the subtidal region was mainly composed of silty sand to loamy sand. The Aluminium was not detected on the surface sediments of subtidal stations. The highest Cobalt content was recorded within range from 1.2 mg/kg (at St-4) to 5.9 mg/kg (St-1). At St-3, the highest Copper content (14.0 mg/kg) was recorded, whereas the lowest was detected at St-1 (3.2 mg/kg). The Zinc content was ranged from 19.2 mg/kg (St-1) to 36.5 mg/kg (St-4). The phosphorus content was ranged from 280.3 mg/kg to 374.2 mg/kg. Organic carbon content was ranged within 0.3 % to 0.4 %. The Chromium content of marine sediment was ranged from 12.1 mg/kg to 14.0 mg/kg. The highest chromium content was recorded as 14.0 mg/kg at St-1. The highest Nickel content (20.5 mg/kg) was recorded at St-2 and lowest (18.3 mg/kg) at St-1. In the subtidal region, the highest Manganese content was recorded at St-4 (93.3 mg/kg). The Iron content was higher at St-4 (4843.9 mg/kg) and lower at St-1 (3208.5 mg/kg). The PHc, Arsenic and Mercury was not detected in the sediments during this study.

**Table 4: Subtidal sediment quality parameters.**

No.	Parameters	SUBTIDAL SEDIMENT QUALITY (g/kg)					Test Method Permissible
		St-1	St-2	St-3	St- 4	St-5	
1	Texture	Silty clay	Silty sand	Silty sand	Silty clay	Silty clay	--
2	Aluminium as Al%	ND	N.D.	N.D.	N.D.	N.D.	Spectrophotometric Method
3	Cobalt as Co( $\mu\text{g/g}$ )	5.9	4.1	5.42	1.24	2.51	EPA 3050B :1996/7000B :2007
4	Copper as Cu( $\mu\text{g/g}$ )	3.2	11.9	14.0	13.2	13.4	EPA 3050B :1996/7000B :2007
5	Zinc as Zn	19.2	20.8	25.9	27.9	36.5	EPA 3050B :1996/7000B :2007
6	Mercury( $\mu\text{g/g}$ )	BDL	BDL	BDL	BDL	BDL	EPA 7471A Method
7	Phosphorous (Total)( $\mu\text{g/g}$ )	312.1	342.6	374.2	280.3	302.5	IS 10158B (Stannous Chloride Method)
8	C(Org.) %	0.4	0.3	0.32	0.4	0.4	IS: 2720 (Part 22):1972
9	Chromium( $\mu\text{g/g}$ )	14.01	12.1	13.4	13.1	13.2	EPA 3050B :1996/7000B :2007
10	Nickel( $\mu\text{g/g}$ )	18.3	20.5	19.8	19.8	19.5	EPA 3050B :1996/7000B :2007
11	Manganese	89.2	52.6	84.7	93.3	79.4	EPA 3050B :1996/7000B :2007
12	Iron	3208.5	3514.3	3882.7	4843.9	4072.8	EPA 3050B :1996/7000B :2007
13	PHc( $\mu\text{g/g}$ )	N.D.	N.D.	N.D.	N.D.	N.D.	APHA 24th ED,2023,5520 F
14	Arsenic( $\mu\text{g/g}$ )	BDL	BDL	BDL	BDL	BDL	EPA 1998, SW-846, Method 7061A 1992

Note: St= Station

BDL= Below Detectable Limit and N.D. = Not detectable

BDL (MDL: 0.05)

## **5 BIOLOGICAL PARAMETERS (BIODIVERSITY STUDY)**

Marine ecosystems are subject to a multitude of direct human pressures, such as overexploitation, eutrophication, pollution, and species introductions. These stressors can have synergistic effects on marine ecosystems, altering its functioning. Anthropogenic involvements constantly compromise the health of the marine ecosystem by disturbing the ecological balance. Hence the assessment of the biotic components along with abiotic factors is an integral part of environmental assessment and monitoring study. During the present investigation at APL-Mundra, the abundance and distribution of marine organisms (plankton and benthos) were studied as part of routine environmental monitoring.

### **5.1 PLANKTONIC FORMS**

The name plankton is derived from the Greek word “planktons”, meaning “wanderer” or “drifter”. While some forms of plankton are capable of independent movement and can swim up to several hundred meters in a single day, their position is primarily determined by currents in the body of water they inhabit. As per definition, organisms classified as "plankton" are unable to resist ocean currents. Plankton is primarily divided into two broad functional groups i.e., Phytoplankton and Zooplankton.

#### **5.1.1 Phytoplankton**

Phytoplankton are microscopic, single-celled photosynthetic organisms that live suspended in all water niches, including oceans, freshwater, and marine niche. Like the terrestrial ecosystem where plants are an integral part of the ecosystem, phytoplankton play key role in the biogeochemistry of the oceans. As they are dependent on sunlight for energy, they mostly inhabit the euphotic zone. Therefore, they are responsible for production of half of the atmosphere’s oxygen and more than half of the primary production in the oceans. There are many species of phytoplankton, each of which has a characteristic shape, size, and function. Marine species of phytoplankton grow abundantly in oceans around the world and are the foundation of the marine food chain. Marine phytoplankton are the producing (autotrophic) component in the ocean. There are fourteen classes of phytoplankton. Each class of phytoplankton contains unique attributes in size, cell structure, nutrients, and function.

#### **5.1.2 Zooplankton:**

Zooplankton occupies second position in the food web of the marine niche. They are the primary consumer’s organisms and generally feed on phytoplankton or small, microscopic group of organisms for they are nutritional needs. They are incapable of making their own food from sun-

light or inorganic compounds, and feed on organisms or the remains of other organisms to get the energy necessary for survival.

## 5.2 SIGNIFICANCE OF PHYTO- AND ZOOPLANKTONS

Phytoplankton are vital to marine ecosystems. They are producers, or autotrophs, that form the foundation of most marine food webs. As photosynthetic organisms, they can convert solar energy into chemical energy and store it in form of sugars. They are responsible for half of the photosynthetic activity on the planet. The significance of zooplanktons is found in their role of transferring biological production from phytoplankton to large organisms in the marine food web and the seafloor. The microscopic protozoan, tunicates, copepods, and other crustaceans graze upon many phytoplankton species. These in turn become food for other animals further linking the food web. Therefore, variability in reproduction of copepods would affect the survival of young fish that feeds on them.

**Table 5: Test methods for phytoplankton and zooplankton analysis.**

Sr. no.	Test performed	Method
1	Phytoplankton	APHA, Edition 24 <sup>th</sup> , Part 10000, 10200 F
2	Chlorophyll <i>a</i> and Pheophytin	APHA, Edition 24 <sup>th</sup> , Part 10000, 10200 H (with some modification)
3	Zooplankton	APHA, Edition 24 <sup>th</sup> , Part 10000, 10200 G
4	Macro benthos	APHA, Edition 24 <sup>th</sup> , Part 10000,10500 A-10500 D

## 5.3 PHYTOPLANKTON DIVERSITY:

Phytoplankton sampling was carried out at 5 stations. At each station, water samples were collected from surface and bottom waters. During the sampling period the phytoplankton population in the coastal waters of APL-Mundra, was more diverse during the post-monsoon season (December 2024) than pre-monsoon (March 2025) (Table 6). However, the overall phytoplankton abundance was more during post-monsoon than the pre-monsoon season. The detailed species percentage composition reported during both sampling period is given in Annexure I and II. In December 2024, the phytoplankton community was represented with a total of 41 phytoplankton genera belonging to diatoms (35 genera) and dinoflagellates (6 genera). Overall, 37 phytoplankton genera representing diatoms (31 genera) and dinoflagellate (6 genera) reported during March 2025

sampling. Diatoms Species belonged to *Amphora* sp., *Amphiprora* sp., *Asterionella* sp., *Bacillaria* sp., *Chaetoceros* sp., *Corethron* sp., *Coscinodiscus* sp., *Cyclotella* sp., *Cylindrotheca* sp., *Cymbella* sp., *Diploneis* sp., *Ditylum* sp., *Fragilaria* sp., *Guinardia* sp., *Lauderia* sp., *Leptocylindrus* sp., *Licmophora* sp., *Lithodesmium* sp., *Navicula* sp., *Nitzschia* sp., *Odontella* sp., *Pinnularia* sp., *Pleurosigma* sp., *Pseudo-nitzschia* sp., *Rhizosolenia* sp., *Streptotheca* sp., *Thalassiosira* sp., *Thalassiothrix* sp., and *Thalassionema* sp. were common during both sampling period. Total 4 dinoflagellate genera i.e., *Ceratium*, *Prorocentrum*, *Protoperidinium* and *Scrippsiella* sp. were common during both December 2024 and March 2025 samplings.

The phytoplankton abundance in the study region was higher during the 156.6 to 395.2 cells x 10<sup>2</sup> L<sup>-1</sup> during December 2024 as compared to March 2025 (ranged from 163.2 to 323.2 cells x 10<sup>2</sup> L<sup>-1</sup>). In December 2024, the highest phytoplankton abundance was observed at St-5 in the surface (395.2 cells x 10<sup>2</sup> L<sup>-1</sup>). The lowest phytoplankton abundance (156.6 cells x 10<sup>2</sup> L<sup>-1</sup>) was observed at St-2 in surface water. During March 2025, phytoplankton abundance was higher at St-5 in surface water (323.2 cells x 10<sup>2</sup> L<sup>-1</sup>) and lowest at St-3 bottom water (163.2 cells x 10<sup>2</sup> L<sup>-1</sup>). The diatom genera, *Rhizosolenia* (up to 44.8 cells x 10<sup>2</sup> L<sup>-1</sup>) during December 2024 (Annexure I), whereas in March 2025, *Coscinodiscus* (up to 38.4 cells x 10<sup>2</sup> L<sup>-1</sup>) was also predominant along with *Navicula* (up to 33.6 cells x 10<sup>2</sup> L<sup>-1</sup>) (Annexure II). The study shows that the marine water around was enriched with the diverse phytoplankton population during the sampling period.

**Table 6: Different marine biological parameters (phytoplankton abundance, Chlorophyll *a*, Pheophytin concentrations) reported from the marine waters of APL-Mundra, during December 2024 and March 2025.**

Parameter	Sampling period	Sampling Stations									
		St-1	St-1	St-2	St-2	St-3	St-3	St-4	St-4	St-5	St-5
		S	B	S	B	S	B	S	B	S	B
Phytoplankton (cells x 10 <sup>2</sup> L <sup>-1</sup> )	December 2024	189.9	297.6	156.6	262.4	235.4	178.9	241.0	265.6	395.2	315.2
	March 2025	225.6	176.0	254.4	163.2	192.0	168.0	224.0	172.8	323.2	228.8
Chlorophyll <i>a</i> (µg/L)	December 2024	1.8	2.3	1.9	1.7	2.2	1.5	1.7	1.9	1.6	2.0
	March 2025	2.0	1.6	1.7	1.9	1.8	1.6	1.9	1.6	2.1	1.7
Phaeophytin (µg/L)	December 2024	0.8	0.9	0.8	0.8	0.9	0.6	0.7	0.8	0.7	0.9
	March 2025	0.7	0.9	0.8	0.8	0.7	0.9	0.6	0.9	1.0	0.9



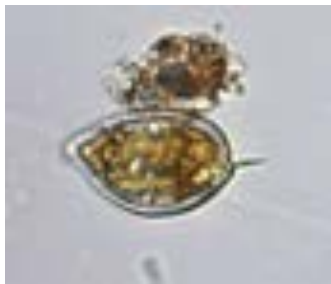
*Chaetoceros* sp.



*Chaetoceros* sp.



*Coscinodiscus* sp.



*Prorocentrum* sp.



*Odontella* sp.



*Pleurosigma* sp.

**Figure 2: Microphotographs of phytoplankton reported in the coastal waters of APL-Mundra, during December 2024 and March 2025.**

#### **5.4 PHYTOPLANKTON PIGMENTS (CHLOROPHYLL *a* AND PHEOPHYTIN):**

Marine phytoplankton contains essential as well as accessory pigments like that of terrestrial plants. Phytoplankton pigments capture sunlight. The resulting photosynthesis and its products, especially the oxygen and organic compounds, all rely on the light energy captured by the different phytoplankton pigments. Chlorophyll *a* is the major pigment for light harvesting, and plays a significant role in photosynthesis and photoprotection, by extending the light collection window and protecting the cell from the damage of high irradiance levels or high ultraviolet light exposure.

Algal chlorophyll forms a series of degradation products upon degradation. In addition to Chlorophyll the naturally occurring pigments in algal cells. The nature of these degradation products depends on which part of the chlorophyll molecule is affected. As chlorophyll degrades, the initial step is either the loss of the magnesium from the centre of the molecule or the loss of the phytol tail. This results in the formation of the molecule, phaeophytin. Depending on the parent molecule several distinct molecules like phaeophytins, chlorophyllides, and pheophorbides can be produced. Thus, in addition to Chlorophyll *a* filtered seawater contains colour degradation products of phytoplankton pigments.



#### 5.4a CHLOROPHYLL *a* AND PHAEOPHYTIN CONCENTRATIONS

The phytoplankton biomass distribution expressed in terms of Chlorophyll *a* (Chl-*a*) and Pheophytin at selected stations in the coastal region of APL-Mundra, is presented in Table 6. Overall, Chl-*a* concentration was more during the December 2024 (1.5 to 2.3 µg/L) than the March 2025. In December 2024, the highest Chl-*a* (2.3 µg/L) was observed at bottom waters of St-1. In March 2025, the Chl-*a* concentrations in the study region were ranged from 1.6 µg/L to 2.1 µg/L. The Pheophytin content was ranged from 0.6 µg/L to 1.0 µg/L.

The variations observed between the surface and bottom waters could be due to several natural biological variability. The concentration of Pheophytin is a measure of the dead cells and is an indirect indicator of biotic and abiotic stress conditions of the algae leading to a deterioration of Chl-*a*. The ratio from concentrations of Chl-*a* and Pheophytin in an aquatic ecosystem suggests a balance between the growth and mortality of phytoplankton life. In healthy environments, ratios of Chl-*a* to Pheophytin generally exceed 1.1. In the present study, this ratio was ranged from 1.8 to 2.9. The Chl-*a* and Pheophytin ratio showed marginally elevated levels in the surface waters as compared to the bottom waters. Overall, the ratios of Chl-*a* and Pheophytin concentration in the study region were generally high (>1), indicating that the appropriate conditions prevailed for the phytoplankton growth.

#### 5.5 ZOOPLANKTON DIVERSITY:

Zooplankton standing stock in terms of population and biomass revealed substantial spatial and temporal variation (Table 7). Zooplankton population was more abundant during December 2024 (8.6 to 12.7 nos.×10<sup>3</sup>/100 m<sup>3</sup>) to than March 2025 (6.3 to 12.8 nos.×10<sup>3</sup>/100 m<sup>3</sup>). In December 2024, the maximum zooplankton population (12.7 nos.×10<sup>3</sup>/100 m<sup>3</sup>) and biomass (2.2 ml/ 100 m<sup>3</sup>) were recorded at St-4. The lowest zooplankton population (8.6 nos.×10<sup>3</sup>/100 m<sup>3</sup>) and biomass (1.6 ml/100 m<sup>3</sup>) (Figure 4) were observed at St-3. During March 2025, the maximum zooplankton population observed at St-5 (12.8 nos. ×10<sup>3</sup>/100 m<sup>3</sup>), whereas highest biomass (1.8 ml/ 100 m<sup>3</sup>) was reported at St-1.

Overall, Copepods (60.3 to 62.4 %) and copepod nauplii (20.3 to 21.1 %) dominated the zooplankton assemblage during both sampling periods (Figure 3). Other zooplankton groups such as brachyuran crab larvae, anomuran crab larvae, decapod (shrimps), fish and shellfish eggs, fish larvae, gastropod larvae, chaetognaths, polychaete larvae, siphonophore, ostracods, Oikopleura, Amphipods and Lucifer were also reported at various concentrations. Different groups of identified zooplankton groups are represented in Annexure III.

**Table 7: Density and biomass of various zooplankton and macrobenthos groups in the coastal waters at the APL-Mundra during December 2024 and March 2025.**

Parameter	Sampling period	Sampling Stations				
		St-1	St-2	St-3	St-4	St-5
<b>Zooplankton</b>						
<b>Population (nos.× 10<sup>3</sup>/100 m<sup>3</sup>)</b>	December 2024	9.6	8.7	8.6	12.7	10.8
	March 2025	9.7	8.5	6.3	9.2	12.8
<b>Biomass (ml./100 m<sup>3</sup>)</b>	December 2024	1.9	1.8	1.6	2.2	2.5
	March 2025	1.8	1.1	0.8	1.7	0.9
<b>Macrobenthos</b>						
<b>Total abundance (nos./m<sup>2</sup>)</b>	December 2024	725	855	655	960	870
	March 2025	620	590	720	890	690
<b>Biomass (g/m<sup>2</sup>)</b>	December 2024	1.7	1.3	1.4	2.0	1.8
	March 2025	1.8	1.5	2.1	2.3	1.9

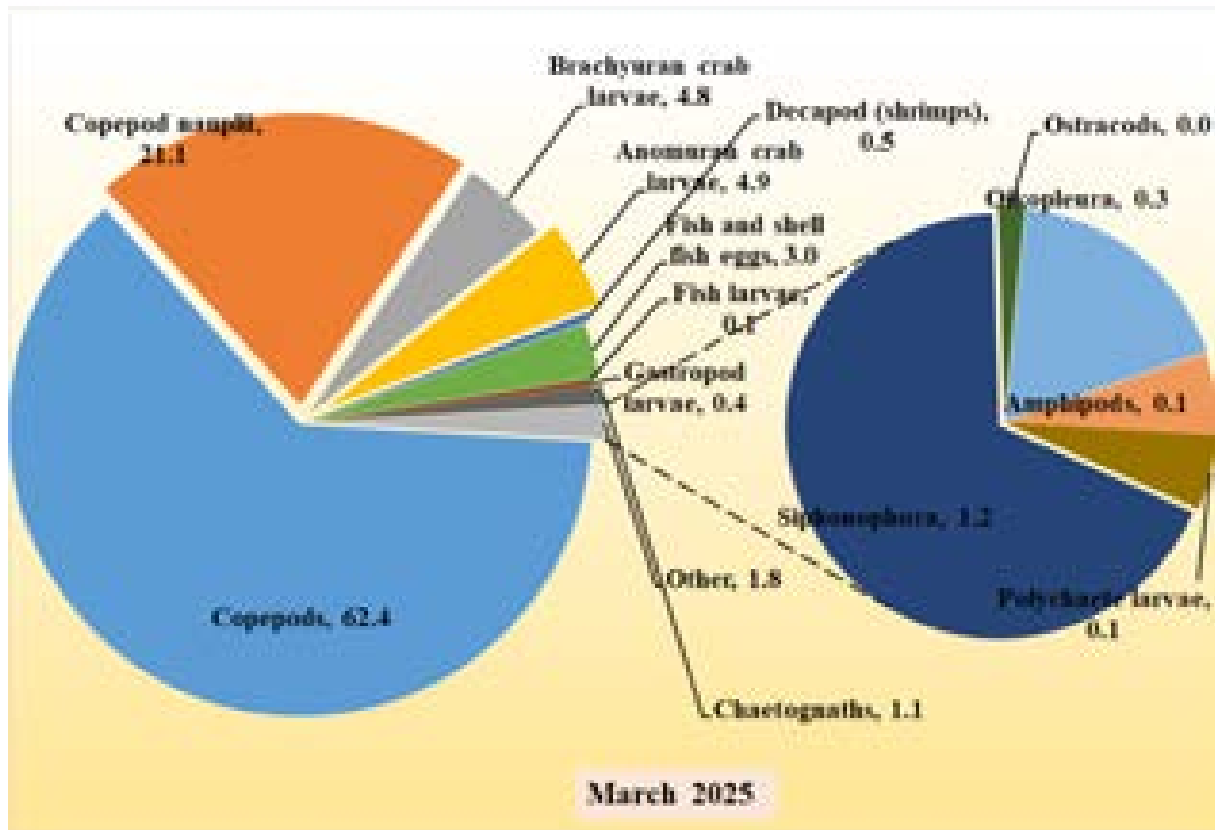
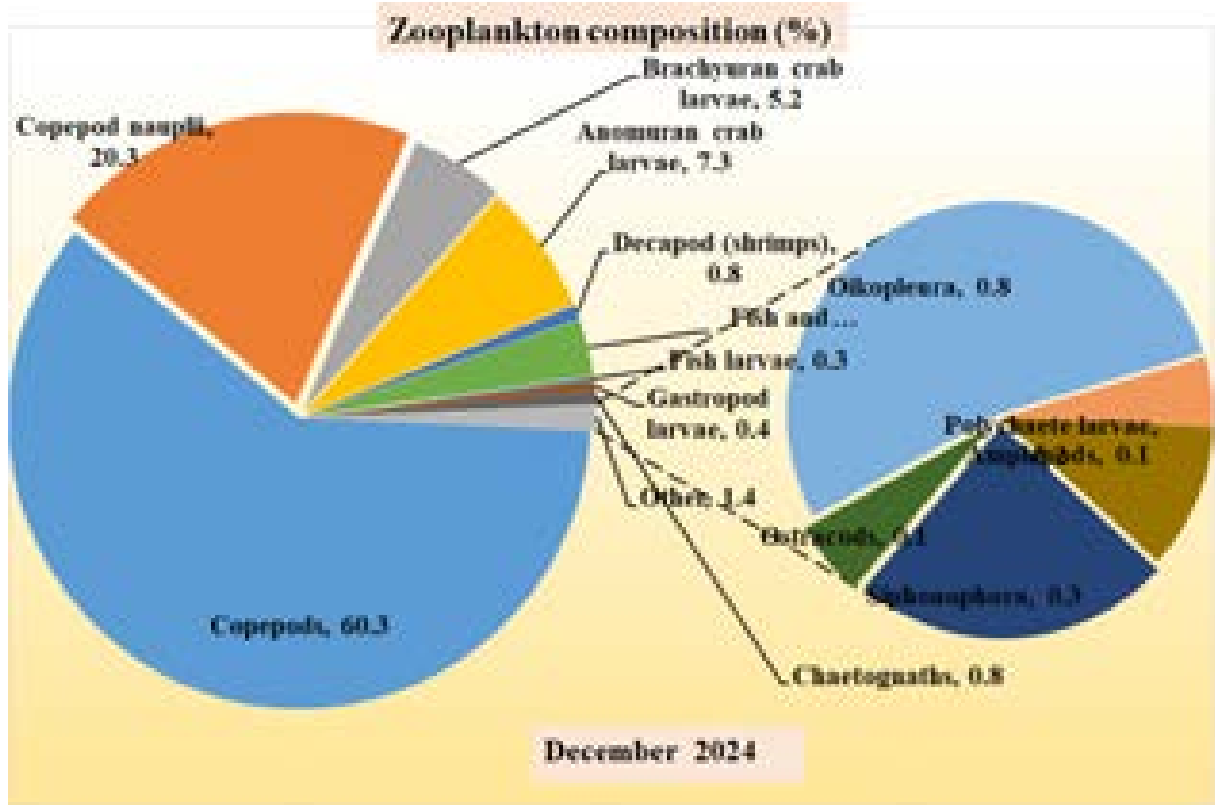


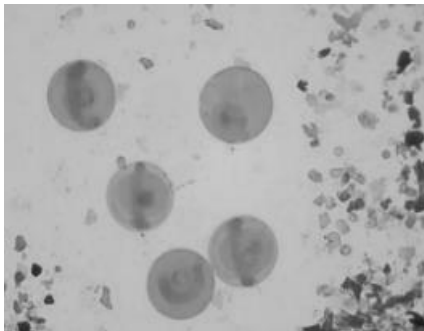
Figure 3: Composition (%) of zooplankton groups reported from the marine waters of APL-Mundra during December 2024 and March 2025.



Fish Larvae



Copepod



Fish eggs



Crab larvae

**Figure 4: Microphotographs of zooplankton reported along the APL-Mundra coast during December 2024 and March 2025.**

### 5.6 Macrobenthic fauna

The benthic zone is the lowest ecological zone of a water body which usually involves the sediments at the seafloor. The benthic environment is divided into distinctive ecological zones based on depth, seafloor topography, and vertical gradients of physical parameters. These are the supralittoral, littoral, sublittoral, bathyal, abyssal, and hadal zones. The number of phyla and species of benthic animals exceeds those of pelagic species, at least partly because of the greater physical variety of benthic habitats. Benthic animals are separated into infaunal and epifaunal species, depending upon whether they live within sediments or on the surface of the seafloor, respectively. Size categories of the zoobenthos consist of the larger macrofauna (>1.0 mm), the small meiofauna which is characteristically found in sand and mud, and the microfauna which is made up mostly of protozoans.

Benthic organisms are morphologically different from those planktonic organisms. Many are adapted to live on the substrate (bottom). In benthic habitats, they can be considered dominant creatures. These organisms adapted to deep-water pressure so cannot survive in the upper parts of

the water column. Since light does not penetrate very deep ocean water, the benthic organisms often depend on the organic matter falling from the upper water column as their main energy source. This dead and decaying matter sustains the benthic food chain. The most benthic organisms are scavengers or detritivores. These organisms under being relatively stationary, are constantly exposed to changes undergoing in overlying water, and hence, respond very well to aquatic pollution. The macro benthos population is very sensitive to environmental perturbation and is highly influenced by the physicochemical characteristics of water, the nature of the substratum, food, predation, and other factors. The density of benthic invertebrates also fluctuates widely with the changes in the season.

### **5.6.1 Significance of macrobenthic organisms**

The biomass of macrobenthic organisms in estuaries and coastal embayment is often high. It declines if communities affected by prolonged periods of poor water quality especially when anoxia and hypoxia are common. Burrowing and tube-building by deposit-feeding benthic organisms (bioturbation) help to mix the sediment and enhance the decomposition of organic matter. Nitrification and denitrification are also enhanced because a range of oxygenated and anoxic microhabitats are created. For example, the area of oxic-anoxic boundaries and the surface area available for diffusive exchange are increased by tube-building macrobenthos. The loss of benthic suspension-feeders can further enhance turbidity levels because these organisms filter suspended particles including planktonic algae, and they enhance sedimentation rates through bio deposition (i.e., voiding of their wastes and unwanted food). Changes in the macro fauna (and flora) cause changes in nutrient storage pools. Macro fauna is also important constituents of fish diets and thus are an important link for transferring energy and nutrients between trophic levels, also driving pelagic fish and crustacean production. For these reasons, the benthic organisms are extremely important indicators of environmental change.

### **5.6.2 Benthic Diversity**

#### **5.6.2a Subtidal region:**

The macrobenthic population study revealed large spatiotemporal variation with the benthic population during the study period. Overall, more macrobenthos abundance and biomass were reported at subtidal stations than at intertidal stations. The macrobenthic abundance and biomass were more during the December 2024 than the March 2025 sampling. In December 2024, the macrobenthos density ranged from 725 no./m<sup>2</sup> to 960 nos./m<sup>2</sup> at sampling stations (Table 7). The biomass of the macrobenthic community in the study region was ranged from 1.4 g/ m<sup>2</sup> to 2.0 g/ m<sup>2</sup>

in the study region. The maximum abundance and biomass of benthic microorganisms was reported at St-4 (960 nos./m<sup>2</sup> and 2.0 g/m<sup>2</sup>). During March 2025, the macrobenthos density was ranged from 590 to 890 nos./m<sup>2</sup>. The macrobenthic biomass was ranged from 1.5 to 2.3 g/ m<sup>2</sup>.

In species composition (Annexure IV), Polychaete species (Phylum Annelida) belonging to the family Paraonidae, Pilargidae, Capitillidae, Cossuridae, Glyceridae, Ciratullidae, Nephthyida, Nereidae, Lumbriconeridae, Spionidae were abundant contributing ~71% to macrobenthic population during December 2024. In March 2025, polychaete species contributed ~82.3% to macrobenthic population (Annexure IV). Overall, the presence of Polychaete, Amphipods, and Nemerteans suggest the availability of food organisms for benthic predators in the area. The macrobenthic population reported during both studies reveals that the large spatial-temporal variation with the benthic population could be due to the change in bottom substratum.

### 5.6.2b Intertidal region

The sandy substratum with low organic matter affects the occurrence of the macrobenthic community in the intertidal region. In December 2024, the highest biomass was measured (0.09 g/m<sup>2</sup> to 0.4 g/m<sup>2</sup>) in the intertidal region. The highest density of macrobenthic organisms was reported at station IT-2 (LW) (256 nos./m<sup>2</sup>), whereas the lowest density was reported at Station IT-1 (HW) (116 nos./m<sup>2</sup>). During March 2025, the macrobenthic biomass was ranged from (0.08 to 0.5 g/m<sup>2</sup>). At IT-1 (LW) the higher macrobenthic population (122 nos./m<sup>2</sup>) and biomass (0.5 g/m<sup>2</sup>) was reported. No macrobenthic community was observed at St-3 (HW and LW) may be due to sandy sediment during both sampling periods. In species composition (Annexure V), Polychaete species dominated the macrobenthic population in the intertidal region.



**Polychaete sp.**

**Amphipod sp.**

**Figure 5: Microphotographs of macrobenthic organisms observed in the sediment samples collected in the vicinity of APL-Mundra during December 2024 and March 2025.**

## 6 CONCLUSIONS

In the present study, a diverse population of planktonic and benthic organisms was observed along the integrated seawater intake and outfall channels developed by the APSEZ. The seasonally varying environmental conditions drives the biotic population changes in the region. The planktonic and benthic population was more abundant and diverse during the post-monsoon sampling (December 2024) than the pre-monsoon period (March 2025). Overall, the enriched and diversified plankton population reported during both sampling seasons highlights the favourable water conditions supports their growth. The abiotic and biotic parameters reported in the present seasonal study did not differ adversely from the initial baseline marine monitoring study.

The present study emphasizes that the diverse planktonic and benthic populations could support the local fish population, especially along the Outfall Channel. This observation can be supported by our contemporary fish bioassay study. In the bioassay study the fish species, *Mugil cephalus* had a 90% survival rate within the outfall water. The fishes for this bioassay study were collected from Kotdi Creek. The 90% survival of *M. cephalus* population in bioassay study and the enriched marine biota near outfall channel emphasises that the abiotic characteristics, mainly temperature of discharge water does not have the adverse biological impact. The systematically designed 11 km-long outfall channel facilitates the cooling of discharged outfall water. Likewise, an aqueduct constructed over the Kotdi Creek avoids the advection of outfall water and ease the natural flow of Kotdi Creek water as per the compliance condition.

**Table 8: Names of the Marine Monitoring Team Members**

Sr. No.	Name of Person
1.	Mr. Vijay Thanki (Env. Chemist)
2.	Mr. Pravin Singh (Env. Chemist)
3.	Ms. Ayushi Rathod (Env. Microbiologist)
4.	Mr. Bhavin Patel (Env. Engineer)
5.	Dr. Sushant Sanaye (Marine Biologist)



**PHOTOGRAPHS OF DIFFERENT TYPES OF SAMPLING**



**Annexures I: Phytoplankton composition (%) at different sampling stations in the coastal waters of APL-Mundra during December 2024.**

Phytoplankton genera	Sampling stations									
	St-1	St-1	St-2	St-2	St-3	St-3	St-4	St-4	St-5	St-5
	S	B	S	B	S	B	S	B	S	B
<b>Diatoms</b>										
<i>Amphora</i> sp.	0.5	-	1.1	0.6	0.9	1.2	0.4	0.6	1.2	1.0
<i>Amphiprora</i> sp.	0.9	0.5	0.8	-	0.9	0.6	0.4	0.6	1.2	1.0
<i>Asterionella</i> sp.	2.4	2.2	1.5	1.2	1.4	0.6	1.2	0.6	2.0	1.0
<i>Bacillaria</i> sp.	1.4	1.1	2.7	3.0	1.4	1.2	1.7	1.8	4.0	3.6
<i>Bacteriastrum</i> sp.	0.9	0.5	2.3	1.2	1.9	1.2	1.7	1.2	3.6	3.0
<i>Chaetoceros</i> spp.	0.9	0.5	2.3	1.2	1.9	1.7	1.7	1.2	3.6	3.0
<i>Corethron</i> sp.	0.9	1.1	1.1	0.6	0.9	0.6	0.8	0.6	1.2	1.0
<i>Coscinodiscus</i> sp.	12.3	8.6	9.2	7.3	8.9	8.7	10.4	7.8	8.5	7.1
<i>Cyclotella</i> spp.	1.4	1.6	0.4	-	0.5	0.6	1.2	1.2	2.8	2.5
<i>Cylindrotheca</i> sp.	1.9	1.6	0.8	0.6	1.4	1.2	0.4	1.2	0.4	0.5
<i>Cymbella</i> sp.	0.9	0.5	1.1	1.2	0.5	0.6	0.8	1.2	-	0.5
<i>Diploneis</i> sp.	0.9	1.1	0.8	0.6	1.4	1.2	0.8	0.6	0.8	1.0
<i>Ditylum</i> sp.	5.7	9.7	1.9	11.0	7.5	1.7	9.1	6.0	3.2	4.6
<i>Fragilaria</i> spp.	1.4	1.1	1.1	0.6	0.5	0.6	0.8	1.2	1.6	1.0
<i>Guinardia</i> sp.	1.4	1.1	1.5	0.6	1.4	1.2	0.8	0.6	1.2	1.5
<i>Gyrosigma</i> sp.	0.5	1.1	1.9	3.7	1.4	1.7	1.7	1.8	2.4	2.0
<i>Hemialus</i> sp.	0.9	0.5	0.4	-	0.9	0.6	0.8	1.2	2.0	1.5
<i>Lauderia</i> sp.	1.9	1.6	1.5	1.2	2.3	1.7	1.7	1.8	1.6	1.0
<i>Leptocylindrus</i> sp.	8.1	5.9	11.1	11.0	8.4	6.4	6.6	8.4	6.5	9.1
<i>Licmophora</i> sp.	4.3	3.2	7.3	6.7	7.0	7.0	7.5	6.0	4.9	4.1
<i>Lithodesmium</i> sp.	1.4	1.1	0.4	1.2	0.5	0.6	1.2	1.2	0.8	1.0
<i>Navicula</i> spp.	1.4	1.1	0.8	0.6	1.4	1.7	2.5	3.0	1.6	1.5
<i>Nitzschia</i> spp.	0.9	0.5	0.8	1.2	1.4	1.2	2.9	2.4	2.4	1.5
<i>Melosira</i> sp.	3.3	2.2	3.4	3.7	5.1	4.7	2.9	3.0	3.2	3.0
<i>Odontella</i> sp.	1.4	1.1	1.5	1.8	1.9	2.3	2.1	1.8	2.4	2.0
<i>Pinnularia</i> sp.	5.2	4.8	5.4	6.1	8.4	8.7	8.3	9.0	5.7	5.1
<i>Planktoniella</i> sp.	1.4	1.1	1.1	0.6	1.9	1.7	0.8	0.6	1.2	1.0
<i>Pleurosigma</i> spp.	1.4	0.5	1.1	1.2	1.4	1.7	1.2	1.2	1.2	0.5
<i>Pseudo-nitzschia</i> spp.	3.8	3.8	4.2	4.3	3.7	5.2	6.6	6.0	4.5	5.1
<i>Rhizosolenia</i> sp.	13.7	12.9	11.5	9.8	10.7	10.5	10.8	11.4	11.3	10.7
<i>Synedra</i> sp.	1.4	0.5	1.5	1.2	1.4	1.2	0.8	0.6	0.8	1.0
<i>Thalassionema</i> spp.	6.6	15.6	7.7	4.9	5.6	10.5	3.7	7.2	6.1	8.1
<i>Thalassiosira</i> spp.	3.8	5.4	6.1	6.7	2.8	4.7	2.1	1.8	4.5	4.1
<i>Thalassiothrix</i> spp.	2.4	2.2	1.9	2.4	-	2.3	1.2	3.0	-	1.5
<i>Triceratium</i> sp.	-	1.1	1.1	-	1.4	1.7	-	-	-	1.0

<b>Dinoflagellates</b>										
<i>Dinophysis</i> sp.	-	-	0.4	-	-	0.6	-	-	-	-
<i>Amphidinium</i> sp.	-	-	-	-	0.9	-	-	-	-	-
<i>Ceratium</i> sp.	-	0.5	-	0.6	-	-	0.4	0.6	-	-
<i>Prorocentrum</i> spp.	0.9	1.1	-	0.6	-	0.6	0.8	-	0.4	1.0
<i>Protoperidinium</i> spp.	0.9	0.5	-	-	-	-	0.8	-	0.8	0.5
<i>Scrippsiella</i> spp.	-	0.5	-	0.6	-	-	-	1.2	-	1.0

Note: S=surface; B=bottom; St=station

**Annexures II: Phytoplankton composition (%) at different sampling stations in the coastal waters of APL-Mundra during March 2025.**

Phytoplankton genera	Sampling stations									
	St-1	St-1	St-2	St-2	St-3	St-3	St-4	St-4	St-5	St-5
	S	B	S	B	S	B	S	B	S	B
<b>Diatoms</b>										
<i>Amphora sp.</i>	0.5	-	1.1	0.6	0.9	1.2	0.4	0.6	1.2	1.0
<i>Amphiprora sp.</i>	0.9	0.5	0.8	-	0.9	0.6	0.4	0.6	1.2	1.0
<i>Asterionella sp.</i>	2.4	2.2	1.5	1.2	1.4	0.6	1.2	0.6	2.0	1.0
<i>Bacillaria sp.</i>	1.4	1.1	2.7	3.0	1.4	1.2	1.7	1.8	4.0	3.6
<i>Bacteriastrum sp.</i>	0.9	0.5	2.3	1.2	1.9	1.2	1.7	1.2	3.6	3.0
<i>Chaetoceros sp.</i>	0.9	0.5	2.3	1.2	1.9	1.7	1.7	1.2	3.6	3.0
<i>Corethron sp.</i>	0.9	1.1	1.1	0.6	0.9	0.6	0.8	0.6	1.2	1.0
<i>Coscinodiscus sp.</i>	12.3	8.6	9.2	7.3	8.9	8.7	10.4	7.8	8.5	7.1
<i>Cyclotella sp.</i>	1.4	1.6	0.4	-	0.5	0.6	1.2	1.2	2.8	2.5
<i>Cylindrotheca sp.</i>	1.9	1.6	0.8	0.6	1.4	1.2	0.4	1.2	0.4	0.5
<i>Cymbella sp.</i>	0.9	0.5	1.1	1.2	0.5	0.6	0.8	1.2	-	0.5
<i>Diploneis sp.</i>	0.9	1.1	0.8	0.6	1.4	1.2	0.8	0.6	0.8	1.0
<i>Ditylum sp.</i>	5.7	9.7	1.9	11.0	7.5	1.7	9.1	6.0	3.2	4.6
<i>Fragilaria sp.</i>	1.4	1.1	1.1	0.6	0.5	0.6	0.8	1.2	1.6	1.0
<i>Guinardia sp.</i>	1.4	1.1	1.5	0.6	1.4	1.2	0.8	0.6	1.2	1.5
<i>Gyrosigma sp.</i>	0.5	1.1	1.9	3.7	1.4	1.7	1.7	1.8	2.4	2.0
<i>Hemialus sp.</i>	0.9	0.5	0.4	-	0.9	0.6	0.8	1.2	2.0	1.5
<i>Lauderia sp.</i>	1.9	1.6	1.5	1.2	2.3	1.7	1.7	1.8	1.6	1.0
<i>Leptocylindrus sp.</i>	8.1	5.9	11.1	11.0	8.4	6.4	6.6	8.4	6.5	9.1
<i>Licmophora sp.</i>	4.3	3.2	7.3	6.7	7.0	7.0	7.5	6.0	4.9	4.1
<i>Lithodesmium sp.</i>	1.4	1.1	0.4	1.2	0.5	0.6	1.2	1.2	0.8	1.0
<i>Navicula spp.</i>	1.4	1.1	0.8	0.6	1.4	1.7	2.5	3.0	1.6	1.5
<i>Nitzschia spp.</i>	0.9	0.5	0.8	1.2	1.4	1.2	2.9	2.4	2.4	1.5
<i>Melosira sp.</i>	3.3	2.2	3.4	3.7	5.1	4.7	2.9	3.0	3.2	3.0
<i>Odontella sp.</i>	1.4	1.1	1.5	1.8	1.9	2.3	2.1	1.8	2.4	2.0
<i>Pinnularia sp.</i>	5.2	4.8	5.4	6.1	8.4	8.7	8.3	9.0	5.7	5.1
<i>Planktoniella sp.</i>	1.4	1.1	1.1	0.6	1.9	1.7	0.8	0.6	1.2	1.0
<i>Pleurosigma spp.</i>	1.4	0.5	1.1	1.2	1.4	1.7	1.2	1.2	1.2	0.5
<i>Pseudo-nitzschia sp.</i>	3.8	3.8	4.2	4.3	3.7	5.2	6.6	6.0	4.5	5.1
<i>Rhizosolenia sp.</i>	13.7	12.9	11.5	9.8	10.7	10.5	10.8	11.4	11.3	10.7
<i>Synedra sp.</i>	1.4	0.5	1.5	1.2	1.4	1.2	0.8	0.6	0.8	1.0
<i>Thalassionema sp.</i>	6.6	15.6	7.7	4.9	5.6	10.5	3.7	7.2	6.1	8.1
<i>Thalassiosira sp.</i>	3.8	5.4	6.1	6.7	2.8	4.7	2.1	1.8	4.5	4.1
<i>Thalassiothrix sp.</i>	2.4	2.2	1.9	2.4	-	2.3	1.2	3.0	-	1.5
<i>Triceratium sp.</i>	-	1.1	1.1	-	1.4	1.7	-	-	-	1.0

<b>Dinoflagellates</b>										
<i>Dinophysis sp.</i>	-	-	0.4	-	-	0.6	-	-	-	-
<i>Amphidinium sp.</i>	-	-	-	-	0.9	-	-	-	-	-
<i>Ceratium sp.</i>	-	0.5	-	0.6	-	-	0.4	0.6	-	-
<i>Prorocentrum sp.</i>	0.9	1.1	-	0.6	-	0.6	0.8	-	0.4	1.0
<i>Protoperidinium sp.</i>	0.9	0.5	-	-	-	-	0.8	-	0.8	0.5
<i>Scrippsiella sp.</i>	-	0.5	-	0.6	-	-	-	1.2	-	1.0

Note: S=surface; B=bottom; St=station

**Annexures III: Composition (%) of various zooplankton groups in the coastal waters at the APL-Mundra during December 2024 and March 2025.**

Zooplankton Groups	Sampling period									
	December 2024					March 2025				
	St-1	St-2	St-3	St-4	St-5	St-1	St-2	St-3	St-4	St-5
Copepods	54.1	58.7	68.0	62.3	58.2	61.9	60.7	53.3	65.4	70.8
Copepod nauplii	20.2	23.6	18.1	19.1	20.8	16.2	24.6	25.3	21.3	18.1
Brachyuran crab larvae	7.0	4.9	4.2	4.7	5.5	7.5	4.0	5.0	3.6	4.2
Anomuran crab larvae	10.9	7.7	3.7	6.1	7.9	6.4	3.6	6.8	5.0	2.5
Decapod (shrimps)	1.2	0.6	0.8	0.6	0.7	0.5	0.4	0.9	0.2	0.3
Fish and shellfish eggs	3.7	2.0	1.7	5.0	3.6	2.7	3.1	4.7	2.4	2.1
Fish larvae	0.6	0.2	0.2	-	0.3	-	0.2	-	-	0.1
Gastropod larvae	0.4	0.2	0.8	0.3	0.3	0.7	0.6	0.3	-	0.3
Chaetognaths	1.4	0.6	0.8	0.7	0.5	1.6	0.8	1.4	0.8	0.6
Polychaete larvae	-	0.2	0.4	-	0.2	-	0.4	-	-	0.1
Siphonophora	0.2	0.4	-	0.4	0.7	1.3	1.1	2.1	1.0	0.6
Ostracods	-	0.2	0.2	-	-	0.2	-	-	-	-
Oikopleura	0.6	0.6	0.8	0.7	1.0	0.7	0.2	0.3	0.2	0.3
Amphipods	-	-	0.2	-	0.2	0.2	0.4	-	-	-

**Annexures IV: Composition (%) of macrobenthos community in the subtidal region at APL-Mundra during December 2024 and March 2025.**

Taxa	Sampling period									
	December 2024					March 2025				
	St-1	St-2	St-3	St-4	St-5	St-1	St-2	St-3	St-4	St-5
<b>Phylum Annelida</b>										
Paraonidae	31	36.3	37.4	22.9	27.6	30.6	25.4	34.7	22.7	26.1
Pilargidae	5.5	-	4.6	2.6	3.4	9.7	3.4	5.6	4.5	-
Capitillidae	6.9	2.9	13.7	6.8	6.9	-	6.8	9.7	13.6	10.1
Cossuridae	8.3	14	7.6	5.2	5.7	8.1	6.8	5.6	-	8.7
Glyceridae	-	5.8	-	-	-	11.3	5.1	6.9	5.7	10.1
Ciratullidae	6.9	2.3	4.6	5.2	4.6	-	8.5	4.2	4.5	-
Nephtyidae	5.5	3.5	3.1	8.3	10.3	9.7	-	5.6	5.7	7.2
Nereidae	9.7	9.4	9.2	5.2	10.3	6.5	8.5	8.3	10.2	11.6
Lumbriconeridae	4.1	3.5	3.1	15.6	11.5	8.1	-	-	6.8	10.1
Spionidae	8.3	8.2	6.1	7.3	6.9	-	11.9	5.6	6.8	-
<b>Phylum Nemertea</b>										
Nemertea	-	-	-	-	1.1	1.6	1.7	-	4.5	2.9
<b>Phylum Mollusca</b>										
Bivalvia	5.5	-	3.1	5.2	3.4	1.6	5.1	1.4	3.4	4.3
Gastropoda	5.5	8.2	3.1	6.3	5.7	6.5	10.2	5.6	5.7	4.3
<b>Phylum Arthropoda</b>										
Amphipoda	2.8	3.5	4.6	4.2	2.3	4.8	3.4	2.8	3.4	1.4
Isopoda	-	2.3	-	5.2	-	1.6	3.4	4.2	2.3	2.9

**Annexures V: Composition (%) of intertidal macrobenthos along APL-Mundra during December 2024 and March 2025.**

Faunal groups	Sampling period											
	December 2024						March 2025					
	IT-1 (HW)	IT-1 (LW)	IT-2 (HW)	IT-2 (LW)	IT-3 (HW)	IT-3 (LW)	IT-1 (HW)	IT-1 (LW)	IT-2 (HW)	IT-2 (LW)	IT-3 (HW)	IT-3 (LW)
<b>Phylum Annelida</b>												
Polychaetes	69.0	73.5	61.9	71.9	-	-	50.8	45.9	46.7	48.1	-	-
<b>Phylum Nemertea</b>												
Nemertea	-	-	-	3.1	-	-	-	6.6	3.3	-	-	-
<b>Phylum Mollusca</b>												
Bivalve	3.4	5.9	2.4	6.3	-	-	13.6	9.8	10.0	11.1	-	-
Gastropoda	3.4	4.4	4.8	6.3	-	-	6.8	3.3	6.7	7.4	-	-
<b>Phylum Arthropoda</b>												
Amphipoda	24.1	7.4	14.3	6.3	-	-	20.3	13.1	16.7	14.8	-	-
Isopoda	-	8.8	16.7	6.3	-	-	8.5	21.3	16.7	18.5	-	-

(Note: LW=low water during low tide; HW=high water during high tide; St=Station)

**AMBIENT AIR QUALITY MONITORING RESULTS -- 2024-25**

October2024														
Village : Siracha					Village : Kandagara					Village : wandh				
Date	PM10	PM2.5	SOx	NOx	Date	PM10	PM2.5	SOx	NOx	Date	PM10	PM2.5	SOx	NOx
10/1/2024	60.3	30.3	15.3	17.4	10/1/2024	58.4	24.1	11.1	15.9	10/1/2024	64.0	29.0	14.3	17.2
10/4/2024	52.0	26.8	12.8	14.9	10/4/2024	62.0	31.4	12.1	16.0	10/4/2024	70.0	33.1	17.2	20.2
10/8/2024	65.9	32.2	16.3	20.2	10/8/2024	66.0	34.9	15.7	19.9	10/8/2024	51.2	24.0	16.4	17.7
10/11/2024	60.3	27.5	14.1	17.6	10/11/2024	54.2	24.3	13.6	16.7	10/11/2024	73.0	30.6	14.0	16.3
10/15/2024	53.1	21.1	13.9	16.1	10/15/2024	62.8	28.9	16.5	21.2	10/15/2024	50.9	25.2	15.9	21.2
10/18/2024	58.9	28.5	11.5	14.6	10/18/2024	68.9	35.3	14.4	18.3	10/18/2024	76.6	34.5	13.7	15.8
10/22/2024	54.5	25.1	14.2	16.9	10/22/2024	57.5	29.3	13.6	17.8	10/22/2024	58.7	31.1	18.6	20.4
10/25/2024	61.3	28.2	16.4	18.5	10/25/2024	54.3	26.0	15.2	18.9	10/25/2024	65.6	32.1	15.9	19.1
10/29/2024	56.7	25.6	17.1	18.1	10/29/2024	49.7	21.8	16.1	18.3	10/29/2024	71.6	37.5	15.7	17.9
Min	52.0	21.1	11.5	14.6	Min	49.7	21.8	11.1	15.9	Min	50.9	24.0	13.7	15.8
Max	65.9	32.2	17.1	20.2	Max	68.9	35.3	16.5	21.2	Max	76.6	37.5	18.6	21.2
Avg	58.1	27.3	14.6	17.1	Avg	59.3	28.4	14.3	18.1	Avg	64.6	30.8	15.7	18.4

November2024														
Village : Siracha					Village : Kandagara					Village : wandh				
Date	PM10	PM2.5	SOx	NOx	Date	PM10	PM2.5	SOx	NOx	Date	PM10	PM2.5	SOx	NOx
11/1/2024	58.8	33.3	11.6	15.4	11/1/2024	66.1	30.2	12.1	16.2	11/1/2024	68.0	31.7	14.1	15.7
11/5/2024	63.6	22.7	16.5	22.2	11/5/2024	53.8	29.2	18.6	24.6	11/5/2024	74.5	39.5	22.4	25.5
11/8/2024	54.5	29.1	13.4	16.2	11/8/2024	52.8	23.0	17.7	21.4	11/8/2024	64.1	32.4	17.6	21.1
11/12/2024	60.4	31.7	13.7	17.2	11/12/2024	55.7	27.1	13.2	18.7	11/12/2024	58.9	28.3	16.3	19.3
11/15/2024	53.0	21.1	16.3	20.6	11/15/2024	63.4	35.2	12.5	16.1	11/15/2024	60.1	25.5	14.9	20.7
11/19/2024	55.8	29.0	10.8	14.7	11/19/2024	64.4	26.9	11.6	15.7	11/19/2024	60.4	27.4	12.7	15.2
11/22/2024	61.0	32.9	14.5	17.3	11/22/2024	73.1	33.3	19.4	22.3	11/22/2024	65.2	36.4	13.6	17.5
11/26/2024	59.9	26.4	15.7	20.8	11/26/2024	56.0	29.4	15.3	21.6	11/26/2024	71.5	39.9	15.6	22.1
11/29/2024	58.2	28.4	13.2	17.9	11/29/2024	59.7	25.6	14.1	17.3	11/29/2024	61.5	34.5	18.3	23.7
Min	53.0	21.1	10.8	14.7	Min	52.75857	23.04965	11.6	15.7	Min	58.9	25.5	12.7	15.2
Max	63.6	33.3	16.5	22.2	Max	73.1	35.2	19.4	24.6	Max	74.5	39.9	22.4	25.5
Avg	58.4	28.3	14.0	18.0	Avg	60.5	28.9	14.9	19.3	Avg	64.9	32.8	16.2	20.1

December2024														
Village : Siracha					Village : Kandagara					Village : wandh				
Date	PM10	PM2.5	SOx	NOx	Date	PM10	PM2.5	SOx	NOx	Date	PM10	PM2.5	SOx	NOx
12/3/2024	63.8	31.0	18.1	24.7	12/3/2024	66.1	34.8	15.2	20.2	12/3/2024	55.3	32.3	12.4	16.8
12/6/2024	49.5	27.3	16.1	21.7	12/6/2024	57.0	31.7	17.2	20.8	12/6/2024	60.3	29.7	17.3	23.9
12/10/2024	52.0	23.8	13.9	18.2	12/10/2024	46.0	25.7	16.5	22.4	12/10/2024	66.4	34.7	14.2	17.8
12/13/2024	61.4	34.1	11.7	14.9	12/13/2024	66.5	31.7	18.3	23.7	12/13/2024	60.6	31.0	19.8	25.1
12/17/2024	57.9	27.3	16.7	22.5	12/17/2024	68.2	34.3	13.0	17.1	12/17/2024	74.6	39.2	16.0	21.3
12/20/2024	57.5	30.0	14.5	18.4	12/20/2024	54.5	25.0	13.7	18.4	12/20/2024	63.4	32.5	13.5	16.2
12/24/2024	58.8	25.6	15.9	19.4	12/24/2024	50.4	24.6	16.5	22.5	12/24/2024	57.4	28.0	15.6	20.4
12/27/2024	58.7	28.2	16.1	20.6	12/27/2024	65.5	30.9	14.7	19.5	12/27/2024	65.7	33.7	18.8	22.5
12/31/2024	64.1	33.0	14.5	19.3	12/31/2024	58.8	22.7	17.5	24.3	12/31/2024	69.5	37.6	15.2	17.8
Min	49.5	23.8	11.7	14.9	Min	46.0	22.7	13.0	17.1	Min	55.3	28.0	12.4	16.2
Max	64.1	34.1	18.1	24.7	Max	68.2	34.8	18.3	24.3	Max	74.6	39.2	19.8	25.1
Avg	58.2	28.9	15.3	20.0	Avg	59.2	29.0	15.8	21.0	Avg	63.7	33.2	15.9	20.2

January2025														
Village : Siracha					Village : Kandagara					Village : wandh				
Date	PM10	PM2.5	SOx	NOx	Date	PM10	PM2.5	SOx	NOx	Date	PM10	PM2.5	SOx	NOx
1/3/2025	55.7	29.4	16.7	21.5	1/3/2025	66.1	30.2	14.1	19.8	1/3/2025	59.8	31.9	19.5	24.2
1/7/2025	50.7	24.8	17.9	23.8	1/7/2025	54.4	29.2	16.5	22.5	1/7/2025	76.8	28.9	18.1	23.5
1/10/2025	63.2	27.8	18.5	24.2	1/10/2025	44.8	23.0	15.2	20.3	1/10/2025	64.1	26.5	17.8	24.5
1/13/2025	52.8	29.9	15.7	20.7	1/13/2025	55.7	27.1	17.5	21.5	1/13/2025	67.1	36.3	18.2	21.8
1/17/2025	69.4	32.7	16.2	21.5	1/17/2025	64.8	35.2	16.3	22.6	1/17/2025	60.3	23.2	19.8	24.5
1/21/2025	48.8	24.3	18.1	23.2	1/21/2025	54.4	26.9	15.1	19.2	1/21/2025	59.5	30.4	20.5	23.8
1/24/2025	61.2	27.5	16.5	20.7	1/24/2025	63.1	33.3	17.5	23.1	1/24/2025	55.9	29.4	17.4	22.3
1/28/2025	54.5	23.8	14.3	21.6	1/28/2025	56.0	29.4	18.2	24.5	1/28/2025	68.6	32.9	16.3	21.5
1/31/2025	59.1	28.2	16.2	22.5	1/31/2025	51.4	25.6	16.5	21.6	1/31/2025	58.8	27.5	17.1	22.4
Min	48.8	23.8	14.3	20.7	Min	44.8	23.0	14.1	19.2	Min	55.9	23.2	16.3	21.5
Max	69.4	32.7	18.5	24.2	Max	66.1	35.2	18.2	24.5	Max	76.8	36.3	20.5	24.5
Avg	57.3	27.6	16.7	22.2	Avg	56.7	28.9	16.3	21.7	Avg	63.4	29.7	18.3	23.2

February2025														
Village : Siracha					Village : Kandagara					Village : wandh				
Date	PM10	PM2.5	SOx	NOx	Date	PM10	PM2.5	SOx	NOx	Date	PM10	PM2.5	SOx	NOx
2/4/2025	63.2	29.9	14.8	19.3	2/4/2025	62.5	27.9	17.8	23.3	2/4/2025	69.8	29.1	17.5	23.7
2/7/2025	49.8	22.7	16.2	21.8	2/7/2025	51.5	30.0	20.3	26.7	2/7/2025	75.2	21.4	16.3	21.4
2/11/2025	67.1	25.6	15.5	20.6	2/11/2025	51.1	25.3	18.5	23.9	2/11/2025	64.1	21.1	21.8	27.8
2/14/2025	53.1	22.4	18.1	24.1	2/14/2025	55.6	28.9	15.8	20.6	2/14/2025	57.1	19.7	19.1	24.5
2/18/2025	61.9	21.1	17.5	22.8	2/18/2025	69.6	37.7	17.4	23.8	2/18/2025	60.8	26.9	22.5	29.1
2/21/2025	50.1	29.0	15.3	20.5	2/21/2025	72.3	35.3	16.2	21.4	2/21/2025	59.5	35.8	21.7	26.5
2/25/2025	60.8	32.0	13.8	18.2	2/25/2025	44.3	23.6	19.7	25.2	2/25/2025	65.9	30.7	18.4	23.9
2/28/2025	54.5	23.8	15.2	19.8	2/28/2025	59.0	29.4	16.4	22.7	2/28/2025	63.3	32.9	20.5	24.7
Min	49.8	21.1	13.8	18.2	Min	44.3	23.6	15.8	20.6	Min	57.1	19.7	16.3	21.4
Max	67.1	32.0	18.1	24.1	Max	72.3	37.7	20.3	26.7	Max	75.2	35.8	22.5	29.1
Avg	57.6	25.8	15.8	20.9	Avg	58.2	29.8	17.8	23.5	Avg	64.5	27.2	19.7	25.2

Mar2025														
Village : Siracha					Village : Kandagara					Village : wandh				
Date	PM10	PM2.5	SOx	NOx	Date	PM10	PM2.5	SOx	NOx	Date	PM10	PM2.5	SOx	NOx
3/4/2025	57.9	20.8	16.3	20.9	3/4/2025	58.4	29.7	18.8	22.7	3/4/2025	57.8	28.2	19.3	23.5
3/7/2025	43.8	34.0	19.1	24.3	3/7/2025	56.1	23.9	23.2	28.1	3/7/2025	55.7	25.2	22.1	26.4
3/11/2025	72.4	30.2	17.4	22.7	3/11/2025	63.4	27.4	20.5	25.6	3/11/2025	61.1	23.6	25.3	29.2
3/14/2025	52.5	22.5	18.9	24.2	3/14/2025	58.2	22.5	17.1	23.2	3/14/2025	52.8	22.2	23.8	26.7
3/18/2025	49.5	23.9	22.4	27.1	3/18/2025	50.6	17.3	22.8	27.8	3/18/2025	49.7	26.6	18.6	23.9
3/21/2025	42.0	33.2	20.7	24.8	3/21/2025	62.1	22.6	20.3	25.3	3/21/2025	66.5	34.4	21.4	26.3
3/25/2025	59.1	27.2	16.3	22.4	3/25/2025	60.7	27.1	15.9	21.3	3/25/2025	72.0	34.6	24.8	29.6
3/28/2025	70.4	23.8	19.5	25.2	3/28/2025	57.1	23.2	18.5	24.7	3/28/2025	69.8	35.5	19.6	25.3
Min	42.0	20.8	16.3	20.9	Min	50.6	17.3	15.9	21.3	Min	49.7	22.2	18.6	23.5
Max	72.4	34.0	22.4	27.1	Max	63.4	29.7	23.2	28.1	Max	72.0	35.5	25.3	29.6
Avg	56.0	26.9	18.8	24.0	Avg	58.3	24.2	19.6	24.8	Avg	60.7	28.8	21.9	26.4



# **Annexure – 9**

## **REGIONAL LEVEL POLLUTION RESPONSE EXERCISE REPORT**

### **OFF VADINAR ON 14-15 OCT 24**

#### **TABLETOP EXERCISE- 14<sup>TH</sup> OCT 2024**

Below team members participated in Tabletop exercise organized by ICGS Vadinar at Hotel Vishal International, Jamnagar on 14th Oct-24:

1. Vikram Pratap Singh – Radio Officer
2. Ramdas Pawale – Marine Diver

#### **AT SEA PR EXERCISE- 15<sup>TH</sup> OCT 2024**

**Venue:** Off Vadinar

**Exercise conducted by:** Indian Coast guard

#### **Resource agencies and stake holders involved:**

1. M/S Adani Port & SEZ, Mundra
2. Indian Oil Corporation LTD, Jamnagar
3. M/S Nayara Energy LTD VOTL, Vadinar
4. M/S Reliance Industries LTD, Sikka Jamnagar
5. M/S Essar Bulk Terminal, Salaya

#### **Manpower Attendees:**

1. Capt. Prasoon Roy – Marine Pilot
2. Ayush Jha – SPM Maint. (Assist. Manager)
3. Mr. MP Choudhary – Diving In charge
4. Vikram Pratap Singh – Radio Officer
5. Yugul Kishor Sharma – Mooring Master
6. Pradeep Pandey – Supervisor
7. Shashikant Padave – Tanker Seaman
8. Narayan Tamhankar – Tanker Seaman
9. Dhruvas Patekar – Tanker Seaman
10. Monu Rai – Tanker Seaman
11. Santosh Rasam – Tanker Seaman
12. Sandeep Kumar – Diver
13. Som Kumar – Diver
14. Ajay Kumar – Diver
15. Suresh Kumar – Diver
16. Khagendra Dewangan – HMEL
17. Shashi Kumar – HMEL/VIRAJ
18. Kuldeep – HMEL/VIRAJ
19. Pavan Sharma – HMEL/VIRAJ
20. Kulbir Singh – HMEL/VIRAJ
21. Sunil K Maurya – Sea Care
22. Rakesh Kumar – Sea Care
23. Swapnil Sutar – Sea Care
24. Sunil Gupta – Sea Care

#### **Tugs & Crafts**

1. DoI 11 Crew with Master
2. Tug KB 48

### Statement of facts

- 0500 hrs.:** Tug KB 48 left SPM & started proceeding to Vadinar for exercise.
- 0548 hrs.:** Tug Dol 11 with crew and attendees left for Vadinar for Regional Level Pollution Response exercise from Ro-Ro pontoon.
- 0642 hrs.:** Tug Dol 11 informed Vadinar Port Control that Tug Dol 11 & Victor will be entering Vadinar port limit for Regional Level Pollution Response exercise.
- 0700 hrs.:** Tug Dol 11 arrived at coast guard given position.
- 0710 hrs.:** Briefing of drill carried out.
- 0750 hrs.:** Informed ICG vessel Samudra Pawak (Victor1) on VHF Ch-67 that Tug Dol 11 arrived at specified location 2 cable south of 22 34.00 N 069 43.10 E. Samudra Pawak (Victor1) advised to keep watch on VHF CH 67 for further communication.
- 0930 hrs.:** Tug Dol 11 communicated with ICG vessel Samudra Pawak (Victor1) for launching boom to demonstrate 'U' shape boom configuration. ICG vessel Samudra Pawak (Victor1) advised to commence launching boom.
- 0932 hrs.:** Commence lowering boom.
- 0950 hrs.:** Completed lowering boom (5 section 250 m in length).
- 1005 hrs.:** U-formation of boom completed. Same informed to ICG vessel Samudra Pawak (Victor1) . Victor 1 advised maintaining position with 'U' shape boom configuration.
- 1015 hrs.:** Skimmer & floating storage tank deployed in water.
- 1150 hrs.:** The whole operation observed by ICG vessel Samudra Pawak (Victor1) and appreciated the quick and professional response from Dol-11. The Coast guard advised to start securing gears & break off from position.
- 1200 hrs.:** Drill called off.
- 1205 hrs.:** Secured all deployed equipment and started recovering boom.
- 1235 hrs.:** Completed recovering boom and vessel started proceeding to Mundra. Same informed to Vadinar port control and ICG vessel Samudra Pawak (Victor1).
- 1240 hrs.:** Debriefing of drill carried out.
- 1400 hrs.:** Dol 11 arrived Mundra port. Tug KB 48 arrived at IOCL SPM.

**Tabletop & Drill Exercise Snap – 14<sup>th</sup>-15<sup>th</sup> Oct 2024**

**TABLETOP EXERCISE AT HOTEL VISHAL INTERNATIONAL, JMANAGAR ON 14<sup>TH</sup> OCT 2024**

Tabletop exercise



**DRILL EXERCISE OFF VADINAR ON 15 OCT 2024**

Initial debriefing of drill



Boom laying from Dol 11



Lowering boom (5 section 250 m in length)



U-formation making in progress



U-formation completed



Floating storage tank deploying



Brush skimmer operation



Operation observed by ICG vessel Samudra Pawak (Victor1)



Commence recovering of boom



Completed recovering of boom





# **Annexure – 10**

**MOCK DRILL POLLUTION RESPONSE TRAINING/EXERCISE- 2025 REPORT**  
**06 FEB 2025**

<b>Date:</b> 06 Feb 2025	<b>Exercise:</b> PR Exercise
<b>Name:</b> Mr. Saket Kumar	<b>Position:</b> Radio Officer
<b>Contact Number:</b> 7874604321	<b>Location:</b> APSEZL, Mundra

**Date: 06 Feb 2025 : Final Planning of Exercise**

0900-1030 hrs : Pre Exercise briefing carried out at SPM Store to all participants of APSEZ Mundra .

**Date: 06 Feb 2025 - Mock OSR drill**

**Location- Near MICT TURNING CIRCLE (22<sup>0</sup> 44.63'N 069<sup>0</sup> 43.1' E)/APSEZL, Mundra**

**Drill Activity Timeline:**

1100 hrs.: Tug KB 48 reported to Marine Control and Dol 11 that an Oil patch observed in MICT Turning Circle.

1101 hrs.: Marine Control informed Marine HOD/HOS and all concerned departments.

1102 hrs.: Dol 11 was informed to pick up OSR team from RORO and proceed to sight immediately.

1115 hrs.: Dol 11 reached on site and commenced boom deployment.

1015 hrs.: Informed commercial team (Mr. Jagdish Rabadia), environment cell (Mr. Radhe Shyam Singh) and Liquid Control Room by Mr. Sudhakar Singh about the drill/incident to be in immediate readiness.

1120 hrs.: All vessels and crafts movements suspended in effected area.

1125 hrs.: Marine Control informed Tug Dol 17 & 18 to standby with OSD for spraying.

1130 hrs.: Marine Control informed Barge BB-10 along with Tug Dol 10 to be stand by.

1130 hrs.: Security department were informed to allow entry of authorized persons, emergency vehicles without any delay and OHS/Adani hospital to be on alert.

1145 hrs.: Dol 11 informed that spill is spread in an area of around 35-50 m<sup>2</sup>.

1200 hrs.: Dol 11 reported 150m boom deployed and continued to deploy the remaining 100 meters and reported wind Ely 5-6 knots.



1215 hrs.: Dol 11 reported 250 m boom deployment completed and commenced J-formation.

1245 hrs.: Dol 11 reported J-formation completed, and oil containment is in progress and commenced skimmer deployment and this is HSD so it is volatile in nature, hence deploying resources to contain.

1255 hrs.: Liquid team informed Marine Control that the motor pump and other equipment is standby at RORO.

1305 hrs.: Recovery of 50 Ltrs spilled oil completed.

1310 hrs : Recovered oil stored in Drum.

1315 hrs.: Drill called off and at the same time informed all concerns.

1320 hrs.: Boom recovery started.

1325 hrs.: Area assessed by diving team for recovered oil and confirmed all clear.

1330 hrs.: Informed environment team for water sampling of spillage area.

1345 hrs.: Environment team informed that area is clear of oil and no harm for sea.

1345 – 1415 hrs.: De-briefing carried out onboard Dol 11.

#### **Personnel & Boats Participated in Drill**

1. Capt. Hemant Dhruv-APSEZL
2. Capt. Prasoon Roy-APSEZL
3. Ayush Jha-APSEZL
4. Yugul Kishor Sharma-APSEZL
5. Ramdas Pawale-APSEZL
6. Shubham Sonagara-APSEZL
7. Meet Patel-APSEZL
8. Saket Kumar – APSEZL
9. Vikram Pratap Singh-APSEZL
10. Prem Kumar Pabbisetty-APSEZL
11. Abhishek Panda-APSEZL
12. Shubham Agre-APSEZL
13. Radheshyam Singh-APSEZL
14. Jayesh Parmar-APSEZL
15. Harsh Parmar-APSEZL
16. Members from M/s Sea Care – 02
17. Crew of Tug Dol 11
18. Crew of Tug KB 48
19. Tug Dol 10 17 and 18.

### Drill Performance Monitoring:

Sl. No	Activity	Time Taken
1.	Time taken to shift OSR equipment from SPM Store to load on DSV tugs	NA / 200-meter Fence boom and 1- skimmer is kept 24 x 7 on Tug Dol 11.
2.	Time taken for Tug cast off from time information given.	NA
3.	Time taken from tug cast off to Reach at Location.	NA
4.	Time taken for deploying 250-meter boom and skimmer after reaching at site.	30 min.
5	Time taken for J/U formation and deployment of skimmer.	11 min.

### Observations:

SR. NO	POINTS	ACTION TAKEN	TARGET DATE	RESPONSIBILITY	REMARKS
1	Internal communication between Dol 11 and KB48 should be streamlined.	Point discussed during de-brief	10.02.2025	Dol 11	
2	The Boom laying area to be clear of obstruction	Point discussed during de-brief	10.02.2025	Dol 11	
3					

**Pre Exercise Briefing - 06 Feb 2025**

Pre Exercise briefing at SPM Store



**PR Drill snap - 06 Feb 2025**

Boom laying from Tug Dol 11



J formtion making in progress





De-briefing onboard Dol 11





# **Annexure – 11**

## ADANI PORTS & SPECIAL ECONOMIC ZONE LIMITED

### MOCK DRILL REPORT

Date	:	31.03.2025
Time	:	09.25 Hrs.
Location	:	FCC, MHS workshop area
Type/Text of the Scenario	:	Power supply problem check activity in workshop area electric panel that time panel door opening time suddenly spark & flash generated and electric current pass in person body.

**INTRODUCTION:** While Power supply problem check activity in workshop area electrical panel That time electrical panel board opening time suddenly spark & flash generated and electric current pass in electrical technician Jayesh Padhiyar body, immediately Mr. Chandu Parmar(Buddy)Electricaltechnician observed this and intimated to area Incharge Mr. Pramod Jadav who immediate reached to the site and immediately inform to control shift in charge Mr. Ketan Joshi has took command as incident controller and declared on-site emergency.

Immediately POC, Fire and OHC were informed. POC subsequently intimated the same Through message/ call to concern departments.

#### **LOCATION (WITH PHOTOGRAPH):**



#### **SEQUENCE OF EVENTS WITH PHOTOGRAPHS:**



## ADANI PORTS & SPECIAL ECONOMIC ZONE LIMITED

### MOCK DRILL REPORT



Location of Mock Drill – FCC, MHS Workshop



First Information given by Site Supervisor



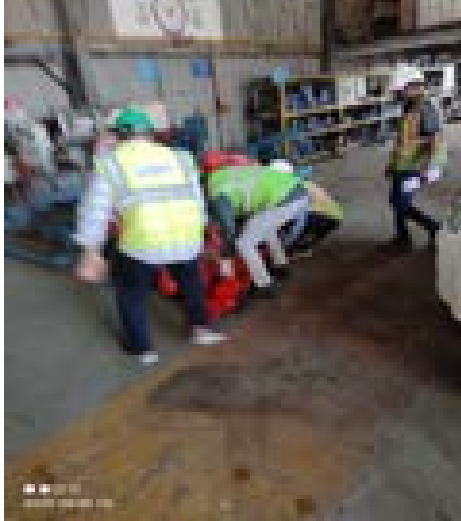
Incident Controller Reached at site



Area Barricaded near road place

## ADANI PORTS & SPECIAL ECONOMIC ZONE LIMITED

### MOCK DRILL REPORT



**Observers - Mr. Virendrasingh Jadeja & Mr. Jitubhai Patel**



**Medical Team Reached At Site**



**Maintenance Team Reached at Location**

## ADANI PORTS & SPECIAL ECONOMIC ZONE LIMITED

### MOCK DRILL REPORT



**Situation under control intimated by Incident Controller**



**Medical Team Reached At Site and take action**



**Situation under control intimated by Incident Controller**



**Evacuation of People and Proceed to Assembly Point**

## ADANI PORTS & SPECIAL ECONOMIC ZONE LIMITED

### MOCK DRILL REPORT



**Gathering at Assembly Point**



**Briefing About Incident to All**



**De briefing at Assembly point**



**Vote of Thanks at Assembly point**



## ADANI PORTS & SPECIAL ECONOMIC ZONE LIMITED

### MOCK DRILL REPORT

**RESPONSE TIME:**

#	Description	Exact Time
1.	First responder informed to FCC Electric Shift incharge regarding emergency scenario	: 09:25 AM
2.	Incident controller comes on site	: 09:27 AM
3.	Declaration of Emergency	: 09:28 AM
4.	Security team reaching time at incident point	: 09:30 AM
5.	Fire Team reaching time at incident Point	: NA
6.	Ambulance reaching time at incident Point	: 09:33 AM
7.	Departure of Ambulance with patient	: 09:34 AM
8.	Ambulance reached at OHC	: 09: 37 AM
9.	First person at Assembly Point	: --
10.	Last person at Assembly Point	: --
11.	Maintenance/ Rescue Arrangement at site	: 09:29 AM
12.	Corporate Affairs team reaching on site	: NA
13.	Liaising officer reached at site	: NA
14.	Audibility of the scenario on PA system	: 09:35 AM
15.	Termination of Emergency	: 09:39 AM

**COMMUNICATION & ACTIONS:**

Action By	Information To / Action By	Remarks
First Responder	Information given to incident controller about situation / scenario Operated VHF	Good Response, Immediately informed to FCC shift in charge at site.
Site Incident Controller	Assess the site and declare on-site emergency.	
Concern Department/ Area In-charge	Inform to POC, Security, Fire, Medical, Safety, Eng team etc.	
Engineering Services	Maintenance team reached the site.	
Corporate Affairs	NA	



## ADANI PORTS & SPECIAL ECONOMIC ZONE LIMITED

### MOCK DRILL REPORT

HR/ Admin	HR Admin team were not reached at Assembly point.	
Safety	Reached at site on time.	
OHC	OHC team response was quick. Ambulance reached site	
Security Control Room	Evacuated the workforce from the terminal and ensure vehicle movement restriction inside terminal.	
Fire Control Room Inform	Fire tender not reached at site.	

#### COMMUNICATION TO MUTUAL AID GROUP

(IF REQUIRED, AS AND WHEN MUTUAL AID IS CALLED) – Not Required.

To	By Whom/ Media	Standard	Performance
IOCL		2 min. after receiving information to Emergency Control Room	
HPCL			
JINDAL SAW			
ADANI POWER			
CGPL			
HMEL			

#### RESPONSE TIME PERFORMANCE OF ACTION

Agency	Standard Time	Performance	Rating (Max. 9/ Block)	
			+VE Marks	-VE Marks
Ambulance	1-2 Min	5 Min	<b>9</b>	
Safety	4-5 Min	2 Min	<b>9</b>	
ERT Services	4-5 Min	5 Min	<b>9</b>	

#### A. PERFORMANCE OF OHS & F SERVICES & RESCUE SERVICES

Performance	Performance	Rating (Max. 3 per Block)	
		+VE Marks	-VE Marks



## ADANI PORTS & SPECIAL ECONOMIC ZONE LIMITED

### MOCK DRILL REPORT

Turn out/ response time of Fire Team	Fireteam not reached at time.		<b>1</b>
Turn out/ response time of OHC Team	OHC team & Ambulance reached at site within benchmark of response time.	<b>3</b>	
Turn out/ response time of Safety Team and in coordination with incident controller mobilisation of personnel and resources.	Response time of Safety team is within benchmark and will coordinate with incident controller for mobilisation of personnel, resources, PPE's etc.	<b>3</b>	
Medical attention at the site	Reported to incident Controller and ensure no any causality.	<b>3</b>	
Rescue of person	By medical team(One)	<b>3</b>	

#### **B. PERFORMANCE OF MAINTENANCE DEPARTMENT**

Performance	Performance	Rating (Max. 3 per Block)	
		+VE Marks	-VE Marks
Power shut down/ cut off	Maintenance team reached on time, power cut done	<b>3</b>	
Immediate arrangements at the site	All arrangement were mobilised.	<b>3</b>	



## ADANI PORTS & SPECIAL ECONOMIC ZONE LIMITED

### MOCK DRILL REPORT

Mobilizing of personnel and resources	Maintenance team reached at site with tool kit.	<b>3</b>	
Maintenance activities being carried out at the site	Necessary step by maintenance to cut power.	<b>3</b>	
Clearing debris	NA	<b>3</b>	
Other arrangement at required to meet emergency	NA	<b>3</b>	

#### C. PERFORMANCE OF SECURITY SERVICES

Performance	Performance Rating	Rating (Max. 3 per Block)	
		+VE Marks	-VE Marks
Turnout of Security	Security Team reached on time. FCC MHS Workshop road area barricading done.	<b>3</b>	
Performance of security guards	FCC MHS workshop area barricading done.	<b>3</b>	
Security officer's command & control	Security officers restrict the entry of unauthorized persons.	<b>3</b>	
Area cordoned off	There was area barricading nearby incident spot by security team.	<b>3</b>	
Prevent unwanted/ unauthorized entry into this area	Security officers restrict the entry of unauthorized	<b>3</b>	
Providing security coverage at main gate and directing concern person to the site.	Security guard was guided to emergency vehicle for scene.	<b>3</b>	





## ADANI PORTS & SPECIAL ECONOMIC ZONE LIMITED

### MOCK DRILL REPORT

#### D. PERFORMANCE OF OPERATION/ CONCERN DEPARTMENT

Performance	Performance Rating	Rating (Max. 3 per Block)	
		+VE Marks	-VE Marks
Immediately pass the communication message through Cell phone / other available media to subordinates & emergency response team.	Communication / Information on emergency conveyed to all concern by incident controller.	<b>3</b>	
Stopping of operation / like critical operations first & on priority basis	All operations stopped by incident controller.	<b>3</b>	
Emergency response of particular department at site	Response time of concern department found adequate.  Engineering workshop Person deputed for guided to emergency vehicle for scene.	<b>3</b>	
Support for evacuation of people at site and head count along with HR/ Admin.	Evacuation done by engineering team and head count was done Safety and Security team.  It was observed that workshop workers were taking the mock drill casually and evacuating very slowly there was no sense of urgency in their conduct.	<b>3</b>	<b>1</b>
Availability and response of emergency kit / equipment / Other.	Emergency kit was immediately mobilized at the incident spot.	<b>3</b>	



## ADANI PORTS & SPECIAL ECONOMIC ZONE LIMITED

### MOCK DRILL REPORT

Audibility of the scenario on PA System by Persons	PA System was used for evacuation of people.  Siren on FCC MHS workshop area not provided.	<b>3</b>	<b>1</b>
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**Observer – Mr. Virendrasingh Jadeja & Mr. Jitubhai Patel**

**Good Observations:**

1. Emergency team was reached in time.
2. Incident controller aware about situation handling and given instruction accordingly.
3. Ambulance was equipped with all necessary equipment.
4. Response of workers at assembly point was good.
5. Good response by Engineering electrical supervisor and shift in charge.

**Observations / Area of Improvement:**



## ADANI PORTS & SPECIAL ECONOMIC ZONE LIMITED

### MOCK DRILL REPORT

1. Engineering MHS workshop workers were taking the mock drill casually and evacuating very slowly there was no sense of urgency in their conduct.
2. Emergency Siren Not provided on FCC area site.
3. During mock drill Fire team was coming not as emergency,
4. Assembly point sign board not at decide location.
5. MHS MRV LMV parked found on walkway inside workshop.
6. Not any person response all are waiting OHC ambulence.
7. Awareness required to (MHS workshop worker) training.
8. Area blocked found near electrical panel.
9. Emergency danger signeges not found on panel.

SR.NO	Observations	Action Item	Action By
1	Engineering MHS workshop workers were taking the mock drill casually.	Train the MHS workshop workers on Emergency response.	ES Ele shift In-charges & Safety Shift In-charges
2	During mock drill Fire team was not coming as emergency site.		
3	MHS MRV LMV parked found on walkway inside workshop.	Train the Engineering workers on Emergency response.	ES Ele shift In-charges & Safety Shift In-charges
4	Area blocked found near electrical panel.	Train the Engineering workers on 5S' response.	ES Ele shift In-charges
5	Emergency danger signeges not found on panel.	Need danger poster on danger panel.	ES Electric shift In-charges



## ADANI PORTS & SPECIAL ECONOMIC ZONE LIMITED

### MOCK DRILL REPORT

#### Overall rating - 90

- Marks from 95 to 100 - Excellent
- Marks from 90 to 95 - Very Good
- Marks below 90 - Needs Improvement**

**VOTE OF THANKS:** Mr. Ketan Joshi / Mr. Sathiskumar

#### **SUPPORTING STAFF:**

Drill Organized By : Mr. Pramod Jadav / Mr. Anilkumar  
Drill guided By : Mr. Ketan Joshi / Mr. Sathiskumar  
Exercise Performance Assessor : Mr. Subhash moond Mr. Pappu ranjak  
Site incident controller : Mr. Dharmendra Parmar  
Report prepared By : Mr. Gautam Dave

# **Annexure – 12**

### **Cost of Environmental Protection Measures**

Sr. No.	Activity	Cost incurred (INR in Lacs)			Budgeted Cost (INR in Lacs)
		2022 - 23	2023 - 24	2024 - 25	2024 - 25
1.	Environmental Study / Audit and Consultancy	7.32	22.67	40.46	27
2.	Legal & Statutory Expenses	12.32	8.60	17.37	13
3.	Environmental Monitoring Services	15.32	13.37	17.27	19.20
4.	Hazardous / Non-Hazardous Waste Management & Disposal	104.035	130.11	122.46	172.40
5.	Environment Days Celebration and Advertisement / Business development	2.53	3.42	1.85	4.00
6.	Treatment and Disposal of Bio-Medical Waste	2.29	2.28	2.39	2.28
7.	Mangrove Plantation, Monitoring & Conservation	35.0	15	0	0
8.	Other Horticulture Expenses	956	904	570	831
9.	O&M of Sewage Treatment Plant and Effluent Treatment Plant (including STP, ETP of Port & SEZ & Common Effluent Treatment Plant)	141.33	186.94	164.31	195.41
10.	Expenditure of Environment Dept. (Apart from above head)	90.136	80.39	93.40	75.92
<b>Total</b>		<b>1366.28</b>	<b>1366.78</b>	<b>1029.51</b>	<b>1340.21</b>

# **Annexure – 13**



# Certificate of Validation

## Zero Waste to Landfill Achievement

Presented to

**Mundra Port**

**Adani Ports and Special Economic Zone Ltd**  
*At & Post –Mundra, Gujarat–370405, India*

This is to certify that **Mundra Port** has successfully achieved the **Zero Waste to Landfill (ZWL) Platinum – Class I Rating** by demonstrating outstanding leadership in waste management practices through:

- *Waste Diversion Rate: Attaining a diversion rate of 99.61% from landfill through the adoption and implementation of the 5R principles — Reduce, Reuse, Repurpose, Recycle, and Recover.*
- *Sustained Commitment: Maintaining ongoing compliance through participation in annual surveillance audits to ensure conformance and adherence to ZWL principles.*

**ZERO  
WASTE  
TO LANDFILL**



**Seema Arora**  
*Deputy Director General*  
**Confederation of Indian Industry**

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**Certificate Issued on: 03 May 2025**

**Certificate No.: CII/ZWL/2025/001**

Validity of Certification: *From 23 December 2024 to 22 December 2027*

Initial Certification: TUV/ZWLMS/2021/Adani Ports/0501

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**This certification is awarded based on the evidence submitted and verified during the assessment period. The certified organization bears sole responsibility for the accuracy of submitted data and for maintaining ongoing compliance. For detailed terms of certification, audit findings, and evaluation methodology, please refer to the attached Annexure.**



# **Annexure – 14**

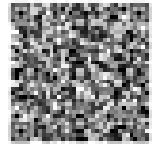
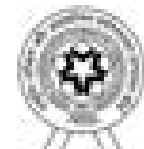
## Details of Greenbelt Development at APSEZ, Mundra

	Total Green Zone Detail till Up to March 2025					
LOCATION	Area (In Ha.)	Trees (Nos.)	Palm (Nos.)	Shrubs (SQM)	Lawn (SQM)	
SV COLONY	72.29	34920.00	7962.00	69696.00	100646.00	
PORT & NON SEZ	81.61	149359.00	19220.00	75061.78	62966.38	
SEZ	115.70	226120.00	20489.00	220583.60	28162.03	
MITAP	2.47	8113.00	33.00	3340.00	4036.00	
WEST PORT	104.29	248074.00	66816.00	24112.00	16369.00	
AGRI PARK	8.94	17244.00	1332.00	5400.00	2121.44	
SOUTH PORT	14.45	27530.00	3470.00	3882.00	3327.26	
Samundra Township	58.26	63722.00	11834.00	23908.89	47520.07	
Productive Farming (Vadala Farm)	0.00	0.00	0.00	0.00	0.00	
<b>TOTAL (APSEZL)</b>	<b>457.99</b>	<b>775082</b>	<b>131156</b>	<b>425984.27</b>	<b>265148.18</b>	
		<b>906238.00</b>				

## Details of Mangrove Afforestation done by APSEZ

Sl. no.	Location	District	Area (Ha)	Duration	Species	Implementation agency
1	Mundra Port	Kutch	24	-	Avicennia marina	Dr. Maity, Mangrove consultant of India
2	Mundra Port	Kutch	25	-	Avicennia marina	Dr. Maity, Mangrove consultant of India
3	Luni/Hamirmora (Mundra)	Kutch	160.8	2007 - 2015	Avicennia marina, Rhizophora mucronata, Ceriops tagal	GUIDE, Bhuj
4	Kukadsar (Mundra)	Kutch	66.5	2012 - 2014	Avicennia marina	GUIDE, Bhuj
5	Forest Area (Mundra)	Kutch	298	2011 - 2013	Avicennia marina	Forest Dept, Bhuj
6	Jangi Village (Bhachau)	Kutch	50	2012 - 2014	Avicennia marina	GUIDE, Bhuj
7	Jakhau Village (Abdasa)	Kutch	310.6	2007-08 & 2011-13	Avicennia marina, Rhizophora mucronata, Ceriops tagal	GUIDE, Bhuj
8	Sat Saida Bet	Kutch	255	2014-15 & 2016-17	Avicennia marina & Biodiversity	GUIDE, Bhuj
9	Dandi Village	Navsari	800	2006 - 2011	Avicennia marina, Rhizophora mucronata, Ceriops tagal	GEC, Gandhinagar
10	Talaja Village	Bhavnagar	50	2011-12	Avicennia marina	Forest Dept, Talaja
11	Narmada Village	Bhavnagar	250	2014 - 2015	Avicennia marina	GEC, Gandhinagar
12	Malpur Village	Bharuch	200	2012-14	Avicennia marina	SAVE, Ahmedabad
13	Kantiyajal Village	Bharuch	50	2014-15	Avicennia marina	SAVE, Ahmedabad
14	Devla Village	Bharuch	150	210-16	Avicennia marina	SAVE, Ahmedabad
15	Village Tala Talav (Khambhat)	Anand	100	2015 - 2016	Avicennia marina	SAVE, Ahmedabad
16	Village Tala Talav (Khambhat)	Anand	38	2015 - 2016	Avicennia marina	GEC, Gandhinagar
17	Aliya Bet, Village Katpor (Hansot)	Bharuch	62	2017-18	Avicennia marina & Rhizophora spp.	GEC, Gandhinagar
18	Kukadsar- (Bhadeswar- Mundra)	Kutch	250	2021-22	Avicennia marina	Shreeji Enterprise, Amreli
19	Kukadsar- (Bhadeswar- Mundra)	Kutch	750	2022-23	Avicennia marina	Shreeji Enterprise, Amreli
20	Kukadsar- (Bhadeswar- Mundra)	Kutch	250	2023-24	Avicennia marina	Shreeji Enterprise, Amreli
<b>Total</b>			<b>4140</b>			

# **Annexure – 15**



MC-5916

**TEST REPORT**

01-NS-CH8

<b>Name</b> : Mr. Abhishek Kumar Pathak 30118695	<b>Reg. No</b> : 5020100153
<b>Age/Sex</b> : 33 Years / Male PN:	<b>Patient ID</b> : 464753
<b>Mobile No</b> : 7859816495	<b>Reg. Date Time</b> : 15-Feb-2025 11:42 AM
	<b>Coll. Date Time</b> : 25-Feb-2025 08:59 AM
ADANI HOSPITALS MUNDRA PRIVATE LIMITED @ MUNDRA	<b>Report Date Time</b> : 26-Feb-2025 01:09 PM
	<b>Sample Type</b> : EDTA Whole Blood

Parameter	Result	Unit	Biological Ref. Interval
-----------	--------	------	--------------------------

**COMPLETE BLOOD COUNT (CBC)**

**HB & Indices**

<b>Hemoglobin</b> <i>Electrical Impedance</i>	15.9	g/dL	12.0 - 16.0
<b>Hematocrit</b> <i>Electrical Impedance</i>	50.0	%	40.0 - 54.0
<b>RBC Count</b> <i>Electrical Impedance</i>	4.87	million/cmm	4.0 - 5.5
<b>MCV</b> <i>Calculated</i>	<b>H 102.6</b>	fL	<b>80 - 100</b>
<b>MCH</b> <i>Calculated</i>	32.7	pg	27 - 34
<b>MCHC</b> <i>Calculated</i>	<b>L 31.9</b>	%	<b>32 - 36</b>
<b>RDW</b> <i>Calculated</i>	15.3	%	11.0 - 16.0
<b>Total WBC</b>			
<b>WBC Count</b> <i>Electrical Impedance</i>	7040	/cmm	4000 - 10000
<b>Platelet Count</b>			
<b>Platelet Count</b> <i>Electrical Impedance</i>	313000	/cmm	150000 - 450000
<b>MPV</b> <i>Calculated</i>	10.2	fL	6.5 - 12.0
<b>PDW</b> <i>Calculated</i>	16.2	%	9.0 - 17.0
<b>Differential Count</b>			
<b>Neutrophils (%)</b> <i>Flowcytometry</i>	50	%	50 - 70
<b>Lymphocytes (%)</b> <i>Flowcytometry</i>	<b>H 42</b>	%	<b>20 - 40</b>

This is an Electronically Authenticated Report.

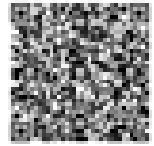
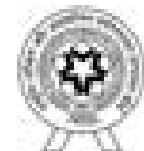
*Handwritten Signature*

**Dr.Aman Kalaria**  
M.D (PATHOLOGY)

**Our Centres :**

- Health Check Ups | Blood Tests | Longevity**  
Northstar Diagnostic Center: NSDL, HD, CH B, Inspira Business Park, Adani Shantigram, Valisrnadevi, Ahmedabad. +91 8488 014 015
- Skin & Hair | Dental | Blood Tests | Longevity**  
Ahmedabad Dental College Campus, Opp. Hare Krishna Mandir, Near Science City, Bhojaj, Ahmedabad. +91 7962 661 616

- Skin & Hair | Dental | Blood Tests | Longevity**  
32 C, Gyanikunj Society, Opposite St. Xavier's College, Navrangpura, Ahmedabad. +91 9099 017 331
- Skin & Hair | Longevity**  
N Tower, Safal Mondeal Business Park, Near Gurudwara, Thaltej, S.G. Highway, Ahmedabad. +91 9023 837 724



MC-5916

**TEST REPORT**

01-NS-CH8

<b>Name</b> : Mr. Abhishek Kumar Pathak 30118695	<b>Reg. No</b> : 5020100153
<b>Age/Sex</b> : 33 Years / Male PN:	<b>Patient ID</b> : 464753
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ADANI HOSPITALS MUNDRA PRIVATE LIMITED @ MUNDRA	<b>Report Date Time</b> : 26-Feb-2025 01:09 PM
	<b>Sample Type</b> : EDTA Whole Blood

<b>Eosinophils (%)</b> <i>Flowcytometry</i>	2	%	1 - 5
<b>Monocytes (%)</b> <i>Flowcytometry</i>	6	%	3 - 12
<b>Basophils (%)</b> <i>Flowcytometry</i>	0	%	0 - 1
<b>Absolute Count</b>			
<b>Neutrophils</b> <i>Calculated</i>	3520	/μL	2000 - 7000
<b>Lymphocytes</b> <i>Calculated</i>	2957	/μL	800 - 4000
<b>Eosinophils</b> <i>Calculated</i>	141	/μL	20 - 500
<b>Monocytes</b> <i>Calculated</i>	422	/μL	120 - 1200
<b>Basophils</b> <i>Calculated</i>	0	/μL	00 - 100
<b>Neutrophil to Lymphocyte Ratio</b>			
<b>NLR</b> <i>Calculated</i>	1.19		0.78 - 3.53

**Peripheral Smear Study (Microscopy)**

<b>RBC Morphology</b>	<b>RBCs are Macrocytic and Normochromic.</b>
<b>WBC Morphology</b>	No premature Cells are seen.
<b>Platelets Morphology</b>	Platelets are adequate with normal morphology.
<b>Parasites</b>	Malarial parasite is not detected.

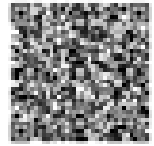
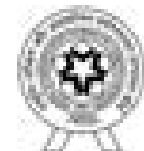
This is an Electronically Authenticated Report.

**Dr. Aman Kalaria**  
M.D (PATHOLOGY)

**Our Centres :**

- Health Check Ups | Blood Tests | Longevity**  
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MC-5916

**TEST REPORT**

01-NS-CH8

<b>Name</b> : Mr. Abhishek Kumar Pathak 30118695	<b>Reg. No</b> : 5020100153
<b>Age/Sex</b> : 33 Years / Male PN:	<b>Patient ID</b> : 464753
<b>Mobile No</b> : 7859816495	<b>Reg. Date Time</b> : 15-Feb-2025 11:42 AM
	<b>Coll. Date Time</b> : 25-Feb-2025 08:59 AM
ADANI HOSPITALS MUNDRA PRIVATE LIMITED @ MUNDRA	<b>Report Date Time</b> : 26-Feb-2025 12:24 PM
	<b>Sample Type</b> : EDTA Whole Blood

Parameter	Result	Unit	Biological Ref. Interval
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**ERYTHROCYTE SEDIMENTATION RATE [ESR]**

<b>ESR (After 1 hour)</b> <i>Westergren method</i>	7	mm/hr	<10
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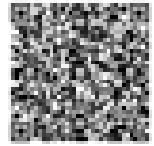
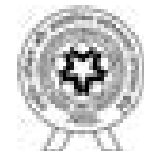
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ADANI HOSPITALS MUNDRA PRIVATE LIMITED @ MUNDRA	<b>Report Date Time</b> : 27-Feb-2025 02:55 PM
	<b>Sample Type</b> : Urine

Parameter	Result	Unit	Biological Ref. Interval
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**URINE ROUTINE EXAMINATION**

<b>Colour</b>	Pale Yellow	
<b>Clarity</b>	Clear	
<b><u>Chemical Examination (Dip Stick Method)</u></b>		
<b>pH</b>	6.5	4.6 - 8.0
<b>Sp. Gravity</b>	1.020	1.003 - 1.030
<b>Protein</b>	Absent	Absent
<b>Glucose</b>	Absent	Absent
<b>Ketone Bodies</b>	Absent	Absent
<b>Urobilinogen</b>	Normal	Normal (<16 µmol/L)
<b>Bilirubin</b>	Absent	Absent
<b>Nitrite</b>	Absent	Absent
<b>Leucocytes</b>	Absent	Absent
<b>Blood</b>	Absent	Absent
<b><u>Microscopic Examination</u></b>		
<b>Leucocytes (Pus Cells)</b>	Occasional	/hpf
<b>Erythrocytes (Red Cells)</b>	Nil	/hpf
<b>Epithelial Cells</b>	1-2	/hpf
<b>Amorphous Material</b>	Nil	
<b>Casts</b>	Nil	
<b>Crystals</b>	Nil	
<b>Bacteria</b>	Nil	
<b>Fungus</b>	Nil	
<b>T. Vaginalis</b>	Nil	
<b>Spermatozoa</b>	Nil	

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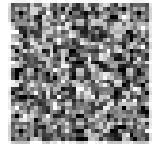
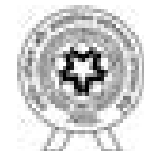
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	<b>Report Date Time</b> : 27-Feb-2025 02:55 PM
<b>ADANI HOSPITALS MUNDRA PRIVATE LIMITED @ MUNDRA</b>	<b>Sample Type</b> : Urine

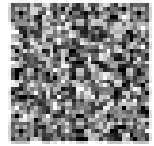
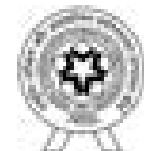
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ADANI HOSPITALS MUNDRA PRIVATE LIMITED @ MUNDRA	<b>Report Date Time</b> : 26-Feb-2025 01:25 PM
	<b>Sample Type</b> : Fluoride

Parameter	Result	Unit	Biological Ref. Interval
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**FASTING BLOOD SUGAR (FBS)**

<b>Fasting Blood Sugar (FBS)</b> <i>Glucose Oxidase-Peroxidase</i>	83.58	mg/dL	70 - 100
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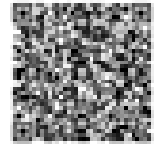
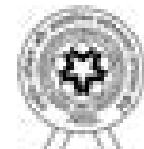
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	<b>Sample Type</b> : EDTA Whole Blood

Parameter	Result	Unit	Biological Ref. Interval
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**HEMOGLOBIN A1C ESTIMATION**

<b>Hb A1C</b> <i>High Performance Liquid Chromatography (HPLC)</i>	5.5	% of Total Hb	For Screening Normal : < 5.7 % Pre-Diabetes : 5.7 % - 6.4 % Diabetes : 6.5 % or Higher
<b>Mean Blood Glucose</b> <i>Calculated</i>	111.15	mg/dL	70

**Degree of Glucose Control Normal Range:**

Poor Control >7.0 %  
Good Control 6.0 - 7.0 %

- \* High risk of developing long term complication such as retinopathy, nephropathy, neuropathy, cardiopathy, etc.
- \* Some danger of hypoglycemic reaction in Type I diabetics.
- \* Some glucose intolerant individuals and "subclinical" diabetics may demonstrate HbA1c levels in this area.

**EXPLANATION :-**

- \* Total haemoglobin A1 c is continuously synthesised in the red blood cell through its 120 days life span. The concentration of HBA1c in the cell reflects the average blood glucose concentration it encounters.
- \* The level of HBA1c increases proportionately in patients with uncontrolled diabetes. It reflects the average blood glucose concentration over an extended time period and remains unaffected by short-term fluctuations in blood glucose levels.
- \* The measurement of HbA1c can serve as a convenient test for evaluating the adequacy of diabetic control and in preventing various diabetic complications. Because the average half life of a red blood cell is sixty days, HbA1c has been accepted as a measurement which effects the mean daily blood glucose concentration, better than fasting blood glucose determination, and the degree of carbohydrate imbalance over the preceding two months.
- \* It may also provide a better index of control of the diabetic patient without resorting to glucose loading procedures.

**HbA1c assay Interferences:**

\* Erroneous values might be obtained from samples with abnormally elevated quantities of other Haemoglobins as a result of either their simultaneous elution with HbA1c(HbF) or differences in their glycation from that of HbA(HbS)  
**Reference:** ADA Guideline 2020

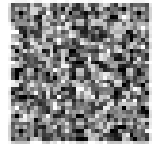
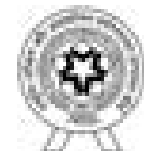
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ADANI HOSPITALS MUNDRA PRIVATE LIMITED @ MUNDRA	<b>Report Date Time</b> : 26-Feb-2025 02:36 PM
	<b>Sample Type</b> : Serum

Parameter	Result	Unit	Biological Ref. Interval
<b>Creatinine</b> <i>Sarcosine Oxidase Method</i>	L 0.75	mg/dL	0.8 - 1.3

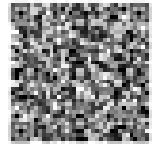
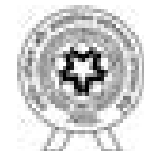
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ADANI HOSPITALS MUNDRA PRIVATE LIMITED @ MUNDRA	<b>Report Date Time</b> : 26-Feb-2025 02:36 PM
	<b>Sample Type</b> : Serum

Parameter	Result	Unit	Biological Ref. Interval
<b>Uric Acid</b> <i>Uricase-Peroxidase Method</i>	3.78	mg/dL	3.6 - 8.2

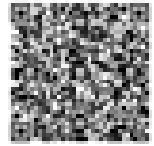
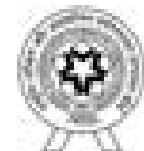
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	<b>Sample Type</b> : Serum

Parameter	Result	Unit	Biological Ref. Interval
<b>SGPT</b> <i>IFCC Method without pyridoxal phosphate</i>	12.00	U/L	0.0 - 45.0

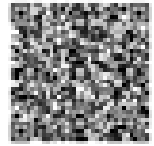
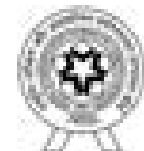
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	<b>Sample Type</b> : Serum

Parameter	Result	Unit	Biological Ref. Interval
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**LIPID PROFILE**

<b>Cholesterol</b> <i>CHOD-POD Method</i>	200.20	mg/dL	0 - 200.8
<b>Triglyceride</b> <i>GPO-POD Method</i>	60.50	mg/dL	0 - 203.5
<b>HDL Cholesterol</b> <i>Direct Method</i>	59.80	mg/dL	>34.0
<b>LDL Cholesterol</b> <i>Direct Method</i>	<b>H 128.30</b>	<b>mg/dL</b>	<b>0 - 100.0</b>
<b>VLDL</b> <i>Calculated</i>	<b>L 12.10</b>	<b>mg/dL</b>	<b>15 - 35</b>
<b>LDL/HDL Ratio</b> <i>Calculated</i>	2.15		0 - 3.5
<b>CHOL/HDL Ratio</b> <i>Calculated</i>	3.35		0 - 5.0

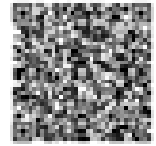
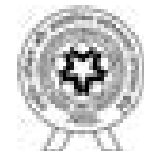
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ADANI HOSPITALS MUNDRA PRIVATE LIMITED @ MUNDRA	<b>Report Date Time</b> : 28-Feb-2025 10:48 AM
	<b>Sample Type</b> : Serum

Parameter	Result	Unit	Biological Ref. Interval
<b>VITAMIN B12</b> <i>Chemiluminescence Immunoassay (CLIA)</i>	258.99	pg/mL	180 - 916

**Definition:**

Vitamin B12 is essential in DNA synthesis, hematopoiesis, and CNS integrity. Its absorption depends on the presence of intrinsic factor (IF) and may be due to lack of IF secretion by gastric mucosa (e.g., gastrectomy, gastric atrophy) or intestinal malabsorption (e.g., ileal resection, small intestinal diseases). Vitamin B12 deficiency frequently causes macrocytic anemia, glossitis, peripheral neuropathy, weakness, hyperreflexia, ataxia, loss of proprioception, poor coordination, and affective behavioral changes. These manifestations may occur in any combination; many patients have the neurologic defects without macrocytic anemia. PA is a macrocytic anemia caused by B12 deficiency that is due to a lack of IF secretion by gastric mucosa. Serum methylmalonic acid (MMA) and homocysteine levels are also elevated in vitamin B12 deficiency states. A significant increase in RBC MCV may be an important indicator of vitamin B12 deficiency.

**Interpretation**

**Increased In**

- Chronic granulocytic leukemia
- COPD
- Chronic renal failure
- Diabetes
- Leukocytosis
- Liver cell damage (hepatitis, cirrhosis)
- Obesity

**Decreased In**

- Abnormalities of cobalamin transport or metabolism
- Bacterial overgrowth
- Crohn disease
- Dietary deficiency (e.g., in vegetarians)
- Diphyllobothrium (fish tapeworm) infestation

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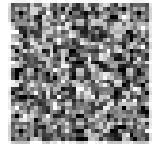
**Dr. Aman Kalaria**  
 M.D (PATHOLOGY)

**Our Centres :**

- Health Check Ups | Blood Tests | Longevity**  
 Northstar Diagnostic Center: NSDL, HD, CH B, Inspira Business Park,  
 Adani Shantigram, Valisrodevi, Ahmedabad. +91 8488 014 015
- Skin & Hair | Dental | Blood Tests | Longevity**  
 Ahmedabad Dental College Campus, Opp. Hare Krishna Mandir,  
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- Skin & Hair | Longevity**  
 N Tower, Safal Mondeal Business Park, Near Gurudwara, Thaltej,  
 S.G. Highway, Ahmedabad. +91 9023 837 724





**TEST REPORT**

01-NS-CH8

<b>Name</b> : Mr. Abhishek Kumar Pathak 30118695	<b>Reg. No</b> : 5020100153
<b>Age/Sex</b> : 33 Years / Male PN:	<b>Patient ID</b> : 464753
<b>Mobile No</b> : 7859816495	<b>Reg. Date Time</b> : 15-Feb-2025 11:42 AM
	<b>Coll. Date Time</b> : 25-Feb-2025 08:59 AM
ADANI HOSPITALS MUNDRA PRIVATE LIMITED @ MUNDRA	<b>Report Date Time</b> : 28-Feb-2025 10:48 AM
	<b>Sample Type</b> : Serum

Parameter	Result	Unit	Biological Ref. Interval
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<b>25 OH VITAMIN D TOTAL</b> <i>Chemiluminescence Immunoassay (CLIA)</i>	<b>L 14.18</b>	<b>ng/mL</b>	<b>Deficiency : &lt;20</b> <b>Insufficiency : 20 - 30</b> <b>Sufficiency : &gt;30</b>
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**Definition:**

A steroid hormone that has long been known for its important role in regulating body levels of calcium and phosphorus and in the mineralization of bone. The term "vitamin D" specifically refers to two biologically inert precursors, vitamin D3 (cholecalciferol) or D2 (ergocalciferol). Neither vitamin D3 nor vitamin D2 has significant biologic activity; rather they must be metabolized within the body to the hormonally active form. Vitamin D3 is generated in the skin when light energy is absorbed (UV radiation in the UVB spectrum 290–320 nm) by a precursor molecule 7-dehydrocholesterol (7-DHC; provitamin D3). However, cutaneous vitamin D3 production after single prolonged UVB exposure is capped at approximately 10–20% of the original epidermal 7-DHC concentration, a limit achieved with suberythemogenic UV exposures. Vitamin D2 is plant derived, produced exogenously by irradiation of ergosterol, and enters the circulation through diet. Vitamin D3 from the skin and vitamin D3 and D2 from the diet enter the blood and are metabolized to their 25-hydroxy counterparts. Once formed, 25-hydroxyvitamin D (25-OHD) is metabolized in the kidney to 1,25-dihydroxyvitamin D (1,25-OHD).

**Interpretation:**

**Increased In**

- Vitamin D intoxication
- Excessive exposure to sunlight

**Decreased In**

- Malabsorption
- Steatorrhea
- Dietary osteomalacia, anticonvulsant osteomalacia
- Biliary and portal cirrhosis
- Thyrotoxicosis
- Pancreatic insufficiency
- Celiac disease
- Rickets

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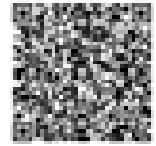
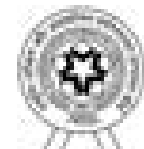


**Dr. Aman Kalaria**  
M.D (PATHOLOGY)

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MC-5916

**TEST REPORT**

01-NS-CH8

<b>Name</b> : Mr. Abhishek Kumar Pathak 30118695	<b>Reg. No</b> : 5020100153
<b>Age/Sex</b> : 33 Years / Male PN:	<b>Patient ID</b> : 464753
<b>Mobile No</b> : 7859816495	<b>Reg. Date Time</b> : 15-Feb-2025 11:42 AM
	<b>Coll. Date Time</b> : 25-Feb-2025 08:59 AM
<b>ADANI HOSPITALS MUNDRA PRIVATE LIMITED @ MUNDRA</b>	<b>Report Date Time</b> : 28-Feb-2025 10:48 AM
	<b>Sample Type</b> : Serum

Parameter	Result	Unit	Biological Ref. Interval
-----------	--------	------	--------------------------

**TSH** 1.7560 mIU/mL 0.35 - 5.2

*Chemiluminescence Immunoassay (CLIA)*

Thyroid stimulating hormone (TSH) is synthesized and secreted by the anterior pituitary in response to a negative feedback mechanism involving concentrations of FT3 (free T3) and FT4 (free T4). Additionally, the hypothalamic tripeptide, thyrotropin-releasing hormone (TRH), directly stimulates TSH production. TSH stimulates thyroid cell production and hypertrophy, also stimulate the thyroid gland to synthesize and secrete T3 and T4. Quantification of TSH is significant to differentiate primary (thyroid) from secondary (pituitary) and tertiary (hypothalamus) hypothyroidism. In primary hypothyroidism, TSH levels are significantly elevated, while in secondary and tertiary hypothyroidism, TSH levels are low.

TSH levels During Pregnancy :  
 First trimester : 0.24-2.00  
 Second trimester : 0.43-2.2  
 Third trimester : 0.8-2.5

----- End Of Report -----

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# **Annexure – 16**

Expense Details for Fisherfolk Amenities work in different core areas												
Sr. No.	Details	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	TOTAL	AMT IN LACS
Expenditure Details (Amount in Rs.)												
1	Vidya Deep Yojana	2,069,300	193,000	2,087,000	1,771,000	110,225	580,103	969,660	-	-	7,780,288	77.80
2	Vidya Sahay Yojana	552,580	495,000	691,000	708,000	504,336	659,709	847,013	563,000	644,000	5,664,638	56.65
3	Adani Vidya Mandir – Shaping Lives	4,200,000	4,030,000	3,472,000	6,434,020	1,593,805	3,737,700	5,950,854	7,452,390	7,815,023	44,685,792	446.86
4	Senio Citizen Health Card	--	8,430,000	1,750,000	2,975,000	1,750,000	-	-	-	-	14,905,000	149.05
5	Financial Support to Poor Patients	4,439,507	1,275,000	813,000	1,296,063	763,800	1,255,000	1,691,410	1,620,000	1,666,000	14,819,780	148.20
6	Machhimar Kaushalya Vardhan Yojana	188,708	200,000	397,000	73,000	--	226,000	134,070	-	-	1,218,778	12.19
7	Machhimar Sadhan Sahay Yojana	--	--	315,000	522,000	--	-	-	-	-	837,000	8.37
8	Machhimar Awas Yojana	4,592,106	1,165,000	--	2,311,000	2,424,016	2,480,000	712,000	1,227,000	-	14,911,122	149.11
9	Machhimar Shudhh Jal Yojana	2,236,050	2,700,000	2,038,000	1,773,000	2,348,300	1,936,575	2,096,050	1,370,000	1,264,000	17,761,975	177.62
10	Sughad Yojana	1,367,300	170,000	--	192,000	30,000	-	-	-	-	1,759,300	17.59
11	Machhimar Akshay kiran Yojana	860,850	100,000	68,000	--	--	-	-	-	-	1,028,850	10.29
12	Machhimar Ajivika Uparjan Yojana-Mangroves plantation	1,558,800	500,000	1,382,000	1,400,000	1,900,272	2,069,432	1,914,432	-	270,000	10,994,936	109.95
13	Bandar Svachhata Yojana	106,400	50,000	--	--	367,000	145,000	25,000	-	-	693,400	6.93
14	Cricket league and Cycle Marathon	432,000	657,119	638,000	610,800	--	-	-	-	-	2,337,919	23.38
15	Sports Material For Children & Youth at Vasahats	197,797	--	--	--	--	-	-	-	-	197,797	1.98
16	New Pilot Initiative for Polyculture	398,240	160,000	--	--	--	-	-	-	-	558,240	5.58
17	New Pilot Initiative for Cage Farming Asian Seabass & Lobster	864,000	660,000	--	--	--	-	-	-	-	1,524,000	15.24
18	Sea Weed Culture Project	--	--	--	200,000	--	-	-	-	-	200,000	2.00
19	Mangrove Biodiversity Project	--	--	1,890,000	684,000	499,210	997,642	1,135,000	-	191,000	5,396,852	53.97
20	Approach Road restoration at 9 vasahat	--	--	--	--	599,000	942,780	1,011,000	-	-	2,552,780	25.53
21	Community treading Centor & Maintenance work	--	--	--	--	--	6,022,000	2,051,000	-	-	8,073,000	80.73
<b>TOTAL</b>		<b>24,063,638</b>	<b>20,785,119</b>	<b>15,541,000</b>	<b>20,949,883</b>	<b>12,889,964</b>	<b>21,051,941</b>	<b>18,537,489</b>	<b>12,232,390</b>	<b>11,850,023</b>	<b>157,901,447</b>	<b>1,579.01</b>