

Ref: MPL/ENV/MoEF&CC/2024 -November/03

Date: 18th Nov, 2024

To,

Shri Subrat Mohapatra, IFS (I/C) Deputy Director General of Forests (C) Ministry of Environment, Forest and Climate Change, Integrated Regional Office, Gandhinagar, A-Wing-407 & 409, Aranya Bhawan, Near CH-3 Circle, Sector-10A, Gandhinagar – 382010 E-mail : <u>iro.gandhingr-mefcc@gov.in</u>

Subject: Six monthly compliance report (April, 2024 to October, 2024) of Environment Clearance (EC) for the project activities "VCM-2002 KTPA, PVC-2000 KTPA, Ethylene Glycol- 400 KTPA near village Vandh & Tunda, Taluka Mundra, District Kachchh, Gujarat" by M/s Mundra Petrochem Limited.

Reference : 1). EC Identification No. - EC22A020GJ133762, File No. IA-J-11011/149/2021-IA II(I) dated 31/08/2022.

- 2). F.No.J-11011/149/2021 IA II(I) Dated 27/12/2022.
- 3). MPL/ENV/MoEF&CC/2023 May/06 Dated 24/05/2024.

Respected Sir,

With reference to above subject, MoEF&CC vide above refer letter dated 31/08/2022 has granted environment clearance for the project activities "VCM–2002 KTPA, PVC–2000 KTPA, Ethylene Glycol– 400 KTPA near village Vandh & Tunda, Taluka Mundra, District Kachchh, Gujarat by M/s Adani Enterprises Limited". Followed by, MoEF&CC vide above refer letter dated 27/12/2022 has transferred the Environment Clearance on the name of M/s Mundra Petrochem Limited from M/s Adani Enterprises Limited.

Presently, the PVC project is under final design, detailed engineering & procurement stage including simultaneous site construction activities are in progress at site. We are hereby submitting a soft copy of the six-monthly EC compliance report for the period April, 2024 to September, 2024.

We hope you will find the above in order.

Thanking you, Yours faithfully,

Vinay Kumar Singh Head – Environment & Sustainability



Copy to : 1. Reginal Directorates, CPCB, Vadodara : prasoon.cpcb@nic.in

- 2. Member Secretory, GPCB : <u>ms-gpcb@gujarat.gov.in</u>
- 3. Regional Office, GPCB (Kutch East): ro-gpcb-kute@gujarat.gov.in

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MUNDRA PETROCHEM LIMITED

Six Monthly EC Compliance Report

April, 2024 – September, 2024

ENVIRONMENTAL CLEARANCE

FOR

The project activities "VCM–2002 KTPA, PVC–2000 KTPA, Ethylene Glycol– 400 KTPA at Mundra, Kutch Gujarat

EC IDENTIFICATION NO. EC22A020GJ133762 DATED 31/08/2022



Mundra Petrochem Limited Adani Corporate House, Shantigram, Near Vaishnodevi Circle, S G Highway, Ahmedabad-382421, Gujarat



Mundra Petrochem Limited

Introduction:

Mundra Petrochem Limited, wholly owned stepdown subsidiary of Adani Enterprises Limited (AEL) intends to setup a PVC Project at Mundra, Kachchh, Gujarat. The PVC Production capacity of the proposed project is 2000 KTPA (Kilo Tons Per Annum). PVC grades such as Suspension PVC (Resin), Chlorinated PVC (C-PVC), Mass PVC (bulk) and Emulsion PVC (paste) would be produced at the proposed PVC Project.

For implementation of this project, various plants such as Semi-Coke Plant, Calcium Carbide Plant, Acetylene Plant, Caustic Soda (Chlor-Alkali process) Plant, VCM Plant, PVC Plant, Ethylene Glycol Plant and Cement Plant are proposed to be established.

PVC Produced from the facility will cater to the domestic market and replace imports in the domestic market. By- Products from the plant would be marketed in either in domestic market or export market depending upon market conditions.

Ministry of Environment Forest and Climate Change has granted Environment Clearance for proposed project "Poly-Vinyl Chloride (PVC) comprising of IND-I projects i.e. Semi Coke– 2030 KTPA, Cement– 6 MTPA; Clinker–4 MTPA, IND-II projects i.e. VCM– 2002 KTPA, PVC– 2000 KTPA, Ethylene Glycol– 400 KTPA and IND-III projects i.e. Acetylene–860 KTPA & Caustic Soda–1310 KTPA) and Calcium Carbide–2900 KTPA (Not Specified in EIA Notification)) in land notified as Industrial area of APSEZ, Ta-Mundra, Dist-Kachchh, Gujarat." vide –

Industry – I activity: EC identification no. EC22A009GJ154137 and file no. IA-J-11011/423/2021-IA-II(IND-I) dated 26/09/2022.

Industry – II activity: EC Identification No. - EC22A020GJ133762, File No. - IA-J-11011/149/2021-IA-II(I) dated 31/08/2022.

Industry – III activity: EC Identification No. - EC22A013GJ127411, File No. - IA-J-11011/149/2021-IA-II(I) dated 31/08/2022.

Considering the company's long term business strategy, the proposed project is transferred from M/s Adani Enterprises Limited (AEL) to M/s Mundra Petrochem Limited (MPL). MPL is a wholly owned



stepdown subsidiary company of M/s Adani Enterprises Limited (AEL), incorporated under the provision of Company Act, 2013 for carrying out various business activities for Semi-Coke, Calcium Carbide, Cement & Clinker, VCM, PVC, Ethylene Glycol, Chlor-alkali and acetylene plants and associated products in phased manner. Further above granted Environment Clearances have been transferred in the name of M/s Mundra Petrochem Limited (MPL) by Ministry of Environment Forest and Climate Change (MOEFCC) vide their letter no.

- 1. Industry I activity: File no. IA-J-11011/423/2021-IA-II(IND-I) Dated 23/12/2022.
- 2. Industry II activity: File no. J-11011/149/2021-IA-II(I) Dated 27/12/2022.
- 3. Industry III activity: File no. IA-J-11011/149/2021-IA-II(I) Dated 28/11/2022.

Further, the Consent to Establish (CTE) is granted by the Gujarat Pollution Control Board (GPCB) vide order CTE-59301 dated 13/12/2022 and same was transferred in the name of Mundra Petrochem Limited on dated 12/04/2023.

Presently, the PVC project is under detailed engineering & procurement stage including simultaneous construction activities are in progress at site.



Point wise Compliance of Environmental Clearance for Industrial activity-II- Proposed VCM-2002 KTPA, PVC-2000 KTPA, Ethylene Glycol- 400 KTPA vide EC Identification No: EC22A020GJ133762 File No: IA-J-11011/149/2021-IA-II(I) Date: 31/08/2022 & subsequent EC Transfer vide File no. J-11011/149/2021-IA-II(I) Dated 27/12/2022.

S. No	Conditions	Status
Α	Specific Condition	
(i)	The project proponent shall abide by all orders and judicial pronouncements made from time to time in the case related to public hearing and land which is pending with Gujarat High court	Agreed with requirements.
(ii)	3D studies of risk assessment shall be carried out for all hazardous chemicals and submitted to MoEF&CC within three (03) months. Recommendations of mitigation measures from possible accident shall be implemented based on advanced risk Assessment studies conducted for worst case scenarios using latest techniques.	Noted and shall be complied with. Remark: Presently, the PVC project is under process design, detailed engineering & procurement stage including simultaneous construction activities are in progress at site. HAZOP review for the process plants is being carried out for all process units under PVC project for identifying all potential hazard and operability problems and access the associated risks and safeguards along with risk reduction measures with help of guide words by structured review. Moreover, Quantitative Risk Assessment & 3D (Three-dimensional) Risk Assessment study for entire Green PVC Complex is also being carried out by Third party safety consultant, considering all scenarios for all hazardous chemicals using latest advance risk assessment techniques/tools to access the risk and associated mitigation
		MoEF&CC. Noted and shall be complied with the
(iii)	PP shall conduct monitoring of site specific meteorological data & air quality modelling for winter season after commissioning of plant and submit the report to the Regional Office of MoEF&CC.	Remark: Presently, the PVC project is under detailed engineering & procurement stage including simultaneous construction activities are in progress at site. Site specific meteorological data & air quality modelling for winter season will be conducted after commissioning of plant

S. No	Conditions	Status
		and same will be submitted to regional office of MoEF&CC.
(iv)	SO ₂ emission standard from coal fired steam boilers within the projects is proposed to be within 100 mg/Nm3 that shall be achieved by installing suitable APCD such as Flue Gas Desulphurization for reduction of SOx emissions. The National Emission Standards for Petrochemical (Basic & Intermediates) issued by the Ministry vide G.S.R. 820 (E) dated 9th November 2012 as amended time to time shall be followed.	Noted and shall be complied with the requirements. Remark: Presently, the PVC project is under detailed engineering & procurement stage including simultaneous construction activities are in progress at site. However, suitable APCD will be installed to control the SOx emission level within the stipulated norms.
(v)	Incinerator of VCM Plant shall be constructed as per regulatory requirements under The Environment (Protection) Rules, 1986 for incinerator facility. VCM monitoring in ambient air shall be conducted online at 4-5 locations within plant and at AAQM monitoring locations within the study area also. Dioxins and furan emissions shall be controlled by providing proper control systems including chillers, carbon and lime dosing and running the process as per the CPCB guidelines. Monthly VOC monitoring shall be done at vulnerable points.	Noted and shall be complied with the requirements. Remark: Presently, the PVC project is under detailed engineering & procurement stage including simultaneous construction activities are in progress at site. However, Necessary arrangement will be done as per stipulated norms to construct the incinerator of VCM and controlling the Dioxins and furan emissions. The engineering design of VCM incinerator will be carried out in compliance with the applicable rules as amended in the Environment (Protection) Rules, 2010 (G.S.R.608 (E), dated 21st July 2010). Further, during operations, monitoring of relevant VOCs and VCM will also be carried out on monthly basis as per requirement.
(vi)	Properly designed and appropriate air pollution control equipment shall be attached to flue gas stacks of PVC plant, VCM plant and Ethylene Glycol Unit and flare stacks as mentioned in the environment management plan. Emission control measures shall be taken to ensure air emission standards and norms as prescribed by CPCB and SPCB are strictly followed.	Noted and shall be complied with. Remark: Presently, the PVC project is under detailed engineering & procurement stage including simultaneous construction activities are in progress at site. Necessary APC equipment will be installed to flue gas stacks of PVC plant, VCM plant and Ethylene Glycol Unit and flare stacks as mentioned in the environment management plan for ensuring the emission level well within the stipulated norms.

S. No	Conditions	Status
(vii)	The company/PP shall ensure that there will be no impact on mangroves plantation present in study area due to the construction and operation phase of the project activities.	Noted and shall be complied with. Remark: Presently, the PVC project is under detailed engineering & procurement stage including simultaneous construction activities are in progress at site. However, due care for the mangrove conservation have been taken and It is being ensured that there will be no impact on mangroves plantations due to the construction and operation phase of the project activities.
(viii)	Conservation plan as submitted and approved by Chief Wildlife Warden, Gandhinagar vide letter no. WLP/32/C/297- 298/2022-2023 dated 18/06/2022 shall be followed and budget earmarked shall be invested within the given time frame.	Noted and shall be complied with the requirements. Remark: Presently, the PVC project is under detailed engineering & procurement stage including simultaneous construction activities are in progress at site. Further, wildlife conservation plan is being implemented in consultation with the Forest Department, Kachchh, Bhuj, Details of activities performed as per approved site-specific wildlife conservation / management plan is attached as Annexure - I. Copy of the same report is being furnished to the Regional Office of the MoEF&CC along with six monthly compliance report.
(ix)	10% of total power requirement with respect to PVC, VCM, & Ethylene glycol process in overall PVC project will be met by purchasing renewable energy through DISCOM from suitable renewable energy generator or alternate sources.	Noted and shall be complied with. Remark: Presently, the PVC project is under detailed engineering & procurement stage including simultaneous construction activities are in progress at site. However, requisite arrangement shall be executed by purchasing renewable energy through DISCOM from suitable renewable energy generator or alternate sources to comply with the requirements.

S. No	Conditions	Status
(x)	There will be no groundwater extraction for this project. The total water requirement for PVC, VCM, Ethylene Glycol process will be 29,040 m3/day and for other common utilities will be 65,948 m3/day and will be met from APSEZL Seawater Desalination plant. Necessary permission in this regard shall be obtained from the concerned regulatory authority. The project proponent will treat and reuse the treated water within the factory and no waste or treated water shall be discharged outside the premises. Also, company shall explore possibility of optimizing and reducing the water consumption during detailed engineering and operational stage to reduce the OPEX for De-saline water.	Noted and shall be complied with the requirements. Remark: Water requirement for the construction activities is being met through DESAL plant. Further, this project is based on "Zero Liquid (Effluent) Discharge" concept. So, there will be no untreated water discharge outside the premises. Further, possibilities are being explored for optimizing and reducing the water consumption in detailed engineering based on technical feasibilities. Also, water conservation initiatives will further be explored during operational stage to reduce the OPEX for De-saline water.
(xi)	Comprehensive water audit to be conducted on annual basis and report to the concerned Regional Office of MOEF&CC. Outcome from the report to be implemented for conservation scheme. Performance assessment of pollution control systems/ devices shall be done annually.	Noted and shall be complied with. Remark: Comprehensive water audit will be conducted on annual basis during the plant operation phase and report for the same will be furnished to Regional Office, MoEF&CC. Further, outcomes of the water audit will be implemented for conservation scheme and also performance assessment of pollution control systems/ devices will be done annually during operation phase.
(xii)	Industrial waste water shall be treated in ETP followed by RO and MEE. Treated water shall be reused back as cooling tower make up water and boiler feed water. Domestic sewage shall be treated in STP, and treated water shall be reused in gardening. No any untreated water shall be disposed of outside the plant area to avoid impact on surface water quality and Zero effluent Discharge concept shall be followed. Online flow meters shall be installed at inlet and outlet of the ETPs. Use of PPE's shall be mandatory while handling the chemicals in ETP to avoid spillage	Noted and shall be complied with. Remark: This project is based on "Zero Liquid (Effluent) Discharge" Concept and there will be no untreated water discharge outside the plant premises. Further, adequate capacity of wastewater treatment system will be installed to achieve the Zero Liquid (Effluent) Discharge". Treated water will be reuse for cooling tower make up water and/or for other suitable activities inside the plant premises. Moreover, required online flow meters will be installed to measure the ETPs flow and adequate measures will be ensured while handling the chemicals and to avoid spillages.

S. No	Conditions	Status
		In addition to this, STP has been set up for necessary treatment of domestic wastewater during construction activities. Environment Monitoring Report is enclosed as Annexure - II .
(xiii)	Company shall provide extended aeration system in the ETP scheme for removal of total Ammonical nitrogen. The existing ammonia tower in ETP scheme shall be used only for removal of free ammonia from incoming effluent.	Noted and shall be complied with. Remark: ETP shall be designed considering the nature of effluent and all requisite arrangement will be provided in the ETP to control the Ammonical Nitrogen as well as free Ammonia in the effluent (if any).
(xiv)	Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond. Oil catchers/oil traps shall be provided at all possible locations in rain/ storm water drainage system inside the factory premises	Noted and shall be complied with. Remark: Presently, the PVC project is under detailed engineering & procurement stage including simultaneous construction activities are in progress at site. However, separate storm water drainage system will be provided to ensure the no mixing of wastewater with storm water. Adequate guard pond shall be provided for initial storm passing during rains. Further, Oil catchers / Oil traps will be provided at all possible locations in rain/ storm water drainage system inside the factory premises.
(xv)	For safety and control of risk of any leakage from Anhydrous HCl pipeline, the pipeline shall be built using a seamless pipe with no flanges in between. Periodic Leak check with ammonia torch shall be carried out to detect the leak point along the pipeline. Toxic Leak detectors shall be installed and regularly tested at appropriate detection levels as per industry norms. Regular pipeline thickness measurements and maintenance shall be ensured. Continuous monitoring of pressure of HCl pipeline with high priority alarms, Pressure drop detection shall be monitored for promptly addressing of any leak. SCADA system shall be installed for the pipelines and interlocking shall be done. Chlorine storage tank shall be provided with safety measures such as level indicators with alarm, chlorine gas detector, chlorine sensors and emergency blower	Noted and shall be complied with. Remark: Presently, the PVC project is under detailed engineering & procurement stage including simultaneous construction activities are in progress at site. All mandatory sensors / leak detectors will be installed as per stipulated norms for safety and control of risk of leakages from anhydrous HCI Pipeline. Further, Continuous monitoring of pressure of HCI pipeline with high priority alarms, Pressure drop detection shall be installed and monitored for promptly addressing of any leak. SCADA system shall be installed for the pipelines and interlocking shall be done. Moreover, Chlorine storage tank will be provided with adequate safety measures including

S. No	Conditions	Status
	suction hoods with storage tank, rupture disc and remotely operated auto valves.	level indicators with alarm, chlorine gas detector, chlorine sensors and emergency blower suction hoods with storage tank, rupture disc and remotely operated auto valves.
		Noted and shall be complied with.
(xvi)	The total ash generated from the coal fired boilers shall be utilized in proposed inhouse cement manufacturing unit.	Remark: Presently, the PVC project is under detailed engineering & procurement stage including simultaneous construction activities are in progress at site.
		Noted and being complied with the requirements.
	Public Hearing issues raised by the local people shall be addressed as per the budget and timeline submitted.	Remarks – Presently, the PVC project is under detailed engineering & procurement stage including simultaneous construction activities are in progress at site.
(xvii)		Action plan proposed to address the issues raised during public hearing and socio- economic issues in the study area are in progress as MPL has already initiated CER activities in all villages surrounding to the project area and total CER expenditure incurred in various community welfare & eco-development activities during reporting period is INR. 170 lakhs and cumulative CER expenditure till the end of reporting period is approx. INR 1000 Lakhs.
		The details of CER activities with expenditures are summarized in CER report enclosed as Annexure – III
(xviii)	The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.	Noted and shall be complied with. Remark: Presently, the PVC project is under detailed engineering & procurement stage including simultaneous construction activities are in progress at site. Environmental protection measures & safeguards in line with the applicable

S. No	Conditions	Status
		technologies are being considered in the detailed project engineering design.
		Noted and shall be complied with.
(xix)	Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer to be done through pumps.	Remark: Presently, the PVC project is under detailed engineering & procurement stage including simultaneous construction activities are in progress at site.
		Safe storage practices will be adopted to store the Hazardous chemicals. Further, considering risk management, flame arresters shall be provided on tank farm, and solvent transfer will be done through adequate equipment's/pumps.
		Noted and shall be complied with.
(xx)	Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.	Remark: Presently, the PVC project is under detailed engineering & procurement stage including simultaneous construction activities are in progress at site. Disposal of hazardous waste /organic residue and spent carbon etc. will be done through co-processing in cement industries after obtaining necessary authorization. Further, evaporation salt will be disposed off to the TSDF during operation phase.
	The oily sludge shall be subjected to melting	Noted and shall be complied with.
(xxi)	pit for oil recovery and the residue shall be	Remark: Adequate arrangement shall be
	in HDPE lined pit with proper leachate	provided for collection, oil recovery and
	collection system	storage of oily sludge.

S. No	Conditions	Status
(xxii)	 The company shall undertake waste minimization measures as below: (a) Metering and control of quantities of active ingredients to minimize waste. (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high-pressure hoses for equipment cleaning etc. to reduce wastewater generation. 	Noted and shall be complied with the requirements. Remarks- Best available practices including suggested measures will be adopted for waste minimization.
(xxiii)	The green belt of 5-10 m width shall be developed in at least 33% of the total project area of Pocket 1, mainly along the plant periphery, in downward wind direction, and along roadsides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Total 33% of the greenbelt shall be design so that thickness of the greenbelt is increased on downwind side of the project in comparison to other sides. Additionally, 20-meter wide shall be developed in the plant side adjacent to the Mangrove Forest.	Noted and shall be complied with the requirements. Remark: Presently, the PVC project is under detailed engineering & procurement stage including simultaneous construction activities are in progress at site. However, Greenbelt having requisite width will be developed in phased manner, mainly along the plant periphery, in downward wind direction, and along roadsides etc. Selection of plant species will be done in consultation with the State Forest Department. A total of 33% greenbelt shall be developed & maintained. Moreover, tree plantation at nearby community villages including roadside plantations are in progress in consultation with local forest department. Copy of the implementation report is enclosed as Annexure – IV with photographs of the plantation activity.
(xxiv)	As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the	Noted and being complied with the requirements. Remarks – Presently, the PVC project is under detailed engineering & procurement stage including simultaneous construction activities are in progress at site.

S. No	Conditions	Status
	project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall to be completed within time as proposed.	Action plan proposed to address the issues raised during public hearing and socio- economic issues in the study area are in progress as MPL has already initiated CER activities in all villages surrounding to the project area and total CER expenditure incurred in various community welfare & eco-development activities during reporting period is INR. 170 lakhs and cumulative CER expenditure till the end of reporting period is approx. INR 1000 Lakhs. The details of CER activities with
		expenditures are summarized in CER report enclosed as Annexure – III .
		Noted and shall be complied with the requirements.
(xxv)	The project proponent shall ensure 70% of the employment to the local people, as per the applicable law. The project proponent shall set up a skill development center/provide skill development training to village people	Remark: Priority will be given to local people on skill basis as per the applicable law for employment.
		Skill development activities have already been started to impart necessary trainings to village people as part of Corporate Environmental Responsibility.
(xxvi)	A separate Environmental Management Cell (having qualified person with Environmental Science / Environmental Engineering / specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. EMC head shall report directly to Head of Organization / Managing Director / CEO as per company hierarchy	A separate Environmental Management Cell having qualified persons with specialization in Environmental Science / Engineering has been developed in which EMC head is directly reporting to Head of Organization / CEO as per company hierarchy. Further, full-fledged environment laboratory will be developed at site to carryout environmental monitoring activities during operational phase.
(xxvii)	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.	Noted and shall be complied with the requirements. Remark: Adequate Firefighting system / arrangement for protection of possible fire hazards during manufacturing process in material handling will be done as per the norms.

S. No	Conditions	Status
(xxviii)	Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. In case of the treated effluent to be utilized for irrigation/gardening, real time monitoring system shall be installed at the ETP outlet	Noted and shall be complied with the requirements. Remark: Continuous online (24x7) monitoring system for stack emissions will be installed for measurement of flue gas discharge and the pollutants concentration as per CPCB Guideline and necessary arrangements will be made for transmission of data to the CPCB / SPCB
		server during operation phase. Further, as this project is on "Zero Liquide Discharge" Concept, real time monitoring system will be installed at the ETP outlet as per CPCB Guideline.
	PP to set up occupational health Centre for surveillance of the worker's health within and outside the plant on a regular basis. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.	Noted and shall be complied with the requirements.
(xxix)		Remark: Mandatory Occupational Health Center will be set up for surveillance of the worker's health within plant premises. Further, it will be ensured that workmen are equipped with all necessary PPEs for Personal protection during construction as well as operation phase.
	PP shall sensitize and create awareness among the people working within the	Noted and shall be complied with the requirements.
(xxx)	project area as well as its surrounding area on the ban of Single Use Plastic in order to ensure the compliance of Notification published by MOEFCC on 12th August 2021. A report along with photographs on the measures taken shall also be included in the six-monthly compliance report being submitted to concerned authority.	Remarks: Regular awareness program are being conducted at nearby community area for ban on single use plastic including other sensitive issues to conserve the environment. Copy of the same is enclosed as Annexure - V .
В	General Conditions	
(i)	No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference	Noted and agreed with requirements.

S. No	Conditions	Status
	shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	
(ii)	The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.	Noted and shall be complied with the requirements. Remark: Best available & practicable practices will be adopted for energy conservation and environment betterment.
(iii)	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (Day time) and 70 dBA (Nighttime).	Noted and shall be complied with. Presently, the PVC project is under detailed engineering & procurement stage including simultaneous construction activities are in progress at site. Moreover, ambient noise quality monitoring (ANQM) is being carried out at selected locations of project site and surrounding villages through third party NABL accredited laboratory and result of ANQM conforms to the standards prescribed under E(P)A Rules, 1986. The Environment Monitoring report is enclosed as Annexure – II .
(iv)	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administration and shall be implemented. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.	Noted and is being complied with the requirements. Remark: To improve the socio-economic conditions of the study area, various eco- developmental measures including community welfare activities are being carried out in phased manner under Corporate Environmental Responsibility (CER) by involving local villages and administration. In order to know the present social status and needs of the local community, a "Baseline & Need Assessment Study" was also carried out through third party professional agency involving various stakeholders- local villagers, administration etc. and the recommendation of the study is further

S. No	Conditions	Status
		included in the CER plan for implementation in phased manner.
		MPL has already initiated CER activities in all villages surrounding project area and total CER expenditure incurred in various community welfare & eco-development activities during reporting period is INR 170 Lakhs and cumulative CER expenditure till the end of reporting period is approx. INR 1000 Lakhs in line with project progress.
		The details of CER activities implemented during the reporting period along with expenditures are summarized in CER report enclosed as Annexure – III .
	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions	Noted and shall be complied with the requirements.
(v)	stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.	Adequate funds for EMP / environment management / pollution control measures as part of CAPEX & OPEX have been kept to implement and complying the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the state Government.
(vi)	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad / Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal.	Environmental Clearance letter has been submitted to concerned panchayats (all 15 villages) & The Taluka Development Officer (Rural Local Body), The District Development Officer, District Industries Center, and the local NGO / trust from whom suggestions / representations received during public hearing. Letters no. are as under and reference Ack. copy of submission is enclosed as Annexure - VI. 1). AEL/MPL/ENV/EC/2022-September/01 Dated 02/09/2022. 2). AEL/MPL/ENV/EC/2022- September/03 Dated 02/09/2022. 3). AEL/MPL/ENV/EC/2022-September/03
(vii)	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance	As per MoEF&CC Office Memorandum dated 14th June, 2022, Six monthly compliance report of stipulated

S. No	Conditions	Status
	conditions including results of monitored data (both in hard copies as well as by e- mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.	environment clearance conditions including results of monitored data being uploaded on PARIVESH Portal & company's website i.e https://www.adanienterprises.com.
(viii)	The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.	Presently, Project is under construction phase with detail engineering of different processes under progress. However, Environmental Statement for the year 2023 – 2024 have been Submitted to the Gujarat Pollution Control Board through vide our letter no. MPL/ENV/GPCB – Form – V/ 2024 – May/02 dated 18/05/2024 i.e within stipulated time period and same is also available on Companay's Website i.e <u>https://www.adanienterprises.com</u> . Copy of the submission is enclosed as Annexure – VII.
(ix)	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB / Committee and may also be seen at Website of the Ministry and at https://parivesh.nic.in/. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	The advertisement stating "the project has been accorded environmental clearance by MoEF&CC and also displayed on company website" have been published on following news papers on 5th September, 2022. (i.e within 7 days of grant of Environmental Clearance). 1. Kutch Mitra (Gujarati Language) 2. Gujarat Samachar (Gujarati Language) 3. The Times of India (English Language). Copies of the same have already been submitted to concerned authorities through vide our letter no. AEL/MPL/ENV/MoEF&CC/2022 – September/05 dated 06/09/2022. Copy enclosed as Annexure – VIII ."

S. No	Conditions	Status
		Noted and complied. The requisite information are being submitted to authority as part of six monthly EC compliance report.
		Remarks: Presently, the PVC project is under detailed engineering & procurement stage including simultaneous construction activities are in progress at site.
(x)	The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	The date of financial closure is 25 th April 2024 when MPL signed the financing documents with the lead bank. The commencement of land development including earth work preparation, piling for foundation/construction activities have been initiated after award of consent of establishment (CTE) from the state pollution control board i.e. 13 th Dec. 2022 after obtaining necessary environmental clearance from the MoEF&CC. As per schedule, the production/commercial operation of all the proposed units is expected by 1 st October 2027.
(xi)	This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.	Agreed with requirement.

<u>Annexures</u>

Annexure No.	Name
I	Activities as per approved Wild Life Conservation Plan.
II Environment Monitoring Report	
	CER Activities
IV	Tree Plantation Activities
V Awareness Program on "Ban on Single use Plastic"	
VI	Letter for submission of EC to Local Authorities/NGOs.
VII Copy of submission of Environment Statement – Form – V.	
VIII	Letter for submission of EC and News Paper to concern authorities.



Annexure – I Activities for Wildlife Conservation Plan

Awareness program for "Wildlife conservation" for surrounding area has been conducted nearby at village. These awareness program comprises the of wild life need conservation, definition, importance, methods of wildlife conservations and actions taken by Mundra Petrochem Limited in consultation with Adani foundations for nearby villages and coastal area.



Status of Wild Life conservation plan.

Sr. No.	Activity	Villages / Area	Status	Remark
1	Plantation program for coservation of habitat	Nearby Villages	Fulfilled	70000+ trees have been planted at nearby villages.
2	Awareness programme for "Wild life" Conservation – Educational Program. -	Tunda (1 st Year) Vandh (2 nd Year)	Fulfilled * Fulfilled *	Awareness programme have been conducted under Eco Club Programne.
		Navinal (3 rd Year)	Will done* on time	Awareness programme will be done under Eco
		Siracha (4 th Year)	Will done* on time	Club Programne.
		Kandagra (5 th Year)	Fulfilled	Awareness programme have been conducted under Eco Club Programne.
3	Artificial Concreate water pond of 1000 lit capacity to provide drinking water facility for wild animals.	2 villages in study area.	Fulfilled	"Guzzler" – Drinking water facilities have been provided for wild life animals.
4	Mangrove Plantation (1000 no. of plant per Ha.)	Near by project area.	Fulfilled	10000 numbers of mangrove plantation have been done in vicinity of plant premises.

* : 70 number of schools from neaby 16 villages and includes mundra and Mandavi towns have been covered under "ECO CLUB" which are formed for generating awareness on environmental best practices, wildlife conservation, Mangrove conservation, sustainability and Earth eco system.



Wild life awarness program have been conducted at schools of nearby village under Eco Club as 70 numbers of schools from nearby villages along with Mundra and Mandavi town area are dived for environmental awareness like wild life conservation, alternative of single use plastic, mangrove conservations, etc.

About 100 students were participated and realised the important of nearby area, life depends on baran land as well as coastal area.

Students were also enlighten for the sanctury and reserve forest area located in the district and how they protect the wild life.

Mangrove are salt tolerant trees and shrubs that thrive in coastal intertidal zones. These remarkable ecosystems are found in Mundra and Mandavi taluka' coastal area at the vicinity of the MPL premises. Mangrove forests are vital not only to the health of coastal environments but also to the communities that depend on them. This part is report represents into the importance of mangrove conservation.





for 10,000 numbers of mangrove species have been developed.



100+ students from school & colleges have been participated in Mangrove Day Celebration.







The theme – "Mangroves: Vital Guardian of Coastal Ecosystems" highlighted their role in protecting coastlines, supporting fisheries and sustaining local communities. Bio Diversity expert from the company, Professors from the collages were elaborated the importance of mangroves with how mangroves provide myriad of ecological, economical and social benefits. This awareness session also focus on how mangrove serve as critical habitats for a wide array of marine and terrestrial species, including fish, birds and invertebrates. The dense root systems of mangroves stabilize shorelines, preventing erosion and protecting coastal area from the impacts of storms and rising sea levels.

Further, as per approved wild life activities, 2 numbers of "Guzzler" – Drinking water facilities for wild animals have been constructed in consultation and supervisions of District Forest Department, Kutch at following locations.



2 numbers of Guzzler have been constructed at Navinal Dhuvo and Near Brahmani Mata Mandir, Navinal







SIX MONTHLY ENVIRONMENTAL MONITORING REPORT, MUNIMIRA PETROCHEM LIMITED









M/S. MUNDRA PETROCHEM LIMITED (MPL)

Six Monthly Environment Monitoring Report for Green PVC Project near Village Vandh & Tunda, Taluka Mundra, District Kachchh, Gujarat

This report is released for the use of Mundra Petrochem Limited (MPL), Regulators and relevant stakeholders solely as part of the subject project's Environmental Compliance Process. Information provided, unless attributed to referenced third parties, is copyrighted, and shall not be used for any other purpose without the written consent from Mundra Petrochemical Limited (MPL).

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TABLE OF CONTENTS





1	ΕX	ECUT	TIVE SUMMARY	5
	1.1	ΙΝΤΙ	RODUCTION	5
	1.	1.1	About ADANI Group	5
	1.	1.2	About UniStar Environment and Research Labs Private Limited (UERL)	5
	1.2	Bri	EF DESCRIPTION OF PROJECT	5
2	EN	VIRC	ONMENTAL MONITORING	6
	2.1	Geni	eral Philosophy & Scope of Work	6
	2.2	Sami	pling & Analysis	7
	2.2	2.1	Ambient Air Quality Sampling and Analytical Techniques	7
	2.2	2.2	Ambient Noise Level Sampling Techniques	8
	2.2	2.3	Ground Water Sampling & Analysis Techniques	8
	2.2	2.4	Surface Water Sampling & Analysis Techniques	9
	2.2	2.5	Surface Water (Marine) Sampling & Analysis Techniques	9
	2.2	2.6	Treated Water Sampling & Analysis Techniques	10
	2.3	Loc	ation (map showing general location, Monitoring location and project boundary) w	/ITH
	COOR	DINA	tes & Monitoring details	10
3	CL	ΙΜΑΤ	TIC CONDITON	17
	3.1	CLIN	MATIC DATA FROM SECONDARY SOURCES	17
4	AN		SIS & INTERPRETATION	19
	4.1	Аме	BIENT AIR	19
	4.2	Амв	ient Noise	25
	4.3	WAT	er Quality	28
	4.3	3.1	Ground Water Quality	28
	4.3	3.2	Surface Water Quality	31
	4.3	3. <i>3</i>	Surface Water (Marine) Quality	32
	4.3	3.4	Sewage Water Quality	32
			• •	





LIST OF ANNEXURES

Annexure 1: Laboratory Recognition by MOEFCC,	NABL, GPCB Sch.II	Auditor & NABET	Certification .34
Annexure 2: Calibration Certificates			35

ABBREVIATIONS AND ACRONYMS

MPL	:	Mundra Petrochemicals Limited		
APL		Adani Power Limited.		
APSEZL		Adani Ports & Special Economic Zone Limited		
UERL	•••	UniStar Environment and Research Labs Private Limited		
CPCB	:	Central Pollution Control Board		
EIA		Environment Impact Assessment		
EMP		Environmental Management Plan		
ETP	: Effluent Treatment Plant			
KLD	: Kilo Liter Day			
MOEFCC	:	Ministry of Environment, Forest & Climate Change		
C_2H_2	:	Acetylene		
CaC ₂	: Calcium Carbide			
C ₂ H ₃ CI	I ₃ CI : Vinyl chloride			
Gol	: Government of India			
GPCB	:	: Gujarat Pollution Control Board		
PVC	:	Polyvinyl chloride		
VCM	:	Vinyl Chloride Monomer		



1 EXECUTIVE SUMMARY

1.1 Introduction

1.1.1 About ADANI Group

Adani Group is India's fastest growing corporate catering to a billion aspirations. Adani Group is a diversified organization comprising of 7 publicly traded companies in India. Adani Group has headquartered in Ahmedabad, in the state of Gujarat, India. Over the years, Adani Group has positioned itself to be the market leader in its transport logistics and energy utility portfolio businesses focusing on large scale infrastructure development in India with O & M practices benchmarked to global standards, with key businesses across Resources - mining & trading, Logistics – shipping, rail and airport terminals, Energy – Gas (LNG, City Gas), Thermal power generation, Renewables (Solar & Wind) and transmission energy infrastructure, Agro commodities, Ancillary industries and Real estate etc. Adani Group is the largest private power producer in India.

Adani owes its success and leadership position to its core philosophy of 'Nation Building' driven by '*Growth with Goodness'* - a guiding principle for sustainable growth. Adani is committed to improve its ESG footprint by re-aligning its businesses with emphasis on climate protection and increasing community outreach through its CSR programme based on the principles of sustainability, diversity and shared values.

Mundra Petrochem Limited of Adani group is now executing green PVC project (Green PVC) at near Village Vandh & Tunda, Taluka Mundra, District Kachchh, Gujarat

1.1.2 About UniStar Environment and Research Labs Private Limited (UERL)

UniStar Environment and Research Labs Private Limited is a company which provide efficient and economical services in the areas of environmental pollution control/monitoring and chemical analysis & research activities to various industries and institutions. UniStar provides technical consultancy backed by well-established sophisticated analytical laboratories, to comply with Statutory requirements and directives of the Pollution Control Board/ Committees under various Environment Pollution Control Acts. and Rules. We also carry out post Environmental Clearance monitoring and assist our valued customers in preparation of Half-yearly Environmental Clearance Compliance report.

- Ministry of Environment, Forest and Climate Change (MOEFCC), GOI recognized the Laboratory under the Environment Protection Act-1986 which is valid up to 18/10/2027.
- ISO/IEC 17025 Accredited Laboratory by National Accreditation Board for Testing and Calibration Laboratories (NABL) which is valid up to – 22/09/2026.
- Recognized Environmental Auditor Laboratory by Gujarat Pollution Control Board, Gandhinagar, Gujarat, India which is valid up to 31/12/2025.

Copy of relevant certificates are attached as Annexure I.

1.2 Brief Description of Project

The proposed Green PVC Project will be having various major units such as, Semi-coke Plant, Calcium Carbide Plant, Acetylene Plant, VCM Plant, PVC Plant, Caustic Soda Plant, Ethylene Glycol Plant & Cement Plant. The associated infrastructure facilities such as boiler, final/intermediate product storages etc, utilities, pipelines, ancillary facilities for interconnecting /transferring of materials between pockets, loading/unloading, roads, drainages, pipe racks, trenches, cable trays, non-plant buildings, laboratories, fabrication yards, batching Plant, dispatch section, general stores/ warehouse, fire & safety department, maintenance workshop, occupational health centre etc. will also be established.



2 ENVIRONMENTAL MONITORING

2.1 General Philosophy & Scope of Work

The environmental monitoring encompassed various disciplines and environmental attributes, including air quality, water quality, noise levels, and soil conditions. As per the given scope of work for environmental monitoring by MPL, we have prepared Environmental Monitoring Plan as per below.

Sr. No	Discipline	Location	Parameter	Frequency
1.	Ambient Air Quality Monitoring	Seven Locations	As per NAAQMS, 2009	Monthly
2.	Ambient Noise Monitoring	Seven Locations	Day Time & Nighttime - Noise Levels in Leq dB(A)	Monthly
3. Treated Sewage water		One Location	pH, Bio-Chemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Total Suspended Solids (TSS), Faecal Coliform (FC) (Most Probable Number per 100 millilitre, MPN/100ml, Nitrogen-Total, Phosphorus-Total	Monthly
4.	Ground water	Eight Location	pH, Temperature, Turbidity, conductivity, Total Dissolved Solids, Bio-Chemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Salinity, Ammonical Nitrogen, Total Alkalinity, Total Hardness, Calcium, Magnesium, Chloride, Sulphate, Nitrate, Fluoride, Phenolic Compound, Sodium, Potassium, Calcium Hardness, Magnesium Hardness, Lead, Iron, Cadmium, Manganese, Copper, Arsenic, Chromium, Mercury, Nickel, Zinc, Total Nitrogen, Cyanide, Total Phosphorous, Sodium Absorption Ratio (SAR)	Pre & Post Monsoon
5.	Surface Water One Location One		Pre & Post Monsoon	
6.	Surface Water (Marine)	Frace Water (Marine)Two LocationpH, Colour, Odour, turbidity, Total Suspended Solids, Total Dissolved Solids, Bio-Chemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Dissolved Oxygen, Oil & Grease, Lead, Iron, Cadmium, Manganese,		Pre & Post Monsoon





2.2 Sampling & Analysis

The selection of methods for sampling, preservation, and analysis holds significant importance in environmental monitoring. To ensure the highest quality in environmental sampling and analysis, the Central Pollution Control Board (CPCB) has established guidelines for these processes. Adhering to these guidelines, specific methods for sampling and analysis of environmental samples have been chosen and implemented. Instrument used in sampling are calibrated from NABL accredited Laboratory. Details are as follows:

Sr. No	Name of Instrument Used	ID No./Sr. No	Make/Model	Validity of previous calibration	Calibration Date	Cal. Valid up to
1.	Respirable Dust Sampler PM 10	UERL/AIR/RDS/47/ 1816-DTJ-2013	Envirotech/ APM 460-BL	26/06/2024	27/06/2024	26/06/2025
2.	Fine Particulate Sampler PM 2.5	UERL/AIR/FPS/22/ 44-DTC-2012	Envirotech/ APM 550- MINI	26/06/2024	27/06/2024	26/06/2025
3.	Respirable Dust Sampler PM 10	UERL/AIR/RDS/34/ 1768-DTB-2013	Envirotech/ APM 460-BL	01/08/2024	02/08/2024	01/08/2025
4.	Fine Particulate Sampler PM 2.5	UERL/AIR/FPS/21/ 20-DTC-2012	Envirotech/ APM 550- MINI	01/08/2024	02/08/2024	01/08/2025
5.	Respirable Dust Sampler PM 10	UERL/AIR/RDS/027/ 1751-DTA-2013	Envirotech/ APM 460-BL	01/08/2024	02/08/2024	01/08/2025
6.	Fine Particulate Sampler PM 2.5	UERL/AIR/FPS/050/ 129-DTL-2012	Envirotech/ APM 550- MINI	02/08/2024	03/08/2024	02/08/2025
7.	Sound Level Meter	UERL/AIR/SLM/09A	Envirotech - SLM 100 /24 DTE 2008	14/07/2024	06/07/2024	05/07/2025
8.	Sound Level Meter	UERL/AIR/SLM/09B	Envirotech - SLM 100 /310 DTK 2015	14/07/2024	06/07/2024	05/07/2025
9.	Sound Level Meter	UERL/AIR/SLM/09C	Extech / SDL 600	25/06/2024	27/06/2024	26/06/2025

*Calibration certificates are attached in Annexure II

2.2.1 Ambient Air Quality Sampling and Analytical Techniques

The techniques used for ambient air quality monitoring and its permissible limit are given in following table.

Sr. No.	Parameter	Technique	Technical protocol	Permissible Limit (As per NAAQS)
1.	Particulate Matter as PM10	Respirable Dust Sampler (Gravimetric method)	IS - 5182, Part - 23	100
2.	Particulate Matter as PM2.5	fine particular Sampler (Gravimetric method)	IS - 5182, Part - 24	60
3.	Sulphur Dioxide as SO2	Modified West and Gaeke	IS - 5182, Part - 2	80
4.	Nitrogen Dioxide as NO2	Jacob &Hochheiser	IS - 5182, Part - 6	80
5.	Carbon Monoxide as CO	Gas Analyser (CO)	IS - 5182, Part - 10	4.0
6.	Ozone as O3	UV Spectrophotometer	IS - 5182, Part - 9	180
7.	Ammonia as NH3	Titrimetric Method	IS - 5182, Part - 25	400
8.Lead as Pb9.Nickel as Ni10.Arsenic as As		AAS Method	IS - 5182, Part - 22	1.0
		AAS Method	IS - 5182, Part - 26	20
		AAS Method	IS - 5182, Part - 22	6.0
11.	Benzene as C6H6	GC Method	IS - 5182, Part - 11	5.0





Sr. No.	Parameter	Technique	Technical protocol	Permissible Limit (As per NAAQS)
12.	Benzo (a) Pyrene (BaP)	GC Method	IS - 5182, Part - 12	1.0

2.2.2 Ambient Noise Level Sampling Techniques

The techniques used for ambient air quality monitoring and its permissible limit are given in following table.

Sr. No.	Parameter	Technique	Technical protocol	Permissible Limit (As per CPCB)
1.	Ambient Noise Level Monitoring at Industrial Area	Noise Meter (Leq)	IS:9989:1981	Day Time – 75 dB Night Time – 70 dB
2	Ambient Noise Level Monitoring at Residential Area	Noise Meter (Leq)	IS : 9989 : 1981	Day Time – 55 dB Night Time – 45 dB

2.2.3 Ground Water Sampling & Analysis Techniques

	Parameter		IS 10500 Standard Limits for	
		Technical protocol	drinking water	
Sr. No.			Desirable limit	Permissible Limit in the Absence of Alt. Source
1	рН	IS 3025(Part 11):2022	6.5-8.5	NR
2	Temp	IS 3025(Part 9):1984	NS	NS
3	Turbidity	IS 3025(Part 10):1984	1	5
4	TDS	IS 3025(Part 14):1984	500	2000
5	Electrical Conductivity	IS 3025(Part 16):2024	NS	NS
6	COD	IS 3025(Part 58): 2006	NS	NS
7	BOD	IS 3025(Part 44): 1993	NS	NS
8	Phenol	IS 3025(Part 43): 2020	0.001	0.002
9	Chlorides	IS 3025(Part 32): 1988	250	1000
10	Sulphate	IS 3025(Part 24): 2022	200	400
11	Total Hardness	IS 3025(Part 21): 2009	200	600
12	Ca++ Hardness	APHA 23rd Ed,2017,3500 Ca. B	NS	NS
13	Mg++ Hardness	APHA 23rd Ed,2017,3500 Mg. B	NS	NS
14	Total Alkalinity	IS 3025(Part 23): 1986	200	600
15	Nitrate	APHA 23rd Ed,2017,4500 NO3-B	45	NR
16	Fluoride	IS 3025(Part 60): 2008	1	1.5
17	Sodium	APHA 23rd Ed,2017,3500 Na. B	NS	NS
18	Potassium	APHA 23rd Ed,2017,3500 Mg. B	NS	NS
19	Calcium	APHA 23rd Ed,2017,3500 Ca. B	75	200
20	Magnesium	APHA 23rd Ed,2017,3500 Mg. B	30	100
21	Salinity	APHA 23rd Ed,2017,2520-B, 2-60	NS	NS
22	Total Nitrogen	APHA 23rd Ed,2017,4500 NH3 - B	0.5	NR
23	Total Phosphorous	APHA 23rd Ed,2017,4500-P, D	NS	NS
24	Dissolved Oxygen	APHA 23rd Ed,2017,4500-O, B	NS	NS
25	Ammonical Nitrogen	IS 3025(Part 34) (ISE Method):1988	NS	NS
26	SAR	By Calculation	NS	NS
	Heavy Metals			
27	Arsenic (as As)	APHA 23rd Ed,2017,3114-C	0.01	0.05
28	Cadmium (as Cd)	IS 3025(Part 41): 1992	0.003	NR
29	Chromium (as Cr)	APHA 23rd Ed,2017,3111-B	0.05	NR





	Parameter	Technical protocol	IS 10500 Standard Limits for	
Sr. No.			drinking water	
			Desirable limit	Permissible Limit in the Absence of Alt. Source
30	Copper (as Cu)	APHA 23rd Ed,2017,3111-B	0.05	1.5
31	Cyanide (as CN)	IS 3025(Part 27): 1986	0.05	NR
32	Iron (as Fe)	IS 3025(Part 53): 2003	0.3	NR
33	Lead (as Pb)	IS 3025(Part 47): 1994	0.01	NR
34	Mercury (as Hg)	APHA 23rd Ed,2017,3112-B	0.001	NR
35	Manganese (as Mn)	APHA 23rd Ed,2017,3500 Mn. B	0.1	0.3
36	Nickel (as Ni)	IS 3025(Part 54): 1994	0.02	NR
37	Zinc (as Zn)	IS 3025(Part 49): 1994	5	15
38	Total Coliform	IS 1622:1981	Shall no	t be detectable
39	Faecal Coliforms	IS 1622:1981	Shall not be detectable	

* NS: Not Specified , NR: No relaxation

2.2.4 Surface Water Sampling & Analysis Techniques

			Classification for Inland Surface	
Sr. No.	Parameter	Technical protocol	Water (CPCB)	
			Class E	
1	рН	IS 3025(Part 11):2022	6.5 to 8.5	
2	Dissolved Oxygen	APHA 23rd Ed,2017,4500-O, B	NA	
3	TDS	IS 3025(Part 14):1984	2100	
4	Electrical Conductivity	IS 3025(Part 16):2024	2250	
5	BOD	IS 3025(Part 44): 1993	NA	
6	Colour	IS 3025(Part 4):2021	-	
7	Total Hardness	IS 3025(Part 21): 2009	NA	
8	Ca++ Hardness	APHA 23rd Ed,2017,3500 Ca. B	NA	
9	Mg++ Hardness	APHA 23rd Ed,2017,3500 Mg. B	NA	
10	Chlorides	IS 3025(Part 32): 1988	600	
11	Sulphate	IS 3025(Part 24): 2022	1000	
12	Nitrate	APHA 23rd Ed,2017,4500 NO3-B	NA	
13	Fluoride	IS 3025(Part 60): 2008	-	
14	Phenol	IS 3025(Part 43): 2020	NA	
15	Ammonical Nitrogen	IS 3025(Part 34) (ISE Method):1988	NA	
16	SAR	By Calculation	26	
17	Copper (as Cu)	APHA 23rd Ed,2017,3111-B	NA	
18	Iron (as Fe)	IS 3025(Part 53): 2003	NA	
19	Manganese (as Mn)	APHA 23rd Ed,2017,3500 Mn. B	NA	
20	Mercury	APHA 23rd Ed,2017,3112-B	NA	
21	Cadmium (as Cd)	IS 3025(Part 41): 1992	NA	
22	Arsenic (as As)	APHA 23rd Ed,2017,3114-C	NA	
23	Cyanide	IS 3025(Part 27): 1986	NA	
24	Lead (as Pb)	IS 3025(Part 47): 1994	NA	
25	Zinc	IS 3025(Part 49): 1994	NA	
26	Chromium (as Cr)	APHA 23rd Ed,2017,3111-B	NA	
27	Boron	IS 3025(Part 49): 1994	2	
28	Total Coliform	IS 1622:1981	-	





NA: Not applicable

2.2.5 Surface Water (Marine) Sampling & Analysis Techniques

Sr. No.	Parameter	Technical protocol	Classification for Coastal marine water (CPCB)
1	nH	IS 3025 (Part 11):2022	5 to 8 5
2	pin Discolved Oxygon	ADHA 22rd Ed 2017 4500 O. P.	0.3 10 8.3
2	Dissolved Oxygen	APRA 2310 E0,2017,4300-0, B	J No Colour
3	Colour & Odour	15 3025(Part 4):2021 &	NO COIOUR
		IS 3025(Part 5):1983	No Odour
4	Floating Matters	-	None
F	Total Suspended Solid	APHA 23rd Ed,2017,2540-D	None from Sewage or
Э			Industrial waste Origin
6	Turbidity	IS 3025(Part 10):1984	-
7	BOD	IS 3025(Part 44): 1993	-
8	Oil & Grease	IS 3025(Part 39): 1991	0.1
9	Mercury as Hg	APHA 23rd Ed,2017,3112-B	0.01
10	Lead (as Pb)	IS 3025(Part 47): 1994	0.01
11	Cadmium (as Cd)	IS 3025(Part 41): 1992	0.01
12	Iron (as Fe)	IS 3025(Part 53): 2003	-
13	Manganese (as Mn)	APHA 23rd Ed,2017,3500 Mn. B	-
14	Total Coliform	IS 1622:1981	-
	Sludge Deposits, Solid		
15	refuse floating Solids,	-	-
	Oil Grease and Scum		

2.2.6 Treated Water Sampling & Analysis Techniques

The techniques used for waste water Sampling and analysis its permissible limit is given in following table.

Sr. No.	Parameter	Technical protocol	Permissible Limit (As per MOEFCC notification no. GSR 1265(E) dt. 13 Oct. 2017)
	Treated Effluent from STP		
	рН	IS 3025(Part 11):2022	6.5 to 9.0
	BOD	APHA 23 rd Ed,2017,5210-B	<30
1.	COD	IS 3025(Part 58): 2006	-
	TSS	APHA 23rd Ed.,2017, 2540 – D	<50
	Nitrogen Total	APHA 23rd Ed,2017,4500-B, C	
	Phosphorous Total	APHA 23rd Ed,2017,4500-P, D	
	Faecal Coliform	IS 1622:1981	<1000

2.3 Location (map showing general location, Monitoring location and project boundary) with coordinates & Monitoring details.

The general location of the project is shown in *Map 2-1* shows the study area of 10 Km radius around the project site on Google Earth downloaded image.

The sampling location used for monitoring purpose is taken after due consideration with baseline monitoring location, availability of power & weather condition etc. Also In order to evaluate the quality of sewage water, samples were acquired from the sewage water treatment plant for comprehensive analysis. These analyses encompassed physico-chemical, general-chemical, and microbiological parameters.





Sr. No.	Sampling Type	Sampling Location	Type of Area	Coordinates
1.	Ambient Air & Noise	Project Site (Pocket – 1)	Industrial Area	22.785943° N, 69.566645° E
2.	Ambient Air & Noise	Project Site (Pocket – 2)	Industrial Area	22.78221° N, 69.559541° E
3.	Ambient Air & Noise	Project Site (Pocket – 3)	Industrial Area	22.802171° N, 69.552084° E
4.	Ambient Air & Noise	Near Fabrication & Batching Plant	Industrial Area	22.807563° N, 69.704170° E
5	Ambient Air & Noise	Village – Navinal	Rural Area	22.829246° N, 69.598332° E
6.	Ambient Air & Noise	Village – Zarpara	Rural Area	22.837942° N, 69.646225° E
7.	Ambient Air & Noise	Village – Vandh	Rural Area	22.809106° N, 69.53562° E
8.	Trade Effluent – STP Outlet	Project Site (Pocket – 1)	Industrial Area	22.784881° N, 69.566798°E

Photograph 2-1: Proposed Project Site (Current Status of Land)



Photograph 2-2: Photographs of monitoring






















Map 2-1: Images Project General Location Map







Map 2-1: Project site and Study Area of 10 Km radius on Google Earth Downloaded





3 CLIMATIC CONDITON

3.1 Climatic data from secondary sources

For the Green PVC project secondary data for weather conditions in the region is available for the period of April 2024 to September 2024. This table gives useful information about a region's weather condition. Meteorological data was analysed/reviewed for important parameters like Temperature, Humidity, BP, Wind speed, Wind direction, and Rainfall.

Average meteorological condition recorded at metrological station is as given in below table.

Table 3-1: Average meteorological condition

			Weat	her Monitorir	ng Data		
Month	Scale	Temp. (°C)	RH (%)	BP (mmHg)	Wind Direction	Wind speed (Km/ Hr.)	Total Rainfall (mm)
0 an ailt ha	Max.	41.4	98.6	759.0	360.0	41.1	
April to September	Min	20.1	9.3	742.2	0.0	0.1	1412.0
2024	Average/ Total	29.6	77.0	751.2	250.5	10.5	

Total Rainfall for Year 2023 at the end of December 2023 is 694 MM.

Based on wind patterns data, monthly wind-rose diagrams are presented in below Figure along with historical windrose of area.















4 ANALYSIS & INTERPRETATION

4.1 Ambient Air

			-	-	-	Р	aramete	r with R	esults	-	-	Parameter with Results Benzo												
Sr.	Month	PM1 0	PM2.5	SO2	NO2	СО	O3	NH3	Pb	Ni	As	Benzene	Benzo (a) Pyrene											
No.	Month	µg/ m3	µg/m 3	µg/m 3	µg/m 3	mg/m3	µg/m 3	µg/m 3	µg/m 3	ng/m 3	ng/m 3	µg/m3	ng/m3											
					Permis	sible Lim	it As per	NAAQS	– 2009 ľ	Votificati	ion.													
		100	60	80	80	2	180	400	1	20	6	5	1											
Loca	ation : Proj	ect Site	e (Near t	o Pocket	t -1)																			
1	Apr-24	65.6	20.5	18.5	22.3	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1											
2	May-24	70.2	24.6	20.1	23.3	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1											
3	Jun-24	61.4	21.3	17.3	20.9	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1											
4	Jul-24	45.3	15.2	7.3	10.3	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1											
5	Aug-24	41,2	14.2	10.5	13.2	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1											
6	Sep-24	45.6	17.8	12.3	15.6	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1											
Rep URA/	ort Ref. N /24/07/A-06	lo. - UF 2 dt. 06	RA/24/04/ /08/2024	'A-097 dt , URA/24/	. 03/05/2 08/A-033	2024, URA dt. 02/09	A/24/05/A /2024, UR	-038 dt. RA/24/09/	03/06/20 A-074 dt.	024, URA/ 03/10/20	/24/06/A-)24	068 dt. 04	/07/2024,											
Loca	ation: Proje	ect Site	(Near to	o Pocket	-2)																			
1	Apr-24	62.7	21.8	19.5	23.1	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1											
2	May-24	66.7	23.6	21.6	24.7	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1											
3	Jun-24	59.7	20.4	19.2	22.1	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1											
4	Jul-24	40.7	14.5	8.5	11.3	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1											
5	Aug-24	39.9	13.8	13.2	16.3	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1											
6	Sep-24	42.3	15.4	14.6	17.8	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1											
Rep URA	ort Ref. N /24/07/A-06	lo. - UF 3 dt. 06	RA/24/04/ /08/2024	'A-099 dt , URA/24/	. 03/05/2 08/A-034	2024, URA dt. 02/09	A/24/05/A /2024, UR	-051 dt. RA/24/09/	03/06/20 A-080 dt.	024, URA/ 03/10/20	/24/06/A-)24	077 dt. 04	/07/2024,											
Loca	ation: Proje	ect Site	(Near to	o Pocket	-3)																			
1	Apr-24	66.6	24.5	17.7	24.4	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1											
2	May-24	69.8	26.1	18.2	21.4	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1											
3	Jun-24	63.1	23.1	16.8	19.7	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1											
4	Jul-24	48.1	14.7	9.2	12.5	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1											
5	Aug-24	42.3	15.3	11.6	14.5	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1											
6	Sep-24	45.1	16.9	13.2	16.7	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1											
Rep URA/	ort Ref. N /24/07/A-06	lo. - UF 4 dt. 06	RA/24/04/ /08/2024	'A-086 dt , URA/24/	. 03/05/2 08/A-035	2024, URA dt. 02/09	4/24/05/A /2024, UF	-045 dt. A/24/09/	03/06/20 A-082 dt.	24, URA/ 03/10/20	/24/06/A-)24	063 dt. 04	/07/2024,											



Loca	Location: Near Fabrication and Batching Plant													
1	Apr-24	64.7	22.3	16.4	20.7	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1	
2	May-24	68.4	25.7	19.4	22.6	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1	
3	Jun-24	62.1	23.5	18.5	21.5	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1	
4	Jul-24	43.7	15.3	8.7	11.6	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1	
5	Aug-24	40.6	12.7	12.8	15.6	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1	
6	Sep-24	44.8	15.8	13.6	16.7	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1	

Report Ref. No.- URA/24/04/A-082 dt. 03/05/2024, URA/24/05/A-042 dt. 03/06/2024, URA/24/06/A-055 dt. 04/07/2024, URA/24/07/A-061 dt. 06/08/2024, URA/24/08/A-036 dt. 02/09/2024, URA/24/09/A-076 dt. 03/10/2024

Loca	ation : Villa	age Nav	rinal										
1	Apr-24	56.1	18.9	16.2	21.2	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1
2	May-24	58.2	20.2	14.2	17.8	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1
3	Jun-24	50.3	16.7	12.1	15.8	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1
4	Jul-24	35.9	12.8	6.5	9.3	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1
5	Aug-24	30.9	11.6	7.9	10.2	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1
6	Sep-24	32.5	12.9	9.7	12.4	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1

Report Ref. No. - URA/24/04/A-020 dt. 03/05/2024, URA/24/05/A-029 dt. 03/06/2024, URA/24/06/A-079 dt. 04/07/2024, URA/24/07/A-058 dt. 06/08/2024, URA/24/08/A-031 dt. 02/09/2024, URA/24/09/A-048 dt. 03/10/2024

Loca	tion : Villa	ige Zar	para										
1	Apr-24	50.4	16.2	13.3	17.8	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1
2	May-24	54.1	18.5	15.5	18.6	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1
3	Jun-24	49.5	15.0	14.1	17.6	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1
4	Jul-24	36.5	13.1	7.5	10.3	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1
5	Aug-24	28.9	10.5	6.1	9.9	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1
6	Sep-24	31.6	14.4	8.7	11.5	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1

Report Ref. No. - URA/24/04/A-045 dt. 03/05/2024, URA/24/05/A-050 dt. 03/06/2024, URA/24/06/A-062 dt. 04/07/2024, URA/24/07/A-059 dt. 06/08/2024, URA/24/08/A-030 dt. 02/09/2024, URA/24/09/A-067 dt. 03/10/2024

Loca	ation : Villa	age Van	dh										
1	Apr-24	58.9	20.4	18.6	23.8	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1
2	May-24	55.6	17.3	16.2	19.5	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1
3	Jun-24	48.4	14.2	13.4	16.7	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1
4	Jul-24	41,2	14.3	7,1	10.2	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1
5	Aug-24	25.3	10.6	5.2	8.7	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1
6	Sep-24	29.8	13.2	7.6	10.9	<0.01	<5.0	<5.0	<0.5	<1.0	<1.0	<1.0	<0.1





Report Ref. No.- URA/24/04/A-051 dt. 03/05/2024, URA/24/05/A-090 dt. 03/06/2024, URA/24/06/A-090 dt. 04/07/2024, URA/24/07/A-060 dt. 06/08/2024, URA/24/08/A-032 dt. 02/09/2024, URA/24/09/A-075 dt. 03/10/2024

Observations

- The concentration of PM10 ranged from 70.2 μg/m3 at the Project Site (Pocket -1) to 25.3 μg/m3 in the Village of Vandh, with an average concentration of 49.8 μg/m3.
- The concentration of PM2.5 ranged from 26.1 µg/m3 at the Project Site Pocket 3 to 10.5 µg/m3 in the Village of Zarpara, with an average concentration of 17.4 µg/m3.
- The concentration of SO2 ranged from 21.6 μ g/m3 at the Project Site Pocket 2 to 5.2 μ g/m3 in the Village of Vandh, with an average concentration of 13.4 μ g/m3.
- The concentration of NO2 ranged from 24.7 μg/m3 at the Project Site Pocket 2 to 8.7 μg/m3 in the Village of Vandh, with an average concentration of 16.7 μg/m3.
- The concentrations of CO were below <0.01 mg/m3, & NH3 were below <5.0 μg/m3, O3 were below <5.0 μg/m3 at all the locations.
- The concentrations of Lead (Pb) were below <0.5 µg/m3, Arsenic (As) were below <1.0 ng/m3 & Nickel (Ni) were all below <1.0 ng/m3 at all the locations.
- The concentrations of Benzene were below <1.0 µg/m3 & BaP were all below <0.1 ng/m3 at all the locations.

The concentrations of all monitored air quality parameters were found to be within the permissible limits as defined by the National Ambient Air Quality (NAAQ) Standards set by the Ministry of Environment, Forest and Climate Change (MoEF&CC).





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4.2 Ambient Noise

The ambient noise levels measured and analysed for equivalent noise levels viz. Leq (24hrly), Leq day, Leq night at all the noise monitoring locations.

	Ambient Noise Level in Leq														
Sr															
Sr. No.	Location	CPCB Limits	Apr- 24	May- 24	Jun- 24	Jul-24	Aug- 24	Sep- 24	CPCB Limits	Apr-24	May- 24	Jun- 24	Jul- 24	Aug- 24	Sep- 24
1	Project Site (Pocket – 1)	75	59.8	59.6	59	59.7	58.1	57.6	70	48.2	46.8	45.9	45.9	45.2	46.0
2	Project Site (Pocket – 2)	75	58.2	58.5	58.4	58.9	58.6	56.9	70	48.9	45.5	46.1	45.8	46.1	45.3
3	Project Site (Pocket – 3)	75	58.7	59.9	61.4	58.9	57.4	58.2	70	46.8	46	47.1	45.5	43.6	45.0
4	Near Fabrication & Batching Plant	75	63.6	62.2	62.3	61.7	59.5	60.5	70	49	47.6	46.3	46.3	44.6	46.8
5	Village - Navinal	55	54.2	52.6	50.1	51	49.9	46.4	45	44.5	40.3	39.1	41.5	41.5	36.9

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6	Village - Zarpara	55	50.4	49	49.6	50.9	50.2	48.7	45	42.4	41.6	40.8	41.9	40.4	37.2
7	Village - Vandh	55	51.5	52.2	50.6	51	48.3	47.4	45	43.1	41.1	41.6	42.8	38.9	39.9
Report	Ref. No														
URA/24 URA/24	/04/AN-063 dt. 03/05/2024 /09/AN-048 dt. 03/10/2024	, URA/24/	05/AN-024	dt. 03/06/	2024, URA	/24/06/AN	-034 dt. ()4/07/2024,	URA/24/06/	AN-037 dt. (06/08/2024	I, URA/24	/08/AN-0	11 dt. 02/0	9/2024,
URA/24	/04/AN-064 dt. 03/05/2024	, URA/24	/05/AN-035	5 dt. 03/06	/2024, UR/	a/24/06/AN	l-037 dt.	04/07/2024	, URA/24/06	/AN-012 dt.	06/08/202	4, URA/24	4/08/AN-0	012 dt. 02/0	09/2024,
URA/24	/09/AN-051 dt. 03/10/2024	·.													
URA/24	/04/AN-057 dt. 03/05/2024	, URA/24/	05/AN-031	dt. 03/06/	2024, URA	/24/06/AN	-026 dt. 0)4/07/2024,	URA/24/06/	AN-039 dt. (06/08/2024	I, URA/24	/08/AN-0	13 dt. 02/0	9/2024,
URA/24	/09/AN-052 dt. 03/10/2024	•													
URA/24 URA/24	/04/AN-052 dt. 03/05/2024 /09/AN-050 dt. 03/10/2024	, URA/24/	05/AN-028	dt. 03/06/	2024, URA	/24/06/AN	-019 dt. ()4/07/2024,	URA/24/06/	AN-036 dt. (06/08/2024	I, URA/24	/08/AN-0	14 dt. 02/0	9/2024,
URA/24 URA/24	/04/AN-012 dt. 03/05/2024 /09/AN-021 dt. 03/10/2024	, URA/24/	05/AN-021	dt. 03/06/	2024, URA	/24/06/AN	-038 dt. ()4/07/2024,	URA/24/06/	AN-033 dt. (06/08/2024	I, URA/24	/08/AN-0	09 dt. 02/0	9/2024,
URA/24 URA/24	/04/AN-035 dt. 03/05/2024 /09/AN-049 dt. 03/10/2024	, URA/24/	05/AN-060	dt. 03/06/	2024, URA	/24/06/AN	-043 dt. 0)4/07/2024,	URA/24/06/	AN-035 dt. (06/08/2024	I, URA/24	/08/AN-0	10 dt. 02/0	9/2024,
URA/24 URA/24	/04/AN-028 dt. 03/05/202 /09/AN-038 dt. 03/10/2024	4, URA/24,	/05/AN-034	4 dt. 03/06	/2024, UR/	a/24/06/AN	I-025 dt.	04/07/2024	, URA/24/06	/AN-034 dt.	06/08/202	4, URA/24	4/08/AN-0)08 dt. 02/0	09/2024,

Observations

Industrial Zone

The Average Leq (equivalent continuous sound level) during the day for the industrial zone ranged from 61.7 dB(A) at Near Fabrication & Batching Plant to 54.8 dB(A) at Near Fabrication & Batching Plant. Similarly, the Leq during the night ranged from 49.4 dB(A) at Project Site - Pocket 1 & 3 to 46.2 dB(A) at Near Fabrication & Batching Plant. Importantly, all these values remained within the CPCB (Central Pollution Control Board) limits specified for the industrial zone, both during daytime and night time.

Residential Zone

The Average Leq (equivalent continuous sound level) during the day in the residential zone varied from 55.2 dB(A) in Village Navinal to 50.7 dB(A) in the village Vandh. Meanwhile, the Leq during the night ranged from 44.2 dB(A) in Village Navinal to 39.4 dB(A) in Village Navinal. It's worth noting that the ambient noise levels in these villages are affected by the local environment, and all the Leq values are compliant with permissible limits across all the villages.

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4.3 Water Quality

4.3.1 Ground Water Quality

Ground water was collected as grab samples from eight location & sent to laboratory for analysis for various parameters in the month of May 2024 as Pre-Monsoon sampling.

The water quality findings from the ground water samples are outlined in the following table:

			IS 10500 Limits fo w	D Standard or drinking ater	GW 01	GW 02	GW 03				GW 07-	
Sr. No.	Parameter	Unit	Desirable limit	Permissible Limit in the Absence of Alternate Source	Nani Khakhar	Moti Khakhar	Mota Kandagra	GW 04 Siracha	GW 05 Navinal	GW 06 Tunda	Nana Bhadiya	GW 08 Deshalpar
1	рН	pH scale	6.5-8.5	NR	7.83	7.99	8.41	8.09	7.96	8.42	8.6	7.86
2	Temp	o C	NS	NS	32	32	32	32	29.5	32	32	32
3	Turbidity	NTU	1	5	0.1	0.1	BDL (MDL:0.1)	BDL (MDL:0.1)	BDL (MDL:0.1)	BDL (MDL:0.1)	BDL (MDL:0.1)	BDL (MDL:0.1)
4	TDS	mg/l	500	2000	612	2830	1800	1960	1820	3480	1290	2520
5	Electrical Conductivity	µS/ cm	NS	NS	927	4300	2860	2980	2750	5280	2080	3820
6	COD	mg/l	NS	NS	16	20	20	20	20.4	8.1	16	24
7	BOD	mg/l	NS	NS	BDL (MDL:1.0)	BDL (MDL:1.0)	BDL (MDL:1.0)	BDL (MDL:1.0)	2.5	BDL (MDL:1.0)	BDL (MDL:1.0)	BDL (MDL:1.0)
8	Phenol	mg/l	0.001	0.002	BDL (MDL:0.001)	BDL (MDL:0.001)	BDL (MDL:0.001)	BDL (MDL:0.001)	BDL (MDL: .001)	BDL (MDL: .001)	BDL (MDL: .001)	BDL (MDL: 0.001)
9	Chlorides	mg/l	250	1000	153.8	1121.6	590.6	714.7	667.8	1566.9	408	987.6
10	Sulphate	mg/l	200	400	39.3	195.5	95.5	175.9	38	118.7	64.9	208.8
11	Total Hardness	mg/l	200	600	181.8	585.8	131.3	272.7	236.1	307	84.8	474.7
12	Ca++ Hardness	mg/l	NS	NS	111.1	242.4	70.7	111.1	138.6	119.2	40.4	191.9
13	Mg++ Hardness	mg/l	NS	NS	70.7	343.4	60.6	161.6	97.5	187.9	44.4	282.8

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			IS 1050 Limits fo w	D Standard or drinking ater	GW 01	GW 02	GW 03				GW 07-	
Sr. No.	Parameter	Unit	Desirable limit	Permissible Limit in the Absence of Alternate Source	Nani Khakhar	Moti Khakhar	Mota Kandagra	GW 04 Siracha	GW 05 Navinal	GW 06 Tunda	Nana Bhadiya	GW 08 Deshalpar
14	Total Alkalinity	mg/l	200	600	156.8	455.7	509.6	343	289	465.5	465.5	352.8
15	Nitrate	mg/l	45	NR	0.6	4.5	5.8	0.7	1.1	3.5	2.2	9.9
16	Fluoride	mg/l	1	1.5	0.49	1.11	2.75	2.65	0.98	1.29	4.95	2.05
17	Sodium	mg/l	NS	NS	98.8	>500	496.2	496.5	410	>500	380	>500
18	Potassium	mg/l	NS	NS	3.3	8.8	13.8	6	34	9.2	8.8	6.9
19	Calcium	mg/l	75	200	44.5	97.2	28.4	44.5	55.6	47.8	16.2	76.9
20	Magnesium	mg/l	30	100	17.1	83.4	14.7	39.3	23.7	45.6	10.8	68.7
21	Salinity	ppt	NS	NS	0.28	2	1.07	1.29	1.206	2.8	0.38	1.78
22	Total Nitrogen	mg/l	0.5	NR	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)
23	Total Phosphorous	mg/l	NS	NS	N.D	N.D	N.D	N.D	0.38	ND	ND	ND
24	Dissolved Oxygen	mg/l	NS	NS	6.9	6.8	6.7	7.2	4.1	6.6	7	7.1
25	Ammonical Nitrogen	mg/l	NS	NS	BDL (MDL:0.2)	BDL (MDL:0.2)	BDL (MDL:0.2)	BDL (MDL:0.2)	BDL (MDL: 0.2)	BDL (MDL: 0.2)	BDL (MDL: 0.2)	BDL (MDL: 0.2)
26	SAR	-	NS	NS	3.2	12.8	19.4	13.2	11.6	27.5	16.1	14.4
	Heavy Metals											
27	Arsenic (as As)	mg/l	0.01	0.05	BDL (MDL:0.01)	BDL (MDL:0.01						
28	Cadmium (as Cd)	mg/l	0.003	NR	BDL (MDL:0.003)							
29	Chromium (as Cr)	mg/l	0.05	NR	BDL (MDL:0.05)							

			IS 1050 Limits fo w	D Standard or drinking ater	GW 01	GW 02	GW 03				GW 07-	
Sr. No.	Parameter	Unit	Desirable limit	Permissible Limit in the Absence of Alternate Source	Nani Khakhar	Moti Khakhar	Mota Kandagra	GW 04 Siracha	GW 05 Navinal	GW 06 Tunda	Nana Bhadiya	GW 08 Deshalpar
30	Copper (as Cu)	mg/l	0.05	1.5	BDL (MDL:0.05)							
31	Cyanide (as CN)	mg/l	0.05	NR	BDL (MDL:0.05)							
32	Iron (as Fe)	mg/l	0.3	NR	BDL (MDL:0.1)							
33	Lead (as Pb)	mg/l	0.01	NR	BDL (MDL:0.01)							
34	Mercury (as Hg)	mg/l	0.001	NR	BDL (MDL:0.001)							
35	Manganese (as Mn)	mg/l	0.1	0.3	BDL (MDL:0.1)							
36	Nickel (as Ni)	mg/l	0.02	NR	BDL (MDL:0.02)							
37	Zinc (as Zn)	mg/l	5	15	BDL (MDL:0.05)							
38	Total Coliform	MPN	Shall not b	e detectable	Absent							
39	Faecal Coliforms	MPN	Shall not b	e detectable	Absent							
R	Report Ref. No. URC	/24/XX/XX	(X & URB/24	/XX/XXX	05/0472 05/0473	05/0474 05/0475	05/0466 05/0469	05/0478 05/0479	05/0480 05/0481	05/0468 05/0467	05/0470 05/0471	05/0476 05/0477

Observations :

The ground water samples are analysed as per IS: 10500 Standard.

4.3.2 Surface Water Quality

Surface water was collected as grab samples from one location Navinal village pond however other two location Nagavanti Nadi & Siracha village pond found dried during pre-monsoon sampling in month of May 2024.

The water quality findings from the surface water samples are outlined in the following table:

Sr. No.	Parameter	Unit	Classification for Inland Surface Water (CPCB)	SW 046 Navinal Village pond
			Class E	Aug-23
1	рН	pH Scale	6.0 to 8.5	8.48
2	Dissolved Oxygen	mg/l	NA	6.5
3	TDS	mg/l	2100	350
4	Electrical Conductivity	µS/cm	2250	530
5	BOD	mg/l	NA	9
6	Colour	Pt.co	-	BDL (MDL: 5.0)
7	Total Hardness	mg/l	NA	72.7
8	Ca++ Hardness	mg/l	NA	19.4
9	Mg++ Hardness	mg/l	NA	5.9
10	Chlorides	mg/l	600	86
11	Sulphate	mg/l	1000	8.8
12	Nitrate	mg/l	NA	BDL (MDL: 0.1)
13	Fluoride	mg/l	-	0.55
14	Phenol	mg/l	NA	BDL (MDL: 0.001)
15	Ammonical Nitrogen	mg/l	NA	BDL (MDL: 0.2)
16	SAR		26	3.3
17	Copper (as Cu)	mg/l	NA	BDL (MDL: 0.05)
18	Iron (as Fe)	mg/l	NA	BDL (MDL: 0.1)
19	Manganese (as Mn)	mg/l	NA	BDL (MDL: 0.1)
20	Mercury	mg/l	NA	BDL (MDL: 0.001)
21	Cadmium (as Cd)	mg/l	NA	BDL (MDL: 0.003)
22	Arsenic (as As)	mg/l	NA	BDL (MDL: 0.01)
23	Cyanide	mg/l	NA	BDL (MDL: 0.05)
24	Lead (as Pb)	mg/l	NA	BDL (MDL: 0.01)
25	Zinc	mg/l	NA	BDL (MDL: 0.05)
26	Chromium (as Cr)	mg/l	NA	BDL (MDL: 0.05)
27	Boron	mg/l	2	BDL (MDL: 0.5)
28	Total Coliform	MPN/100ml	-	Absent
29	COD	mg/l	-	16.4
			Report Ref. No.	URC/24/05/0464 URB/24/05/0465

Observations :

These analysed results were subsequently compared against the Classification for Inland Surface Water (CPCB) Class E & are found well within Limits.

4.3.3 Surface Water (Marine) Quality

Surface water (Marine) was collected as grab samples from two location Kotadi Creek & Baradi mata creek. Same has been sent to laboratory for analysis for various parameters.

The water quality findings from the surface water (marine) samples are outlined in the following table:

Sr. No.	Parameter	Unit	Classification for Coastal Marine Water (CPCB)	SW 2- Kotadi Creek water	SW 3- Baradi Mata Creek
			SW-I	Aug-23	Aug-23
1	рН	pH scale	6.5 to 8.5	8.1	8
2	Dissolved Oxygen	mg/l	5	6.4	6.6
3	Colour & Odour	-	No Colour No Odour	BDL Agreeable	BDL Agreeable
4	Floating Matters	-	None	None	None
5	Total Suspended Solid	mg/l	None from Sewage or Industrial waste Origin	24	22
6	Turbidity	NTU	-	0.1	0.1
7	BOD	mg/l	-	2.8	3
8	Oil & Grease	mg/l	0.1	BDL	BDL
9	Mercury as Hg	mg/l	0.01	BDL	BDL
10	Lead (as Pb)	mg/l	0.01	BDL	BDL
11	Cadmium (as Cd)	mg/l	0.01	BDL	BDL
12	Iron (as Fe)	mg/l	-	0.172	0.194
13	Manganese (as Mn)	mg/l	-	BDL	BDL
14	Total Coliform	ml (MPN)	-	Absent	Absent
15	Sludge Deposits, Solid refuse floating Solids, Oil Grease and Scum	-	-	None	None
			Report Ref. No.	URC/24/05/0460 URB/24/05/0461	URC/24/05/0462 URB/24/05/0463

Observations :

These analysed results were subsequently compared against the Classification for Coastal marine water (CPCB)Class SW I & are found well within Limits.

4.3.4 Sewage Water Quality

Sewage water samples was collected as grab samples from STP outlet and sent to laboratory for analysis for various parameters.

The water quality findings from the sewage water sampling locations are outlined in the following table:

Sr.	Location	MOEFCC			STP O	utlet		
No.	Location	Limits	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24
1	pH @25°C	6.5 – 9.0	7.23	7.44	7.39	7.15	7.01	7.6
2	Total Suspended Solid	<50	14	18	16	19	14	15
3	Chemical Oxygen Demand (COD)	-	28.4	32.2	36.5	24.2	39.4	41.3

4	Biochemical Oxygen Demand (BOD) (5 days at 20 °C)	<30	8	10	6	8	9	8
5	Total Nitrogen	-	4.2	3.8	4.2	5.2	6.4	4.8
6	Total Phosphorus	-	1.1	1.4	1.1	1.4	1.2	1.9
7	Faecal Coliform	<1000	Absent	Absent	32	21	27	34

Report Ref. No. : URC/24/04/0688 dt. 08/05/2024, URC/24/05/0315 dt. 21/05/2024, URC/24/06/0338 dt. 02/07/2024, URC/24/08/0013 dt. 14/08/2024, URC/24/08/0183 dt. 03/09/2024, URC/24/09/0642 dt. 08/10/2024

Observations :

These analysed results were subsequently compared against the standards set by the Central Pollution Control Board (CPCB) are found well within Limits.

ANNEXURE

Annexure 1: Laboratory Recognition by MOEFCC, NABL, GPCB Sch.II Auditor & NABET Certification

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Laboratory Recognition by GPCB	NABET Certification

Annexure 2: Calibration Certificates

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OFF BCCC	(GOI) Recognized Environmental index the IPA 1966 (21.00.3003 % 22.09.2004)	Consulto	Accessible BA & GW ant Organization	GPCB Recognided Invitory Auditor (Scheduk	a til	60 R001 : 2015 Certified Company	(SO 40001 - 20) Certified Consol
		C	alibration	Certificate			
Instru	ment Name		Respirable	Dust Sampler			
Instru	ment ID No.		UERL/AIR/RI	05/27			
Instru	ment Sr. No. Supplier	:	1751-DTA-2	013, 1142-DTA-201	13		
Colib	ration Certificate No.	:	UERL/CC/R	DS-27/0802/24-25			
Date	of Calibration	1	02/08/2024				
Next	Calibration due Date	:	01/08/2025				
Sr.	Name of Unit Calibrated		Calibrator Tra	ceable to	Cal	ibration Certific	ate No. Date
1.	Flow Meter	Top Lo Enviro Id No. (UERL)	bading Orifice Nech Calibra MASTER/AIR/	9 lion Laboratory /AA/MM/01)	ECL/ Date	/UERLPL/2023-2 e of Call.: 06.08	4/FLOW/221 1.2023
	ID. No. (UERL/AIR/RDS/FM/27)	Pressu Enviro	re Indicator tech Calibra	tion Laboratory	ECU/ /335 Date	UERLPL/2022-2 3 6 of Call.: 22.10	3/MECH
2.	Time Totalizer	Enviro	tech Calibra	tion Laboratory	ECL/	UERLPL/2022-2	3/ET/3351
	ID. No. (UERL/AIR/RDS/TT/27)	ID, No (UERL)	MASTER/AIR/	earch Labs Pr	Date	e of Call.: 22.10	.2022
3.	Rotameter	Rotan Enviro	neter Itech Calibra	tion Laboratory	ECL/	/UERLPL/2022-2	3/FLOW/335
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	Environment and Research Labs PV. Ltd S		Ĩ		Phone Email : response@	Vapi - 396 195. Gujarat, : +91 260 2433666 / 243 guerl.in: Website : www.s
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		c	alibration	Certificate		
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Instru	ment ID No.		UERL/AIR/R	D\$/34		
Instru	ment Sr. No. Supplier	:	1768-DT8-20)13, 1147-DTB-20	13	
Calib	ration Certificate No.		UERL/CC/R	DS-34/0802/24-2	5	
Date	of Calibration	1	02/08/2024			
Next	Calibration due Date		01/08/2025	<u>.</u>		
Sr. No.	Name of Unit Calibrated		Calibrator Tra	ceable to	Calibration Co of Co	ertificate No. Dat alibration
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2.	Time Totalizer	Envir	otech Calibra	tion Laboratory	ECL/UERLPL/20)22-23/ET/3351
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Page	1 of 1				UER	L/AIR/F-73/00
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		C	alibration	Certificate			
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Instru	ment ID No.		UERL/AIR/FE	PS/50			
Instru	ment Sr. No. Supplier		APM - 550/	129-DTL-2012			
Calib	ration Certificate No.	1	UERL/CC/FF	PS-50/0803/24-25	8		
Date	of Calibration	:	03/08/2024	1	-		
Next	Calibration due Date	:	02/08/2025				
Sr. No.	Name of Unit Calibrated		Calibrator Tra	aceable to	Cal	bration Certific	cate No. Dat
1.	Rotameter	Enviro (New	ilech Calibra Delhi)	ition Laboratory	ECL/	UERLPL/2023-2	4/FLOW/221
	ID. No. (UERL/AIR/FPS/RM/50)	ID NO. (UERL)	/MASTER/AIR/	/RM/01)	Date of Cali.: 06.08.2023 ECL/UERLPL/2022-23/ET/3351		
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CALIBRATION CERTIFICATE Calibration Certificate No :: EMP2406275555-5 ULR NO : CC295724000005555F Date of Receipt :: 27/06/2024 UniStar Environment & Research Labs Pvt. Ltd Date of Calibration :: 25006/2025 CG2424 VMH House Area CBUC Office, Char Rass. Memonemende by Cations :: 25006/2025 CG2424 VMH House Area Marc Oldot Office, Char Rass. Date of Issue :: 25006/2024 Vap. Dat. Value - 390196, Gujarat.NDM. Porman No :: QH7.801 Vap. Dat. Value - 390196, Gujarat.NDM. Portacing of UUC to be Calibrate : Nomenclature of UUC 10. No. / Nomenclature of UUC 10. No. / Make / Model Count Range Accuracy Type Free Periodur Sampler UERU/NR/FPS/227 Envirotech // APM-550-MIN See As per Calibration Result Calibration Result Result Calibration Result Description of Standard Instrument Used : Nomenclature (UFE) ENP/GEC/F/01-1818 PICAL/1223/F/222 PI Calibration Hold (URCAL) Hold Secondary END/C22/2 Time Calibration Standard ENP/CE/ED/1-4802816 EC00827-4/1607-1/22022 EC00C 19/10/2024 Envidonamental Condition : CA	Noter Water water Ca	Provider : xt No. D/29 Sachin- libration L	Dimensio)/16-17, Rc Palsana Rc .ab Ph. : +	n, Elect oad No. oad, Sac 91-932	trical, Flow 17, Hojiwa hin, Surat 75 00920	, Mass, Press la Industrial E 394 230. Guj E-mail : cal	state, Ther state, Gat arat, INDI lab@enpi	mal, V e No. 3 A. ro.co.ir	olume , 1		2955		
Calibration Certificate No : ENP2406275556-S ULR NO : CC29559240000055555F Date of Calibration : 27/06/2024 UniStar Environment & Research Labs Pvt. Lib Due Date of Calibration : 27/06/2024 UniStar Environment & Research Labs Pvt. Lib Date of Calibration : 28/06/2025 C-6/24 White Mouse Alse GIDC Office, Char Rasta, Vapi.Dat. Value - 28/05/2024 Date of Issue : 28/06/2024 Regul Office 216, Regular AlbOA Port of Labs et : 28/06/2024 Regul Office 216, Regular AlbOA Port of Labs et : 28/06/2024 Regul Office 216, Regular AlbOA Port of Labs et : 28/06/2024 Regul Office 216, Regular AlbOA Port of Labs of UUC to be Calibrate : Interview Calibrate : Nomenclature of UUC Details of UUC to be Calibrate : Envicoted:/ See in Calibration Result Regul Description of Standard Instrument Used : Nomenclature LD. No. / Sr. No. Certificate No Certified By Valid Up To Air Flow Meter(LFE) ENP/CS/E/01-1818 PICAL/1222/F/222 PI Calibration Regult Laboration Relative Humility (% RH) : 53.5 Calibration of Rem : <t< th=""><th></th><th></th><th>CA</th><th>LIBR</th><th>ATION</th><th>CERTIFIC</th><th>ATE</th><th></th><th></th><th></th><th></th></t<>			CA	LIBR	ATION	CERTIFIC	ATE						
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UniStar Environment & Research Labs Pvt. Ltd.

White House, Near GIDC Office, Char Rasta, Vapi,

Gujarat, India – 396195

Annexure - III

MUNDRA PETROCHEM LIMITED

Corporate Environmental Responsibility April, 2024 – September, 2024

-: GROWTH WITH GOODNESS :-

Contents

1. EXECUTIVE SUMMERY	3
2. ABOUT MUNDRA PETROCHEM LTD	5
3. SECTOR IDENTIFICATION BASED ON THE "CER" MANDATE	6
4. CER INITIATIVES & INTERLINKAGE WITH SDGs.	7
5. ABOUT REGION	9
5.1 GENDER RATIO	10
6. EDUCATION PROMOTIONAL INITIATIVE.	11
6.1 KEY INTERVENTIONS	11
6.2 RESULT AND OUTCOMES OF THE "UTTHAN" INITIATIVE.	12
6.2.1 CAREER COUNSELING SEMINAR.	12
6.2.2 HIGHER EDUCATIONAL OPPORTUNITIES FOR MARGINALIZED COMMUNITIES.	13
6.2.3 EDUCATIONAL KIT & FURNITURE SUPPORT	14
6.2.4 "UTTHAN" SAHAYAK - TEACHERS	14
6.2.5 EDUCATIONAL AWARENESS PROGRAM	15
6.2.6 SKILL DEVELOPMENT PROGRAM	16
6.2.7 SCHOOL INFRASTRUCTURE	16
6.2.8 LINKAGE WITH SUSTAINABLE DEVELOPMENT GOALS	17
7. COMMUNITY HEALTH INITIATIVES	17
7.1 KEY INTERVENTIONS	
7.2 RESULT AND OUTCOMES OF THE "COMMUNITY HEALTH" INITIATIVE.	
7.2.1 MEDICAL CAMP FOR COMMUNITY	
7.2.2 MENSTRUAL HEALTH AWARNESS.	24
7.2.3 HOSPITAL INFRASTRUCTURE	25
7.2.4 COMMUNITY HEALTH - CLEAN WATER FACILITIES	26
7.3 LINKAGE WITH SUSTAINABLE DEVELOPMENT GOALS	26
8. SUSTAINABILITY LIVELIHOOD AND WOMEN EMPOWERMENT	27
8.1 KEY INTERVENTIONS	27
8.2 WOMEN EMPOWERMENT	27
8.3 SUSTAINABLE INFRASTRUCTURE	29
8.4 CLIMATE ACTION	32
8.4.1 TREE PLANTATION	
8.4.2 ECO – CLUB: AN INITIATIVE TOWARDS GREEN FUTURE	35
8.4.3 MANGROVE CONSERVATION AND AWARNESS	
8.4.4 AWARNESS ON "ALTERNATIVE OF SINGLE USE PLASTIC"	37
8.5 LINKAGE WITH SUSTAINABLE DEVELOPMENT GOALS	
9. COMMUNITY RURAL INFRASTRUCTURE DEVELOPMENT	40

10
1
12
12
13
15
16
ŧ7
18
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1. EXECUTIVE SUMMERY

This report highlights the impactful achievements of Mundra Petrochem Limited (MPL)'s Corporate Environmental Responsibility (CER) initiatives for the period April 2024 to September 2024. MPL is steadfast in it's commitment to driving positive change in the communities surrounding to the project activities, with a focus on environmental sustainability, community empowerment and fostering a healthier society.

Educational Initiatives.

Addressing the SDG of providing quality education, MPL's education initiative in the form of developing infrastructure, providing necessary resources to students and encouraging girl child education through awareness. There are several gaps in the educational system in the region which need to be addressed and through systematic planning and execution, MPL's team is enhancing the quality of education in the region.

Under this, 750+ students attended Career Counseling Seminar. More than 68 students were facilitated through transportation for pick up & drop to attend the school. More than 70 students benefited with educational kits. School furniture provided to schools at Modhava village. 8 teachers have been appointed under the "Utthan" Sahayak for boosting the education skill of students. Educational awareness programs have been conducted by field expert with considering importance of environment and sustainability in routine life.

Skill development programs for young youth have been conducted. School infrastructure have been improved by providing Sea Water Reverse Osmosis (SWRO) unit, Pink Toilet for Girls Students, furniture and paver blocks for the school premises to provide safe drinking water including strengthening of sanitation & hygiene.

<u>Community Health Initiatives.</u>

MPL's primary assessment revealed that the local fisherman community is one of the most vulnerable communities. The aim of this initiatives is to empower fisherman community including by providing vital medical assistant and health education. Through preventive disease awareness drives, family planning workshops, menstrual hygiene and nutrition workshops, and general health sessions, the project aim to reached over 60,000 peoples in 16 villages.

Under this initiative, 99 Nos. of patients examined by Eye specialist while 34 Nos. of patients examined by Gynecologist and 641 Nos. of patients examined by General Doctor & 11 Nos. of patients examined by pediatrician.

Further, more than 184 Senior citizens participated in the general health camp. Menstrual Health awareness session was organized for Girls and women. Hospital infrastructure has been provided at GK & GAIMS Hospital at Bhuj with modern equipment for Burn & Intensive care units (ICU) to cater the medical support to burn cases in 200 km radius. Provision of clean & safe drinking water to the villagers and students by installing SWRO units at village Tunda.

Sustainable Livelihood and women Empowerment.

MPL has organized programs to empowers women, fostering sustainable livelihoods and cultivates environmental awareness within the community.

In coastal communities, women play a vital role in the fishing industry. They have been given awareness on hygiene and education for fishing business. Further, menstrual health awareness among community women have been given and more than 100 women were actively participated. Financial empowering over 300 marginalized fisherfolk community women. More than 450 sanitary pads distributed to improve woman health hygiene. Sustainable infrastructure like Check dam restoration, percolation well construction, River / stream cleaning, culvert construction and Roof top rainwater harvesting systems were provided. More than 160 farmers have benefited from renovation of check dam as they will store more than 1,75,000 cubic meter water.

More than 122 Nos. percolation well have been constructed. In addition to this, river/stream cleaning and pond deepening work have also been carried out.

Construction of culverts supported irrigation of 38 hectors of land and facilitating livelihood of more than 105 farmers.

Further, more than 165 Nos. Rainwater Harvesting (RWH) systems were constructed in the nearby community area. This initiative not only helped to increase clean & safe drinking water capacity to the tune of 16,50,000 liters but also achieved water positive status in more than 3 villages.

Community tree plantations were carried out in an area covering 7 acres of land. About 17610 Nos. trees were planted. In addition to this, more than 200 farmers were financially assisted in cultivating fruits bearing trees.

An Eco club has been established for the community, under this initiative, 70 schools and more than 11000 students were getting awareness about environmental and sustainability. A mangrove conservation awareness session was organized for the young generation, about 100 students were participated.

A massive awareness drive on Alternative of Single Use Plastic (SUP) was organized. More than 680 students participated.

Community Rural Infrastructure Development.

Community Rural Infrastructure Development program by MPL encompasses a wide array of initiatives aimed at enhancing living standard in rural areas. It focuses on water conservation through measures like check dam restoration, de-siltation and bore well recharge structures.

Road repairing work at nearby villages and fisherfolk community area were attended. Pavers blocks were installed at the common gathering area. Clear water facilities are provided for house animal with the capacity of 20000 liters. Rooftop rainwater harvesting system provided at nearby villages. SWRO units were provided for clean water for villagers and students with capacity of 3000 ltr/hr and 50 ltr/hr respectively. School furniture and other infrastructure constructed at nearby villages.

An overview of CER Expenditure by MPL for reporting period i.e April, 2024 to September, 2024:-

Sr. No.	Sector	CER Expenditure April – Sept, 2024 (INR)
1	Educational Initiatives.	841838
2	Community Health Initiatives.	7319340
3	Sustainable Livelihood and women Empowerment.	433900
4	Community Rural Infrastructure Development.	7227613
5	Monitoring & Reporting	1164682
	Total	16987373
	1 - A	1

i.e. Approximate INR 170 Lakhs

Total CER expenditure incurred in various community welfare & eco – development activities was approximate INR 1000 Lakhs cumulative till September, 2024 including expenditure occurred INR 170 Lakhs for the reporting period i.e April, 2024 to September, 2024.

2. ABOUT MUNDRA PETROCHEM LTD

Mundra Petrochem Limited (MPL), a stepdown subsidiary of the Adani Enterprises Limited, is a young company with a big vision. MPL is poised to become a key player in India's petrochemical sector. Its focus lies on the development of a greenfield PVC complex located strategically within the Adani Ports and Special Economic Zone (APSEZ) at Mundra, Gujarat.

MPL's mission extends beyond mere production. MPL is committed to pioneering sustainable practices in the industry sector in line with Adani Group level commitment to shape the country development. Its state-of-theart facility is under engineering design with cutting-edge technologies to minimize environmental impact. This commitment is further reflected in their focus on community development through various Corporate Environmental Responsibility (CER) initiatives.

With operations expected to commence in 2026, MPL is poised to create significant economic opportunities within the region. By fostering sustainable practices and empowering local communities, MPL aims to become a model for responsible industrial development in India.

MPL's Corporate Environmental Responsibility (CER) program transcends mere carbon reduction efforts. It embodies a holistic approach grounded in robust scientific methodologies. This multifaceted initiative extends beyond environmental concerns, encompassing actions that enhance ecological resilience and empower local communities. The subsequent sections of this report will delve into the impactful outcomes achieved through MPL's comprehensive CER program.

3. SECTOR IDENTIFICATION BASED ON THE "CER" MANDATE

Mundra Petrochem Limited (MPL)'s CER action plan has been approved by the MoEF&CC as part of Environmental Clearance (EC) for the PVC project activities. As per the action plan, the activities were divided into four major impact sectors: -

- Educational Support.
- > Community Health Initiatives.
- > Sustainable Livelihood & Women Empowerment.
- > Community Rural Infrastructure Support.

This report includes the interventions by MPL as a part of CER initiative. This report briefly brings the project details - input, output, outcome, and impact (where applicable). The programs or activities undertaken by MPL were in adherence with the provisions of action plan as approved by the MoEF&CC to address the issues raised during the public hearing process of the project activity.

4. CER INITIATIVES & INTERLINKAGE WITH SDGs.

Mundra Petrochem Limited have benchmark business around regulatory requirements beyond the warranted with the objective of making the world a better place. The result is that we have invested in generating the largest positive outcome in the shortest time with the longest impact. The Mundra Petrochem Limited have been woven around sustainable Development Goals – Social, economic and environment – with a supporting governance framework.

2 ^{7FR0} HUMGER	 End hunger and ensure access to safe, nutritious and sufficiant food. End all form of malnutrition. Ensure sustainable food production system and implement resilient agricultural practice. Investment in rural infrastructure.
3 GOOR HEALTH AND WELL-BEING	 Promoting natural farming for a healthy lifestyle and conducting health camps to address the health issues.
4 QUALITY EDUCATION	 Ensure that all girls and boys complete free equitable and quality primary and secondary education. Bulding and upgrading education facilities. Providing transportation and school stuffs to students to attend the hasslefree education system.
	 End all form of discrimination agaist all women and girls. Ensure women's full and effective participation Creating an inclusive environment for women in the community through participation in the decision-making process and other activities.
6 CLEAN WATER AND SANITATION	 Restoring water bodies and encouraging water harvesting through participatory actions Protect and restore waterrelated ecosystems Support and strengthen the participation of local communities in improving water and sanitation management.
7 AFFORDABLE AND OLEAN ENERGY	• Promoting use of biogas for clean and affordable energy solution


5. ABOUT REGION

Mundra, historic port town in Gujarat's Kutch district, boasts a hot, arid climate with rich biodiversity despite limited rainfall. Located on the Gulf of Kutch at around 46 feet elevation, this census town reflects the cultural diversity of the district. The ecology is surprisingly vibrant with mangroves and birdlife, but water scarcity necessitates conservation efforts. Mundra's industrial growth, including the Adani Port & SEZ, requires sustainable development practices.





■ No of HH ■ Female ■ Male ■ Population

Sr. No.	Village Name	Population	Male	Female	No of HH	Sr. No.	Village Name	Population	Male	Female	No of HH
1	Nani Bhujpur	1056	551	505	210	9	Nana Bhadiya	4318	3805	513	1011
2	Pratappar	268	136	132	48	10	Mota Bhadiya	3284	1669	1615	624
3	Bhopawandh	1250	650	600	250	11	Zarpara	7052	3572	3480	1506
4	Navinal	3100	2406	694	602	12	Siracha	1879	1171	708	429
5	Desalpar	2611	1350	1261	581	13	Nani Khakhar	3412	1758	1654	691
6	Moti Bhujpur	9278	4777	4501	1979	14	Kandagra	4461	2729	1732	1015
7	Tragdi	1238	636	602	216	15	Modhva	2250	1167	1083	450
8	Moti Khakhar	2139	1101	1038	436	16	Tunda	12471	11261	1210	3134

¹ The data is source from the Census, 2011



The chart presents the population data across different villages. Tunda, Moti Bhujpar has the highest population at 12,471 and 9278 respectively, significantly larger than most other villages. Zarpara and Kandagra also have relatively high populations. Several villages like Nani Khakhar and Desalpar have populations of around 3,000 to 4,000.

The chart highlights the variation in population size across rural areas, with some villages being quite populous while others have very small populations like Pratappar with just 268 residents. This data provides insights into the demographic distribution and density patterns in the region.

5.1 GENDER RATIO



In the collective populace of 16 villages, males significantly surpass females at a ratio of 9 to 1. Tunda village exhibits the most pronounced gender disparity, with males constituting 90% of its inhabitants. Across these villages, there are a total of 13,182 households, with Tunda boasting the highest count and Pratappar the lowest.

This disparity highlights a notable trend in gender distribution within rural communities, underscoring the need for further examination of socio – cultural dynamics and their implications on population demographics and societal structure.

6. EDUCATION PROMOTIONAL INITIATIVE.

In this era of shaping future, the role of corporate responsibility in fostering sustainable development and empowering communities cannot be overstated. One such commendable endeavor is the "**Project Utthan**", Education Initiative undertaken by Adani Foundation (Under CSR), which stands as a testament to the organization's commitment towards creating a positive impact in society. The Utthan Initiative encompasses a multifaceted approach to enhance educational infrastructure, empower local institutions and foster community development. Through strategic interventions spanning infrastructure support, capacity building and community engagement, Adani Foundation (under CSR) has endeavored to address the educational needs of underserved communities and contribute to their holistic development. Mundra Petrochem Limited has supported various education promotion initiatives undertaken by Adani Foundation (under CSR).

6.1 KEY INTERVENTIONS



Infrastructure Support to Local Institutions

MPL's commitment to improving educational infrastructure is exemplified by various initiatives, including the provision of essential resources such as office stationery, clean and Hygiene water availability, Additionally, constructing a pink toilet and renovating the primary school in underscore MPL's dedication to creating conducive learning environments for students.



Training & Capacity Building

Recognizing the pivotal role of educators in shaping young minds, MPL has invested in capacity building measures by hiring Utthan Sahayak and Shikshan Sahayak for government primary schools. Moreover, the distribution of education kits further empowers teachers and students with the necessary tools for effective learning and skill development.

Community Support

MPL's Education Initiative extends beyond the confines of school premises, reaching out to the broader community. By arranging transportation for underprivileged students, MPL ensures access to education for all, irrespective of socio-economic barriers. Furthermore, initiatives such as women awareness programs contribute towards fostering a more inclusive and empowered society.

6.2 RESULT AND OUTCOMES OF THE "UTTHAN" INITIATIVE.

This chapter details the significant achievements of the Education support initiative, highlighting improved educational access, enhanced learning outcomes and empowering students within the community.

Addressing the SDG of providing quality education, MPL's education institution in the form of developing infrastructure, providing necessary resources to students and encouraging girl child education through awareness. There are several gaps in the educational system in the region which need to be addressed and through systematic planning and execution, MPL's team is enhancing the quality of education in the region.

SOCIAL IMPACT

6.2.1 Career Counseling Seminar.



Mundra Petrochem Ltd., Adani Foundation and Kachchmitra have organized a mega career counseling seminar, at GKGH, Bhuj.

This seminar deeply focused on the different careers paths that students can chose after the 10th & 12th Standard. Students can understand his / her own ability to grow their career in skilled been developed within. So that, they can pick right path in so many career options.

This seminar has encompassed:

- Discussion on job profiles related to AI, Data science, Digital and Technical trades.
- Shared government websites where students can find information about job profiles in technical trades.
- Parents are advised to become pillars of trust rather than ownership over their children.
- Unveiled a QR code, through this, students can explore the "Yearly Career Guidance Book" the Education Department, Gujarat government.
- This seminar is not only benefited the students Kutch but also broadcasted live on digital reach students and parents across India.



6.2.2 HIGHER EDUCATIONAL OPPORTUNITIES FOR MARGINALIZED COMMUNITIES.



Reason for providing facilities:

- Not enough economical ground to support the expenses of high school.
- High Schools are very limited in fisherfolk villages, making it hard for families to afford transportation costs.
- The foundation of students is very poor due to negligence in primary education.
- Parents are uneducated and busy with daily labor, leaving no time to support their children education.

Impact of Providing facilities:

- To provide safe and reliable transportation for the children of the fisherfolk community.
- Vehicle transportation (two way) facilities are provided to more than 68 students - pick up & drop to attend the school.
- This initiative has significantly reduced transportation challenges and improved school attendance which contributes better educational outcomes. Drop out ratio have been reduced by 87%.
- Students from villages like Modhava, Tragadi Bandar & Zarpara Bandar are facilited.

6.2.3 EDUCATIONAL KIT & FURNITURE SUPPORT

મુંદરા પેડ્રોકેમ લી.

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More than 70 students were benefited with educational kits like, School bags, books, stationary items, Guidebooks, notebooks, etc.

• Through these initiatives, students are able to interact daily school work and better at home as well.

• School furniture for students have been provided at Government School village Modhava.



6.2.4 "UTTHAN" SAHAYAK - TEACHERS



- Total 8 numbers of "Utthan" sahayak teachers have been provided to fill the gape and enhance students' learning capacities, provided essential facilities to school and achieve better learning outcomes at the grassroots level.
- The Project focuses on transforming government primary schools into model institutions by implementing the following key initiatives.

Strengthening Government Primary Schools	Appointing an Utthan Sahayak	Providing Resources and Facilities	Introducing Vedic Math's & Abacus	Capacity Building for Government School Teachers	Special Focus on 'Priya' Vidyarthi's (Progressive Learners)	Training Students for Competitive Exams
Adopting and	Assigning a	Ensuring	Increasing	Conducting	Providing	Preparing
upgrading	dedicated	schools are	students'	training	additional	students for
government	facilitator in	equipped	logical and	programs to	support and	various
primary	each school	with	mathematical	improve	tutoring for	competitive
schools to	to act as a	necessary	skills through	teachers'	progressive	examinations.
model	catalyst for	resources and	Vedic Math's	skills and	learners.	
schools.	change.	infrastructure	and Abacus	teaching		
			training.	methods.		

6.2.5 EDUCATIONAL AWARENESS PROGRAM

Environmental awareness program were conducted at more than 18 schools and about 2000 students were participated.

The sessions focused on sustainable practices and the importance of environmental conservation, particularly highlighting the need to reduce plastic usage and promote eco – friendly alternatives.



To educate childrens on plastic free ecosystem, Eco-clubes were established for raise the climate change awarness. So, far 72 Utthan Sahayak have been trained who reaching over 780 studets through awarness seminar.





Education awareness sessions were conducted in fisherfolk Vasahat, Vadi vistar – Village Farm Residence areas of nearby villages to highlight the importance of education, particularly girl-child education.



6.2.6 SKILL DEVELOPMENT PROGRAM



Total 30 numbers of young youth have attended Domestic Data Entry Operator (DDEO) - Skill development program.

6.2.7 SCHOOL INFRASTRUCTURE

MPL is deeply intended to create structure that has meaning fool OR positive out come for the long lasting period. Further, this can improve the beauty of the educational institutions, so that students have positive impress to love the school environment. Considering this, MPL has constructed area with "Paver Blocks" at primary schools.



Considering initiatives for clean water and sanitation for all, MPL has installed Saline Water Reverse Osmosis (SWRO) unit having capacity of 50LPH at Primary school of Tunda Village. More than 200 students are benefiting with this service.

The Pink toilet Initiative is essential to address the lack of proper sanitation and hygiene facilities in school. This will encourages girls to stay in school, promote better menstrual hygiene and aims to change regressive norms and practices related to menstruation.



500 + Girls students benefited

About 8 schools from near by villages have been benefited.

6.2.8 LINKAGE WITH SUSTAINABLE DEVELOPMENT GOALS

4 QUALITY EDUCATION	The education support initiative enhances quality education and equal access, directly contributing overall goal of inclusive, equitable education for all. Ensure that all girls and boys complete free equitable and quality primary and secondary education. Building and upgrading education facilities. Providing transportation and school stuffs to students to attend the hassle-free education system.
	The education support initiative promotes gender equality by ensuring equal educational opportunities and empowering girls. End all form of discrimination against all girls through education.
8 DECENT WORK AND ECONOMIC GROWTH	The education support initiative fosters economic growth by providing skills and knowledge. Full and productive employment and decent work for all women and men Creating livelihood opportunities for all and youth through skilling programs.
	The education support initiative reduces inequalities by providing equitable access to education.

7. COMMUNITY HEALTH INITIATIVES

MPL's primary assessment of the project revealed that the local fisherman community is one of the most vulnerable communities. The project aimed to empower fisherman community including villages like Navinal, Tragadi, Modhva, and Zarpara by providing vital medical assistant and health education. Through preventive disease awareness drives, family planning workshops, menstrual hygiene and nutrition workshops, and general health sessions, the project aim to reached over 60,000 peoples in 16 villages. This holistic approach led to a lasting impact: women gained knowledge to plan their families and stay healthy, while adolescents and women received support for menstrual hygiene and proper nutrition. Most importantly, the project fostered a sense of community by forming a Self-Help Group, ensuring this newfound knowledge continues to empower future generations.

7.1 KEY INTERVENTIONS





Medical Support

Menstrual Hygiene Workshops



Health Awareness Workshop



Nutrition Workshop

Medical support in the form of medicine, vaccine, testing and blood testing facilities are provided by Mundra Petrochem under CER to the local community members.

The workshop aimed to address the qap in knowledge and access to proper menstrual hygiene management (MHM) resources faced bv community women and girls in the During the area. Adolescent workshop and women are supported for Menstrual hygiene awareness and capacity building trainings.

Awareness sessions were organized by the MPL team with a special focus on the importance of vaccination, clean water, sanitation, and mental health.



SOCIAL IMPACT

7.2 RESULT AND OUTCOMES OF THE "COMMUNITY HEALTH" INITIATIVE.

This chapter outlines the significant achievements of the Community Health Initiatives being implemented by Munda Petrochem Limited under CER, detailing improvements in Health, outcomes, increased awareness and enhanced well – being within the community.

7.2.1 MEDICAL CAMP FOR COMMUNITY

A medical health checkup camp is an initiative designed to provide comprehensive medical examinations and screenings to a community. These camps are instrumental in promoting health awareness, early detection of diseases and facilitating timely medical intervention.

The objectives of a medical health checkup camp are:

Early	Health	Accessibility	Community
Detection	Awarness		Health
 Identifying health issues at an early stage allows for more effective treatment and management 	•Educating the community about common health problems, preventive measures and healthy lifestyle choices.	•Providing healthcare services to underserved or remote areas where medical facilities may be limited.	•Improving the overall health status of the community by addresing prevalent health concerns.

A comprehensive medical camp have been organized at nearby villages by Mundra Petrochem Limited. This camp have been organized with a dedicated teams of doctors, the camp catered to diverse health needs of the community. Each patient received personalized attention with through check -ups and tailored prescriptions.

The team of doctors have Eye specialist, Gynecologist, General Doctors and Pediatricians.



This initiative underscored the critical importance of early detection and treatment of eye – related issues, ensuring the people specially children have a better chance at maintaining healthy vision as they grow.



100+ Patients for Eye Checkup.

The students have been send to G.K.G.H Hospital, Bhuj from the villages for further treatment and the following actions have been taken.

Sr. No.	Student Name	Age	Observation / Treatment
1	Amina Amad Bhusan	14 years	She already has spectacles, and other necessary treatment given.
2	Afrin Salim Chaba	5 years	Diagnosed with cataracts. Advised to visit Civil Hospital in Ahmedabad.
3	Saima Abdul Chaba	12 years	Diagnosed with an eye infection. Prescribed eye drops.
4	Imtiyaz Umar Chaba	12 years	Noted an increase in eye dot . Suggested to visit Civil Hospital in Ahmedabad.
5	Amad Ashraf Chaba	11 years	Eye number assessment at GKGH.
6	Sakir Amad Chaba	10 years	Eye number assessment at GKGH.
7	Gulam Husain Lakhan	12 years	He already has spectacles, and other necessary treatment given.

Health camp participants:



Photographs of Health Camp at Nearby villages



184 + Senior Citizens have attended General Health Camp which makes vital health services accessible and convenient.

Facilitated for multiple tests at one location such as:

- ESR (Erythrocyte Sedimentation Rate)
- Serum Creatine.
- SGPT (Serum Glutamic Pyruvic Transaminase)
- Total Cholesterol.
- Random Blood Sugar.
- Complete Blood Test.







Further, this monsoon seasons, rainfall for region of the Mundra and Mandavi Taluka is higher then regular rainy season. Considering this scenario special health camp for rainy impacted area have been organized.



After heavy rain fall, 352+ villagers have been undergone for General Medical health check up. Following values observed:



Infected from Eye Flu



Suffering from Skin disease



Distress with Gynec. diseases

A comprehensive program on sanitary napkin distribution and menstruation hygiene was conducted at nearby villages with aiming to educate and empower them on menstrual health management. This initiative specifically targeted over 50 teenage girls and women from the villages.

Outcome of these awareness program:

Survey done in the event:



Outcome of the event

- Successfully educated all attendees on the importance of menstrual hygiene.
- Provided sanitary napkins.

- Assured them of reduced costs for future purchases.
- Encouraged them to prioritize health and hygiene over consuming additive items, fostering a positive shift in their habits.









7.2.3 HOSPITAL INFRASTRUCTURE

Kutch region has more than 22 lakhs of population. To facilitate them, Burn & Intensive Care Unit at GK & GAIMS General Hospital in Bhuj is establishing with an advanced facility, equipped with modern technology and specialized burn care. It will provide financial relief to patients and provide comprehensive care that addresses the physical, emotional and psychological needs of burn patients.

The Burn & Intensive Care Units at GK & GAIMS, Bhuj has:



Impact of the Burn Care & Intensive Care Unit:



7.2.4 COMMUNITY HEALTH – CLEAN WATER FACILITIES

Kutch Region is water scarcity region and having saline coastal area for Mundra & Mandavi taluka, the availability for clean water is less for the live. The main objective of providing the saline water reverse osmoses units at village Tunda is serving clean water for the villagers as more than 10000 peoples are benefiting from the services. This purified water will enhance the quality of life and promoting health in rural areas. This service

is ensuring that students and peoples have continues access to clean drinking water.



The installation of the RO plants has directly improved access to clean water, positively impacting the health and daily lives of the village community and school children.

7.3 LINKAGE WITH SUSTAINABLE DEVELOPMENT GOALS

3 GOOD HEALTH AND WELL-BEING	The healthcare initiative improved community well-being, aligning with the goal by enhancing access to essential health services and promoting healthy lives.
	The healthcare initiative reduced inequalities by providing equitable access to medical services, aligning with overall goal of reducing disparities.

8. SUSTAINABILITY LIVELIHOOD AND WOMEN EMPOWERMENT

This chapter dives into the impact of MPL's comprehensive program on women empowerment and skilling. Further, how this program empowers women, fosters sustainable livelihoods and cultivates environmental awareness within the community. This chapter highlighted MPL's focus on building a better future and emphasizing the program's multifaceted approach.

KEY INTERVENTIONS 8.1





Women Empowerment

Women empowerment is Skill a multifaceted concept initiatives were caried that encompasses а range of activities at building capacity for the improving the economic, local social and cultural status members and help them of women.



out with the aim of community become more employable through enhancement.



Sustainable Infrastructure

development In an era marked by rapid urbanization and climate change, the pursuit of sustainable infrastructure has become imperative. Sustainable skill infrastructure refers to designing, constructing and maintaining systems that meet the needs of the present without compromising the ability

of future generations to

meet their own needs.



Climate Action

Community tree plantation and rural tree plantation activities have been carried out with aim to improve the green surface and carbon sequestration. Tree plantation is a vital activity that contributes significantly to the preservation of our environment. It involves planting trees in a planned to restore. conserve and enhance the natural landscape.

SOCIAL & ENVIRONMENTAL IMPACT

8.2 WOMEN EMPOWERMENT

In coastal communities, women play a vital role in the fishing industry, yet they often face challenges in maintaining hygiene standards while handling fish and lack access to knowledge about fishing business opportunities. To address these issues and empower women from the fishermen community, MPL has conducted an awareness campaign for the fisherman community. The aim for this awareness program is hygiene practices and fishing business education.

Hygiene Awareness

- ✓ Wash hand before & after handling fish.
- ✓ Use gloves to minimize direct contact.
- Store fish properly to maintain freshness.
- Regularly sanitize equipment.

Fishing Business Education

- Market insights: Understand local demand and pricina.
- Financial management: Budgeting and pricing strategies.
- Networking: Connect with industrial peers and experts.





25+ fisher women participated under awareness session.

Further, with vision to empower women through comprehensive education, health initiatives and financial independence, fostering community support and sustainable development, MPL has provided training on menstrual health and hygiene and proper nutrition to 5000+ women.

2 Self Help Groups over 50 women In each group to foster skill development and collective growth.





Financial empowering over 300

marginalized fisherfolk community women.

MPL aim to improve menstrual health among women by promoting the use of sanitary pads, thereby enhancing hygiene, comfort and overall well – being during menstruation.



- To address specific challenges and needs related to menstrual hygiene in the local fisher community.
- Many women in the community currently use cloth due to traditional practices and lack of awareness.
- It is an informative sessions with over 50 women, on the benefits of sanitary pads. They offer better hygiene, reduce the risk of infections and provide greater comfort and protection during menstruation. Sanitary pads also provided to encourage the transition from the cloth.



450 + Sanitary pad distributed

8.3 SUSTAINABLE INFRASTRUCTURE

MPL's vision is to make 16 villages water positive under MPL-CER activities through better percolation of water into the ground increasing water table and water quality.

Action plan is:





Check Dam Restorations:



160+ farmers benefited for agricultural purposes.

1,75,000+ cubic meter water stored.

Enough water resources for nearby villagers.

Percolation well construction:



122+ percolation well been constructed.

/ Wate

Water table level increases.



Salinity of ground Decreases







Rever / Stream Cleaning & Pond Deepening:

E B

363+ Hr of work been done for cleaning of River / stream and pond deepening.

 $\rangle\rangle\rangle$

Free flow of water up to the dam or Pond have been ensured.



21+ percolation well have been cleaned.



Water Storage Capacity increased.

Culvert Constructions:



Construction of Box Culvert for water diversion and desilting of pond.



Benefited 38 hectors of land



105 + farmers benefited.



6800+ Cubic Meter water storage capacity increases.





by

8.4 **CLIMATE ACTION**

The climate crisis is one of the most pressing challenges of this period. To preserve biodiversity, sustainably utilize ecosystems, maintain essential ecological process and local communities through innovative climate action.

8.4.1 TREE PLANTATION

MPL has carried out tree plantation, as the process of planting trees in a targeted area, and considering same is a critical environmental activity that supports biodiversity, combats climate change and promotes the overall health of the ecosystem. This practice has gained significant global attention, as the world grapples with the adverse effects of deforestation, urbanization and environmental degradation.



17610+ trees have been planted at nearby villages to combat climate change and enhance biodiversity.

tree

Further, 70,000+ numbers of cumulative trees have been planted for the period up

to March, 2024. Therefore till date total 87610+ numbers of trees have been planted at nearby villages.



Miyawaki tree plantation & Drip irrigation methods were used.



Survival rate of trees are 95% +



CO₂ Sequestration

2078.640+ tCO2e will Seq. through planted trees.





200+ farmers were assisted in cultivating fruit – bearing trees.



Increasing their income and promoting agriculture.

sustainable







Biodiversity Boost – Birds are resting & roosting at tree plantation area.





Icrease the Organic fertility for the soil. Increase the CO2 Sequestration, so as, clean air.

MPL is dedicated to promoting a sustainable and eco-friendly future. Thus, MPL is creating Eco-clubs in schools that educate students about environmental conservation, promote plastic – free living and inspire sustainable practices for climate action.



70 Schools



11,000+ Students

Impact of the work:

- Establish Eco-Clubs in 70 schools, engaging more than 11,000 students in environmental activities.
- Conducting awareness session at schools by expert lecturers, focusing on plastic pollution and its impact on the environment.
- Introduced plastic recycling initiative, turning waste into useful products like recycled plastic pots and benches.
- Educate students about Reduce, Reuse and Recycle principles.
- Educate students about Mangrove conservation and its important to the coastal area.
- Eco days like Environment Day, Earth Day, Mangrove Day, etc. have been celebrated at the different schools.



8.4.3 MANGROVE CONSERVATION AND AWARNESS

Mangrove are salt tolerant trees and shrubs that thrive in coastal intertidal zones. These remarkable ecosystems are found in Mundra and Mandavi taluka' coastal area at the vicinity of the MPL premises. Mangrove forests are vital not only to the health of coastal environments but also to the communities that depend on them. This part is report represents into the importance of mangrove conservation.



The theme – "Mangroves: Vital Guardian of Coastal Ecosystems" highlighted their role in protecting coastlines, supporting fisheries and sustaining local communities. Bio Diversity expert from the company, Professors from the collages elaborated the importance of mangroves and how they provide myriad of ecological, economical and social benefits. This awareness session also focus on how mangrove serve as critical habitats for a wide array of marine and terrestrial species, including fish, birds and invertebrates. The dense root systems of mangroves stabilize shorelines, preventing erosion and protecting coastal area from the impacts of storms and rising sea levels.

8.4.4 AWARNESS ON "ALTERNATIVE OF SINGLE USE PLASTIC"

Rejecting single use plastics means embracing sustainable alternatives that are kinder to our planet. To create awareness about the harmful effects of single use plastic, MPL has conducted awareness sessions at schools of nearby villages.



Further, to promote Reuse, Recover & Recycling, MPL has initiated use of plastic to make plastic pots and benches.



100 numbers of each Pots and Bench made from recycled plastic waste.

Manufacturing Bench from the recycled plastic have following Eco-benefits:

192 Carbon emissions reduced (KgCO2e)	Circular Eco system complete	18144 KL Fresh water Conserved
2400 Natural resources conserved (kg)	960 Waste plastic recycled (kg)	1440 waste silica recycled (kg)
12 number of people gaining direct livelihood	480 hr of Job created.	25 number of people gainnig indirect livelihood

8.5 LINKAGE WITH SUSTAINABLE DEVELOPMENT GOALS

	MPLs initiative focused on livelihood generation and providing additional support to farmers works towards eliminating poverty.
2 HUNGER	Enhance income generation opportunities provided to the local community and sustainable job creation will enable the local to fulfill basic needs like food and nutrition.

5 EQUALITY	Dedicated efforts through Workshop and promoting women farmers have created more equitable society.
8 DECENT WORK AND ECONOMIC GROWTH	Major interventions were focused on building employability in the local community and creating a sustainable source of income.
10 REDUCED INEQUALITIES	A non – discriminatory approach in beneficiary identification has reduced inequality.
	By integrating IEC based interventions and Eco club drive on awareness and community building will work towards building sustainable society.
13 CLIMATE	A significant effort has been put in promoting natural farming and conservation of local ecosystem through plantation and mangrove conservation.

9. COMMUNITY RURAL INFRASTRUCTURE DEVELOPMENT

The community Rural infrastructure Development program by MPL encompasses a wide array of initiatives aimed at enhancing rural areas. It focuses on water conservation through measures like check dam restoration, de-siltation and bore well recharge structures. Infrastructure support includes sports facilities, renovation of educational and trailing centers and repair works in schools and infrastructure for fishing community across various villages. Additionally, the program addresses essential amenities like water tank (Awada) for domestic animal.

9.1 **KEY INTERVENTION**



Road Repairing / construction work Road construction work а cornerstone of is civilization. modern lt drives economic growth, connectivity, enhances promotes integration and supports collaboration and a sense environmental sustainability.



Common Gathering Infrastructure

heart of any In the thriving community, common gathering infrastructure serves as backbone the that social fosters interaction. of belonaina. These infrastructures are essential for the social fabric. ensurina that people have spaces to meet, share and grow together.



Sustainable Infrastructure By adopting the development of sustainable infrastructure in rural areas, we can address the challenges of climate change, resources depletion and while urbanization promoting more а equitable and resilient future.



Educational Infrastructure Developing educational infrastructure in villages is essential for fostering individual and community development. Despite the challenges. а combination of aovernment support, community involvement, public private _ partnership and innovative solutions can create sustainable educational opportunities for rural populations.

SOCIAL & ENVIRONMENTAL IMPACT

9.2 ROAD REPAIRING / CONSTRUCTION ACTIVITIES.

As roads are the key factor for development through transporting, shifting, movement of materials and other activities, MPL is giving the priority to provide good road for circulating economy as well as smooth functioning of rural development, specially in fisherfolk community.



- Renovation of approach road for vadi vistar area i.e vagadiya at Zarpara.
- Road cleaning work at Mota Kandagra, Bidada, Tragadi,



9.3 COMMON GATHERING INFRASTRUCTURE

Common gathering infrastructure is key point to vibrant the societies and moving towards the consecutive fruitful activities. MPL has constructed paver blocks at common gathering places like Jyoteshwar in Pratappar village, Vachhada dada in Zarpara village, Hanuman Temple in Bhujpar. etc.



9.4 CLEAR WATER FACILITIES FOR HOUSE ANIMAL



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Clean Water facilities provided at Modhava villages having capacity of 10,000 Litr each (2 Tanks) so that house animal can have easy access of clean water.

9.5 SUSTAINABLE INFRASTRUCTURE

construction.

As water is an essential part of live and to fulfill this requirement, MPL has constructed Roof top rainwater harvesting systems, repairing of check dams, cleaning of river / streams and percolation wells at nearby 16 villages from the plant premises.








122+ percolation well been constructed.



Water table level increases.



Salinity of ground Decreases water







Saline water Reverse Osmosis Plant installed at primary school, Tunda with capacity of 50 Ltr/hr. for students to have clean drinking water.



200+ villagers are beneficiated.

9.6 EDUCATIONAL INFRASTRUCTURE

As educational infrastructure is a fundamental component of a thriving education system, MPL has constructed school amenities and facilitated with furniture at school. Further, considering a robust educational infrastructure is crucial for providing quality education, promoting equality and fostering the holistic development of student, MPL has installed the Paver block and constructed pink toilet facilities for the girls at school premises.



9.7 LINKAGE WITH SUSTAINABLE DEVELOPMENT GOALS

2 7000 \$	Increased water availability and quality will boost agricultural production.
6 CLEAN MATTER AND SANITATION	Dedicated efforts for enhancing rainwater storage will improve clean and safe drinking water option for household.
	Improved recharge and harvesting options will make local communities reliant against water stress.
13 CLIMATE	The water conservation initiative significantly increased storage capacity, enhancing climate resilience and promoting sustainable water management.

10. STAKEHOLDERS' APPRECIATION / FEEDBACK

ક્રી મોઢવા પં. પ્રાથમિક શાળા at the Photo in Thight II શ્રી પ્રસ્પરા પ્રાથમિક સુપ કુમાર શાળ NA : Alars, AL ADD-DATE h d · walnieren 1011120-01-201 HERE KP STRIME નમદાન વૈદ્યક્રિય હત water and and the 30.620 our agen + 346 gen Git Misse Patros: A Stiller yes around directed States wa men with wanaang & anu all sizes and young around and amount comment HAR SHE SHE IS ALL A SHE IS A HAR SHE SHE WAR an own we stand i at плині цайн чони йнини йах ыйы яя Dam In. an en-siled and I march. स्वापण्डमां आहेत हे के आहत अहंपत कुमार साहा तथा साहा લેમ.સેમ.સે પરિવાર મુખ રાજ્યો વ્યપ્ત છે. છે તેમજ partition feel and much shally ભવિષ્યમાં પણ આપના મુંદલ વટ્ટા પ્રિયત્સ હાસ અપાસ 010-50, 2014 dos - 5. 2821 dos - 82 and while the same and this fam as 51012 ditre with S. & GRA BAS When down BATHY IS A STARL THE O 240 - 20 dome second ways ou -----

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ા ગાંધમાં આપવાના દેશ પણ ફેન્દ્રીય કાઈ માણવાડા પ્રેલિક પ્લાઈ મેલીક મેલેક પ્રસાળ ડેફ્લર પ્રાપ્ટ પ્રિયંત્રિય કું પ્રતિવર્શ કરે પ્રાણ આપવા છે. ફેર્ક્સ ફેર્ક્સ કેલ્ટ કેલ્ટ કાલ્ટ કરવા છે	ક જ મહાત કુ તેમણ આ દિવસમાં આવે. પણ મહાપના કાલ માળશ આ પણ મહાવા.
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11. NEWS HIGHLIGHTS

દિવસોઇને ખવીત છી હતી. વધી

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માટે કારણભૂત રાક્સવિક ખાસ્ત્રો

અને તેરી દયાઓના ઇરકાય

પેતીનેમપ્રતથશ માપીલ કરી

તની, ગ્રાપ્ત એક્ટો વિસર્ચ એન્દ્ર

દેવલવર્ષન્દ લોસાવાનિત દક્ષણી.

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ભજ 02-05-2024

આગામી સમયને અનુલક્ષીને નર્મદાના નીર પણ સાવચેતી પૂર્વક વાપરવા હાકલ અદાણી ફાઉન્ડેશન દ્વારા છ તાલુકામાં જળસંગ્રહ અભિયાનનો આરંભ

સમગ્ર ગુજરાતમાં ઓછો વરસાદ સાયગ્ર ગુજરાતમાં આંધુલ વરસાદ અને દુકાળ નું સોધી વધુ જોનમ પરાવતા કન્યુ જિલ્લામાં વરસાદી સીઝન ને શક્યારે રાખીને જાયસંસ્ત અભિષાન નો આરંભ કરોયો છે. અદાણી કરટે-પેશન કરોયો છે. અદાણી કરટે-પેશન કરોયો તરવુકાઓમાં જયાસંસ્તા નો સારંભ તારવુકાઓમાં જયાસંસ્તા નો સારં ત્રાં વરસાદી પાણીની પંજ બુંદ નો સંસત કરવા માટેના ભારચક પ્રયાસે તાલ પ્રગાસ તાથ પરાશે .

તાથ પરાશે. છ તાલુકાના એકવીસ ગામોના વોવીસ સ્વયંત્રીએ અભિયાન ને વેગ અવપતાં વેકકેમ્ડતભાવો નું સોયરાન સંવિતની કામપાંથી આયર્પવાસત તેમજ સ્વાનિક આયેલાનોની લોક ભાગીદારી ચી આરંભાઈ છે. હવાયતન ખાતા મુજબ વાર્ષિક સંદેશસ 378.2 મિલી વરસાદ કચ્છમાં થાય છે.ત્યારે સંઈન્ડેશનના સી એસઆર એક પંક્તિબેન સાહે પાણી ને દરિયા

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વાત્સલ્યમ સમાચાર

અને માંછવી ની સરકારી વિજ્ઞાન કોલેજ

ના વિષ્યાર્થિઓ સાથે એક દિવસીય

વર્ક્સોપનું આયોલન કરવામાં આવ્યું. આ વર્ક્સોપનો તેનુ વિદ્યાર્થીઓને

મેનગ્રુવ્સ પ્રયોધરણીયતંત્ર અને સંરક્ષણ

વ્યુતરચનાઓ અંગે માહિતગાર કરવાનું

હતું, વર્કશોય ને સ્વાગત સંબોધન સાથે અદાધિ કાર્ડન્ટેસન ના ગુજરાત

સી.એસ.આર. ના દેડ પંક્તિબેન શાહ

એ સૌને આ વર્કશોપ ની મહત્વતા

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અદાણી જૂથ દ્વારા 'પ્લેનેટ જોઈએ કે પ્લાસ્ટિક' થીમ હેઠળ વિશ્વ પૃથ્વી દિવસની ઉજવણી

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હતા. જેમાં જ ગામમ

માર્દયોકદેખ, નગાળો, પોરવ

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અદાણી ફાઉન્ડેશનની કચ્છના ૨૧ ગામોમાં વરસાદી પાણીના સંગ્રહ માટેની કામગીરી પરજોશમાં

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જળસંચય, વૃક્ષારોપણ અને ગાય આધારિત ખેતી પૃથ્વીનું જતન કરશે anit valida yas gygg

(MARA PARA) imax brid Earth D

format hilled Beers મચેરથી માળશે પૈદીવેલ અને ુવિ વિશાન કેન્દ્ર પ્રારંજીન માને વિશ્વ પુખ્યી દિવસની વિજયમી present learned, lost with reliable હોઈએ કે પશસ્ટિક પ્રીમ અંતર્ગત લેડૂનો સાથે ખાસ પરિસંઘાટ વેજવામાં આવ્યો હતો.આ પ્રસંવે Film film upper tok પહોળી સંખ્યામાં મંદૂત આવેલાનો પણ ઉપશ્ચિત છાઢ હતા. પૃથ્વીને સ્વારણ, સ્વાગ્ય અને ચુંદર હીંગવાથી બનાવવા પંડાબ્ય વીડાવીથી કામ કામ્ય ધીએ ધંકામાંટેલે હતો. riges Registressen warten das

દેખેલ ગામીનાઓ પ્રય ગુનિવે you at which alon ઉપયોગ અને તેના વિસાયદા પર and you arrive it yould તંદ્રકાની હત્વવરી એ આગળ સીની મય છે અને ખેડીપ્રાપ્ય વચીનને શ્વદ્વ ખનવલ માર્ગ્સ in the line of a second second

ભારત, સ્વાકીટ આંગ દરખ્યં અપ્યો છે. કપ્રકર્ય હાસદી અપને પંચાય પંચા લીન સંસ્થાયે વે દેવે કપ્રકલ પુંદર, મંદળે,

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દીવસીય દાઓમાં હસ વિભાગનાં કર ઉત્સન્તી દિવસની કરી, ઉત્સં તેનાકુન ની જાળવાથી અને લેકથા અંદે જણીને હેલા જવાનાં, ઘનાઓ, હાથ, ગાન્જનો

પર પ્રદેશ પ્રાથમિક પ

કના લાગ્યો પાંચ પ્રગાસ અને - ડોકેસ્ટા અંગે પાહિન શર 4 આપ્યા આ પ્લેક્સનો સિંહ ક પૈય વૈક્રિયા, પાકીપાર્ટની

. દેશનાં સ્વય જુવાઈને. વેશ્વન ગીદેવ ભારતથાં ના



કામો પુરજોશમાં ચાલુ છે.ઉપરાંત જળમંદિરો બનાવાના કાર્ય થક દરિયાકાંઠા ના ગામોમાં ખારાશ A19 11.61 કપ્યાકાંઠા ના ગામોમાં ખાશ નું પ્રમાણ પટીને 1200 ટી.દીએ જેટલું નીચું આવ્યું હોવાનું જણા આવ્યું છે તાજેતરમાં નીવ્ર ગતિ ચાલી રહેલી કામબી દીને કારણે 21 ગામોમાં 24 કામો થકી 1,80,000 ધનમીટર પણવીનો સંઘત થશે. જેનાથી અંદાજિત 650 થી વધુ ખેડૂતો તથા 1200 એકરેથી વધારે જમીન ને કાથદો થશે.

> જોવિને પ્રાદિક' ઘેમડેડા Re yel Res Draw

કે રણમાં વહેતું અટકાવી તેનો સંગ્રહ કરવા અનુરોપ કર્યો હતો. અગાઉ ઘર અવેલ્યા વચ્ચાલી

સંચાહ કરવા અનુવીપ કર્યો હતો. આગાઉ પર અંગળેર વસેકાઈ પાણીના સંગ્રહ માટે દસ હજાદ લીટદ ની ક્રમ્પના પદાવતા 75 થી વધુ ભૂગળે દોકાઓનું નિર્માણ કરાયું હતું માંડવી દરિયા તિનાદ દોક્સ્સે પરામાં હાલ દોકાઓનું નિર્માણ થઇ કહ્યું છે.જથાદે સમેત ના વિસ્તાદોમાં જળસંગ્રહના

માથી ધારત પરંત

પ્લાસ્ટિક છોડો ; પ્રાકૃતિક ખેતી અપનાવો

तानवः अप्रवासि वी पंडिंग कर्म इति र केव हरेव पुंडेव फान पूर्वा विदयनी दिवाली जो करी का वर्ष 'पंचेद



પ્રેમથીટી એવે સાત કરી હતી. આ ગામથે પ્રોથમિંગ ચૂક્ય





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અદાણી કાઉન્ડેશન અને મુંદ્રા પેટ્રોકેમિકલ લી - મુન્દ્રા દ્વારા વિશ્વ મેનગ્રૂવ્ય દિવસની ઊજવણી રમેશ મહેવારી - મુન્દ્રા કચ્છ અડાસી લાઇસ ખાતે કચ્છ યુનિવર્સિટી ના અલગ અલગ ડિપાર્ટથેટ

> અદ્યક્ષિ ફાઇન્ડેસન, મુદ્રા પેટ્રોકેમિકથ લી. અને કચ્છ કોપર લી. ના સંયુક્ત ઉપત્રમે બની રહેશ બાયોડાયવર્સિટી નોલેસ એન્ડ ઇન્ટરપ્રિટેશન સેન્ટર નો પરિચય વિડિયો બતાવી આધ્યો. આ સેન્ટર ની મહત્વતા અને તેના પ્રદાન ના વિવિધ પાસાઓ પર ચર્ચા off the efficient of ferrer Done



એવા કો,પીરવ મહેતા (પ્રિન્સિપાલ, ગવર્મેન્ટ સાયન્સ કોલેજમાંડવી) અને કો. માનસી ગોસ્વામી મુખ્ય વકતા રબ્રા, ડો, પૌરવ મહેતા એ મેનસુવ્ય ના અનુકૂલનો તેની વિશેષતાઓ અને

તેના સંવર્ષન અંગેની વિસ્તૃત માહિતી આપીને મેનસૂવ્સ ના મહત્વપૂર્ણ .D.

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KORNE WE AVERAGE CHI.

મામ મામલીકા મેની પુગ્લીના

હેલાલમાં ખૂબ બસવ્યની માત ભાગ્યે છે. સ્વીલભાઈ પાક્ષાણેએ

ગલ આધારિત ખેતી કાલ પુચીનું કલ્પન કલ્પાન ઉપાયંત રાજ્ય રીત

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ગાળાએ દ્વાર વિષયોનું મહત્વ કાર્ય્યત્વા પ્રદાન પૂર્વિત પાંચી વિષય શાળાના અને પાર્ગદાન

ખાવ્યું હતું. ખેશવું જ નહીં, તેથણે પોપાલમ ભાગે તેને ખરીરી હેલા

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પી.ખેતા ખાદ તેક પીતેવર્ગન થતું

કર્યું કે પુખ્યે એક જ આ દાવ્યું કિ

યાર્ટ છે. તેને ખપરથી યત્તન કરવું

એ આગળાં કોની સમય છે. આદળાં

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કાળમાં ખાવે છે. [404 464]

અદાણી ફાઉન્ડેશન અને મુંદ્રા પેટ્રોકેમિકલ લી - મુન્દ્રા

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માન્યો. વધ્વોલમાં લિખા દીખો માટે કિંગ

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દારા વિશ્વ મેનગ્રૂવ્સ દિવસની ઊજેવણી કરવામાં આવી

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દાર્શી વિશ્વ નેવેટ વાંકાર પ્ર ભાગે તમે સ્પૂર્ણ ગાળતાનું, ભાગે તમે સ્પૂર્ણ ગાળતાનું, ભાગે તમે સ્પૂર્ણ ગાળતાનું, સ્પાનન સ્પાપ્ય પ્રેનાસ ને સ્પૂર્ણ સ્પાનન સ્પાપ્ય પ્રેનાસ ને સ્પૂર્ણ સ્પાનન સ્પાપ્ય પ્રેનાસ ને સ્પૂર્ણ સ્પાનન સ્પાપ્ય સ્પૂર્ણ ગાળતાનું ને પ્રયત્ને સ્પાર્થ સ્પૂર્ણ પ્રેના, અંગે સ્પાર્ટ સ્પુર્ણની અને સ્પાતન સ્પાપ્ય સ્પાર્થ સ્પાર્થ સ્પાર્થ સ્પાપ્ય સ્પાર્થ સ્પાર્થ સ્પાપ્ય સ્પાપ્ય સ્પાપ્ય સ્પાપ્ય સ્પાપ્ય સ્પાપ્ય સ્પાપ્ય સ્પાર્થ સ્પાપ્ય સ્પાય સ્પાપ્ય સ્પાય સ્પાપ્ય સ્પાય સ્પાપ્ય સ્પાય સ્પાય સ્પાપ્ય સ્પાપ્ય સ્પાપ્ય સ્પાય સ્પાય સ્પાય સ્પાય સ્પાપ્ય સ્પાપ્ય સ્પાપ્ય સ્પાય સ્પા જેમ કેલું છે પશ્ચિત કરત કરતે તેવે છે. આવગામાં આ સાથે અદાવિધ દાંગે તેમના, દુર દેવું પ્રેમિયલ છે. અને કાળ કોયર છે. તેમ કે પ્રકાર ઉપકાર અને કોયર વાર્ગ્ય સ્થાપ્ય અને કેટી બેટલ એન્ટ્ર કેલ્ટ દિવસ કોયર છે પ્રેટેલ્ટ

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અદાણી ફાઉ.મુંદ્રાની ભૂમિને લીલીછમ બનાવવા કૃતસંકલ્પ નવા ૧૨,૦૦૦ વૃક્ષોનું વાવેતર, વૃક્ષમિત્રોને રૂા.૧૦,૦૦૦ નો ચેક અર્પણ

ઉત્સાહ દાખવ્યો હતો. કાર્યક્રમના મુખ્ય અતિથી અને ધારાસભ્ય અનિરુદ્ધભાઈ દવેએ અદાણી ફાઉન્ડેશનની સફળ કામગીરીને બિરદાવી સૌને શુભે ચછાઓ પાઠવી હતી. ઉલ્લેખનીય છે કે, મુંદ્રા પેટ્રોકેમ લીમીટેડના સહયોગથી નાની ખાખર ખાતે ૧૦,૦૦૦ વૃક્ષો રોપવામાં આવ્યા હતા. આ પ્રવૃતિ "એક વૃક્ષ માં કે નામ" અંતર્ગત કરવામાં આવી હતી.

લીલોછમ બનાવવા અદાણી કાઉન્ડેશને બીડું ઝડપ્યું છે. 'અદાશી વન'ના ખાતમુહર્ત સાથેતેમાં ડ્રીપ ઇરીગેશનની વ્યવસ્થા પણ કરવામાં આવી છે. ત્રણ વર્ષમાં શુષ્ક વિસ્તારમાં વુશ્તોની માવજત કરીહરિયાળી પાથરવા એડીચોટીનું જોર લગાવવામાં આવશે. આ ભગીરથ કાર્યમાંસહભાગી બની તેને સફળ બનાવવા સરપંચ સહિત સર્વ ગામ લોકોએ ભારે



અદાસી માર્કેન્દેશન અને મુદર

ે આવ્યું હતું. આપવા અને ભારતમાં ગુનેકા દેશમાં પર બાંકાન તેને સાથે વેસ્કાર કેપ્સ ભારત તેને સાથે વેસ્કાર કેપ્સ ભારત તેને સાથે વેસ્કાર કેપ્સ ભારત અને અને આપવા અને અને તેને આપવા અને અને તેને પ્રા સાથે બાંકા અને અને તેને આપવા અને અને તેને પ્રા સાથે બાંકા અને અને તેને સાથે બાંકા અને અને સાથે તેને સાથે બાંકા અને અને સાથે તેને સાથે બાંકા અને અને સાથે તેને સાથે બાંકા અને સાથે તેને સાથે તેને સાથે તેને સાથે બાંકા અને સાથે તેને સાથતો તેને સાથે તેને સાથે તેને સાથે તેને સાથે તેને સાથે તેને સાથતો તેને સાથતો તેને સાથે તેને સાથે તેને સાથતો તેને સાથતો તેને સાથતો તેને

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યેટ કેમિકલ લિ. દારા વિન્ય નકુલ દિવસની ઉપવર્તી રેન્દ્રપ્રદાર અનુકુલ્લ, તેની દેવેપાલને અને તેના સ્ટર્ગન ્યા તેવા કરવે. તેવા કરવેલા કરવેલા ત્યુઅન પ્રકાર વધા કરવે છે. તેવામાં દ્વસા વિચાર દ્વસા

અનિરૂદ્ધભાઈ દવેનાવરદહસ્તે કરવામાં આવ્યા હતા. મંદરા ની આસપાસના ખાતમુહૂર્ત બાદવૂ શમિત્રો ને ?.૧૦,૦૦૦ના ચેક અર્પણ વિસ્તારમાં હરિયાળી ફેલાવી

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મુંદરામાં ચેર વાવેતર જાગૃતિ માટે કાર્યક્રમો

ખ હતા આગોવિત અનેકસ્તાં તેનાકુતા નગીરી તેનાર સતી દેવાય છે

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અદાણી ફાઉન્ડેશનના પ્રચાસોથી

જળાશચો છલોછલ, લોકોમાં ખુશી

તળાવો ઉંડા કરવાથી ૧૫૦ એકર ૧મીનને વિચતનો લાભ તેમજ રોકડિયા પાકો લેતા ખેડતોની

અદાણી ફાઉન્ડેશનપર્યાવરણ જતનના સહિતના સમાજો પયોગી કાર્યોમાં સતત અગ્રેસર છે. મુંદરા નજીકના પીપરી અને નાની ખાખર ગામે 'અદાણી વન'નું ખાતમુહર્ત કરવામાં આવ્યું હતું. જેમાં વૃક્ષારો પણ થકી પર્યાવરણ સંરક્ષણ ક્ષેત્રે અભૂતપૂર્વ યોગદાન આપતા ૧૨૦૦૦ વક્ષોનું વાવેતર કરી 'અદાણીવન' ઉભુ કરવામાં આવશે. ધારાસભ્ય

અદાણી ફાઉન્ડેશનના પ્રયાસોથી જળાશયો છલોછલ, જનતા ખુશખુશાલ અદાણી પરિવાર સાથે ભળી ગામલોકોએ જળાશયોમાં નવા નીરને વધાવ્યા



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પીપરી–નાની ખાખર ગામે 'અદાણીવનનું' ખાતમુદ્ધતે કરાશું

નવા ૧૨,૦૦૦ વૃક્ષોનું વાવેતરઃ વૃક્ષમિત્રોને ચેક અર્પણ

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પ્રય ધરાઈ, ઓગન રીપેરીય તથા માત્ર મુખાલાની કામથીની પાસાદ લેલ જ જુદાં કરવામાં ખાવી છે. હોયોયાય ગામમાં અંદણી

દિવેના સંઘીપરયના પ્લાન ઠેડ feite fete, filogild is entire પ્રતિન સરપંચ હતા ઇન્સર્ટાલયાર્ક યળદાયોમાં તથા નીંકને વચાવવામાં 10111-011

man is in a second ાભગીવીની ૧૧૯એકર પ્રચીનને વિચારનો પાસ મથકો, તત્વારે વેડદિવા પાકો લેના ખેડૂતોની ૩૦૦ મેકર ચેટલી કપ્સીન અને મળ કલ્લાથી પધુ પશુઓને પીચ માટે પછી મળશે.

વરપારી હળાને દરિયામાં વહી હનું અદાવી આગી કાઉન્ડેસન હવા લોડાગાવીડારીથી સ્કૂલ્ય કરવાલે હત્ય માન્યમાં ખાવી સંદર છે.



ખમાવવા, તા. ૪ દોટામાં ધળવાંકલ ખને તથા રૂપ્ય સહિત અકલીઓના હગત

איייטל-לוב לוינדאו אידי שבו אוייי છે. યેખાં ખોલવેલ વિચાર્ય, ભૂચમાં વ્હીખેલાખાય ઠેક પંડિતખેન શાહ

બગાવ્યાપન લેવે પ્રમોશનીય કામગીવી. તાપાયે અને હપાલપોની માથે લોકોનો આનંદ પણ ઉદાવ્ય મારી રહ્યે છે. માંડથી તાલુકાના બીદદા તેમજ છપટાઈ રહ્ય છે. જળાયંટલ માટેના ગુંદાનાલુકાના મોટી ખાખર ગાવે ઉત્તમ અવસારને હોઈ અદાવી જવાસેસવાસો અદાવી કાર્ડન્ટાનની કાઈન્ડેટલે પહેલેરી જ આપક કામથીરી. ઉપરા કામગીરીને પંચાયમાં આટલી પરિયરને નવાજવામાં આવ્યું હતું. યેલાં એલીએસઇએડના એસિસ્કુટીય

ધંગમાં, પગ ગંગપંત અને પગ કરી રહ્યું છે. પણ વર્ષે વેપરાબની અતરાપર પરિવર્ષ કચ્છાય ખાંભી છે. મુંદર મંડવી ખબગલા લખપત, સપર, ખંઘર અને ભૂજ તાલુકાના સદયી વધુ ગાયેલાં હતા. તેમભાની દાખરીતી કરવામાં આવી

આટણી ફાઈન્ડેસન જય. ખનાવ્યાના કાયે સવેય છે.

ક્લાઇમ્સ સારો પરસાદ થયાં

'જય હે તો કાર હે' આંતરાંત

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Annexure – IV Tree Plantation Activities

Tree plantation is about fostering a sense of responsibility toward the surrounding environment. MPL has carried out tree plantation, as the process of planting trees in a targeted area and considering the same is a critical environmental activity that supports biodiversity, combats climate change and promotes the overall health of the ecosystem. This practice has gained significant consideration, as some grapples with the adverse effects of deforestation, urbanization and environmental degradation.



Tree plantation have been done with more than 7310+ trees (Native Species) at Nani Khakhar. The same plantation is being maintained by the expert.



Tree Plantation done at Borana with 10000+ native species. Further, tree plantation having 300 numbers of native species have been done at Road side from Tunda to Bhadia which are being maintain by M/s Sadbhavna Manavseva Trust and experts

Total 17610+ trees have been planted at nearby villages to combat climate change and enhance biodiversity. Further, 70,000+ numbers of cumulative trees have been planted for the period up to March, 2024. Therefore, till date total 87610+ numbers of trees have been planted at nearby villages.



Miyawaki tree plantation & Drip irrigation methods were used.



M/s Manvseva Charitable Trust, M/s Yash Green are the Expert to maintain the trees to get survival rate more than 95%.



Survival rate of trees are 95% +



/+ acre land were used for tree plantation



2078.640+ tCO2e will Seq.







200+ farmers were assisted in cultivating fruit – bearing trees.



Increasing their income and promoting sustainable agriculture.







Biodiversity Boost – Birds are resting & roosting at tree plantation area.



Icrease the **Organic fertility** for the soil.



Increase the CO2 Sequestration, so as, clean air.

Tree Plantation Details

Sr.	Details of Expert	Name of Species	Number of Species	Survival rate
No.	Agency			501414011000
1		Ficus Virens	08	
2		Millettia Pinnata	20	
3		Arborvitae	15	
4		Azadırachta indica	49	
5		Ficus religiosa	41	
0	M/s Manavseva		34	
8	Charitable Trust	Samanea saman	11	10.00
9	(Planting + 2 year	Tamarindus indica (Khati Ambali)	27	100%
10	maintenance)	Tamarindus Indica. (Mithi Ambali)	22	
11		Terminalia arjuna	23	
12		Syzygium Cumini	20	
13		Syzygium cumini (Jamun – Big Fruite)	10	
14		Syzygiium samarangense	1715	
15		Prunas amygdalus	183	
16		pithecellobium dulce	1418	
17		Senna Siamea	800	
18		Cascabela thevetia	200	
19		Cassia fistula	1635	
20		Cusuarina Equisetifolia	435	
21		Moringa olieifera	655	
22		Azadirachta indica	1555	
23		Delonix regia	250	
24		Tamarinda	1455	
25	M/s Yash Green	Date palm	550	
26		Croton (plants)	50	
27	(Planting + 2 year	Carissa carandas	30	100%
28	maintenance)	Ceiba pentandra	1304	
29		Albizia labbeck	250	
30		Morus (plant)	400	
31		Cedrus deodara	152	
32		Ficus religiosa	792	
33		Pentaclethra macroloba	125	
34		vechellia nilotica	115	
35		Gurva	535	
36		Samanea saman	95	
37		Seilver (disambiguation)	80	
38		Coconut tree(cocos nucifera)	4	
39		Banyan	6	
40		Ficus racemosa	57	
41		Woshingtonia robusta	2	
42		Betula Pendula	1170	

Sr. No.	Details of Expert Agency	Name of Species	Number of Species	Survival rate
43	•	Bauhinia	500	
44		Tecoma stans	100	
45		Prosopis cinararia	330	
46		banmboo	55	
47		Exora Coccinea	70	
48		Hibiscus	10	
49		Jasminum sambac	10	
50		Euphorbia ingens	20	10.00
51	1 M/s Yash Green	Bodhi Tree	100	100%
52	(Planting + 2 year	Aegle marmelos	5	
53	maintenance)	Mimusops elengi	5	
54		Manilkara zapota	5	
55		Lemon	9	
56		Cymbopogon	5	
57		Curry tree	5	
58		Thespesia populnea	13	
59		Bougainvillea	50	
		Total	17610	



Annexure – V Awareness Program on "Ban on Single Use Plastic"



Awareness program on "Ban on Single use plastic" has been conducted at Government Schools and Self Help Groups of nearby villages as per The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022.

Awareness Program has covers CPCB Notifications, prohibited plastic items, complications created by plastic waste, awareness on plastic waste, plastic recycling numbers and its meaning.

The central aim of the plastic – free drive is to empower and enlighten students as key representatives of change, enabling them to disseminate awareness and instill the practice of reducing single use plastic within their community.

- 1. <u>Educate:</u> Spread awareness about the harmful effects of plastic on the environment, marine life, soil health and human well being.
- 2. <u>Engage:</u> Mobilize community members, especially the youth and family members to actively participate in plastic waste reduction activities.
- 3. <u>Implement:</u> Introduce sustainable alternatives to ensure proper disposal and recycling.



Green School: Eco club for enlarging awareness on environment, sustainability, wild life conservations, mangrove conservation, alternative of single use of plastics etc. have been established and under these 70 numbers of school from nearby villages, Mandavi and Mundra town area have been covered and more than 11,000 students are participated in above said various awareness activities.

In line with this, "No Plastic Drive" – alternative of Single use plastic, in Utthan Schools has encouragingly motivated students behavior. Under this, Eco Clubs were established to further raise climate change awareness and promote a plastic free environment.





72 Utthan Sahayak teachers have been trained by Expert on Reduced, Reuse and Recycle – "No to single use plastic".



780+ students attended Awareness sessions.







Cloth Bag distributions done for participant.



Further, Beach cleaning work have been organized at Kashivishvnath Beach, Mandvi. Over there,





 $1000\ mtr$ Beach cleaning work done, specially single used plastic cleared



Coastal Clean and Awarness

Reduced, Reuse of single use plastic bottle.





Further, to promote Reuse, Recover & Recycling, MPL has initiated use of plastic to make plastic pots and benches.



100 numbers of each Pots and Bench made from recycled plastic waste.

Manufacturing Bench from the recycled plastic have following Eco-benefits:

192 Carbon emissions reduced (KgCO2e)	Circular Eco system complete	18144 KL Fresh water Conserved
2400 Natural resources conserved (kg)	960 Waste plastic recycled (kg)	1440 waste silica recycled (kg)
12 number of people gaining direct livelihood	480 hr of Job created.	25 number of people gainnig indirect livelihood

Ref: AEL/MPL/ENV/EC/2022 -September/01

Date: 02/09/2022

To, Ms. Praveena D.K. (IAS), Collector & DM, Collector Office, Jilla Seva Sadan, Bhuj – Kachchh, 370 001

Subject: Environment Clearance (EC) for proposed Project "VCM-2002 KTPA, PVC-2000 KTPA, Ethylene Glycol- 400 KTPA near village Vandh & Tunda, Taluka Mundra, District Kachchh, Gujarat by M/s Adani Enterprises Ltd.

Reference: EC Identification No. - EC22A020GJ133762, File No. - IA-J-11011/149/2021-IA-II(I) dated 31/08/2022

Respected Ma'am,

With reference to above subject, this is to inform that Ministry of Environment, Forest and Climate Change has granted Environment Clearance for our project "Industry-II activity i.e. VCM-2002 KTPA, PVC-2000 KTPA, Ethylene Glycol- 400 KTPA (as a part of Proposed Coal to Poly-Vinyl Chloride (PVC) Project of AEL in land notified as Industrial area of APSEZ, Ta-Mundra, Dist-Kachchh, Gujarat, comprising of IND-I projects i.e. Semi Coke-2030 KTPA, Cement-6 MTPA; Clinker-4 MTPA, IND-II projects i.e. VCM- 2002 KTPA, PVC-2000 KTPA, Ethylene Glycol- 400 KTPA and IND-III projects i.e. Acetylene-860 KTPA & Caustic Soda-1310 KTPA) and Calcium Carbide-2900 KTPA (Not Specified in EIA Notification)) by M/s Adani Enterprises Ltd." vide EC Identification No. -EC22A020GJ133762, File No. - IA-J-11011/149/2021-IA-II(I) dated 31/08/2022.

As required under general condition No. **B** - (vi) of EC, we are submitting herewith copy of Environment Clearance for the said project for your reference, please.

Thanking You.

Yours Faithfully,

Authorized Signatory for Adani Enterprises Ltd.

include

Praveen Anant (Environment - Head)

Encl: As Above

Adani Enterprises Ltd "Adani Corporate House", Shantigram, Near Vaishno Devi Circle, S. G. Highway, Khodiyar Ahmedabad 382 421 Gujarat, India CIN: L51100GJ1993PLC019067

Tel. + 91 79 2656 5555 Fax + 91 79 2555 5500 info@adani.com www.adani.com

Registered Office: "Adani Corporate House", Shantigram, Near Vaishno Devi Circle, S. G. Highway, Khodiyar, Ahmedabad - 382421

Page1 of 2

Copy to:

- The District Development Officer. Jilla Pachayat, Opposite Surmandir Multiplex.
 Bhuj – Kachchh, 370 001
- The Taluka Development Officer, Taluka Panchayat, Mundra Ta: Mundra Dist: Kachchh, 370 421
- The General Manager, District Industries Center, Near New Green Hospital, Bhuj – Kachchh, 370 001
- 4). The Regional Officer,

Gujarat Pollution Control Board (Kachchň East), Room no.215,216 & 217, 2nd Floor, Administration Office Building, Deendayal Port Trust, Sector – OB, Gandhidham – Kachchh, 370 201

Adani Enterprises Ltd "Adani Corporate House". Shantigram, Near Vaishno Devi Circle, S. G. Highway, Khodiyar Ahmedabad 382 421 Gujarat, India Cirk: L51100GJ1993PLC019067 Tel. + 91 79 2656 5555 Fax + 91 79 2555 5500 info@adani.com www.adani.com

Registered Office: "Adahi Corporate House", Shantigram, Near Valshno Devi Circle, S. G. Highway, Khodiyar, Ahmedabad - 382421

Date: 02/09/2022

adani

Ref: AEL/MPL/ENV/EC/2022 -September/03

To,

The Sarpanch, Shri / Talati Cum Mantri, Shri Gram Panchayat, Village: ______

Ta: ______, Dist: Kachchh (List Attached)

Subject: Environment Clearance (EC) for proposed Project *VCM-2002 KTPA, PVC-2000 KTPA, Ethylene Glycol- 400 KTPA near village Vandh & Tunda, Taluka Mundra, District Kachchh, Gujarat by M/s Adani Enterprises Ltd.

Reference: EC Identification No. - EC22A020GJ133762, File No. - IA-J-11011/149/2021-IA-II(I) dated 31/08/2022

Respected Sir / Ma'am.

With reference to above subject, this is to inform that Ministry of Environment, Forest and Climate Change has granted Environment Clearance for our project "Industry-II activity i.e. VCM-2002 KTPA, PVC-2000 KTPA, Ethylene Glycol- 400 KTPA (as a part of Proposed Coal to Poly-Vinyl Chloride (PVC) Project of AEL in land notified as Industrial area of APSEZ, Ta.-Mundra, Dist-Kachchh, Gujarat, comprising of IND-I projects i.e. Semi Coke-2030 KTPA, Cement-6 MTPA; Clinker-4 MTPA, IND-II projects i.e. VCM- 2002 KTPA, PVC-2000 KTPA, Ethylene Glycol- 400 KTPA and IND-III projects i.e. Acetylene-860 KTPA & Caustic Soda-1310 KTPA) and Calcium Carbide-2900 KTPA (Not Specified in EIA Notification)) by M/s Adani Enterprises Ltd." vide EC Identification No. - EC22A020GJ133762, File No. - IA-J-11011/149/2021-IA-II(I) dated 31/08/2022.

As required under general condition No. B - (vi) of EC, we are submitting herewith copy of Environment Clearance for the said project for your reference, please.

Thanking You. Yours Faithfully,

Authorized Signatory for Adani Enterprises Ltd.

UMERT

Praveen Anant (Environment - Head)

Encl: As Above Copy to:

 The Taluka Development Officer, Taluka Panchayat, Mundra Ta: Mundra Dist: Kachchh, 370 421 77 Niuhmo Ind-1,73

Lorh

RG204034787TH IVR:827120403478 RL MANEKEAG SO (300015) Under Proc Counter Mos1,20/10/2022,13527 To:THE TALUKA "DEBVLOPMENT OFFI PIM:370421, Mandra SD From:ADMM1 ENTER,LTD ADAM HOUSE 4tr190gas Amt:70.00(Cash) (Track on www.indiapost.gov.in) (Dial 18002666968) (Near Marks, Stay Safe) Ant.121.000

@ial 18002666860 (Hear Masknar Sticy Serie)

Room no.215,216 & 217. 2nd Floor, Administration Office Building, Deendayal Port Trust, Sector – 08, Gandhidham – Kachchh, 370 201

Pagel of 2

Adani Enterprises Ltd "Adani Corporate House", Shantigram, Near Vaishno Devi Circle, S. G. Highway, Khodiyar Ahmedobad 382 421 Gujarat, India CIN: L511006J1993PLC019067 Tel. + 91 79 2656 5555 Fax + 91 79 2555 5500 Info@edani.com www.adani.com

Registered Office: "Adani Corporate House", Shantigram, Near Vaishno Devi Circle, S. G. Highway, Khodiyar, Ahmedabad - 382421

2)



Ref: AEL/MPL/ENV/EC/2022 -September/06/01

Date: 02/09/2022

To, Shri Naran Gadhavi, President - Kheti Vikas Seva Trust, Village: Zarpara, Taluka: Mundra, Dist-Kutch- 370 405

Subject: Environment Clearance (EC) (for Industrial activities pertain to Industry – 2 & 3) of proposed Project "Coal to Poly-Vinyl Chloride (PVC) Project in land notified as Industrial area of APSEZ near village Vandh & Tunda, Taluka Mundra, District Kachchh, Gujarat by M/s Adani Enterprises Ltd". – reg.

Reference: 1. EC Identification No. - EC22A020GJ133762, File No. - IA-J-11011/149/2021-IA-II(I) dated 31/08/2022

2. EC Identification No. - EC22A013GJ127411, File No. - IA-J-11011/149/2021-IA-II(I) dated 31/08/2022

Respected Sir,

With reference to above subject, this is to inform that Ministry of Environment, Forest and Climate Change has granted Environmental Clearance for following Industrial activities pertain to Industry – 2 & 3 of proposed Project "Coal to Poly-Vinyl Chloride (PVC) Project in land notified as Industrial area of APSEZ near village Vandh & Tunda, Taluka Mundra, District Kachchh, Gujarat by M/s Adani Enterprises Ltd".

Sr. no.	Type of Activities	Name of Activities	Details of Environmental Clearance	Enclosed as
1	Industry	VCM- 2002 KTPA,	EC Identification No	Annexure
	- 2	PVC-2000 KTPA,	EC22A020GJ133762, File No IA-J-	- 1
		Ethylene Glycol- 400	11011/149/2021-IA-II(I) dated 31/08/2022	
		КТРА		
2	Industry	Acetylene-860 KTPA	EC Identification No	Annexure
	- 3	& Caustic Soda-1310	EC22A013GJ127411, File No IA-J-	– II
		KTPA)	11011/149/2021-IA-II(I) dated 31/08/2022	

Accordingly, in compliance of general condition no. B(VI) & B(VII) of above refer letter sr. no. 1 & 2 respectively, we are enclosing herewith copies of Environmental Clearances for your reference, please.

Thanking You. Yours Faithfully,

Authorized Signatory for Adani Enterprises Ltd.

meen

Praveen Anant (Environment - Head)

Encl: As Above

Adani Enterprises Ltd "Adani Corporate House", Shantigram, Near Vaishno Devi Circle, S. G. Highway, Khodiyar Ahmedabad 382 421 Gujarat, India CIN: L51100GJ1993PLC019067 Tel. + 91 79 2656 5555 Fax + 91 79 2555 5500 info@adani.com www.adani.com

Registered Office: "Adani Corporate House", Shantigram, Near Vaishno Devi Circle, S. G. Highway, Khodiyar, Ahmedabad - 382421

Annexure - VII

From:	Vinay Kumar Singh
To:	<u>kut-uh-gpcb@gujarat.gov.in</u>
Cc:	ms-gpcb@gujarat.gov.in; ro-gpcb-kute@gujarat.gov.in; iro.gandhingr-mefcc@gov.in
Subject:	Environment Statement (Form – V) for the year 2023 – 2024 for the Project "Poly-vinyl Chloride (PVC)" near Village Vandh & Tunda, Taluka Mundra, District Kachchh, Gujarat by M/s Mundra Petrochem Limited – Reg.
Date:	Saturday, May 18, 2024 1:15:00 PM
Attachments:	<u>0B. Form V 2023-2024.pdf</u>

Ref: MPL/ENV/GPCB – Form – V/2024 – May/02

Date: 18/05/2024

PCB ID:86184

To, The Unit Head, (Kutch District) Gujarat Pollution Control Board, Paryavaran Bhavan, Sector-10A, Gandhinagar – 382 010 E-mail : <u>kut-uh-gpcb@gujarat.gov.in</u>

- Subject: Environment Statement (Form V) for the year 2023 2024 for the Project "Poly-vinyl Chloride (PVC)" near Village Vandh & Tunda, Taluka Mundra, District Kachchh, Gujarat by M/s Mundra Petrochem Limited – Reg.
- Reference : 1) CTE no. 59301 granted by GPCB vide letter no. GPCB/(PCB ID: 86184)/ 16246 dated 13/12/2022.
 - 2) Amended CTE letter no. PC/CCA-KUTCH-2104/GPCB ID 86184/738939 Dated 12/04/2023.
 - 3) MPL/ENV/GPCB Form V/2024 June/01 Dated 29/06/2023.

Respected Sir,

With reference to the Consent to Establish issued by GPCB vide above refer letter dated 13/12/2022, amended vide letter dated 12/04/2023 for the project "Poly-vinyl Chloride (PVC)" near Village Vandh & Tunda, Taluka Mundra, District Kachchh, Gujarat by M/s Mundra Petrochem Limited.

Presently, the PVC project is under final design & detail engineering stage, however, soil sampling & stabilization, boundary fencing, earth preparation & piling for foundation/pre-construction activities are in progress at site. The soft copy of the Environment Statement (Form – V) for the year 2023 – 2024 is enclosed for your ready reference & record please.

We hope you will find the above in order.

Thanking you,

Vinay Kumar Singh

Head – Environment & Sustainability

Encl: As Above



Annexure - VIII

adani

Ref: AEL/MPL/ENV/EC/2022 - September/05

Date: 06/09/2022

OIC

To.

Shri Shrawan Kumar Verma, IFS (Addl. Charge) Deputy Director General of Forests (C) Integrated Regional Office, Gandhinagar,

Sector-10A, Gandhinagar – 382010

एकीकृत क्षेत्रीय कार्यालय, गाँधीनगर Integrated Regional Office, Gang पदावरण, वन एवं जलबायु परिवर्तन मंत्रालय. Ministry of Environment, Porest & Chinate Change Ministry of Environment, Forest and Climate Change, Govt of India / WIRK INTER क्रम ज, 407 व 409 ए विंग आत्म्य भटन A-Wing-407 & 409, Aranya Bhawan, Near CH-3 Circle. Room No.407 & 409, A wing Aranya Bhavan गौधीनगर (गुजरास) / Gandhinagar(Gujarat)

Subject: Environment Clearance (EC) for proposed Project "VCM-2002 KTPA. PVC-2000 KTPA, Ethylene Glycol- 400 KTPA near village Vandh & Tunda, Taluka Mundra, District Kachchh, Gujarat by M/s Adani Enterprises Ltd.

Reference: EC Identification No. - EC22A020GJ133762, File No. - IA-J-11011/149/2021-IA II(I) dated 31/08/202

Respected Sir,

With reference to above subject, this is to inform that Ministry of Environment Forest and Climate Change has granted Environment Clearance for our project "Industry-II activity i.e. VCM-2002 KTPA, PVC-2000 KTPA, Ethylene Glycol- 400 KTPA (as a part of Proposed Coal to Poly-Vinyl Chloride (PVC) Project of AEL in land notified as Industrial area of APSEZ, Ta-Mundra, Dist-Kachchh, Gujarat, comprising of IND-I projects i.e. Semi Coke- 2030 KTPA, Cement-6 MTPA; Clinker-4 MTPA, IND-II projects i.e. VCM- 2002 KTPA, PVC- 2000 KTPA, Ethylene Glycol- 400 KTPA and IND-III projects i.e. Acetylene-860 KTPA & Caustic Soda-1310 KTPA) and Calcium Carbide-2900 KTPA (Not Specified in EIA Notification)) by M/s Adani Enterprises Ltd." vide EC Identification No. - EC22A020GJ133762, File No. - IA-J-11011/149/2021-IA-II(I) dated 31/08/2022. Copy enclosed as Annexure - A.

Accordingly, in compliance of EC condition No. B(ix), we are submitting herewith copies of following News papers (Annexure - B) stating "the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB (GPCB) and may also be seen at Website of the Ministry at https://parivesh.nic.in/ as well as on Company website at https://adanienterprises.com/-

/media/e1f0a2365908404bbf62e8c4d4b83969.ashx* for your reference, please.

age1 of

Adani Enterprises Ltd "Adani Corporate House", Shantigram, Near Vaishno Devi Circle, S. G. Highway, Khodiyar Ahmedabad 382 421 Gularat, India CIN: L51100GJ1993PLC019067

Tel. + 91 79 2656 5555 Fax + 9179 2555 5500 info@adani.com www.adani.com

Registered Office: "Adani Corporate House", Shantigram, Near Valshna Devi Circle, S. O. Highway, Khodiyar, Ahmedabad - 382421

Sr. no.	Name of News Paper	Language	Date of Publication
1	Kutch Mitra	Gujarati	05/09/2022
2	Gujarat Samachar	Gujarati	05/09/2022
3	The Times of India	English	05/09/2022

Thanking You. Yours Faithfully,

Authorized Signatory for Adani Enterprises Ltd,

hrower

Praveen Anant (Environment - Head)

Encl: As Above

Copy to:

 The Member Secretory, Gujarat Pollution Control Board, Paryavaran Bhavan, Sector – 10 A, Gandhinagar 382 010

2). The Regional Officer,

Gujarat Pollution Control Board (Kuchchh East), Room no.215,216 & 217, Second floor, Administration Office Building, Gandhidham – Kuchchh, 370 201

Adani Enterprises Ltd "Adani Corporate House", Shantigram, Near Vaishno Devi Circle, S. G. Highway, Khodiyar Ahmedabad 382 421 Gujarat, India CIN: L51100GJ1993PLC019067 Tel. + 91 79 2656 5555 Fax + 91 79 2555 5500 info@adani.com www.adani.com

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ભુજ - સોમવાર, તા.૦૫-૦૯-૨૦૨૨ કર્ટછ અદાણી એન્ટરપ્રાઇઝીસ લિમિટેક શાંતિગ્રામ, એસ. જી. હાઈવે, અંમદાવાદ - ૩૮૨૪૨૧. (ગુજરાત) જાહેર નોટિસ મેં. અદાશી એન્ટરપ્રાઇઝીસ લિમિટેડ, APSEZ ઔદ્યોગિક વમીન, વાંટ & ટૂંડા ગામ નજીક, તાઃ મુન્દ્રા, જીઃ કચ્છ, ગુજરાત ખાતે પ્રસ્તાવિત "ઇન્ડસ્ટ્રી - ૨ એક્ટીવીટી જેવીકે વી.સી.એમ - ૨૦૦૨ કે.ટી.પી.એ., પી.વી.સી. - ૨૦૦૦ કે.ટી.પી.એ., ઈથીલીન ગ્લાચકોલ - ૪૦૦ કે.ટી.પી.એ. (જે સૂચિત કોલ ટુ પોલી-વિનાચલ (પી.વી.સી.) પ્રોજેક્ટ ના ભાગ રૂપે મેં. અદાણી એન્ટરમાઇઝીસ લિમિટેડ હારા પ્રસ્તાવિત, APSEZ ઔદ્યોગિક જમીન, વાંટ 8 ટૂંડા ગામ નજીક, તાઃ મુન્દ્રા, જીઃ કચ્છ, ગુજરાત, જેમાં ઇન્ડસ્ટ્રી - ૧ પ્રોજેક્ટ - રોમી કોક - ૨૦૩૦ કે.ટી.પી.એ.; રિંમેન્ટ - દ્ એમ.ટી.પી.એમ; ક્લિનકર - ૪ એમ.ટી.પી.એમ; ઇન્ડસ્ટ્રી - ૨ પ્રોજેક્ટ - વી.સી.એમ - ૨૦૦૨ કે.ટી.પી.એ., પી.વી.સી. - ૨૦૦૦ કે.ટી.પી.એ., ઇથીલીન ગ્લાચકોલ - ૪૦૦ કે.ટી.પી.એ, અને ઇન્ડસ્ટ્રી - 3 પ્રોજેક્ટ - એસિટિલિન - ૮૬૦ કે.ટી.પી.એ. અને કોસ્ટિક સોડા - 9390 કે.ટી.પી.એ અને કેલ્શિયમ કાર્બાઇડ - ૨૯૦૦ કે.ટી.પી.એ. (EIA નોટિફિકેશન માં દર્શાવેલ નથી) ના ભાગ રૂપે સમાવેશ થાય છે.)" માટે ની પર્યાવરણીય મંજૂરી મિનિસ્ટ્રી ઓફ એન્વિરોમેન્ટ, ફોરેસ્ટ અને કલાઇમેટ રોજ્ય, નવી દિલ્લી ના પત્ર ક્રમાંક : EC Identification No. -EC22A020GJ133762, File No. - IA-J-11011/149/2021-IA-II(I) dated 31/08/2022 ના રોજ પ્રાપ્ત થયેલ છે. સદરહુ માન્યતા અંગેનો પત્ર ગુજરાત પ્રદુષણ નિયંત્રણ બોર્ડ ની ઓફિસ માં તેમજ મિનિસ્ટ્રી ओड ओन्विरोमेन्ट, डोरेस्ट अने डवाઇमेट रोन्प नी वेज साઈट https://parivesh.nic.in પરથી પણ જોઈ શકાશે. તદ્ ઉપરાંત એન્વિરોએન્ટ ક્લીચરન્સ ની કોપી કંપનનીની વેબસાઇટ https://www.adanienterprises.com/-/media/ e1f0a2365908404bbf62e8c4d4b83969.ashx 42 48 બોઈ શકાશે. પ્રોદયુત માજી (પ્રોજેક્ટ હેડ) મેં. આદાણી એન્ટરપ્રાઇઝીસ લિમિટેડ News Paper: Kutchmitra, Page no:5, Date:05/09/2022, Language: Gujarati

