

Bhagwat Swaroop Sharma

From: Bhagwat Swaroop Sharma
Sent: Monday, May 30, 2022 11:45 AM
To: iro.gandhingr-mefcc@gov.in; eccompliance-guj@gov.in
Cc: ec-rdw.cpcb@gov.in; ro-gpcb-kute@gujarat.gov.in; ms-gpcb@gujarat.gov.in; mefcc.ia3@gmail.com; monitoring-ec@nic.in; direnv@gujarat.gov.in; Snehal Jariwala
Subject: Half Yearly EC Compliance Report Submission MSEZ for Period Oct'21 to Mar'22
Attachments: 8. EC Compliance Report_MSEZ 2014_Oct'21 to Mar'22.pdf

adani

Ports and
Logistics

APSEZL/EnvCell/2022-23/024

Date: 27.05.2022

To

The Inspector General of Forest / Scientist C,
Integrated Regional Office (IRO),
Ministry of Environment, Forest and Climate Change,
Aranya Bhawan, A Wing, Room No. 409,
Near CH 3 Circle, Sector - 10A,
Gandhinagar - 382007.
E-mail: eccompliance-guj@gov.in, iro.gandhingr-mefcc@gov.in

Sub | Half yearly Compliance report for Environment and CRZ Clearance for the "Multi Product SEZ, Desalination, Sea Water Intake, Outfall Facility and Pipeline at Mundra, Dist. Kachchh, Gujarat of M/s. Adani Ports and SEZ Limited"

Ref :

1. Environment and CRZ clearance granted to M/s Adani Ports and SEZ Limited vide letter dated 15th July, 2014 bearing MoEF letter No. 10-138/2008-IA.III.
2. MoEFBCC's Order dated 18.09.2015

Dear Sir,

Please refer to the above cited reference for the said subject matter. In connection to the same, it is to state that copy of the compliance report for the Environmental and CRZ Clearance for the period of October-2021 to March-2022 is being submitted through soft copy (e-mail communication & CD).

Kindly consider above submission and acknowledge.

Thank you,

Yours Faithfully,

For, M/s Adani Ports and Special Economic Zone Limited



Douglas Charles Smith
Chief Executive Officer
Mundra & Tuna Port

Encl: As above

Thanks & Regards,

Bhagwat Swaroop Sharma
Sr. Manager - Environment
Mundra & Tuna port

Adani Ports & Special Economic Zone Ltd.

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adani

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with
Goodness

Our Values: Courage | Trust | Commitment



o/c

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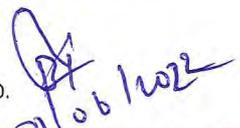
Encl: As above

Copy to:

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

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Gujarat, India
CIN: L63090GJ1998PLC034182

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Fax +91 2838 25 51110
info@adani.com
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Gujarat Pollution Control Board
Head Office
Sector No. 10-A,
Gandhinagar-382010

Registered Office: Adani Corporate House, Shantigram, Nr. Vaishno Devi Circle, S.G. Highway, Khodiyar, Ahmedabad – 382421, Gujarat, India



Ports and
Logistics

APSEZL/EnvCell/2022-23/026

Date: 27.05.2022

To
The Inspector General of Forest / Scientist C,
Integrated Regional Office (IRO),
Ministry of Environment, Forest and Climate Change,
Aranya Bhawan, A Wing, Room No. 409,
Near CH 3 Circle, Sector – 10A,
Gandhinagar – 382007.
E-mail: ecomplinance-guj@gov.in, iro.gandhinagr-mefcc@gov.in

Sub : Half Yearly Compliance for Environment and CRZ clearance for 'Expansion of notified Multi-product SEZ by adding 1840 Ha notified SEZ with existing approved area of 6641.2784 ha to make it 8481.2784 ha at Mundra' by M/s Adani Ports and Special Economic Zone Ltd.

Ref : Environmental Clearance granted by Ministry of Environment, Forest and Climate Change, F. No. 10-138/2008-IA.III dated 12th February, 2020.

Dear Sir,

Please refer to the above cited reference for the said subject matter. In connection to the same, it is to state that copy of the compliance report for the Environmental and CRZ Clearance for the period of October-2021 to March-2022 is being submitted through soft copy (e-mail communication & CD).

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- 5) The Regional Officer, Regional Office GPCB (Kutch-East), Gandhidham – 370201.

Adani Ports and Special Economic Zone Ltd Tel +91 2838 25 5000
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Gujarat, India
CIN: L63090GJ1998PLC034182

Registered Office: Adani Corporate House, Shantigram, Nr. Vaishno Devi Circle, S.G. Highway, Khodiyar, Ahmedabad – 382421, Gujarat, India

Environmental Clearance Compliance Report



Multi Product SEZ,
Mundra, Dist. Kutch, Gujarat

Adani Ports and SEZ Limited

For the period of
October-2021 to March-2022

Status of the conditions stipulated in Environment and CRZ Clearance

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**Copy of Environmental and
CRZ Clearance**

F. No. 10-138/2008-IA.III
Government of India
Ministry of Environment & Forests

**Paryavaran Bhawan,
CGO Complex, Lodhi Road,
New Delhi - 110 003.**

Dated: July 15, 2014

To
M/s Adani Port and SEZ Ltd
Adani House, Near Mithakhali Six Roads,
Navarangpura, Ahmedabad,
Gujarat- 380 009.

Subject: EC for proposed Multi- Product SEZ and CRZ clearance for Desalination, sea water intake, outfall facility and pipeline, at Mundra by M/s Adani Port and SEZ Ltd. – Reg.

This has reference to letter No. ENV-10-2010-1601-E dated 27.03.2012 of the Director (Environment) & Additional Secretary, Govt. of Gujarat and your subsequent letters dated 10.05.2012, 14.05.2012, 26.05.2012 and 29.04.2013 seeking prior Environmental and CRZ Clearance for the above project under the EIA Notification, 2006 and Coastal Regulation Zone Notification, 2011. The proposal has been appraised as per prescribed procedure in the light of provisions under the EIA Notification, 2006 and the Coastal Regulation Zone Notification, 2011 on the basis of the mandatory documents enclosed with the application viz., the Questionnaire, EIA, EMP, recommendations of the State Coastal Zone Management Authority and the additional clarifications furnished in response to the observations of the Expert Appraisal Committee constituted by the competent authority in its meetings held on 16th -17th April, 2012, 4th -5th June, 2012 and 9th -10th July, 2012.

2. It is, interalia, noted that the project involves development of multi product SEZ on a plot area of 18,000 ha. of which 6641.2784 ha. is presently notified under Special Economic Zone (SEZ). As per the proponent, the Multi product SEZ at Mundra comprising of various processing zones, non-processing zones, warehousing zones, Road Network (trunk as well as internal), Bridges or culverts over natural drains, Rail Network, IT-Telecommunication network, Electrical Network, Water supply, conservation & drainage Network, Effluent collection network, Desalination Plant with proposed intake & outfall locations, Common Effluent Treatment Plants & Sewage Treatment Plants, Natural Gas line network, Social Infrastructure, Existing Airstrip, Municipal Solid Waste Disposal site, utilities & supporting infrastructure etc. For the first phase of development total water requirement will be 150 MLD. Power requirement will be approx. 360 MW. Desalination plant of 150 MLD output capacity is proposed. 11 MLD water will be sourced through Narmada water pipeline. Two CETP each of capacity 50 MLD and 17 MLD as well as STP of 62 MLD is proposed. This will require 375 MLD of seawater intake and 241 MLD of treated waste water outfall into the sea. For final phase of development total water requirement will be 450 MLD and power requirement will be approx. 1000 MW.



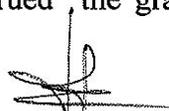
3. A suitable seawater intake point has been identified on the eastern end of the approved East Port Basin at Latitude 22°48'30.76"N; Longitude 69°46'34.06"E where a depth of 6 m below CD would be available after the port development. As per modelling study the combined discharge of 241MLD which includes 16MLD from CETP and 225 MLD from desalination plant as RO reject is expected having 57.57ppt of salinity, 14.41 mg / l of BOD and 94.39 mg/l of COD. After careful consideration of many aspects a suitable outfall location is identified on the west of the Eastern basin at Latitude 22°46'44.04"N; Longitude 69°45'5.51"E taking advantage of the expected 7.5m below CD basin depth. The outfall pipe line length is approximately 5.7 km and diffuser designed to attain a minimum dilution of 40-50 times.

4. The Centre for Earth Science Studies demarcated HTL, LTL and CRZ area. As per the CESS report and GCZMA, out of 6641.2784 ha of SEZ area, 1473.39 ha area falls within CRZ area. No SEZ industrial activity is proposed in the CRZ area. Only the Desalination plant pipeline for intake and outfall is proposed in CRZ areas. The Gujarat SCZMA in their 14th meeting held on 27-02-2012 considered the proposal of intake, outfall facilities, Desalination plant and laying pipeline and recommended the same vide their letter no.ENV-10-2010-1601-E dated 27th March 2012. Gujarat Pollution Control Board has granted Consent to Establishment of Marine outfall (NOC) vide letter dated 10.11.2011. The length of the intake will be approximately 5 Kms. As the sea water intake demand is 15000m³/h, drawal by pipe system is suitable by incorporating a wet well structure at the location. The intake point proposed is within the proposed East Port basin with a depth of 6 m below CD. The projected quantity of water can be transported through a single pipe of 1.3 m dia with a flow velocity of 3 m/ s or with a 1.6 m pipe with flow velocity of 2m/s.

5. The Expert Appraisal Committee, after due consideration of the relevant documents submitted by the project proponent and additional clarifications furnished in response to its observations, have recommended for the grant of Environment and CRZ Clearance for the SEZ in an area of 8481.2784 ha. However, SEZ for 1840 ha has been approved in principle by Ministry of Commerce and Industries.

6. Hon'ble High Court of Gujarat in WP No. 21 of 2013 vide order dated 13.01.2014 has directed that the Ministry to take a decision of its own so far as the issue of grant of environmental clearance is concerned considering the position prevailing as on date and also the aspects which have been highlighted by us in this judgment, within a period of thirty days from the date of this judgment without fail. Further, vide order dated 27.01.2014 Hon'ble Supreme Court in SLP No. 1526 of 2014 which was filed against the Order of High Court by the Respondent-1 has passed order that in case, the MOEF is unable to complete the process within the time stipulated by the High Court, it will be open for them to approach this Court for extension of time. Accordingly, Ministry has filed a petition before the Hon'ble Supreme Court seeking extension of two months time.

7. It is noted from the Judgement dated 13.01.2014 of Hon'ble High Court of Gujarat in PIL 21 of 2013 the Hon'ble Court has construed the grant of lease to units prior to



obtaining EC by M/s APSEZL as violation of EIA, Notification, 2006. Therefore, according to the OMs dated 12.12.2012 and 27.06.2013, PP was addressed for Board Resolution and the State Government was addressed to take credible action against the PP for the violation. Direction under Section 5 of E(P)Act, 1986 was also issued to APSEZ not to take up and allow any further construction activity within SEZ till the grant of clearance.

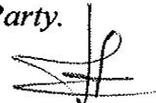
8. Further, Hon'ble Supreme Court video order dated 02.05.2014 in SLP 1526 of 2013 had ordered for stay of Ministry's letter dated 3.04.2014 addressed to Government of Gujarat to initiate legal action for the violation, also directed that the Ministry to complete the process of EC within eight weeks.

9. M/s APSEZ Ltd. has stated that the Board resolved that since the matter is sub-judice before the Hon'ble Supreme Court of India, will fully abide by the out come of the decision of the Hon'ble Supreme Court.

10. In view of the above and to comply with the orders of Hon'ble Courts, Ministry hereby accords necessary Environment Clearance for proposed Multi- Product SEZ in an area of 6641.2784 ha and CRZ clearance for desalination, seawater intake, outfall facility and pipeline for as per the provisions of Environmental Impact Assessment Notification – 2006 and its subsequent amendments and Coastal Regulation Zone Notification, 2011, subject to strict compliance of the terms and conditions as follows:

11. PART A - SPECIFIC CONDITIONS

- (i) *PP shall abide by the final order/decision of Hon'ble Supreme Court in SLP (Civil) no. 1526/2014 and connected matters.*
- (ii) *Properly conserve the creeks, river and the mangroves area in the area.*
- (iii) *Ensure that mouths of all the creeks are kept open to ensure flushing of the creeks.*
- (iv) *Bring the creeks to the condition as was seen in the satellite map of 2005 which will be a "reference" satellite map and a copy of which shall be sent to you separately.*
- (v) *Submit once in a year latest satellite map which can be compared with the reference satellite map of 2005 to ensure that no modification in the creeks, rivers, mangroves and mouth of creeks have taken place.*
- (vi) *Any direction issued by the MoEF with respect to the report submitted by Ms Sunita Narain Committee shall be complied with by the Proponent as applicable.*
- (vii) *At its cost get Inspection study done once in a year by the organizations like NEERI or any organization approved by this Ministry to - (i) ensure compliance of all the EC conditions (ii) development of SEZ meeting of the environment norms, and (iii) advise any mid-term correction that can be introduced depending on the recommendation of the independent Third Party.*



- (viii) "Consent for Establishment" for the SEZ shall be obtained from Gujarat Pollution Control Board under Air and Water Act and a copy shall be submitted to the Ministry before start of any construction work at the site.
- (ix) PP shall get detailed bathymetry done for all the creeks and rivers within Port and SEZ areas along with mapping of co-ordinates, running length, HTL, CRZ boundary, mangrove areas including buffer zone through NCSCM / NIOT. PP shall also get prepared a detailed action plan for conservation and protection of creeks/ mangrove area etc through NCSCM / NIOT and submit the same to GCZMA for their examination and recommendation. GCZMA will submit its recommendations to MoEF for approval.
- (x) PP shall demarcate the CRZ area on land with GPS coordinates in consultation with GCZMA/ the agency which has done the HTL/LTL demarcation for the area. There shall be no allotment of plot/s in CRZ area to industries. No industrial activity within CRZ area except the port and harbor & the foreshore facilities shall be allowed as committed
- (xi) Till the approval of action plan for conservation and protection of creeks/ mangrove area, the CRZ area within SEZ shall be demarcated as "No Development Zone". PP shall not allow/ undertake any development in CRZ area of SEZ.
- (xii) The implementation of action plan approved by the MoEF shall be monitored by the NCSCM/ NIOT. Compliance with action plan shall be submitted to GCZMA and to MoEF, RO. at Bhopal along with six monthly monitoring report.
- (xiii) PP shall earmark separate budget for the implementation of the above action plan. The details of the expenditure shall be submitted to GCZMA and to MoEF, RO. at Bhopal along with six monthly monitoring report.
- (xiv) All the industry in SEZ shall be connected through impervious drainage lines to the STP/ CETP for the discharge of their sewage or industrial effluent. There shall not be any discharge to creeks / rivers. PP shall be accountable for implementing this condition and necessary clause shall be incorporated in the MoU while allotting the plot to the individual industries
- (xv) PP shall not carry out any river course modification.
- (xvi) The individual industrial units shall obtain prior EC under EIA Notification, 2006 as applicable.
- (xvii) Proponent shall identify 200 ha of land for mangrove plantation as per the condition laid by SEAC.
- (xviii) 50 meter buffer from the existing mangrove area should be provided for any developmental activity,

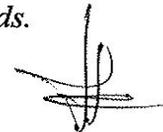


- (xix) *Proponent shall develop the green belt with 3 layers of canopy all along the periphery.*
- (xx) *All the recommendation of the EMP shall be complied with in letter and spirit. All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to MoEF along with half yearly compliance report to MoEF-RO.*
- (xxi) *There shall be no disturbance to the sand dunes. The pipelines shall be laid using advanced method viz. Horizontal Directional Drilling (HDD) so as to avoid disturbance to the sand dunes/ creeks/ mangroves.*

PART – B. GENERAL CONDITIONS

Construction Phase.

- (i) *Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.*
- (ii) *A First Aid Room will be provided in the project both during construction and operation of the project.*
- (iii) *All the topsoil excavated during construction activities should be stored for use in horticulture/landscape development within the project site.*
- (iv) *Disposal of muck during construction phase should not create any adverse effect on the neighbouring communities and be disposed, taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.*
- (v) *Soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.*
- (vi) *Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dump sites for such material must be secured so that they should not leach into the ground water.*
- (vii) *Any hazardous waste generated during construction phase should be disposed off as per applicable rules and norms with necessary approvals of the Gujarat Pollution Control Board.*
- (viii) *The diesel generator sets to be used during construction phase should be low sulphur diesel type and should conform to Environment (Protection) Rules prescribed for air and noise emission standards.*



- (ix) *The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from Chief Controller of Explosives shall be taken.*
- (x) *Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.*
- (xi) *Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/GPCB.*
- (xii) *Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003. (The above condition is applicable only if the project site is located within 100 Kms of Thermal Power Stations).*
- (xiii) *Ready mixed concrete must be used in building construction.*
- (xiv) *Storm water control and its re-use should be regulated as per CGWB and BIS standards for various applications.*
- (xv) *Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other referred best practices.*
- (xvi) *Permission to draw ground water shall be obtained from the competent Authority prior to construction/operation of the project.*
- (xvii) *Separation of grey and black water should be done by the use of dual plumbing line for separation of grey and black water.*
- (xviii) *Fixtures for showers, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing devices or sensor based control.*
- (xix) *Use of glass may be reduced by upto 40% to reduce the electricity consumption and load on air-conditioning. If necessary, use high quality double glass with special reflective coating in windows.*
- (xx) *Roof should meet prescriptive requirements as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfill requirements.*
- (xxi) *Opaque wall should meet prescriptive requirement as per Energy Conservation Building Code which is proposed to be mandatory for all airconditioned spaces while it is aspirational for non-airconditioned spaces by use of appropriate thermal insulation material to fulfil these requirement.*



- (xxii) *The approval of the competent authority shall be obtained for structural safety of the buildings due to earthquake, adequacy of fire fighting equipments, etc. as per National Building Code including protection measures from lightning etc.*
- (xxiii) *Regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to the surroundings.*
- (xxiv) *Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it is found that construction of the project has been started without obtaining environmental clearance.*

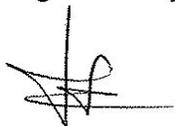
Operation Phase

- (i) *The PP while issuing the allotment letter to individual member units shall specifically mention the allowable maximum quantity of water usage and effluent generated by each member unit.*
- (ii) *The PP shall establish an environmental monitoring cell with all the potential polluting units as members to review the environmental monitoring data and suggest improvements.*
- (iii) *Treated effluent emanating from STP shall be recycled/reused to the maximum extent possible. Treatment of 100% grey water by decentralised treatment should be done. Discharge of unused treated effluent shall conform to the norms and standards of the Pollution Control Board. Necessary measures should be made to mitigate the odour problem from STP.*
- (iv) *The solid waste generated should be properly collected and segregated. Wet garbage should be composted and dry / inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material.*
- (v) *Diesel power generating sets proposed as source of back up power for elevators and common area illumination during operational phase should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Low sulphur diesel should be used. The location of the DG sets may be decided in consultation with the Gujarat Pollution Control Board.*
- (vi) *Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.*
- (vii) *Green belt of adequate width and density preferably with local species along the periphery of the plot shall be raised so as to provide protection against particulates and noise.*



- (viii) *Weep holes in the compound walls shall be provided to ensure natural drainage of rain water in the catchment area during the monsoon period.*
- (ix) *Rain water harvesting for roof run- off and surface run- off, as plan submitted should be implemented.*
- (x) *The ground water level and its quality should be monitored regularly in consultation with Central Ground Water Authority.*
- (xi) *Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.*
- (xii) *A Report on the energy conservation measures conforming to energy conservation norms finalised by Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, R & D Factors etc and submitted to the Ministry along with six monthly monitoring report.*
- (xiii) *Energy conservation measures like installation of CFLs/TFLs for the lighting the areas outside the building should be an integral part of the project design and should be in place before project commissioning. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination. Solar panels may be used to the extent possible.*
- (xiv) *Adequate measures should be taken to prevent odour problems from solid waste processing plant and STP.*
- (xv) *The buildings should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.*
- (xvi) *The environmental safeguards contained in the EIA Report should be implemented in letter and spirit.*
- (xvii) *Adequate drinking water facility be provided.*
- (xviii) *Incremental pollution loads on the ambient air quality, noise and water quality should be periodically monitored after commissioning of the project.*
- (xix) *Application of solar energy should be incorporated for illumination of common areas, lighting for gardens and street lighting in addition to provision for solar water heating. A hybrid system or fully solar system for portion of the apartments should be provided.*
- (xx) *Ozone depleting substance (Regulation & Control) Rules should be followed while designing the air conditioning system of the project.*

12. Officials from the Regional Office of MOEF, Bhopal who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents / data by the project proponents during their inspection. A complete set of all the



documents submitted to MoEF should be forwarded to the CCF, Regional office of MOEF, Bhopal

13. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Ministry.

14. The Ministry reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.

15. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.

16. These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.

17. The project proponent should advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Clearance and copies of clearance letters are available with the Gujarat Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forests at <http://www.envfor.nic.in>. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Bhopal.

18. Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.

19. "Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010".

20. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.

21. The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.



22. The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.

23. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent 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 EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.


(Lalit Kapur)
Director (IA-III)

Copy to:

1. The Principal Secretary, Forest and Environment Department, Block no. 14/ 8 floor Sachivalaya, Gandhinagar – 382 010 Gujarat.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi – 110 032.
3. The Member Secretary, Gujarat Coastal Zone Management Authority & Director,(Environment) Forests & Environment Department, Block No. 14, 8th Floor, Sachivalaya, GandhiNagar-382.
4. The Chief Conservator of Forests, Ministry of Environment and Forests, Regional Office, Western Region, Kendriya Paryavaran Bhavan, Link Road No. 3, Ravishankar Nagar, Bhopal – 462016 (M.P.)
5. The Member Secretary, Gujarat State Pollution Control Board, Paryavaran Bhawan , Sector 10-A, Gandhi Nagar 382043, Gujarat
6. Director (EI), Ministry of Environment and Forests.
7. Guard File.
8. Monitoring File.

(Lalit Kapur)
Director (IA-III)

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'21 To : Mar'22
Status of the conditions stipulated in Environment and CRZ Clearance		

M/s. APSEZ has been granted Environmental / CRZ clearance vide letter no. 10-138/2008-IA.III, dated 15th July, 2014 for development of "Multi Product SEZ, Desalination, Sea Water Intake, Outfall Facility and Pipeline".

Activities / Facilities approved are as below:

Facilities / Components Approved	Capacity	Status as on 31.03.2022
Desalination Plant	150 MLD	Construction has not been started.
Sea water Intake & Outfall Facility	375 MLD: Intake 241 MLD: Outfall	Construction has not been started.
Common Effluent Treatment Plant	17 MLD	MPSEZ Utilities Ltd. (MUL) has been granted environmental clearance for CETP having 17.0 MLD capacities. Out of which at present one module of CETP having 2.5 MLD capacities has been constructed and is in operation.
	50 MLD	Construction has not been started.
Social Infrastructure Projects	--	Adani Mundra SEZ Infrastructure Pvt. Ltd. (AMSIPL) has granted environmental clearance for township and area development project in 255 Ha. Out of approved 10,000 no. of residential units, 1368 units are constructed.
Sewage Treatment Plant	62 MLD	APSEZ has installed Sewage Treatment Plant @ 150 KLD Capacities within SEZ for treatment of sewage generated from port user buildings.
Airstrip	--	Airstrip has been developed within SEZ area after obtaining requisite permissions.
Municipal Solid Waste Site	--	Material Recovery site is provided for the management of Municipal Solid Waste.
Free Trade & Ware House Zone (FTWZ)	--	Construction is completed and in operation.

Other utility developments and modification, as a part of SEZ, to facilitate various units coming as a part of SEZ are being done on continuous basis.

Note:

Environmental / CRZ clearance has been granted for additional facilities like Processing Zones, Non-processing Zones, Warehousing Zones, Road Network (Trunk as well as Internal), Bridges or Culverts over natural drain, Rail Network, IT-Telecommunication Network, Electric Network, Water Supply, Conservation & Drainage Network, Effluent Collection Network and Utilities & Supporting Infrastructure within SEZ area.

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'21 To : Mar'22
Status of the conditions stipulated in Environment and CRZ Clearance		

Boundary wall is constructed along the project periphery. In some of areas level raising and area development of SEZ area, wherever required is also under progress.

APSEZ has been granted Environment and CRZ clearance for 'Expansion of notified Multi-product SEZ by adding 1840 Ha notified SEZ with existing approved area of 6641.2784 ha to make it 8481.2784 ha at Mundra vide letter no. F. No. 10-138/200E-IA.III, dated 12th February, 2020.

*Inline to the APSEZ's request, Ministry of Commerce & Industry (MoCI) vide Gazette order dtd. 4th July 2019 has de-notified 46.6894 from total area of 8481.2784 Ha, thereby making resultant area of notified Multiproduct SEZ as 8434.5890 Ha.

APSEZ has applied for Amendment in Specific Conditions of EC & CRZ Clearance vide proposal no. IA/GJ/NCP/261191/2022 dated 16th March, 2022, which is under scrutiny with MoEF&CC.

Status of the conditions stipulated in Environment and CRZ Clearance

List of Industrial Units within SEZ area

Sr. No.	Name of Unit	Nature of Business	Status
1.	Skaps Industries India Pvt. Ltd (Unit-I)	Textile	In Operation
2.	Skaps Industries India Pvt. Ltd (Unit-II)		In Operation
3.	Terram Gosynthetics Pvt. Ltd.		In Operation
4.	Ahlstrom Fibre Composite India Pvt. Ltd.		In Operation
5.	Ashapura Garments		Not in Operation
6.	Anjani Udyog Pvt. Ltd.		In Operation
7.	Aanya Composites Private Limited		In Operation
8.	Bombay Bazar Readymade Garments		In Operation
9.	M.D. Equipments	Engineering	In Operation
10.	Thermax Ltd.		In Operation
11.	JNK India Pvt Ltd.		In Operation
12.	Avesta Engineering Pvt. Ltd.		Under Revival of LoA
13.	Oilfield Warehouse Services Pvt. Ltd.	Warehouse	In Operation
14.	Oilfield Warehouse Services LLP		In Operation
15.	Rudrax Terminal		In operation
16.	Empezar Logistics		In operation
17.	Steinweige Sharaf		In operation
18.	Kerry Indev Logistic Pvt. Ltd.		In operation
19.	Fast Track CFS		In operation
20.	Adani Warehousing Services Pvt Ltd. Unit I		In operation
21.	Sea Shore Logistics		In operation
22.	Adani Logistics Limited		In operation
23.	Sooline Trade Link LLP		In operation
24.	Shivansh Terminal LLP		In operation
25.	Safal Logistics LLP		In operation
26.	Adani Warehousing Services Pvt. Ltd. Unit-2		Under construction
27.	Holistic Global Corporation	Under construction	
28.	Dorf Ketel Specialty Catalyst Pvt. Ltd.	Chemical	In Operation
29.	Oriental Carbon and Chemicals Ltd.		In Operation
30.	Gujarat CREDO Alumina Chemicals Pvt. Ltd.		In Operation
31.	Mundra Oil Pvt. Ltd.		In Operation
32.	Garg Tubes Exports LLP		In Operation
33.	Jasons Industries		In Operation
34.	Shital Metallics And Additives LLP		Under construction
35.	Seabird Marine Services Pvt. Ltd.	CFS	In Operation
36.	Honeycomb Logistics Pvt		In Operation
37.	All Cargo Global Logistics Ltd.		In Operation
38.	Mundhra CFS		In Operation
39.	Saurashtra Containers Pvt. Ltd.		In Operation
40.	Transworld Terminals Pvt. Ltd.		In Operation
41.	Mundra International Container Terminal (DP World)		In Operation
42.	Central Warehousing Corp. Ltd.	Trading Unit	In Operation
43.	Ruby Shipping		In Operation
44.	Suresh Biz Globe		In Operation
45.	Borochemie India Pvt. Ltd.		Under construction
46.	Maruti Suzuki India Limited (PDI Yard)	Pre Delivery Inspection Yard	In Operation
47.	Britannia Industries Limited	Food Products	In Operation
48.	Adani Power (Mundra) Limited	Thermal Power Plant	In Operation
49.	Adani Renewable Energy (KA) Ltd.	Wind Energy	In Operation
50.	AMSIPL- Samudra Township (including residential units, STP 2.5 MLD, hospital, commercial complex, school etc.)	Social Infrastructure	In Operation
51.	MPSEZ Utilities Ltd.	Common Effluent Treatment Plant 2.5 MLD	In Operation
52.	Hirise Hospitality Pvt. Ltd.	Beetle smart hotel	In Operation
53.	Hehong Paper India Technology Pvt. Ltd.	Paper	Under construction

Status of the conditions stipulated in Environment and CRZ Clearance

53.	Hehong Paper India Technology Pvt. Ltd.	Paper	Under construction
54.	Mundra Solar Photo Voltaic Ltd.	Electronics Manufacturing Cluster	In Operation
55.	Mundra Solar Technopark Pvt. Ltd.		In Operation
56.	Vishakha Renewable Pvt Ltd		In Operation
57.	Vishakha Solar Films Pvt Ltd		In Operation
58.	Vishakha Metals Pvt Ltd		In Operation
59.	Jash Energy Pvt. Ltd.		Under construction
60.	Vishakha Glass Pvt. Ltd		Under construction
61.	West Coast Corrotech Services LLP		Under construction
62.	Mundra Windtech Limited		Under construction
63.	Mundra Solar Technology Limited		Under construction
64.	Kutch Copper Limited	Copper	Under construction
65.	Mundra Petrochem Limited	Petroleum	Under construction

Compliance Report of Environmental and CRZ Clearance

Status of the conditions stipulated in Environment and CRZ Clearance

Compliance report of Environment Clearance for the project "Multi Product SEZ" and CRZ Clearance for the project "Desalination, Sea Water Intake, Outfall Facility and Pipeline at Mundra, Dist. Kachchh, Gujarat of M/s. Adani Ports and SEZ Limited" vide MoEF letter No. 10-138/2008-IA.III dated 15th July, 2014.

Sr. No.	Conditions	Compliance Status as on 31.03.2022
Part – A: Specific Conditions		
i.	PP shall abide by the final order/decision of Hon'ble Supreme Court in SLP (Civil) no. 1526/2014 and connected matters.	Point noted and will be complied. Vide order dated 14.07.2014, the Hon'ble Supreme Court directed MoEF&CC to complete the process of environmental clearance to the MSEZ project of APSEZ within eight weeks. MoEF&CC issued EC and CRZ clearance to the proposed project vide letter dated 15.07.2014. Hence, the SLP (Civil) no. 1526/2014 is deemed closed. Details of the same were submitted along with EC Compliance report for the period Apr'18 to Sep'18.
ii.	Properly conserve the creeks, river and the mangroves area in the area.	Complied. This reply covers condition no ii, iii, ix, x, xi, xii & xiii. <u>Conservation of creeks and rivers:</u> <ul style="list-style-type: none"> • The prominent creek system (main creeks and small branches of creeks) in and around APSEZ are: (1) Kotdi (2) Baradimata (3) Navinal (4) Bocha (5) Mundra (Oldest port (Juna Bandar) leading to Bhukhi river). • Rivers passing through the APSEZ area are: (1) Khari (2) Nagmati (3) Phot (4) Bhukhi (5) Dhaneshwari (6) Buchiya (7) Jidal. • All the rivers passing through the SEZ area are dry throughout the year except for monsoon season. • All creeks as well as rivers are in existence allowing free flow of water and there is no filling or reclamation of any creek or river area. APSEZ has so far constructed 19 culverts having total length of approx. 1100 m with total cost of INR 20 Crores. Three RCC Bridges have also been constructed over Kotdi creek with total length of 230 m and cost of INR 10 Crores. Details were submitted along with compliance report submission for the period of Apr'17 to Sep'17. • This aspect is also confirmed from the recent study of NCSCM in 2017-18, which highlights the bathymetry data of the entire coast around APSEZ.

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2022
		<ul style="list-style-type: none"> • From the bathymetry data it can be concluded that there are sufficient depths at the creek mouths and all creek mouths are open allowing flushing of water. • From the APSEZ operations, there is no discharge of any sewage or effluent to the water streams. <p><u>Conservation of Mangroves:</u></p> <ul style="list-style-type: none"> • In and around APSEZ, approx. 1800 ha. mangrove area was identified by NIO in an EIA report prepared the year 1998. • Out of this 1800 ha area, 1254 ha area was further demarcated as potential mangrove conservation by NIO in the year 2008 (as part of the EIA report of WFDP). • It may be noted that the entire area of 1254 ha is not covered with mangroves. • Entire area is being conserved and there is no disturbance to the mangroves in this area. Measures such as restricted entry and regular surveillance have resulted in overall growth of mangroves within this area. • As per MoEF&CC directive, APSEZ entrusted NCSCM to demarcate mangroves in and around APSEZ area. As per their study, mangrove cover in and around APSEZ was over 2340 ha. The analysis of the comparison between 2011 and 2016-17 has shown an overall growth of 246 ha. • NCSCM final report on comprehensive and integrated plan for preservation and conservation of mangroves and associated creeks in and around was submitted along with half yearly EC Compliance report for the period Apr'19 to Sep'19. The same was further submitted to GCZMA and MoEF&CC for their examination and recommendation vide (with a copy to MoEF&CC vide letter dated 04.06.2018 & reminder letter vide dated 4th Jan, 2019). Presentation on the findings of the report was made to GCZMA committee on 4th October 2019 and the recommendation for the same has been received vide email dtd 22nd Sept, 2020 with conditions, which was submitted as a part of half yearly EC compliance report for the period Oct'20 to Mar'21. <p>As a part of GCZMA recommendations and NCSCM mangrove conservation action plan, APSEZ has undertaken following activities.</p>

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2022		
		Sr. No.	Recommendations	Compliance
		1.	Mangrove mapping and monitoring in and around APSEZ	<ul style="list-style-type: none"> APSEZ entrusted NCSCM, Chennai to carry out Monitoring of mangrove distribution in creeks in and around APSEZ and shoreline changes in Bocha island. As a part of this study, overall growth of mangroves in the creeks in and around APSEZ was assessed comparing Google earth images of 2017 & 2019 and it is observed that there was increase in mangrove cover between March 2017 and September 2019 to the extent of 256 Ha, which is about 10.7%. This suggests that the mangroves and the tidal system in the creeks remain undisturbed over this period. Analysis of data between categories indicated that there was an increase in dense mangroves and also conversion of scattered to sparse which also shows that the growth of mangroves in a progressive direction. Hence, there is an overall growth of mangroves in creeks in and around APSEZ, Mundra is 502 Ha between 2011 and 2019. The cost of the said study was INR 23.56 Lacs incurred by APSEZ.
		2.	Tidal observation in creeks in and around APSEZ	<ul style="list-style-type: none"> APSEZ carried out the tidal observations at locations similar to 2017 in Kotdi, Baradimata, Navinal, Bocha and Khari creeks under the guidance of NCSCM. The observed tidal ranges indicate that the creeks experience normal tidal ranges, adequate for the growth of mangroves. The cost of the said activity was INR 1.0 Lacs.
		3.	Removal of Algal and Prosopis growth from mangrove areas	<ul style="list-style-type: none"> Algal and Prosopis growth monitoring was done in and around mangrove area and algal encrustation was found in some of the mangrove areas, which has been removed manually. Algal & Prosopis removal from Mangrove area for FY 2021-22- The cost of the said activity was INR 2.8 Lacs incurred by APSEZ. Please refer

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2022	
		4.	<p>Awareness of mangroves importance in surrounding communities</p> <ul style="list-style-type: none"> • attached Annexure - 1 for Report of Algal removal work in mangrove area. • Adani Foundation – CSR Arm of Adani group has done awareness camps/activities created in the community regarding importance of mangroves. • Adani Foundation provides good Quality dry and green fodder to 24 Villages. Project is covering total 14116 Cattle's / 3008 farmers and hence enhancing cattle productivity during last FY 2021-22 (Till Mar'22). • Individual Farmer fodder cultivation supported for Maize seed and NB21 to more than 200 farmers which has created revenue of Rs. 27 Lacs. • Adani foundation and Government Animal hospital jointly organizing Cattle awareness camps total 22 villages and in 2021, Total 666 families 5083 animal benefited. • Awareness of mangroves importance in surrounding communities & Fodder support - The expenditure for fodder supporting activities was approx. 206.11 Lacs during FY 2021-22, which was incurred by APSEZ. • Village Gauchar land development for the fodder cultivation to made fodder sustain village & Avail green fodder in scarcity phase. With the support of Gauchar Seva Samiti Grassland development in Siracha – 85 Acre & Zarpara – 25 Acre done which resulted in total production of 82 ton. • Other than this dedicated security guard with gate system deployed by APSEZ across the coastal area and no any unauthorized persons allowed within coastal as well as mangrove areas. • Refer CSR report attached as Annexure - 2. <p>Details of activities done as a part of GCZMA recommendations and NCSCM mangrove conservation action plan were submitted as a part of previous half yearly EC compliance report for the period Oct'20 to Mar'21.</p>
iii.	Ensure that mouths of all	Complied.	

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2022
	the creeks are kept open to ensure flushing of the creeks.	<ul style="list-style-type: none"> The prominent creek system (main creeks and small branches of creeks) in and around APSEZ are: (1) Kotdi (2) Baradimata (3) Navinal (4) Bocha (5) Mundra (Oldest port (Juna Bandar) leading to Bhukhi river). All above creek mouths are open allowing free flow of water in to the creeks and surrounding areas and there is no filling or reclamation of any creek area. This aspect is also confirmed from the recent study of NCSCM which highlights the bathymetry data of the entire coast around APSEZ. From the bathymetry data it can be concluded that there are sufficient depths at the creek mouths and all creek mouths are open allowing flushing of water. Please refer Specific Condition no. ii for further details.
iv.	Bring the creeks to the condition as was seen in the satellite map of 2005 which will be a "reference" satellite map and a copy of which shall be sent to you separately.	<p>Not applicable</p> <p>This reply covers condition no iv, v, vi.</p> <p>The stated conditions were stipulated in the EC and CRZ clearance with respect to the pending SCNs and based on Ms. Sunita Narain committee report. In continuation to the SCNs and subsequent submissions by APSEZ, MoEF&CC issued a final order vide letter dated 18.09.2015 (which disposed the pending Show Cause Notices). Full compliance of the directions issued vide the said order is provided as Annexure - B.</p> <p>It may be noted that the stated conditions related to the satellite image of 2005 are not imposed to APSEZ as part of the said order. Hence, APSEZ has made submission to MoEF&CC vide letters dated 23.05.2016 and 07.11.2016. Copies of the said letters were submitted along with compliance report submission for the period from Oct'16 to Mar'17. Further there are no directions from MoEF&CC.</p>
v.	Submit once in a year latest satellite map which can be compared with the reference satellite map of 2005 to ensure that no modifications in the creeks, rivers, mangroves and mouth of creeks have taken place.	
vi.	Any direction issued by the MoEF with respect to the report submitted by Ms Sunita Narain Committee shall be complied with by the Proponent as applicable.	
vii.	At its cost get Inspection study done once in a year by the organizations like NEERI or any	<p>Complied.</p> <p>NEERI, Nagpur has been appointed to carry out the inspection study for the year 2022-23 at a cost of INR 5 Lacs.</p>

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2022																
	<p>organization approved by this Ministry to - (i) ensure compliance of all the EC conditions (ii) development of SEZ meeting of the environment norms, and (iii) advise any mid-term correction that can be introduced depending on the recommendation of the independent Third Party.</p>	<p>Site visit was conducted on 6th & 7th October, 2021 and compliance report of the period from Oct'20 to Mar'21 was reviewed by NEERI. It has been concluded all the conditions stipulated in EC are being complied and there is no violation of any condition. Copy of the certificate was submitted during half yearly EC Compliance report for the period of Apr'21 to Sep'21 and there was no non-compliance observed.</p>																
viii.	<p>"Consent for Establishment" for the SEZ shall be obtained from Gujarat Pollution Control Board under Air and Water Act and a copy shall be submitted to the Ministry before start of any construction work at the site.</p>	<p>Complied.</p> <p>Consent to Establish (CtE) is obtained for the project from Gujarat Pollution Control Board vide their letter no. GPCB/CCA-KUTCH-1044/ GPCB ID 31463/ 109800, dated 16.04.2012. Copy of the same was submitted to MoEF&CC, Regional Office, Bhopal vide our letter dated 5th Aug, 2014. The CtE was also submitted with compliance report submission for the period Oct'15 to Mar'16.</p> <p>The project has been developed as per Consent to Establish (CtE) and Consent to Operate (CtO) granted by SPCB. The present in-force CtO are mentioned below.</p> <table border="1" data-bbox="597 1411 1471 1560"> <thead> <tr> <th>Permission</th> <th>Project</th> <th>Ref. No. / Order No.</th> <th>Valid till</th> </tr> </thead> <tbody> <tr> <td>CtO – Fresh</td> <td>Multi-Product SEZ</td> <td>AWH – 88998</td> <td>21.08.2022</td> </tr> <tr> <td>CtO – Amendment</td> <td>Multi-Product SEZ</td> <td>AWH – 97361</td> <td>21.08.2022</td> </tr> <tr> <td>CTE-Amendment</td> <td>Multi-Product SEZ</td> <td>CTE - 117485</td> <td>14.07.2022</td> </tr> </tbody> </table> <p>Copy of CtOs were submitted along with half yearly EC Compliance report for the Oct'18 to Mar'19 and there is no further change. Copy of CTE-Amendment is enclosed as Annexure – 3.</p>	Permission	Project	Ref. No. / Order No.	Valid till	CtO – Fresh	Multi-Product SEZ	AWH – 88998	21.08.2022	CtO – Amendment	Multi-Product SEZ	AWH – 97361	21.08.2022	CTE-Amendment	Multi-Product SEZ	CTE - 117485	14.07.2022
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CTE-Amendment	Multi-Product SEZ	CTE - 117485	14.07.2022															
ix.	<p>PP shall get detailed bathymetry done for all the creeks and rivers within Port and SEZ areas along with mapping</p>	<p>Complied</p> <p>Based on the MoEF&CC directions, APSEZ has entrusted NCSCM to carry out the detailed study. Scope of the study include the following:</p>																

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2022
	<p>of co-ordinates, running length, HTL, CRZ boundary, mangrove area including buffer zone through NCSCM /NIOT. PP shall also get prepared a detailed action plan for conservation and protection of creeks /mangrove area etc through NCSCM/NIOT and submit the same to GCZMA for their examination and recommendation. GCZMA will submit its recommendations to MoEF for approval.</p>	<ul style="list-style-type: none"> • Detail bathymetry and topography survey of creeks • Demarcation of mangrove areas and buffer zone • Demarcation of HTL and CRZ areas with co-ordinates • Preparation of a comprehensive and integrated conservation plan for protection of creeks and mangroves <p>In order to complete the study, NCSCM has carried out number of site surveys which are mentioned below:</p> <ul style="list-style-type: none"> • Bathymetry survey of creeks • Topography survey of intertidal areas • Mangrove survey (health and area demarcation) • Sampling of soil and water for analysis of physico-chemical and biological parameters • Tide and currents data collection (including residence time of tidal water) study <p>Based on the study, the following points can be summarized:</p> <ul style="list-style-type: none"> • There is no obstruction to any water stream (creeks / branches of creeks / rivers) • Presently, mangrove cover in and around APSEZ is over 2596 ha. There was substantial growth in mangrove cover to the tune of 502 ha (comparison between 2011 and 2019) • Majority of the development at Mundra has happened between this tenure. Hence it can be interpreted that the infrastructure development has not left any adverse impacts on ecology. <p>Please refer specific condition no. ii above for further details.</p>
x.	<p>PP shall demarcate the CRZ area on land with GPS coordinates in consultation with GCZMA/ the agency which has done the HTL /LTL demarcation for the area. There shall be no allotment of plot/s in CRZ area to industries. No</p>	<p>Being complied</p> <p>For demarcation of HTL and CRZ areas, NCZMA has approved the CZMP of Kutch region vide 39th NCZMA meeting, held on 13.01.2020. However the map are yet to be published, Once the maps are published, NCSCM will issue the final maps for the project area of APSEZ. The said maps will then be submitted to GCZMA and MoEF&CC by APSEZ.</p> <p>In addition to that please note that</p> <ul style="list-style-type: none"> • There is no allotment of plot(s) in CRZ area to any industry.

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2022
	industrial activity within CRZ area except the port and harbor & the foreshore facilities shall be allowed as committed.	<ul style="list-style-type: none"> Only those activities which are allowed within CRZ area are being carried out (with due approvals from concerned authorities) No industrial activity within CRZ area except the port and harbor & the foreshore facilities are carried out.
xi.	Till the approval of action plan for conservation and protection of creeks /mangrove area, the CRZ area within SEZ shall be demarcated as "No Development Zone". PP shall not allow / undertake any development in CRZ area of SEZ.	<p>Complied</p> <p>The action plan for conservation of creeks and mangrove areas is prepared by NCSCM and the same is submitted to GCZMA and MoEF&CC for their examination and recommendation. The main action plan as per the study are mentioned summarized below:</p> <ul style="list-style-type: none"> Monitoring of mangrove cover in Jan/Mar, 2020 using latest satellite images and validation with field observations Monitoring of tidal range in the mangrove areas and comparison with the data collected during 2017. Removal of silt / sand spits from the central part of navinal creek Dredging of shallow area off Bocha Island to reduce current velocity. <p>Please refer specific condition no. ii for further details w.r.t. Mangrove Conservation Action Plan.</p> <p>No development is carried out in the 'No Development Zone' (i.e. CRZ area of SEZ).</p>
xii.	The implementation of action plan approved by the MoEF shall be monitored by the NCSCM/NIOT. Compliance with action plan shall be submitted to GCZMA and to MoEF, RO at Bhopal along with six monthly monitoring report.	<p>Point noted and will be complied</p> <p>The action plan for conservation of creeks and mangrove areas is prepared by NCSCM and the same was submitted to GCZMA and MoEF&CC for their examination and recommendation.</p> <p>Please refer specific condition no. ii for further details w.r.t. Mangrove Conservation Action Plan.</p>
xiii.	PP shall earmark separate budget for the implementation of the above action plan. The	<p>Point noted and will be complied</p> <p>A separate budget has been allocated and incurred by APSEZ for implementation of mangrove conservation action plan.</p>

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2022
	<p>details of the expenditure shall be submitted to GCZMA and to MoEF, RO at Bhopal along with six monthly monitoring report.</p>	<ul style="list-style-type: none"> • Monitoring of mangrove distribution in creeks in and around APSEZ and shoreline changes in Bocha island – 23.56 Lacs • Algal & Prosopis removal from Mangrove area for FY 2021-22- The cost of the said activity was INR 2.8 Lacs incurred by APSEZ. Please refer attached Annexure – 1 for Report of Algal removal work in mangrove area. • Tide Level Monitoring within creeks around APSEZ – 1.0 Lac • Fodder supply to the villagers (FY 21-22) – 206.11 Lacs <p>Please refer specific condition no. ii above for further details.</p>
xiv.	<p>All the industry in SEZ shall be connected through impervious drainage lines to the STP/CETP for the discharge of their sewage or industrial effluent. There shall not be any discharge to creeks / rivers. PP shall be accountable for implementing this condition and necessary clause shall be incorporated in the MoU while allotting the plot to the individual industries.</p>	<p>Complied.</p> <p>As per the Lease Deed agreement, existing industries are well connected with impervious pipeline to discharge their effluent / sewage after confirming to the inlet norms of CETP. Typical copy of the Lease Deed (Agreement) was submitted along with compliance report submission for the duration of Oct'16 to Mar'17.</p> <p>Entire quantity of treated wastewater from CETP is being utilized for horticulture purpose within SEZ area. No discharge is allowed in to creeks / rivers. Same practice will be continued in future as well and capacity enhancement of CETP will be carried out based on requirement.</p> <p>List of CETP member units were submitted along with half yearly EC compliance report for the period Oct'19 to Mar'20. And there is no further change.</p> <p>The industries which treat the sewage / effluent within their premises comply the stipulated norms of discharge given by GPCB. Through regular monitoring it is ensured by APSEZ that the treated water is used for gardening within the respective industries and there is no discharge to any water body including rivers or creeks.</p>
xv.	<p>PP shall not carry out any river course modification.</p>	<p>Complied</p> <p>The project was conceptualized in such a way that no river course modification is required to be carried out. All the rivers</p>

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2022
		passing through SEZ are maintained through proper path for area drainage.
xvi.	The individual industrial units shall obtain prior EC under EIA Notification, 2006 as applicable.	Complied. All industrial units coming up in within the SEZ are informed and aware about the said requirement. Out of total units established within SEZ, only Adani Power Limited, Dorf Ketel and Jeson Industries falls under purview of EIA Notification 2006 and they have obtained their specific EC as applicable. The condition is being followed on case-to-case basis as applicable.
xvii.	Proponent shall identify 200 ha of land for mangrove plantation as per the condition laid by SEAC.	Complied. 100 Ha. Mangrove plantation is carried out by SAVE at Tala Tadav village of Khambhat Taluka of Anand district. A final report of SAVE was submitted along with half yearly compliance report for the period Apr'17 to Sep'17. 100 Ha. Mangrove plantation is carried out by GEC. From which 38 ha. plantation is completed at Tala Tadav village of Khambhat Taluka of Anand district during 2017-18 and remaining 62 ha. Plantation is completed at Aliya Bet of Bharuch district during 2018-19. A final report of GEC was submitted along with half yearly compliance report for the period Oct'18 to Mar'19.
xviii.	50 meter buffer from the existing mangrove area should be provided for any developmental activity.	Complied. 50-meter buffer from the existing mangrove area as per the CRZ notification is being maintained and all developmental activities are being carried out as per the approval only.
xix.	Proponent shall develop the green belt with 3 layers of canopy all along the periphery.	Being complied. APSEZ has developed "Dept. of Horticulture" which is taking measures/ steps for terrestrial greening as well as mangrove plantation. Development of greenbelt at various locations within the SEZ is an ongoing activity. Green belt of 3 layer canopy will be developed as part of the development of SEZ. The species such as Ficus Infectoria, Ficus religiosa, Terminalia arjuna, Cocos nucifera, Washingtonia fillifera, Casurina spp., Azadirachta Indica, Eucalyptus spp., Jatropha curacus, Ficus bengalensis, Subabool spp., Casia fistula, Date Palm and Delonix regia were grown in SEZ area.

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2022																					
		<p>Width of the green belt varies from 2 m to 8 m and density varies from 1400 to 1700 trees per hectare at various locations. Total 146.84 hectares of land with approx. 2.27 Lacs trees is developed within SEZ area till date. So, far APSEZ has developed 486.19 Ha area as greenbelt with plantation 9.4 Lacs trees within the entire APSEZ area.</p> <p>Please refer Annexure - 4 for further details regarding greenbelt development and mangrove afforestation. An updated green belt development plan is also attached as part of the said annexure. Total expenditures of the horticulture dept. for the financial year of 2021-22 have been INR 921 lakh.</p> <p>It may be noted that individual industrial units have developed the greenbelt within their premises based on their planning & approvals and new industries coming up any will also comply as per their approvals. The same is being ensured by the environment monitoring committee of APSEZ.</p> <p>For the area where further development is yet to be carried out, APSEZ will ensure that greenbelt with 3-layer canopy is developed by either APSEZ or the industrial unit to whom the land is allotted. Photographs showing the 3-layer canopy greenbelt developed within APSEZ were along with half yearly compliance report for the period Oct'18 to Mar'19.</p>																					
xx.	All the recommendation of the EMP shall be complied with in letter and spirit. All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to MoEF along with half yearly compliance report to MoEF-RO.	<p>Complied.</p> <p>Compliance report of environmental management plan and mitigation measures proposed as part of the EIA report is summarized below. The same is submitted to the concerned authorities including MoEF&CC, RO, Bhopal as part of the six monthly compliance reports. Details of the past six compliance reports are mentioned below.</p> <table border="1" data-bbox="659 1654 1414 1885"> <thead> <tr> <th>Sr. No.</th> <th>Compliance period</th> <th>Date of submission</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Oct'18 to Mar'19</td> <td>31.05.2019</td> </tr> <tr> <td>2</td> <td>Apr'19 to Sep'19</td> <td>28.11.2019</td> </tr> <tr> <td>3</td> <td>Oct'19 to Mar'20</td> <td>20.05.2020</td> </tr> <tr> <td>4</td> <td>Apr'20 to Sep'20</td> <td>26.11.2020</td> </tr> <tr> <td>5</td> <td>Oct'20 to Mar'21</td> <td>25.05.2021</td> </tr> <tr> <td>6</td> <td>Apr'21 to Sep'21</td> <td>30.11.2021</td> </tr> </tbody> </table>	Sr. No.	Compliance period	Date of submission	1	Oct'18 to Mar'19	31.05.2019	2	Apr'19 to Sep'19	28.11.2019	3	Oct'19 to Mar'20	20.05.2020	4	Apr'20 to Sep'20	26.11.2020	5	Oct'20 to Mar'21	25.05.2021	6	Apr'21 to Sep'21	30.11.2021
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Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2022
		Summary of the compliance to the measures suggested in EMP are given in Annexure - 5 .
xxi.	There shall be no disturbance to the sand dunes. The pipelines shall be laid using advanced method viz. Horizontal Directional Drilling (HDD) so as to avoid disturbance to the sand dunes/creeks/ mangroves.	Complied. There is no sand dune in the SEZ area. Point noted. No pipelines for intake and outfall of sea water are laid till now and same will be studied as and when required. HDD method will be explored for creek crossing for other pipelines.
Part - B: General Conditions		
	Construction Phase	
i.	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Not applicable at present. Most of the construction labours reside in the nearby villages where all basic facilities are easily available. There are no housing requirements for labours inside the project area.
ii.	A first aid room will be provided in the project both during construction and operation of the project.	Complied. APSEZ has established Occupational Health Center & First Aid facility at different locations within SEZ, which will be utilized during entire construction as well as operation phase of SEZ project. In case of emergency situation requiring higher level of treatment, the facilities at Adani hospital (Multi-Specialty) having 110 bedded facilities located with SEZ area can be utilized.
iii.	All the topsoil excavated during construction phase should be stored	Complied. Excavated topsoil, if any, will be used for the horticulture

Status of the conditions stipulated in Environment and CRZ Clearance

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iv	Disposal of muck during construction phase should not create any adverse effect on the neighboring communities and be disposed, taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.	<p>Complied.</p> <p>No excavated muck has been generated and disposed-off. Construction waste, if any, is utilized for area development within the project site.</p>																																																																																																
v	Soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.	<p>Complied.</p> <p>Environment Monitoring is being carried out on regular basis in Port & SEZ areas through NABL accredited and MoEF&CC approved agency namely M/s. Pollucon Laboratories Pvt. Ltd. Surat and Unistar Environment and Research Labs Pvt. Ltd., Vapi. Summary of the ground water as well as soil assessment for duration from Oct'21 to Mar'22 is mentioned below.</p> <p>Bore Hole Water Sampling:</p> <p>Sampling locations & frequency: 4 nos. (Half Yearly)</p> <table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Parameter</th> <th>Unit</th> <th>Max. Value</th> <th>Min. Value</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>pH</td> <td>--</td> <td>7.87</td> <td>7.37</td> <td>7.61</td> </tr> <tr> <td>2</td> <td>Salinity</td> <td>ppt</td> <td>5.69</td> <td>2.79</td> <td>4.20</td> </tr> <tr> <td>3</td> <td>Oil & Grease</td> <td>mg/L</td> <td>ND*</td> <td>ND*</td> <td>ND*</td> </tr> <tr> <td>4</td> <td>Hydrocarbon</td> <td>mg/L</td> <td>ND*</td> <td>ND*</td> <td>ND*</td> </tr> <tr> <td>5</td> <td>Lead as Pb</td> <td>mg/L</td> <td>0.08</td> <td>0.061</td> <td>0.07</td> </tr> <tr> <td>6</td> <td>Arsenic as As</td> <td>mg/L</td> <td>ND*</td> <td>ND*</td> <td>0.00</td> </tr> <tr> <td>7</td> <td>Nickel as Ni</td> <td>mg/L</td> <td>0.168</td> <td>0.073</td> <td>0.101</td> </tr> <tr> <td>8</td> <td>Total Chromium as Cr</td> <td>mg/L</td> <td>0.067</td> <td>0.067</td> <td>0.067</td> </tr> <tr> <td>9</td> <td>Cadmium as Cd</td> <td>mg/L</td> <td>0.097</td> <td>0.097</td> <td>0.097</td> </tr> <tr> <td>10</td> <td>Mercury as Hg</td> <td>mg/L</td> <td>ND*</td> <td>ND*</td> <td>ND*</td> </tr> <tr> <td>11</td> <td>Zinc as Zn</td> <td>mg/L</td> <td>0.386</td> <td>0.168</td> <td>0.292</td> </tr> <tr> <td>12</td> <td>Copper as Cu</td> <td>mg/L</td> <td>ND*</td> <td>ND*</td> <td>ND*</td> </tr> <tr> <td>13</td> <td>Iron as Fe</td> <td>mg/L</td> <td>0.383</td> <td>0.109</td> <td>0.246</td> </tr> <tr> <td>14</td> <td>Insecticides/Pesticides</td> <td>µg/L</td> <td>Absent</td> <td>Absent</td> <td>Absent</td> </tr> <tr> <td>15</td> <td>Depth of Water Level from Ground Level</td> <td>meter</td> <td>2.1</td> <td>1.8</td> <td>1.93</td> </tr> </tbody> </table> <p style="text-align: right;">*ND = Not Detected</p>	Sr. No.	Parameter	Unit	Max. Value	Min. Value	Average	1	pH	--	7.87	7.37	7.61	2	Salinity	ppt	5.69	2.79	4.20	3	Oil & Grease	mg/L	ND*	ND*	ND*	4	Hydrocarbon	mg/L	ND*	ND*	ND*	5	Lead as Pb	mg/L	0.08	0.061	0.07	6	Arsenic as As	mg/L	ND*	ND*	0.00	7	Nickel as Ni	mg/L	0.168	0.073	0.101	8	Total Chromium as Cr	mg/L	0.067	0.067	0.067	9	Cadmium as Cd	mg/L	0.097	0.097	0.097	10	Mercury as Hg	mg/L	ND*	ND*	ND*	11	Zinc as Zn	mg/L	0.386	0.168	0.292	12	Copper as Cu	mg/L	ND*	ND*	ND*	13	Iron as Fe	mg/L	0.383	0.109	0.246	14	Insecticides/Pesticides	µg/L	Absent	Absent	Absent	15	Depth of Water Level from Ground Level	meter	2.1	1.8	1.93
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Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2022			
		8	Organic Matter	%	0.75
9	CEC	meq/100 gm	10.03	7.4	
		<p>From the above results it can be inferred that</p> <ul style="list-style-type: none"> • The ground level in this area is saline in nature due to close proximity to the coast. • There is no threat to ground water quality by leaching of heavy metals and other toxic contaminants. • There is no leaching of heavy metals and other toxic contaminants through soil. <p>Please refer Annexure - 6 for detailed analysis reports. Approx. INR 14.31 Lakh is spent for all environmental monitoring activities during the FY 2021-22 for overall APSEZ, Mundra.</p>			
vi	Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dump sites for such material must be secured so that they should not leach into the ground water.	<p>Complied.</p> <p>Construction spoils including bituminous material is being kept at identified temporary storage area outside CRZ and is being utilized for area development purpose as and when required.</p> <p>Hazardous materials such as diesel, lube oil etc. are handled with utmost care and all applicable rules are followed. Storage area is provided with paving and spill kit to ensure there is no contamination to soil or ground water.</p> <p>Used oil is sold to GPCB approved recycler namely M/s. Western India Petro Chem Ind - Bhavnagar, Aviation Corporation - Kutch & Aroma Petrochem - Bhavnagar. Oily rags are being disposed through co-processing at cement industries namely M/s. Ambuja Cement Ltd., Kodinar. Dates of validity of all the vendors and details of the same were submitted along with last half yearly EC compliance report for the period Apr'18 to Sep'18. Necessary approvals from GPCB for disposal of hazardous wastes are obtained. Authorization copy was submitted with compliance report submission for the period Apr'17 to Sep'17.</p> <p>Individual units within SEZ are handling their hazardous wastes as per Hazardous waste rules – 2016 after obtaining necessary permissions from GPCB.</p>			

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2022
vii	Any hazardous waste generated during construction phase should be disposed off as per applicable rules and norms with necessary approvals of the Gujarat Pollution Control Board.	<p>Complied.</p> <p>All the hazardous wastes are being handled as per Hazardous Waste Rules – 2016.</p> <p>Please refer Point No. vi (General Condition: Construction Phase) for further details.</p>
viii	The diesel generator sets to be used during construction phase should be low sulphur diesel type and should conform to Environment (Protection) Rules prescribed for air and noise emission standards.	<p>Complied.</p> <p>DG sets are being used only as power back up source in case of power failure. Presently, cumulative capacity of all DG sets installed at APSEZ within SEZ area is 3485 KVA. During the compliance period of Oct'21 to Mar'22, there was no instance of power failure hence it was not required to operate the DG sets.</p> <p>All the DG sets are of low sulphur diesel type. Details of the same were submitted along with half yearly compliance report for the period Apr'20 to Sep'20. DG sets are being used in conformance to the EPA norms and proof for the same was submitted along with compliance period i.e. Apr'17 to Sep'17.</p>
ix	The diesel required for operating DG sets shall be stored in underground tanks if required; clearance from Chief Controller of Explosives shall be taken.	<p>Complied.</p> <p>Diesel is stored in the underground tank located in existing port area and approval of the same from Chief Controller of Explosives is obtained from PESO with License no. P/HQ/GJ/15/5188 (P283539) dated 23.01.2020 and is valid till 31.12.2022. Details of the same were submitted along with half yearly EC Compliance report for the period Oct'19 to Mar'20.</p>
x	Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards and should operate only during non-peak hours.	<p>Complied.</p> <p>The vehicles of on-going construction work enter inside the premises only after passing through the fitness check at vehicle health-check centre established by APSEZ. At the vehicle health check-up centre, parking light, reverse light, Horn, wheel, breaks, mirror, etc. are checked before allowing the vehicle to enter the site.</p> <p>Valid PUC Certification is also being checked for all the vehicles while entering in to APSEZ premises.</p> <p>Majority of the vehicles bringing construction materials are</p>

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2022																																																						
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xi	Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/GPCB.	<p>Complied.</p> <p>Ambient Air Quality and Noise monitoring are being carried out by NABL accredited and MoEF&CC authorized agency namely M/s. Pollucon Laboratories Pvt. Ltd. Surat and Unistar Environment and Research Labs Pvt. Ltd., Vapi. Summary of the same for duration from Oct'21 to Mar'22 is mentioned below.</p> <p>Air sampling locations & frequency: 9 nos. (twice a week) & Noise sampling locations & frequency: 6 nos. (once in a month)</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Unit</th> <th>Max</th> <th>Min</th> <th>Average</th> <th>Perm. Limit[§]</th> </tr> </thead> <tbody> <tr> <td colspan="6" style="text-align: center;">AAQM</td> </tr> <tr> <td>PM₁₀</td> <td>µg/m³</td> <td>89.18</td> <td>40.36</td> <td>72.22</td> <td>100</td> </tr> <tr> <td>PM_{2.5}</td> <td>µg/m³</td> <td>35.18</td> <td>14.56</td> <td>25.69</td> <td>60</td> </tr> <tr> <td>SO₂</td> <td>µg/m³</td> <td>16.23</td> <td>5.11</td> <td>11.70</td> <td>80</td> </tr> <tr> <td>NO₂</td> <td>µg/m³</td> <td>25.35</td> <td>7.15</td> <td>19.5</td> <td>80</td> </tr> <tr> <th>Noise</th> <th>Unit</th> <th>Leq Max</th> <th>Leq Min</th> <th>Average</th> <th>Leq Perm. Limit*</th> </tr> <tr> <td>Day Time</td> <td>dB(A)</td> <td>71.25</td> <td>53.25</td> <td>63.38</td> <td>75</td> </tr> <tr> <td>Night Time</td> <td>dB(A)</td> <td>66.20</td> <td>48.28</td> <td>57.95</td> <td>70</td> </tr> </tbody> </table> <p style="text-align: right;">[§] as per NAAQ standards, 2009 * as per CC&A granted by GPCB</p> <p style="text-align: center;">Values recorded confirms to the stipulated standards.</p> <p>Such environmental monitoring is being carried out on continuous basis at stipulated frequencies. The analysis results are being closely observed for incremental pollution load. From the above results and past data, it can be inferred that the emission levels are well within the prescribed standards. All the analysis data collected are submitted to the concerned authorities as part of the six-monthly compliance reports. The data is also submitted to GPCB on monthly basis as part of the online submission – Monthly Patrak.</p> <p>Please refer Annexure - 6 for detailed analysis reports. Approx. INR 14.31 Lakh is spent for all environmental monitoring activities during the FY 2021-22 for overall APSEZ, Mundra.</p>	Parameter	Unit	Max	Min	Average	Perm. Limit [§]	AAQM						PM ₁₀	µg/m ³	89.18	40.36	72.22	100	PM _{2.5}	µg/m ³	35.18	14.56	25.69	60	SO ₂	µg/m ³	16.23	5.11	11.70	80	NO ₂	µg/m ³	25.35	7.15	19.5	80	Noise	Unit	Leq Max	Leq Min	Average	Leq Perm. Limit*	Day Time	dB(A)	71.25	53.25	63.38	75	Night Time	dB(A)	66.20	48.28	57.95	70
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Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2022
		<p>Following safeguard measures are taken for abatement of dust and noise emissions.</p> <ul style="list-style-type: none"> • Regular sprinkling on road and other open area • Regular cleaning of roads through mechanized equipments • Development of greenbelt along the periphery of the storage yards/back up area • D.G. Sets having Acoustic enclosures • Transportation of loose dry cargo through covered vehicles / wagons / conveyer system • Regular maintenance of plant machineries and equipments <p>Individual member units are also carrying out environmental monitoring in line with their permissions and the same is also being ensured during industry site visit. Analysis reports of member units are also attached as Annexure – 6.</p>
xii	Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and amended as on 27 th August, 2003. (The above condition is applicable only if the project site is located within 100 Kms of Thermal Power Stations).	<p>Complied.</p> <p>Fly ash generated from Adani Power Limited, Mundra is being disposed by selling to Cement and Brick Manufacturing units. During the compliance period Oct'21 to Mar'22 approx. 0.16 MMT of fly ash has been disposed by selling to cement, road, flyover etc.. Fly ash mixed paver blocks are being used for development of back up area, footpath, colonies area, parking area, approach road etc. as and when require.</p> <p>Fly ash based PPC cement is used for construction activity.</p>
xiii	Ready mixed concrete must be used in building construction.	<p>Complied.</p> <p>Only RMC is used for construction activity.</p>
xiv	Storm water control and its re-use should be regulated as per CGWB and BIS standards for various applications.	<p>Complied.</p> <p>Storm water drainage systems are provided. There are no perennial rivers and the possibility of storm water run-off is only during monsoon season. The area is receiving scanty rainfall and there is no continuous flow of water during monsoon. Therefore presently, the storm water drainage is designed to facilitate the area drainage meeting with the downstream part of water area.</p>
xv	Water demand during	Complied.

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2022
	construction should be reduced by use of pre-mixed concrete, curing agents and other referred best practices.	Only RMC is used for construction activity.
xvi	Permission to draw ground water shall be obtained from the competent Authority prior to construction /operation of the project.	Complied. No ground water is used during construction & operation stage of the project. Current sources of water are through GWIL and desalination plant of APSEZ. Average, water consumption for entire APSEZ area is 3.45 MLD during the compliance period Oct'21 to Mar'22.
xvii	Separation of grey and black water should be done by the use of dual plumbing line for separation of grey and black water.	Not applicable As per the master planning all types of wastewater generated are transferred through common conveying system for providing desired treatment at CETP. Treated wastewater is utilized for gardening purpose within the premises of APSEZ / individual industries. It may be noted that condition number xvi to xxi are imposed on all member industries coming up within the SEZ areas (as part of the Lease Deed agreement). The same practice will be continued in future also. As suggested by RO, Bhopal during the site visit, an environment monitoring committee is formed which are ensuring strict compliance of the stipulated conditions by individual industries.
xviii	Fixtures for shower, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing devices or sensor based control.	Complied. Water flow reducers are installed at various locations within APSEZ. The water flow reducers consume approx. 66% less water compared to the normal tap. Water free urinals are also installed at Port User Buildings for water conservation. In phase wise manner, all the fixtures will be replaced with such water efficient devices. <ul style="list-style-type: none"> • Water flow reducers (total 8740 nos.) are provided in taps of various operation and administrative buildings to reduce the water consumption and are in use. • Total 128 Water-free urinals are installed and in operation within APSEZ.
xix	Use of glass may be	Complied

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2022
	reduced by up to 40% to reduce the electricity consumption and load on air-conditioning. If necessary, use high quality double glass with special reflective coating in windows.	Majority of the building envelopes are constructed with energy efficient building materials. While using glass, wherever required, it is ensured that only high-quality glass with reflective coating is used.
xx	Roof should meet prescriptive requirements as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfill requirements.	Complied Majority of the building envelopes (including roofs) are constructed with ECBC compliant building materials having appropriate thermal insulation.
xxi	Opaque wall should meet prescriptive requirement as per Energy Conservation Building Code which is proposed to be mandatory for all air-conditioned spaces while it is aspirational for non-air-conditioned spaces by use of appropriate thermal insulation material to fulfil these requirement.	Complied Majority of the building envelopes (including walls) are constructed with ECBC compliant building materials having appropriate thermal insulation.
xxii	The approval of the competent authority shall be obtained for structural safety of the buildings due to earthquake, adequacy of firefighting equipments, etc. as per National Building Code including protection measures from lightning etc.	Complied Mundra falls in seismic zone V. All the building structures constructed, if any, will meet the requirements of the applicable guidelines for safety. The same practice will continue in future also. However, being a developer, no buildings are constructed by APSEZ.
xxiii	Regular supervision of the above and other measures for monitoring	Complied. SEZ industries were visited to check measures taken for

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2022
	<p>should be in place all through the construction phase, so as to avoid disturbance to the surroundings.</p>	<p>Energy Conservation, Water Conservation, Waste and Hazardous waste management and phase out plan of Ozone depleting substance during the compliance period. Various industries shared the data in line with above reference. Details of the same were submitted along with EC compliance report for the period Apr'18 to Sep'18.</p> <p>It may be noted that condition number xvi to xxi are imposed on all member industries coming up within the SEZ areas (as part of the Lease Deed agreement). The same practice will continue in future also. As suggested by RO, Bhopal during the site visit, an environment monitoring committee is formed and ensures strict compliance of the stipulated conditions by individual industries.</p> <p>EMS and Compliance verification of individual SEZ units carried out during the compliance period w.r.t. Water & Wastewater Management, Air Management, Hazardous & Non-Hazardous Waste Management, Greenbelt, etc. in line with their statutory permissions and there was no any major non-compliance observed.</p>
xxiv	<p>Under the provisions of Environment (Protection) Act 1986, legal action shall be initiated against the project proponent if it is found that construction of the project has been started without obtaining environmental clearance.</p>	<p>Point noted.</p> <p>Wherever applicable, construction activities have started only after obtaining environmental clearance.</p>
	<p>Operation Phase</p>	
i.	<p>The PP while issuing the allotment letter to individual member units shall specifically mention the allowable maximum quantity of water usage and effluent generated by each member unit.</p>	<p>Complied.</p> <p>Provisions are made while issuing the allotment letter to individual member units for specifically mentioning the allowable maximum quantity of water usage and effluent generated by each member unit. Sample copy of one of such letter was submitted along with compliance report submission for the period Oct'16 to Mar'17.</p>
ii.	<p>The PP shall establish an environmental monitoring cell with all</p>	<p>Complied.</p> <p>APSEZL has a well-structured Environment Management Cell,</p>

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2022																								
	<p>the potential polluting units as members to review the environmental monitoring data and suggest improvements.</p>	<p>staffed with qualified manpower for implementation of the Environment Management Plan at site. Site team report to Sr. Manager (Environment) at Corporate, who heads the Environment Management Cell who directly reports to the top management. Environment Management Cell Organogram were submitted as part of compliance report submission for the duration of Apr'21 to Sep'21. And there is no further change.</p> <p>Separate budget for the Environment protection measures is earmarked every year. All environment and horticulture activities are considered at corporate level and budget allocation is done accordingly. No separate bank account is maintained for the same however, all the expenses are recorded in advanced accounting system of the organization.</p> <p>Budget for environmental management measures (including horticulture) for the FY 2021-22 is to the tune of INR 1521.59 lakh. Out of which, Approx. INR 1371.79 lakh are spent during the year 2021-22. Detailed breakup of the expenditures for the past 3 years is attached as Annexure - 7.</p> <p>Please refer Point No. xxiii (General Condition: Construction Phase) for further details.</p>																								
iii.	<p>Treated effluent emanating from STP shall be recycled / reused to the maximum extent possible. Treatment of 100% grey water by decentralized treatment should be done. Discharge of unused treated effluent shall conform to the norms and standards of the Pollution Control Board. Necessary measures should be made to mitigate the odour problem from STP.</p>	<p>Complied.</p> <p>APSEZ has total installed capacity of 6.07 MLD for treatment of effluent / sewage generated at various locations. Details regarding the same are mentioned below. The treated sewage from these decentralized units meets the norms stipulated by GPCB and it is used for gardening purpose.</p> <table border="1" data-bbox="625 1549 1448 1791"> <thead> <tr> <th>Location</th> <th>Capacity</th> <th>Technology</th> </tr> </thead> <tbody> <tr> <td>CETP</td> <td>2.5 MLD</td> <td>Aerobic Digestion</td> </tr> <tr> <td>Shantivan Colony STP</td> <td>350 KLD</td> <td>Aerobic Digestion</td> </tr> <tr> <td>Shantivan Colony STP</td> <td>250 KLD</td> <td>Aerobic Digestion</td> </tr> <tr> <td>Adani House STP</td> <td>150 KLD</td> <td>PVA Gel Technology</td> </tr> <tr> <td>Samudra Township STP</td> <td>2.5 MLD</td> <td>MBR</td> </tr> <tr> <td>Liquid Terminal ETP</td> <td>265 KLD</td> <td>Aerobic Digestion</td> </tr> <tr> <td>West Port STP</td> <td>55 KLD</td> <td>FAB</td> </tr> </tbody> </table> <p>CETP of 2.5 MLD capacity is also constructed in SEZ area (having a separate independent environmental clearance). Sewage generated from individual industry is treated by</p>	Location	Capacity	Technology	CETP	2.5 MLD	Aerobic Digestion	Shantivan Colony STP	350 KLD	Aerobic Digestion	Shantivan Colony STP	250 KLD	Aerobic Digestion	Adani House STP	150 KLD	PVA Gel Technology	Samudra Township STP	2.5 MLD	MBR	Liquid Terminal ETP	265 KLD	Aerobic Digestion	West Port STP	55 KLD	FAB
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		<p>individual industry itself. However, some of the industries are giving their sewage to the CETP for treatment and final disposal. List of CETP member units were submitted along with half yearly EC compliance report for the period Oct'19 to Mar'20. And there is no further change.</p> <p>The treated effluent from CETP confirms to the GPCB norms. Treated water is used for gardening / horticulture purpose within CETP premises and SEZ areas. Online monitoring system at the discharge point is provided to get the system alert in case of any deviation from discharge norms.</p> <p>STP of 2.5 MLD capacity is also constructed in SEZ area as part of social infrastructure project (having a separate independent environmental clearance).</p> <p>Assessment of treated sewage is being carried out by NABL accredited and MoEF&CC approved agency namely M/s. Pollucon Laboratories Pvt. Ltd. Surat and Unistar Environment and Research Labs Pvt. Ltd., Vapi. The summary of analysis results is mentioned below.</p> <p>Treated Water Analysis (Frequency Twice in a Month - 2 STPs)</p> <table border="1" data-bbox="597 1270 1474 1570"> <thead> <tr> <th>Parameter</th> <th>Unit</th> <th>Max</th> <th>Min</th> <th>Average</th> <th>Perm. Limit[§]</th> </tr> </thead> <tbody> <tr> <td>pH</td> <td>--</td> <td>8.74</td> <td>7.04</td> <td>7.64</td> <td>6.5 to 9.0</td> </tr> <tr> <td>TSS</td> <td>mg/L</td> <td>26</td> <td>8</td> <td>16.42</td> <td>100</td> </tr> <tr> <td>BOD (3 Days @ 27 °C)</td> <td>mg/L</td> <td>22</td> <td>10</td> <td>13.58</td> <td>30</td> </tr> <tr> <td>Residual Chlorine</td> <td>ppm</td> <td>0.9</td> <td>0.6</td> <td>0.73</td> <td>--</td> </tr> <tr> <td>Fecal Coliform</td> <td>MPN/100 ml</td> <td>280</td> <td>0.6</td> <td>27.38</td> <td>< 1000</td> </tr> </tbody> </table> <p>[§] as per CC&A granted by GPCB</p> <p>Please refer Annexure - 6 for detailed analysis reports. Approx. INR 14.31 Lakh is spent for all environmental monitoring activities during the FY 2021-22 for overall APSEZ, Mundra.</p> <p>Greenbelt area developed around the treatment plants act as barrier for odour. In addition to this, regular supervision is done to ensure there is no odour problem from any of the treatment plants.</p>	Parameter	Unit	Max	Min	Average	Perm. Limit [§]	pH	--	8.74	7.04	7.64	6.5 to 9.0	TSS	mg/L	26	8	16.42	100	BOD (3 Days @ 27 °C)	mg/L	22	10	13.58	30	Residual Chlorine	ppm	0.9	0.6	0.73	--	Fecal Coliform	MPN/100 ml	280	0.6	27.38	< 1000
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iv.	<p>The solid waste generated should be properly collected and segregated. Wet garbage should be composted and dry/inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material.</p>	<p>Complied.</p> <p>Waste Management – APSEZ has adopted 5R concept for environmentally sound management of different types of solid & liquid wastes. Please refer below details about management of each type of waste.</p> <p>Solid Waste: A well-established system for segregation of dry & wet waste is in place. All wet waste (Organic waste) is being segregated & utilized for compost manufacturing and/or biogas generation for cooking purpose. The compost is further used by in house horticulture team for greenbelt development. Whereas dry recyclable waste is being sorted in various categories. Presently manual sorting is being done for sorting of different types of solid waste. Segregated recyclable materials such as Paper, Plastic, Cardboard, PET Bottles, and Glasses, etc. are then sent to respective recycling units, whereas remaining non-recyclable waste is bailed and sent to cement plant (M/s. Ambuja Cement Ltd., Kodinar) for Co-processing as RDF (Refused Derived Fuel).</p> <p>APSEZ, Mundra is certified for Zero Waste to Landfill management system (ZWTL MS 2020) by TUV Rheinland India Pvt. Ltd. (valid up to 31.05.2024). Details of the same were submitted as part of compliance report submission for the duration of Apr'21 to Sep'21.</p> <p>Hazardous & Other Waste:</p> <ul style="list-style-type: none"> • Bio medical waste generated from OHCs and Adani Hospital is being disposed at Common Bio Medical Waste Treatment Facility namely M/s. Distromed Kutch Services Pvt. Ltd., Bhuj. • E – Waste & Used Batteries are being sold to GPCB registered recyclers namely M/s. Galaxy Recycling, Rajkot and Sabnam Enterprise, Kutch respectively. • Solid Hazardous Waste is being disposed through co-processing / incineration through common facility i.e. M/s. Saurashtra Enviro Projects Pvt. Ltd., Bhachau and/or cement industries of Ambuja Cement Ltd., Kodinar. Used/Waste Oil is being sold to GPCB authorized recyclers / re-processors namely M/s. Western India Petro Chem Ind - Bhavnagar, Aviation Corporation - Kutch & Aroma Petrochem - Bhavnagar. It is also being reused within

Status of the conditions stipulated in Environment and CRZ Clearance

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		<p>organization for lubrication purpose.</p> <ul style="list-style-type: none"> Discarded drums / barrels are being sold to authorized decontamination facility i.e. M/s. Jawrawala Petroleum, Ahmedabad. It is also being reused within organization for filling hazardous waste. Solid hazardous waste i.e. Tank bottom sludge is being sold to authorized recycler namely M/s. Mundra Oil Pvt. Ltd., Mundra for recycling. Expired paint materials is being disposed by incineration through common facility i.e. M/s. Saurashtra Enviro Projects Pvt. Ltd., Bhachau. Downgrade chemicals generated from cleaning of storage tanks / pipelines are being sold to authorized solvent recovery facilities namely M/s. Acquire Chemicals, Ankleshwar however during the compliance period, there was no disposal of downgrade chemicals. Slop Oil received from vessels is treated to separate water and oil particles in Oil Water Separator system. Separated oil from the same is being sold to authorized recycler / reprocessor namely M/s. Western India Petro Chem Ind - Bhavnagar, Aviation Corporation - Kutch & Aroma Petrochem – Bhavnagar and water is sent to ETP for further treatment. However during the compliance period, there was no received or disposal of Slope Oil. Horticulture waste is collected from various green belt areas and it is using for making of manure and manure is being utilizing in horticulture purpose within plant premises. <p>Details of permissions / agreements of hazardous waste authorized vendors were submitted along with pervious half yearly EC Compliance Reports. And there is no further change. The following table summarizes the waste management practice (from Oct'21 to Mar'22) for different types of wastes at APSEZ:</p> <table border="1" data-bbox="597 1665 1474 1921"> <thead> <tr> <th>Type of Waste</th> <th>Quantity in MT</th> <th>Disposal method</th> </tr> </thead> <tbody> <tr> <td colspan="3">Hazardous Waste</td> </tr> <tr> <td>Pig Waste</td> <td>6.71</td> <td rowspan="3">Co-processing at cement industries</td> </tr> <tr> <td>Oily Cotton waste</td> <td>64.89</td> </tr> <tr> <td>ETP / CETP Sludge</td> <td>27.35</td> </tr> <tr> <td>Used / Spent Oil</td> <td>146.98</td> <td>Sell to registered recycler</td> </tr> <tr> <td>Discarded Containers / Barrels</td> <td>2.89</td> <td>Sell to registered recycler</td> </tr> </tbody> </table>	Type of Waste	Quantity in MT	Disposal method	Hazardous Waste			Pig Waste	6.71	Co-processing at cement industries	Oily Cotton waste	64.89	ETP / CETP Sludge	27.35	Used / Spent Oil	146.98	Sell to registered recycler	Discarded Containers / Barrels	2.89	Sell to registered recycler
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v.	<p>Diesel power generating sets proposed as source of backup power for elevators and common area illumination during operational phase should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Low sulphur diesel should be used. The location of the DG sets may be decided in consultation with the Gujarat Pollution Control Board.</p>	<p>Complied.</p> <p>DG sets are being used only as power back up source in case of power failure.</p> <p>Please refer Point No. viii & ix (General Condition: Construction Phase) for further details.</p> <p>Heights of stacks are maintained as needed for the combined capacity of all attached DG Sets. Locations of the DG sets are checked by GPCB officials during the site visits. Details of all DG set stack heights are mentioned below.</p> <table border="1"> <thead> <tr> <th>Sr. No.</th> <th>DG Location</th> <th>Capacity/KVA</th> </tr> </thead> <tbody> <tr><td>1</td><td>Adani House</td><td>750</td></tr> <tr><td>2</td><td>PUB</td><td>500</td></tr> <tr><td>3</td><td>PMC Store</td><td>82.5</td></tr> <tr><td>4</td><td>R&D Yard</td><td>50</td></tr> <tr><td>5</td><td>North Gate</td><td>320</td></tr> <tr><td>6</td><td>CRC North Gate</td><td>5</td></tr> <tr><td>7</td><td>North in Gate</td><td>5</td></tr> <tr><td>8</td><td>North Outgate</td><td>5</td></tr> <tr><td>9</td><td>WTP</td><td>380</td></tr> <tr><td>10</td><td>East Gate</td><td>30</td></tr> <tr><td>11</td><td>Airport</td><td>140</td></tr> <tr><td>12</td><td>Airport</td><td>125</td></tr> <tr><td>13</td><td>Gohersama Gate</td><td>5</td></tr> <tr><td>14</td><td>Airport crossing Gate</td><td>5</td></tr> <tr><td>15</td><td>Kharimithi Road Gate</td><td>5</td></tr> <tr><td>16</td><td>Adani Hospital</td><td>500</td></tr> <tr><td>17</td><td>Old port Gate</td><td>5</td></tr> </tbody> </table>			Sr. No.	DG Location	Capacity/KVA	1	Adani House	750	2	PUB	500	3	PMC Store	82.5	4	R&D Yard	50	5	North Gate	320	6	CRC North Gate	5	7	North in Gate	5	8	North Outgate	5	9	WTP	380	10	East Gate	30	11	Airport	140	12	Airport	125	13	Gohersama Gate	5	14	Airport crossing Gate	5	15	Kharimithi Road Gate	5	16	Adani Hospital	500	17	Old port Gate	5
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		18	West Gate	30	
		19	MRSS	250	
		20	MITAP Substation	62.5	
		21	Zarpara Gate	5	
		22	Navinal Gate	5	
		23	Culvert NO 109	5	
		24	Culvert NO 109	15	
		25	Agri Park	125	
		26	APL Road	7.5	
		27	APL Road	7.5	
		28	Trolley Mounted	30	
		29	Trolley Mounted	15	
		30	Trolley Mounted	15	
vi.	Noise should be controlled to ensure that it does not exceed the prescribed standards, During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.	<p>Complied.</p> <p>Noise monitoring is being carried out by NABL accredited and MoEF&CC authorized agency namely M/s. Pollucon Laboratories Pvt. Ltd. Surat and Unistar Environment and Research Labs Pvt. Ltd., Vapi.</p> <p>Please refer Point No. xi (General Condition: Construction Phase) for further details.</p>			
vii.	Green belt of adequate width and density preferably with local species along the periphery of the plot shall be raised so as to provide protection against particulates and noise.	<p>Being complied.</p> <p>APSEZ has developed "Dept. of Horticulture" which is taking measures/ steps for terrestrial greening as well as mangrove plantation. Development of greenbelt at various locations within the SEZ is an ongoing activity.</p> <p>Please refer condition no. xix (Specific Condition) for further details.</p>			
viii.	Weep holes in the compound walls shall be provided to ensure natural drainage of rain water in the catchment area during the monsoon period.	<p>Complied.</p> <p>Boundary walls are constructed in such a way by keeping weep holes for defined river path to facilitate free flow of water and it is ensured that water is not stagnant at any given point during rainy season.</p>			
ix.	Rain water harvesting for roof run-off and surface	<p>Complied.</p>			

Status of the conditions stipulated in Environment and CRZ Clearance

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	<p>run-off, as plan submitted should be implemented.</p>	<p>Groundwater recharge cannot be done at the project site since the entire project is in the intertidal / sub tidal areas. Rain water within project area is managed through storm water drainage.</p> <p>We have installed Rain water recharge bore well (4 Nos.) within our township to recharge ground water. Details of the same were submitted along with half yearly EC compliance report for the period Apr'19 to Sep'19. During FY 2021-22 Approx. 2.06 ML of rain water has been recharged to increase the ground water table.</p> <p>We have also connected roof top rain water duct of operational building (Tug berth building within MPT) with u/g water tank for utilization of collected rain water for gardening / horticulture purpose. Details of the same were submitted along with EC Compliance report for the period Oct'18 to Mar'19.</p> <p>However, Adani Foundation – CSR arm of Adani Group has carried out rainwater harvesting activities in the nearby villages for benefit of the locals.</p> <p>Water conservation Projects i.e. Roof Top Rain Water Harvesting, Desilting of Check dams, Bore Well Recharge and Pond deepening were taken up in past years, review and monitoring of all water harvesting structures had been taken up. Including this a big recharge operation by bunding was taken up for Zarpara village as rainfall was very good during FY 2021-22.</p> <p>To make connections between human actions and the level of biological diversity found within a habitat and/or ecosystem, this year Adani Foundation launch project "Sanrakshan" in coordination with GUIDE and Sahjeevan.</p> <p>Since 10 years considerable Water Conservation Work carried out in Mundra Taluka. Due to satisfactory rain in current year 1.11 mtr ground water table increased as per increased in coastal belt of Mundra as per Government Figures.</p> <p>Our water conservation work is as below.</p>

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2022
		<ul style="list-style-type: none"> ✓ A large number of water harvesting structure (Total 21 Nos. of check dams and Augmentation of 2 check dams (1 Check dam current year). ✓ Ground recharge activities (pond deepening work for more than 56 ponds) individually and 26 ponds under Sujlam Suflam Jal Abhiyan ✓ Pond deepening and bund strengthen of Rampar village pond increase water storage capacity. ✓ Roof Top Rain Water Harvesting 115 Nos. (50 Nos current FY 2021-22) which is having 10,000 litre storage which is sufficient for one year drinking water purpose for 5 people family. ✓ Recharge Borewell 189 Nos (83 Nos current FY 2021-22) which is best ever option to. ✓ Drip Irrigation 1158 Farmers (180 formers are supported with 15% of amount of total cost for maximum 4.0 lac. in current FY 2021-22) ✓ Bund construction on way of Nagmati River could save more than 575 MCFT water quantity which recharged in ground due to which borewell depth decreased by 50-100 Ft in Zarpara, Bhujpur and Navinal Vadi Vistar. ✓ Luni Pond Bund Repairing Work. <p>With the objective of to preserve the rainwater to reduce the impact of salinity and recharge the ground water (the main source of water) to facilitate the Agricultural activities as well as for drinking water.</p> <p>Please refer Annexure - 2 for full details of CSR activities carried out by Adani Foundation in the Mundra region.</p> <p>It may be noted that the individual industrial units will also be encouraged for taking various initiatives for rainwater harvesting within their premises / in the villages around the SEZ area.</p>
x.	The ground water level and its quality should be monitored regularly in consultation with Central Ground Water Authority.	<p>Complied.</p> <p>Ground Water Monitoring is being carried out on regular basis in SEZ areas through NABL accredited and MoEF&CC approved agency namely M/s. Pollucon Laboratories Pvt. Ltd. Surat and Unistar Environment and Research Labs Pvt. Ltd., Vapi.</p>

Status of the conditions stipulated in Environment and CRZ Clearance

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		<p>Please refer Point No. v (General Condition: Construction Phase) for further details.</p> <p>It may be noted that the analysis results of ground water quality are submitted to CGWB, West Central region, Ahmedabad vide our e-mail dated 14.03.2022. Details of the same are attached as Annexure – 8.</p>
xi.	<p>Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.</p>	<p>Complied.</p> <p>The entry and exit gates of SEZ and port are provided with ample parking area (210838 m²) near the gate. The entry / exit complex is fully equipped with traffic control equipments and round the clock security is provided for seamless support. No public space is utilized for parking of the vehicle. Details of the same were submitted along with half yearly EC Compliance Report for the period Apr'18 to Sep'18.</p>
xii.	<p>A report on the energy conservation measures conforming to energy conservation norms finalized by Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, R & D Factors etc. and submitted to the Ministry along with six monthly monitoring report.</p>	<p>Complied</p> <p>Energy audit of port user buildings (including the details about building materials and technology etc.) is being carried out on regular basis. Last energy audit was done during Jan-2022. Report of the same is submitted to Chief Electrical officer, Gandhinagar. Report of the same are attached as Annexure – 9.</p>
xiii.	<p>Energy conservation measures like installation of CFLs/TFLs for the lighting the areas outside the building should be an integral part of the project design and should be in place before project commissioning. Used CFLs and TFLs should be properly collected and disposed</p>	<p>Complied</p> <p>Energy Conservation through Installation of Motion Sensor (Occu switch) & AC Temp. controls in few of the buildings are provided.</p> <p>Measures for energy conservation are incorporated at design stage. Few of the buildings in MSTPL are designed as green building. Some features of the same are as below.</p> <ul style="list-style-type: none"> • Used fly ash based cement and bricks • Special types of glasses were used which gives maximum sunlight and less heat

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2022
	<p>off/sent for recycling as per the prevailing guidelines / rules of the regulatory authority to avoid mercury contamination. Solar panels may be used to the extent possible.</p>	<ul style="list-style-type: none"> • VOC free paint used certified by CII (Certificate of Indian Industries) • Water flow reducer installed in the entire building <p>CFL / LED lighting are being used at various common areas of SEZ as well buildings and townships. Used CFL are collected and sent for recycling through authorized e-waste collection agency.</p> <p>APSEZ has installed & commissioned 8.8 MW roof top solar plants within APSEZ and Township premises. APSEZ has also installed and commissioned 12 MW windmill and whatever electricity generated is being supplied to grid. Details of the same were submitted along with half yearly compliance report for the period Oct'18 to Mar'19.</p> <p>It may be noted that the individual industrial units will also be encouraged for taking various initiatives with respect to energy conservation (such as energy audit, installation of renewable energy sources, utilization of energy efficient fixtures etc.).</p>
xiv.	<p>Adequate measures should be taken to prevent odour problems from solid waste processing plant and STP.</p>	<p>Complied</p> <p>5R principals are adopted for sustainable waste management at APSEZ. Utmost care is being taken during the waste management and sewage /effluent treatment to ensure that there is no odour generation. Proper secondary treatment and disinfection is provided to the domestic sewage and treated sewage is utilized for horticulture purpose. These measures ensure that odor problem is not created in the surrounding area. Furthermore, greenbelt on the periphery of the treatment plant as well as waste management sites help to prevent odour problems.</p>
xv.	<p>The buildings should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.</p>	<p>Complied.</p> <p>Presently, all the buildings have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation. The same practice will be continued in future also.</p> <p>It may be noted that the individual industrial units will also be encouraged for consideration of these design parameters.</p>

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2022
xvi.	The environmental safeguards contained in the EIA Report should be implemented in letter and spirit.	Complied. Compliance report of all the environmental safeguards contained in the EIA report is attached as Annexure - 5 .
xvii.	Adequate drinking water facility be provided.	Complied. Drinking water facility at approx. 200 locations within APSEZ area is provided.
xviii.	Incremental pollution loads on the ambient air quality, noise and water quality should be periodically monitored after commissioning of the project.	Complied. Environment Monitoring (air, noise, water, soil) is being carried out on regular basis in Port & SEZ areas through NABL accredited and MoEF&CC approved agency namely M/s. Pollucon Laboratories Pvt. Ltd. Surat and Unistar Environment and Research Labs Pvt. Ltd., Vapi. Please refer following condition nos. for further details. <ul style="list-style-type: none"> • v, viii & xi of General Conditions – Construction Phase • iii of General Conditions – Operation Phase
xix.	Application of solar energy should be incorporated for illumination of common areas, lighting for gardens and street lighting in addition to provision for solar water heating. A hybrid system or fully solar system for portion of the apartments should be provided.	Complied. APSEZ has installed & commissioned 8.8 MW roof top solar plants within APSEZ and Township premises. APSEZ has also installed and commissioned 12 MW windmill and electricity generated from it is being supplied to grid. Please refer condition no. xiii of the General Conditions – Operation Phase for further details.
xx.	Ozone depleting substance (Regulation & Control) Rules should be followed while designing the air conditioning system of the project.	Complied. APSEZ is not procuring air conditioning systems which use ozone depleting gases. All the HVAC systems are with Ozone friendly gases within APSEZ. All new air conditioning systems installed, if any, will be designed in line with Ozone depleting substance (Regulation & Control) Rules.

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2022
		<p>It may be noted that the individual industrial units will also be encouraged to follow Ozone depleting substance (Regulation & Control) Rules while designing the air conditioning system of the project. The same will be implemented by individual unit as per project suitability.</p>
12	<p>Officials from the Regional Office of MOEF, Bhopal who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents / data by the project proponents during their inspection. A complete set of all the documents submitted to MoEF should be forwarded to the CCF, Regional Office of MOEF, Bhopal.</p>	<p>Complied.</p> <p>Full support is always extended to officers of regulatory authorities (including MoEF&CC and GPCB) visiting the project site. The documents as per their requirements are provided to them.</p> <p>The communication documents like application Form – 1, ToR received from MoEF&CC, Final EIA report, Public Hearing proceedings and recommendations of GCZMA are submitted to MoEF&CC, RO, Bhopal for necessary records.</p> <p>APSEZ was visited by RO, MoEF&CC Bhopal on 3rd May, 2018 for compliance verification. APSEZ provided all requisite information and documents required by the Regional Officer. During the said compliance verification visit, and as per the compliance certificate by Ro-MOEF&CC vide dated, 7th June 2018, there was no major non-compliance observed.</p> <p>Inline to the compliance certification process of Environment Clearance condition of Waterfront Development Plan, RO, MoEF&CC Bhopal had visited the site on 27th & 28th January, 2020 for compliance verification. APSEZ provided all requisite information and documents required by the Regional Officer (MoEF&CC). During the said compliance verification visit and as per the compliance certification received, there was no non-compliance observed.</p> <p>Inline to the compliance certification process of Consent to Operates of existing facilities developed under Waterfront Development Plan, RO, GPCB, Gandhidham had visited the site on 17th March, 2021 for compliance verification. APSEZ provided all requisite information and documents required by the Regional Officer (GPCB). During the said compliance verification visit and as per the compliance certification received, there was no non-compliance observed.</p> <p>Inline to the compliance of MoEF&CC Order dated 18th</p>

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2022
		<p>September, 2015, Joint Review Committee (JRC) comprising officials from various competent authorities visited the APSEZ, Mundra from 1st to 3rd September, 2021 to monitor the progress of implementation of the conditions stipulated in the order. APSEZ provided all requisite information and documents required by the JRC. As per the report received by MoEF&CC vide dated 01.12.2021, there was no non-compliance observed.</p> <p>It also be noted that officials from GPCB Regional office is also doing regular site visit. Last visit of Regional Office, GPCB was done on 07.05.2021. APSEZL has submitted the reply to the site visit report vide letter dated 14.05.2021 incorporating details of action taken in respect of the observations of the GPCB representative. Details of the same was submitted during the last compliance period Apr'21 to Sep'21.</p>
13	In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Ministry.	Point noted and agreed.
14	The Ministry reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provision of the Environmental (Protection) Act, 1986, to ensure effective implementation of the safeguard measures in a time bound and satisfactory manner.	Point noted and agreed.
15	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department Civil Aviation Department,	<p>Not Applicable at present.</p> <p>The mentioned approvals are not applicable to APSEZ since we are the infrastructure support provider. However, the applicable approvals will be availed by the individual member industries prior to construction of work. The environment management committee will ensure strict adherence to the</p>

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2022
	Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponent from the respective competent authorities.	condition by the individual industries.
16	These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and control of Pollution) act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.	Point noted and agreed.
17	The project proponent should advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Clearance and copies of clearance letters are available with the Gujarat Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forests at http://www.envfor.nic.in . The advertisement should be made within 10	Complied APSEZ has advertised Environmental and CRZ Clearance in two local newspapers "The Indian Express" (in English language) and "Kutch Mitra" (in vernacular language) on 24.07.14 (within 10 days from the date of receipt of the clearance letter) and copy of the same was submitted vide letter dated 05.08.2014 to Ministry of Environment, Forests & Climate Change, Bhopal.

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2022
	days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Bhopal.	
18	Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No. 460 of 2004 as may be applicable to this project.	Point noted and agreed.
19	Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Point noted and agreed.
20	A copy of the clearance letter shall be sent by the 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. The clearance letter shall also be put on the website of the company by the proponent.	Complied Copy of clearance letter was sent to concerned Panchayats, Zilla Parishad, Urban Local Body, Local NGOs and from whom suggestion/representation received. Details regarding the same were submitted to the MoEF & CC along with half yearly compliance report for the period from Apr – 2014 to Sep – 2014. Clearance letter is also put up on the website of the Adani ports https://www.adaniports.com/ports-downloads
21	The proponent shall upload the status of compliance of the	Complied. Compliance report of EC conditions is uploaded regularly. Last

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2022																					
	stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.	compliance report including results of monitoring data for the period of Apr'21 to Sep'21 was submitted to Regional Office of MoEF&CC @ Bhopal, Zonal Office of CPCB @ Baroda, GPCB @ Gandhinagar & Gandhidham and Dept. of Forests & Env., Gandhinagar vide our letter dated 27.11.2021. Copy of the same is also available on our web site https://www.adaniports.com/ports-downloads . A soft copy of the same was also submitted through e-mail on 30.11.2021 to all the concern authorities. Please refer below for the details regarding past six compliance submissions.																					
22	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.	<table border="1" data-bbox="662 821 1414 1073"> <thead> <tr> <th>Sr. No.</th> <th>Compliance period</th> <th>Date of submission</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Oct'18 to Mar'19</td> <td>31.05.2019</td> </tr> <tr> <td>2</td> <td>Apr'19 to Sep'19</td> <td>28.11.2019</td> </tr> <tr> <td>3</td> <td>Oct'19 to Mar'20</td> <td>20.05.2020</td> </tr> <tr> <td>4</td> <td>Apr'20 to Sep'20</td> <td>26.11.2020</td> </tr> <tr> <td>5</td> <td>Oct'20 to Mar'21</td> <td>25.05.2021</td> </tr> <tr> <td>6</td> <td>Apr'21 to Sep'21</td> <td>30.11.2021</td> </tr> </tbody> </table>	Sr. No.	Compliance period	Date of submission	1	Oct'18 to Mar'19	31.05.2019	2	Apr'19 to Sep'19	28.11.2019	3	Oct'19 to Mar'20	20.05.2020	4	Apr'20 to Sep'20	26.11.2020	5	Oct'20 to Mar'21	25.05.2021	6	Apr'21 to Sep'21	30.11.2021
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23	The environmental statement for each financial year ending 31 st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environmental (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional	Complied. Environmental statement for each financial year is submitted to GPCB. The same for the FY ending 31.03.2021 in Form-V is submitted to GPCB vide our letter dated 9 th June, 2021. Details of the same were submitted during last half yearly compliance report for the period Apr'21 to Sep'21. Copy of the same is also available on our web site https://www.adaniports.com/ports-downloads .																					

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'21 To : Mar'22
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2022
	Offices of MoEF by e-mail.	

**ANNEXURE A
Compliance Report of CRZ
Recommendation**

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'21 To : Mar'22
Status of the conditions stipulated in Environment and CRZ Clearance		

Note:

With respect to the project components attracting CRZ recommendation from GCZMA, following points shall be noted:

- GCZMA has recommended the CRZ proposal for Sea Water Intake, Outfall system and Pipeline.
- Construction with respect to Desalination Plant, sea water intake and outfall system has not been started yet.
- Existing units are having requisite environmental permissions (from state or central body, as the case may be) for discharging their wastewater, if any, to the Common Effluent Treatment Plant of MPSEZ Utilities Pvt. Ltd. having 2.5 MLD capacity (having a separate individual environmental clearance).
- Treated wastewater is being utilized within the premises of CETP and / or SEZ for the gardening / horticulture activities.
- As soon as the need for discharging the effluent / reject form the desalination plant into sea will arise, constriction work for the intake and outfall will be started.

In view of the above-mentioned facts, the compliance to the conditions stipulated in the CRZ recommendation will be submitted to all the competent authorities when the construction and operation activities are initiated for the project components attracting CRZ recommendation.

 Ports and Logistics	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'21 To : Mar'22
Status of the conditions stipulated in Environment and CRZ Clearance		

Annexure – B Compliance Status of MoEF & CC Order dated 18.09.2015

Based on the report submitted by Sunita Narain committee, MoEF&CC issued a Show Cause Notice (SCN) to APSEZ vide their letter dated 30.09.2013. APSEZ replied to the SCN vide letter dated 14.10.2013. Further, an order (containing 10 directions) was issued by MoEF&CC vide their letter dated 18.09.2015. Compliance to these 10 directions is mentioned below.

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Condition	Compliance Status as on 31-03-2022
i	The proposal of extension of the validity of environmental clearance granted to the North Port vide letter dated 12.01.2009 will be considered separately at later stage.	Point Noted & Complied After receipt of this order, so far APSEZ has not done any application to MoEF&CC for the proposed North port. The expansion of Waterfront Development plan has been proposed excluding North Port area.
ii	Bocha island, ecologically sensitive geomorphological features and areas in the island and creeks around the island will be declared as conservation zone action plan for its conservation must be prepared. M/s. APSEZ should provide necessary financial assistance for this purpose.	Complied This reply covers condition no ii, iv and v. Based on the MoEF&CC directions,
iv	A comprehensive and integrated study and protection of creeks/mangrove area including buffer zone, mapping of co-ordinates, running length, HTL, CRZ boundary, will be put in place. The plan will take note of all the conditions of approvals granted to all the project proponents in this area e.g. the reported case of disappearance of mangroves near navinal creek. The preservation of entire area to maintain the fragile ecological condition will be a part of the plan in relation to the creeks, mangrove conservation and conservation of bocha island up to baradimata and others.	<ol style="list-style-type: none"> 1. APSEZ, vide letter dtd. 19th October 2015 had requested GCZMA, for consideration of project for finalization of ToR for NCSCM. 2. Project was considered on 28th GCZMA meeting, scheduled on 22nd April 2016, where ToR was discussed and agreed, upon. 3. APSEZ, vide its letter dtd. 25th April 2016, submitted the proposal to GCZMA along with Scope of work, as submitted by NCSCM. 4. Service Order was issued to NCSCM vide SO dtd. 29th Aug 2016. Cost of the study as per the NCSCM proposal was 315 Lakh and 100% of payment has already paid to NCSCM. 5. NCSCM has carried out number of site surveys during the period, February 2017 – April 2018 as per the defined scope 6. The study report was submitted to GCZMA (with a copy to MoEF&CC vide letter dated 04.06.2018) for their consideration and recommendation if any. 7. A reminder letter was submitted to GCZMA vide letter dated 4th Jan 2019. Details of above chronology were submitted along with half yearly compliance report for the period Apr'19 to Sep'19.
v	NCSCM will prepare the plan in consultation with NIOT, PP and GCZMA. In recognition of the fact that the existing	The site survey carried out by NCSCM includes: <ol style="list-style-type: none"> 1. Bathymetry survey of creeks 2. Topography survey of intertidal areas 3. Mangrove survey (health and area demarcation)

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Condition	Compliance Status as on 31-03-2022
	<p>legal provisions under the E(P) Act 1986 do not provide for any authority to impose ERF by the government, the plan will be financed by the PP. the implementation will be carried out by GCZMA. The monitoring of the implementation will be carried by NCSCM.</p>	<p>4. Sampling of soil and water for analysis of physico-chemical and biological parameters 5. Tide and currents data collection (including residence time of tidal water) 6. Focus Group Discussions with the community in the close vicinity of the project area</p> <p>In addition to the site surveys, NCSCM has procured satellite images for analysis of mangrove cover.</p> <p>The data collected (through site surveys and analysis of satellite maps) was used as input for mathematical modelling. The modelling studies were carried out to understand the impacts of the development activities. Based on the outcome of the modelling studies the necessary conservation plan for protection of creeks and mangrove areas is prepared.</p> <p>Based on the final study report, outcome is summarized in to following points :</p> <ol style="list-style-type: none"> 1. There is no obstruction to any water stream (creeks / branches of creeks / rivers) 2. Presently, mangrove cover in and around APSEZ is over 2596 ha. There is substantial growth in mangrove cover to the tune of 502 ha (comparison between 2011 and 2019). 3. Mundra has undergone substantial development during this tenure. Hence it can be interpreted that the infrastructure development has not left any adverse impacts on ecology. <p>NCSCM study same was submitted to the GCZMA on 04.06.2018. Details of the same were submitted along with half yearly EC Compliance report for the period Apr'19 to Sep'19. The same was further submitted to GCZMA and MoEF&CC for their examination and recommendation vide (with a copy to MoEF&CC vide letter dated 04.06.2018 & reminder letter vide dated 4th Jan, 2019). Presentation on the findings of the report was made to GCZMA committee on 4th October 2019 and the recommendation for the same has been received vide email dtd 22nd Sept, 2020 with conditions. Details of the same were submitted as a part of</p>

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Condition	Compliance Status as on 31-03-2022										
		<p>previous half yearly EC compliance report for the period Oct'20 to Mar'21.</p> <p>As a part of GCZMA recommendations and NCSCM mangrove conservation action plan, APSEZ has undertaken following activities.</p> <table border="1" data-bbox="706 682 1490 1913"> <thead> <tr> <th data-bbox="706 682 782 741">Sr. No.</th> <th data-bbox="782 682 1031 741">Recommendations</th> <th data-bbox="1031 682 1490 741">Compliance</th> </tr> </thead> <tbody> <tr> <td data-bbox="706 741 782 1711">1.</td> <td data-bbox="782 741 1031 1711">Mangrove mapping and monitoring in and around APSEZ</td> <td data-bbox="1031 741 1490 1711"> <ul style="list-style-type: none"> APSEZ entrusted NCSCM, Chennai to carry out Monitoring of mangrove distribution in creeks in and around APSEZ and shoreline changes in Bocha island. As a part of this study, overall growth of mangroves in the creeks in and around APSEZ was assessed comparing Google earth images of 2017 & 2019 and it is observed that there was increase in mangrove cover between March 2017 and September 2019 to the extent of 256 Ha, which is about 10.7%. This suggests that the mangroves and the tidal system in the creeks remain undisturbed over this period. Analysis of data between categories indicated that there was an increase in dense mangroves and also conversion of scattered to sparse which also shows that the growth of mangroves in a progressive direction. Hence, there is an overall growth of mangroves in creeks in and around APSEZ, Mundra is 502 Ha between 2011 and 2019. The cost of the said study was INR 23.56 Lacs incurred by APSEZ. </td> </tr> <tr> <td data-bbox="706 1711 782 1913">2.</td> <td data-bbox="782 1711 1031 1913">Tidal observation in creeks in and around APSEZ</td> <td data-bbox="1031 1711 1490 1913"> <ul style="list-style-type: none"> APSEZ carried out the tidal observations at locations similar to 2017 in Kotdi, Baradimata, Navinal, Bocha and Khari creeks under the guidance of NCSCM. The observed tidal ranges indicate that the creeks </td> </tr> </tbody> </table>		Sr. No.	Recommendations	Compliance	1.	Mangrove mapping and monitoring in and around APSEZ	<ul style="list-style-type: none"> APSEZ entrusted NCSCM, Chennai to carry out Monitoring of mangrove distribution in creeks in and around APSEZ and shoreline changes in Bocha island. As a part of this study, overall growth of mangroves in the creeks in and around APSEZ was assessed comparing Google earth images of 2017 & 2019 and it is observed that there was increase in mangrove cover between March 2017 and September 2019 to the extent of 256 Ha, which is about 10.7%. This suggests that the mangroves and the tidal system in the creeks remain undisturbed over this period. Analysis of data between categories indicated that there was an increase in dense mangroves and also conversion of scattered to sparse which also shows that the growth of mangroves in a progressive direction. Hence, there is an overall growth of mangroves in creeks in and around APSEZ, Mundra is 502 Ha between 2011 and 2019. The cost of the said study was INR 23.56 Lacs incurred by APSEZ. 	2.	Tidal observation in creeks in and around APSEZ	<ul style="list-style-type: none"> APSEZ carried out the tidal observations at locations similar to 2017 in Kotdi, Baradimata, Navinal, Bocha and Khari creeks under the guidance of NCSCM. The observed tidal ranges indicate that the creeks
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Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Condition	Compliance Status as on 31-03-2022	
			<p>experience normal tidal ranges, adequate for the growth of mangroves.</p> <ul style="list-style-type: none"> The cost of the said activity was INR 1.0 Lacs.
		3.	<p>Removal of Algal and Prosopis growth from mangrove areas</p> <ul style="list-style-type: none"> Algal and Prosopis growth monitoring was done in and around mangrove area and algal encrustation was found in some of the mangrove areas, which has been removed manually. Algal & Prosopis removal from Mangrove area for FY 2021-22- The cost of the said activity was INR 2.8 Lacs incurred by APSEZ. Please refer attached Annexure - 1 for Report of Algal removal work in mangrove area.
		4.	<p>Awareness of mangroves importance in surrounding communities</p> <ul style="list-style-type: none"> Adani Foundation – CSR Arm of Adani group has done awareness camps/activities created in the community regarding importance of mangroves. Adani Foundation has also provided 8.95 lacs kg Dry Fodder and 24.25 lacs kg Green fodder in 21 villages of Mundra and Anjar Block to support the resource dependent villagers, to avoid their dependency on mangroves. The expenditure for fodder supporting activities was approx. 206.11 Lacs during the FY 2021-22. Village Gauchar land development for the fodder cultivation to made fodder sustain village & Avail green fodder in scarcity phase. With the support of Gauchar Seva Samiti Grassland development in Siracha – 85 Acre & Zarpara – 25 Acre done which resulted in total production of 82 ton. Other than this dedicated security guard with gate system deployed by APSEZ across the coastal area and no any unauthorized persons allowed within coastal as well as mangrove areas. Refer CSR report attached as

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Condition	Compliance Status as on 31-03-2022																													
			Annexure - 2.																												
		<p>Details of activities done as a part of GCZMA recommendations and NCSCM mangrove conservation action plan were submitted as a part of previous half yearly EC compliance report for the period Oct'20 to Mar'21.</p> <p>CZMP of Kutch region has been finalized and published on GCZMA website in the Month of Feb-2022. NCSCM has issued final authorized maps for HTL and CRZ Boundary prepared in line with approved CZMP of Gujarat State as per CRZ Notification, 2011. Maps are attached as Annexure -10.</p>																													
iii	The violations of specific condition of all the ECs and CRZ clearances, if any, will be examined and proceeded with the provisions of EP Act, 1986 independently.	<p>Complied</p> <p>During the said site visits from various regulatory authorities and as per the compliance certification received, there was no non-compliance observed.</p> <table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Authority</th> <th>Date of Visit</th> <th>Purpose of Visit</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>RO, MoEF&CC, Bhopal</td> <td>21st - 22nd Dec, 2016</td> <td>EC Compliance Certification of WFDP</td> </tr> <tr> <td>2</td> <td>RO, MoEF&CC, Bhopal</td> <td>3rd May, 2018</td> <td>EC Compliance Certification of WFDP & MSEZ</td> </tr> <tr> <td>3</td> <td>RO, MoEF&CC, Bhopal</td> <td>3rd & 4th Sep, 2019</td> <td>Compliance of the order of the Hon'ble HIGH COURT of Gujarat vide letter dated 22nd Aug. 2019 w.r.t. compliance verification of MoEF&CC order dated 18th Sep, 2015.</td> </tr> <tr> <td>4</td> <td>RO, MoEF&CC, Bhopal</td> <td>27th & 28th Jan, 2020</td> <td>EC Compliance Certification of WFDP</td> </tr> <tr> <td>5</td> <td>SPCB, Gandhinagar</td> <td>17th March, 2021</td> <td>CC&A Compliance Certification of existing facilities developed under WFDP</td> </tr> <tr> <td>6</td> <td>Joint Review Committee</td> <td>1st to 3rd Sep, 2021</td> <td>Compliance of the order of the Hon'ble HIGH COURT of Gujarat vide letter dated 22nd Aug. 2019 w.r.t. compliance verification of MoEF&CC order dated 18th Sep, 2015.</td> </tr> </tbody> </table>		Sr. No.	Authority	Date of Visit	Purpose of Visit	1	RO, MoEF&CC, Bhopal	21 st - 22 nd Dec, 2016	EC Compliance Certification of WFDP	2	RO, MoEF&CC, Bhopal	3 rd May, 2018	EC Compliance Certification of WFDP & MSEZ	3	RO, MoEF&CC, Bhopal	3 rd & 4 th Sep, 2019	Compliance of the order of the Hon'ble HIGH COURT of Gujarat vide letter dated 22 nd Aug. 2019 w.r.t. compliance verification of MoEF&CC order dated 18 th Sep, 2015.	4	RO, MoEF&CC, Bhopal	27 th & 28 th Jan, 2020	EC Compliance Certification of WFDP	5	SPCB, Gandhinagar	17 th March, 2021	CC&A Compliance Certification of existing facilities developed under WFDP	6	Joint Review Committee	1 st to 3 rd Sep, 2021	Compliance of the order of the Hon'ble HIGH COURT of Gujarat vide letter dated 22 nd Aug. 2019 w.r.t. compliance verification of MoEF&CC order dated 18 th Sep, 2015.
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Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Condition	Compliance Status as on 31-03-2022			
		7	NEERI, Nagpur	26 th Nov'20 & 6 th / 7 th Oct'21	EC Compliance verification of MSEZ
		<p>It may also be noted that GPCB, Regional Office does regular site visit of APSEZ area and no non-compliance observed.</p> <p>It also be noted that officials from GPCB Regional office is also doing regular site visit. Last visit of Regional Office, GPCB was done on 07.05.2021. APSEZL has submitted the reply to the site visit report vide letter dated 14.05.2021 incorporating details of action taken in respect of the observations of the GPCB representative. Details of the same was submitted during the last compliance period Apr'21 to Sep'21.</p>			
vi	There will be no development in the area restricted by the High court of Gujarat. APSEZ shall abide by the outcome of the PIL 12 of 2011 and other relevant cases.	<p>Complied</p> <p>The order passed by Hon' ble high court in context of PIL 12 of 2011 vide dated 10th Nov 2011. Subject PIL has been disposed off by Hon'ble High Court vide their order dated 17.04.2015 and now there is no restriction on development in the subject area. The order reads as <i>"In view of the aforesaid discussion, we do not find any merit in this writ petition. This writ petition fails and is accordingly dismissed. No order as to cost."</i> Copy of the order was submitted along with half yearly EC Compliance report for the period Apr'18 to Sep'18.</p> <p>Considering the above status and in line to submission of compliance of all the directions under this order, this condition is closed.</p>			
vii	APSEZ will submit specific action plan to protect the livelihood of fishermen along with budget.	<p>Complied.</p> <p>Adani Foundation (AF) is the CSR arm of the Adani Group actively working for upliftment of the communities in the surroundings of various project sites of Adani Group. AF has prepared a specific action plan to protect livelihood of fishermen at Mundra.</p> <p>Various initiatives, as stated below are discussed in detail in the report namely "Silent Transformation of Fisher folk at Mundra". Said report also includes the information related to the planned expenses to the tune of approx. 13.5 Cr. INR for various initiatives for the next</p>			

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Condition	Compliance Status as on 31-03-2022
		<p>five years (2016 – 2021) (Budget details provided in Page No. 68 of report). Copy of the same is already submitted to MoEF&CC vide our letter dated 10.09.2016.</p> <p>Till, Mar'22 approx. 11.52 Cr. INR, has already been invested. Further, details regarding the expenditure incurred against the commitment are attached as Annexure – 11.</p> <p>APSEZ is carrying out various initiatives specific to the Fisherfolk community which includes:</p> <ul style="list-style-type: none"> • Vidya Deep Yojana Developing school preparedness programme and empowering balwadis at fisherfolk settlement Under this scheme, 4 balwadis at different settlement has been constructed This programme include nutrition food, hygiene, awareness of health, cleanliness, discipline, regularity and development of basic age appropriate conception • Vidya Sahay Yojana – Scholarship Support All basic education supportive facilities have been created to promote education in fisher folk community. • Adani Vidya Mandir Children of the family with the income of salary less than 1.5 lac/annum are admitted School focusses on nutrition food, uniform and other services to the children for free. • Fisherman Approach in SEZ After due consultative process, APSEZ has provided 7 fishermen access roads for to approach to the sea for fishing activity. • Machhimar Arogya Yojana The Fisher folk communities are disposed to several water and air abided diseased due to exposure to unhygienic working conditions. Frequently Special Health care Camps are organized at Vasahat. Our Mobile health care unit van regularly visit fisher folk settlements • Machhimar Kaushalya Vardhan Yojana Based on need assessment a number of trades were introduced through the Adani Skill Development Centre in Mundra, where in fisher folk youth could join and get a number of technical and non-technical training • Machhimar Sadhan Sahay Yojana Fishing material support was provided by AF at Mundra as per the requests of Pagadiya fishermen. According to their needs, fishing nets, ropes, buoys, ice boxes, crates, weighing scales, anchors, solar lights etc., were provided • Machhimar Awas Yojana

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Condition	Compliance Status as on 31-03-2022
		<p>Shelters, equipped with basic facilities of a toilet and pure drinking water have been constructed for living while fishing and to provide a healthy and hygienic residence.</p> <ul style="list-style-type: none"> • Machhimar Shudhh Jal Yojana This scheme of providing potable water has helped in reducing the drudgery of women and contributed largely towards general wellbeing • Sughad Yojana Toilets for men and women are constructed at all three Vasahats. Infrastructure was accompanied with continuous awareness campaign on hygiene sanitation and use of toilets in particular. • Machhimar Akshay kiran Yojana Solar street lights at each settlement have been installed. For fish landing shed and school extension room have been fitted with solar inverter allowing late evening video shows for awareness and fish sorting work at ease. • Machhimar Suraksha Yojana Distance Alarm Transmission System – DATS' project was introduced in order to promote safety of the fishermen. Forced to be at sea to earn their livelihood puts the lives of many fishermen at risk • Machhimar Ajivika Uparjan Yojana Mangrove plantation in the area as means of alternate income generating activity for the fisher folk community during the non-fishing months. During the non-fishing months, the fishermen under usual circumstances were benefited by other alternate economic activity to sustain them. • Bandar Svachhata Yojana Waste bins have been provided for proper collection and segregation of waste. <p>Further, APSEZ is actively working with local community around the project area and provides required support for their livelihood and other concerns through the CSR arm – Adani Foundation. Adani Foundation is working in main four persuasions as below.</p> <ul style="list-style-type: none">  Education  Community Health  Rural Infrastructure  Sustainability Livelihood <p>Brief information about activities in the main four persuasions is mentioned below. Other than this, Adani Foundation has also worked for fight against COVID – 19 pandemic situations during this compliance period</p>

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Condition	Compliance Status as on 31-03-2022								
		<p>Activities carried out for the same are summarized as below.</p> <table border="1"> <thead> <tr> <th data-bbox="706 537 906 562">Area</th> <th data-bbox="906 537 1490 562">Activity</th> </tr> </thead> <tbody> <tr> <td data-bbox="706 562 906 1077">Fight Against COVID-19</td> <td data-bbox="906 562 1490 1077"> <ul style="list-style-type: none"> Started Covid care centre service at Samudra township to Provide medical services at 24 x7 hrs. Home Visit for Medical Prescription and advise for further treatment & co-ordination. AF team voluntary performed patients care and co-ordination duty at GKGH, Bhuj for 23 days. AHMPL, Mundra was converted into Covid Hospital with 110 bed Facilities with oxygen to extend Covid medical treatment over community. All related coordination done by our team for more than 353 OPD and IPD. Provided Oxygen Concentrator machines for Home isolated patients resulted in goodwill. 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For Preventive health care General and multispecialty camps Pediatric camp, General Health camps in 9 villages and Super specialist camp which benefitted more than 1100 patients of Mundra Taluka. 154 Widows, Senior Citizens and Handicapped people linked with Government pension scheme 16 Senior Citizens have been linked with Government Niradhar pension scheme, 34 senior Citizens linked up with Ayushman Yojana and 67 Senior Citizens were referred to GKGH Bhuj for chronic illness. </td> </tr> <tr> <td data-bbox="706 1881 906 1927">Sustainable Livelihood</td> <td data-bbox="906 1881 1490 1927">- 1031 families has benefitted by water supply at nine fisher folk vasahats under Machhimar Ajjivika</td> </tr> </tbody> </table>	Area	Activity	Fight Against COVID-19	<ul style="list-style-type: none"> Started Covid care centre service at Samudra township to Provide medical services at 24 x7 hrs. Home Visit for Medical Prescription and advise for further treatment & co-ordination. 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Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Condition	Compliance Status as on 31-03-2022	
		Fisher folk, Agriculture & Women	<p>Uparjan Yojana.</p> <ul style="list-style-type: none"> • Average 75 KL of water was supplied to 676 households at 5 fisherman vasahat on a daily basis under Machhimar Shudhh Jal Yojana and other 4 fisherman vasahat has linkaged with Narmada water through GWIL and Mundra Gram Panachayat from which 355 households get benefited. • Engage more than 500 fisher folk youth in Skill Development Training to provide consistent scope of income. • 11604 fisherfolk direct or indirect benefitted with Education, Mangrove, Water and Livelihood. • 39 Fisher Youth were interviewed in various industries among that 12 have been selected. Our target is to support 500+ Fisherman in alternative livelihood till March 2022. • Facilitation of Pagadiya Welfare scheme & boat license sanction letter to 06 Fishermen. Till date 59 Form has been submitted to fisheries department, Bhuj for pagadiya and boat License. • During the Taukate cyclone fishermen family had been shifted to safe Places As well as support to disaster management team for advance preparation. • To promote Natural farming Adani Foundation has originated cow-based farming initiative with interconnected techniques which can increase farmer yield. • Survey and identification of farmers to adopt Natural farming-Total 150 Farmers were selected as criteria in first phase of the Project. • 23 Vermi compost unit have been set-up. Which is facilitated through Government with farmer Contribution. • 150 Farmers have started to preparing Jiva Mrut & Gaukrupa Amrutam Bio-fertilizer and using in agricrop. Series of Training is arranged by ATMA and Adani Foundation. • Four Farmers Groups is registered with ATMA- Agricultural technology management Agency-it will leverage Government schemes. • Adani Foundation has also provided 117.11 lacs kg Dry Fodder and 89.00 lacs kg Green fodder in 29 villages of Mundra and Anjar Block to support the resource dependent villagers, to avoid their dependency on mangroves. The expenditure for fodder supporting activities was approx. 206.11 Lacs during FY 2021-22. • Adani Foundation provides Good Quality dry and green fodder to 24 Villages. Project is covering total 14116 Cattels / 3008 farmers and hence enhancing cattle productivity. Dry Fodder 895398 Kg Green - 2425230 Kg. • Fodder Cultivation-To made fodder sustain villages - 25 Acre Gauchar land of Siracha village is being cultivated for the same. • Current year for the dates Packaging and Marketing, KKPC Started to sell 10 Kg capacity packaging Box at Minimum Profit Margin At Rs.29/Boxes which

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Condition	Compliance Status as on 31-03-2022	
			<p>resulted in turnover of Rs. 24 Lacs with Profit of 1 Lac. This initiative has supported more than 1800 farmers indirectly.</p> <ul style="list-style-type: none"> • Dragon fruit farming is ongoing by five farmers each farmer is doing in 2 Acre farm –Total 11000 plants. • Skill Development and Income Generation –Adani Foundation is working with 15 Self-help group and supporting to develop entrepreneur skills to become self-reliant, sourcing more than 350 women to absorb in various job.
		Education	<ul style="list-style-type: none"> • The Virtual and Offline classes (Shrisikshan) with parents permission with all precautionary measures as Government Guide Lines. Its very encouraging that inspired by Our Sheri Sikshan Initiative-Gov Teachers also started same approach. • Online Outreach – 259 Students • Individual Home visit – 415 Students • Sheri sikshan and school students - 838 Students • Uthhan First phase 17 Schools and 2951 students were part of the program, and second phase 14 Schools and 1952 Students were part of the programme. Total 4903 students are getting benefit from Utthan. • Dedicatedly 80 hours provided for preparing JNV and NMMS examination. 19 number of students qualified for JNV and NMMS. • 100 hours capacity building programs for Utthan Sahayaks and school Teachers. • Total 394 webinar and capacity building program were arranged for Utthan Sahayaks and Government Officers. • Arranged Virtual Tour regarding Plastic Waste Management with Municipal Corporation, Surat and aware about waste Collection, Segregation, treatment and Disposal Process. Total 178 Students were participated for the same. • 473 underprivileged students of Fisherman & Maldhari communities from 8 villages taking education at the Adani Vidya Mandir school. • Celebration of various days is villages school.
		Rural Infrastructure & Environmental Sustainability	<p>Adani foundation designed and build various structure and provide service in the Health, Education, agriculture and sustainable livelihood area.</p> <p>WORK COMPLETED</p> <ul style="list-style-type: none"> • 50 RRWHS structure have been completed • 83 Bore-well recharging activity is completed. • Development Approach road Prasala vadi vistar Gogan Pachim at Zarpara • Earthen bund Repairing work at Pond, Luni. • Pre-monsoon activity Approach repairing, Village Pond Lake strengthen and river cleaning (babul cutting) work is ongoing in Various Villages • Approach Road repairing at Various Fishermen Vasahat (ARC).

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Condition	Compliance Status as on 31-03-2022
		<ul style="list-style-type: none"> • Construction of community gathering and training Center construction at different villages • 23 Fishermen of Randar bandar are benefitted to Pakka house constructed under AF Fishermen Avasa yojna <p><u>ENVIRONMENT SUSTAINABILITY PROJECTS</u></p> <ul style="list-style-type: none"> • Miyawaki Forest Development, Nana Kapaya - Plantation of 4965 saplings of different 42 species is completed which will result in dense forest within 2 years • Smruti Van – Plantation more than 40,000 sapling with more than 115 species through Miyawaki methodology. • Ecosystem Restoration, Guneri – Grassland ecosystem restoration and mangrove conservation in 40 Ha area over a period of 4 years. The faunal survey was initiated in the month of December and continued till February 2022. • Multi-Species Mangrove Park - Adani Foundation at Mundra's initiated multi-species plantation of mangroves in Kutch association with GUIDE. During 2018-2019 (Phase-I) multi-species mangrove plantation was carried out in 10 ha, during Phase-II (2019-2020) it was 02 ha and during Phase III (2020-2021) it is 01 ha. During current FY 2021-22, 03 ha area coastal stretches have been planted with mangrove species. Total 16 Ha. multi-species mangrove plantation has been carried out till March-22 association with M/s. GUIDE, Gujarat. • Home biogas - Under Gram Utthan Project, Adani Foundation is supporting home biogas to farmers to Uthhan Villages phase wise. Current year supported 223 home biogas system in Dhruh, Zarpara and Navinal Villages • As per SORI use of biogas each farmer can save Rs.23399/year. Total 223 farmers can save Rs.5217977/- in a year. • Seaweed Culture - A pilot cultivation facility (5 KL tanks in 6 nos.) for the farming of different economically important seaweeds in the tanks on the onshore has been established and commenced the cultivation trials with red seaweeds Kappaphycus alvarezii, Gracilaria dura and green seaweed Ulva. • Water Conservation Projects – <ul style="list-style-type: none"> ✓ A large number of water harvesting structure (Total 21 Nos. of check dams and Augmentation of 2 check dams (1 Check dam current year). ✓ Ground recharge activities (pond deepening work for more than 56 ponds) individually and 26 ponds under Sujlam Suflam Jal Abhiyan ✓ Pond deepening and bund strengthen of Rampar village pond increase water storage capacity. ✓ Roof Top Rain Water Harvesting 115 Nos. (50 Nos current FY 2021-22) which is having 10,000 litre storage which is sufficient for one year drinking water purpose for 5 people family.

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Condition	Compliance Status as on 31-03-2022
		<ul style="list-style-type: none"> ✓ Recharge Borewell 189 Nos (83 Nos current FY 2021-22) which is best ever option to. ✓ Drip Irrigation 1158 Farmers (180 formers are supported with 15% of amount of total cost for maximum 4.0 lac. in current FY 2021-22) ✓ Bund construction on way of Nagmati River could save more than 575 MCFT water quantity which recharged in ground due to which borewell depth decreased by 50-100 Ft in Zarpara, Bhujpur and Navinal Vadi Vistar. ✓ Luni Pond Bund Repairing Work. <p>Skill Development</p> <p>Over the previous few years, Adani Skill Development Center has assessed various aspects of the technical, leadership and soft skills gaps that organizations, in general, face and accordingly focuses on imparting required training in those areas in partnership with various colleges and institutes.</p> <p>ASDC, Mundra</p> <ul style="list-style-type: none"> • RPL–Recognition of Prior Learning Training given to Adani Group Contractual Employees–Total 218 Employees have been benefitted • In Phase I, 51 fishfolk community youth will be skilled and certified in job roles like Assistant Electrician, Mason and Bar bender under 90 days training program supported by placements. • Junior Crane Operator practical training to 36 Candidates for (Group-1, 2 & 3) At MICT Port. • Guest Lecture on Mehendi products, Beauty Therapist & Resin art Total 100 candidate have been benefitted. • Certificate Distributed to Mud work candidates at MICT Colony – 30 women learnt Mud work. • Volunteer Support in GKGH and Adani Hospital during covid pandemic. • 21 students were coordinated for interview in seabird CFS of Mundra. • Basic computer and spoken English training for 152 Fisherfolk students of Zarpara and Luni Vasahat. <p>ASDC, Bhuj</p> <ul style="list-style-type: none"> • Launched New online General Duty Assistant & Beauty Therapist for 63 candidates under (DDU-GKY). • Soft Skills Training Certificate distribution to Prisoners of Palara Special Jail. • Guest lecture on "Tally: Older vs New" & "Concept of Emerging E-way Bill" <p>Total Beneficiaries:</p> <ul style="list-style-type: none"> • Technical Training: 365 Nos. • Sof-Skill Training: 52 Nos. <p>Please refer Annexure - 2 for full details of CSR activities carried out by Adani Foundation in the</p>

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Condition	Compliance Status as on 31-03-2022
		Mundra region. Budget for CSR Activity for the FY 2021-22 is to the tune of INR 1628.45 lakh. Out of which, Approx. INR 1492.6 lakh are spent during current FY 2021-22.
viii	APSEZ will voluntarily return the grazing land, if any, in their possession.	Point noted. All lands are acquired through proper procedure prescribed by State Government. However, APSEZ has agreed for voluntarily giving land back to Zarpara village for the purpose of Gauchar. Land has been identified in the presence and confirmation of Gram Panchayat. Necessary procedure has been initiated by APSEZ vide its letter dated 09 th Aug 2012 with concerned revenue authority with respect to surrender of gauchar land at village Zarpara. Same has been taken up by revenue department for necessary procedure of transfer and is under process. Details of the same were submitted along with half yearly compliance report for the period Apr'19 to Sep'19.
ix x.	A regional strategic impact assessment report with a special focus on Mundra region will also be prepared. The cost towards these studies will also be borne by PP. In the subject matter of thermal power plant, the proposed regional strategic Impact assessment analysis will take In to account salinity aspect along with its potential environmental Impact to suggest future corrective actions as well as the guiding tool on extension and addition of the capacities.	Complied This reply covers direction no ix and x. 1. APSEZ vide its letter dtd. 24 th Feb 2014 has submitted draft ToR for preparation of CIA report to GCZMA for their approval. 2. GCZMA vide its letter dtd. 19 th Dec 2014, has approved ToR for CIA. 3. Based on the ToR finalized by GCZMA (as per the instructions of MoEF&CC) for carrying out regional impact assessment study, APSEZ awarded the work to NABET accredited consultant M/s. Cholamandalam MS Risk Services Ltd. to carry out the studies, vide SO dtd 10 th Feb 2016 as stated in these directions. 4. Primary baseline environmental monitoring data collection during March – June 2016 and published secondary data on various environmental attributes have been considered for the study. 5. The study has been concluded and the final report was submitted to GCZMA and MoEF&CC for their consideration vide our letter dated 30.04.2018. 6. Reminder letter has been submitted to GCZMA for their comments and consideration vide letter dated

Status of the conditions stipulated in Environment and CRZ Clearance

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		<p>4th Jan 2019.</p> <p>Details of above chronology were submitted along with last half yearly compliance report for the period Apr'19 to Sep'19.</p> <p>Total cost of the study is approx. INR 1.3 cr. which is financed by APSEZ.</p> <p>The stated study was carried out in following 3 phases</p> <ul style="list-style-type: none"> • Baseline data collection and review of the past EIA reports and clearances issued to APSEZ. • Mathematical modelling and other technical studies for identification of potential impacts (for the year 2030) of the approved and existing project activities. • Development of macro level EMP for the phase wise implementation of actionable points. <p>As part of the study, following modelling exercises / technical studies have been carried out to study the impacts on all environmental attributes:</p> <ul style="list-style-type: none"> • Ambient air quality • Marine (Hydrodynamic, Thermal & Salinity dispersion, Sediment transport) • Noise level • Traffic assessment • Oil spill contingency plan • Water resource and salinity ingress • Land Use / Land Cover • Socioeconomic, Regional infrastructure • Waste management • Ecology, Bio diversity and Fisheries • Shoreline change assessment <p>Preparation of these reports require extensive use of modelling software and study of the available information / research reports to assess the impacts on individual attribute of environment. Based on the modelling outcomes and findings of the technical studies, a macro level environment management plan is prepared.</p>

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Condition	Compliance Status as on 31-03-2022
		<p>Inline to the present stage of the project, APSEZ is already complying, as per Environment Management Plan and further recommendations, applicable to APSEZ as mentioned in the EMP, wrt Traffic Management Plan, Ground water quality management, Salinity ingress programme, Air and Noise quality Management, Surface and Marine water quality management, Ecology and Biodiversity Management, Solid & Hazardous waste management, Socio-economic Management and Shoreline Management, will be implemented in phase wise manner as per the progress of development within the boundary limits of APSEZ.</p> <p>The final CIA Report was prepared inline to the ToR by Chola MS and the same was submitted to the GCZMA on 30.04.2018. Details of the same were submitted along with half yearly EC Compliance report for the period Apr'18 to Sep'18. Presentation on the findings of the report was made to GCZMA committee on 4th October 2019 and after detailed discussion, authority has decided to constitute committee to discuss the details of the report further.</p> <p>Reminder Letter vide dated 07.09.2020 & 10.03.2021 submitted to the GCZMA, Gandhinagar for further directives to present the findings of the CIA report in detail. Details were submitted as a part of previous half yearly EC compliance report for the period Oct'20 to Mar'21.</p> <p>Presentation done before GCZMA on 31.10.2021 and 16.02.2021 to discuss proposed EMP of CIA study in detail and way forward.</p> <p>However, APSEZ is already complying with the Environment Management Plan (applicable to APSEZ) suggested in Cumulative Impact Assessment report. The detailed compliance, applicable to APSEZ is attached as Annexure - 12.</p>

Annexure – 1

ALGAL REMOVAL WORK FROM MANGROVE AREAS

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

Mangroves nursery is developed in a creek behind IOCL & 125,000 nos. of new saplings are planted in creek area.

Reference photographs of activities undertaken as per given guidelines,

A) Removal of algal encrustations & preventing the spread of Prosopis:





B) Development of Nursery & Plantation of Mangroves:



Annexure – 2



2021-22

Annual Report



CSR Kutch

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





Our journey

Corporate Social Responsibility in India is going through an accelerating phase where the need for community centered impact is increasingly becoming more crucial than ever before. It is not just about the compliance with the laws and regulations but also about transitioning beyond the mandated CSR, Stakeholder engagement is a critical tool to ensure a comprehensive approach in carrying out responsible business and within that community ownership holds an important place.

Mundra is now Industrial and employment hub. Tremendous development is expected in upcoming years. In Year 2021-22, **Uthhan Project expanded its wings from 17 Primary schools to 35 Primary schools with MOU with Education Department.** Sustainable Agriculture Initiatives i.e. Natural Farming, Home biogas, Drip Irrigation, Vermi compost, Tissue Culture and Various type of fodder growing are started as a mission with Capacity Building with **5500+ Farmers and 3500+ cattle owners.** Mangroves costal biodiversity, water harvesting structures and Home Biogas promotion is ongoing sustainable project with proper documentation and demarcation. Adani Vidya Mandir has proven best in education by reaching to its apex level of Quality Education through digital technology. It is nurturing fisher folk community students by enabling them access to Tablets to prepare them techno-savy.

Under the guidance of leadership team, Community Resource Centre is developed as a systematic model for empowering rural community with an aim to bridge the gap between underprivileged community who need support and government schemes. Adani Foundation firmly believes to carry all its project by involving community in its operations. The involvement of Fisherman community and women provides real-time feedback and leads to successful projects.

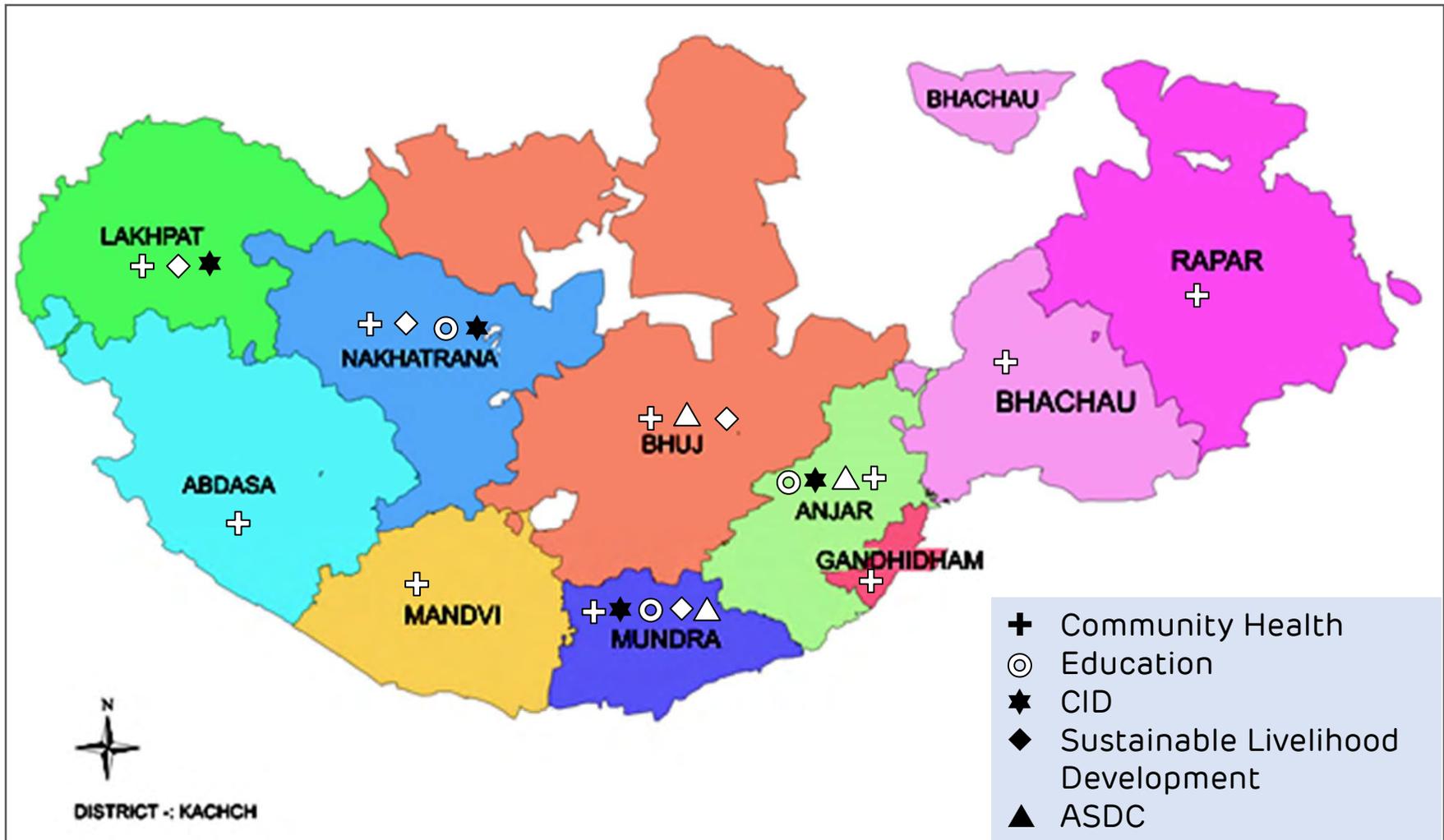
'Technical Training Program' by Adani Skill Development Centre for Fisher Folk community youth is a flagship program to provide them with a platform to get skilled and carve their future into new career options. The ASDC is committed to the cause of the deprived and underprivileged to generate employment through enhancing skills. It has been working relentlessly which resulted in rapport building with District Administration Kutch also.

Respected Shri Dr. Priti G. Adani, Chair Person, Adani Foundation with her charismatic leadership has transformed millions of lives through sustainable development initiatives. Along with her, Rakshit Shah, Executive Director, APSEZ has been a great mentor and involves himself thoroughly in all development initiatives. Mundra team would also like to acknowledge Shri Vasant Gadhvi, Executive Director, Adani Foundation for cultivating great ideas and guidance to the team. We are also grateful to Respected Gowda Sir (COO, AF) for being a source of motivation.

AF Mundra team acknowledges CEO - APSEZ, Human Resource Department- APSEZ, Finance Department-APSE for continuous support and facilitation.

Towards Growth with Goodness, Adani Foundation presents highlights of FY 2021 in this Annual Report!

Our Presence in Kutch



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Education (SDG - 4/4.a)

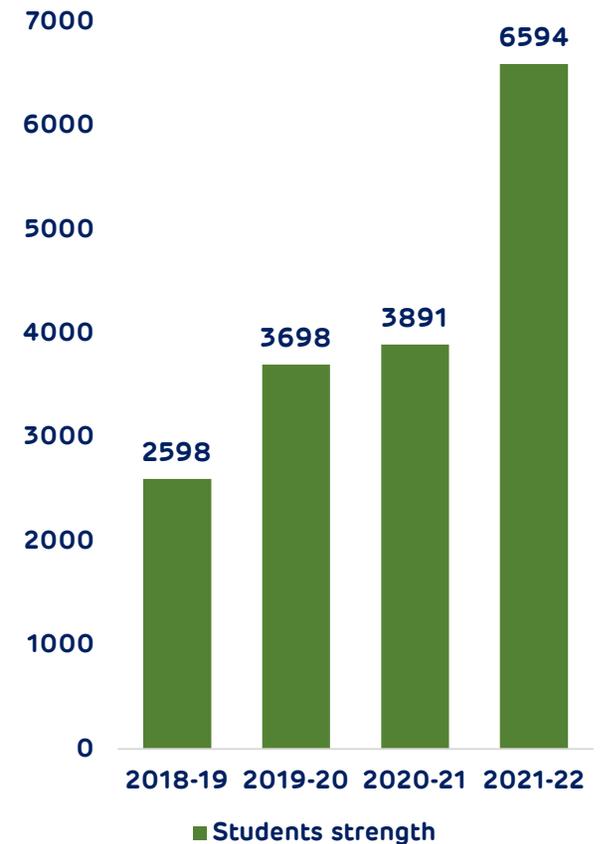
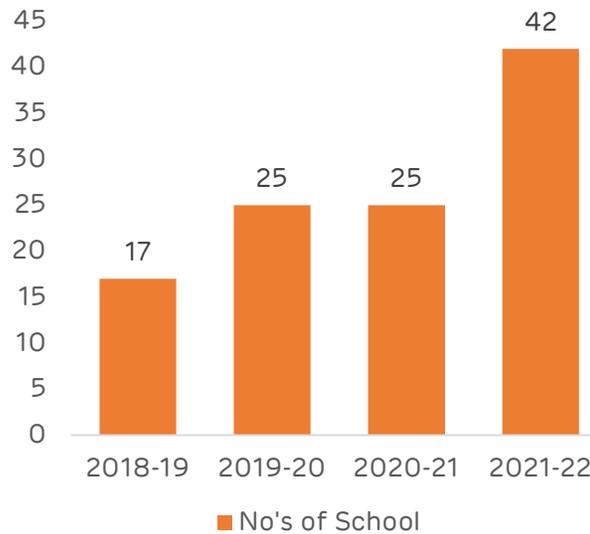
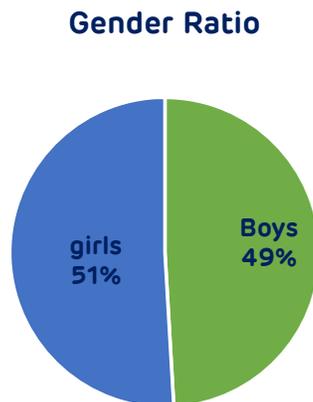


Education Projects

To foster students' learning abilities and achieve better learning outcomes at the grassroots, Adani Foundation charted an innovative intervention in Year 2018-19 through Project Utthan.

This comprehensive intervention entails:

- ✓ Adopting government primary schools
- ✓ Tutoring Priya Vidyarthi's (progressive learners)
- ✓ Arresting dropout rates
- ✓ Collaborating for teachers' capacity building
- ✓ Creating joyful learning spaces



Annual Achievement

- Introducing English as a third language.

Though talent has no barriers to success yet often rural community children and youth are devoid of higher education and better job opportunities only because of lack of command over English language. However, getting equipped with International language expands horizon of a student by opening wide communication mediums for them to learn and grow.

In Gujarat, The language gets introduced from Class4 whereas under the Project Utthan, Adani Foundation initiated to provide basics of English from class 1 with a structured syllabus. Utthan assisted 3,246 students to learn English from Class 1.

Table shows the result of Gunotsav of year 2021-22 for 18 Schools (24 Schools Results are awaited)

Academic year	Gunotsav Result				
	Numbers of school in grade				
	A+	A	B	C	D
2020-21	1	0	30	11	0
2021-22	2	8	7	1	0

Utthan assisted

3246

students to learn English from Class 1

Class	Students are able for....
I 62 %	<ul style="list-style-type: none"> ✓ Standing line, sleeping line, Left Slanting line, Right Slanting line, Left Curve, Right Curve, Up Curve, Down Curve ✓ Writing capital letter of A to Z, Identification of alphabet, Match alphabet with object
II 64 %	<ul style="list-style-type: none"> ✓ Writing capital and small letters ✓ Vowel and consonant ✓ Week, month, and numbers up to 30
III 73 %	<ul style="list-style-type: none"> ✓ Differentiate between capital and small letters ✓ Recite rhymes ✓ Numbers 1-50, English name of shapes, fruit, vegetable, and stationary items ✓ Action words: Sit down, stand up, Run, Walk, Jump
IV 76 %	<ul style="list-style-type: none"> ✓ Capital and small letters ✓ Body parts, Golden words ✓ Self-introduction in 5-7 sentences



IT ON WHEELS Benefited 3418 students



Digital literacy in early schooling is the first step to addressing access disparities in this evolving digital environment which is not feasible for rural students. This impede their development.

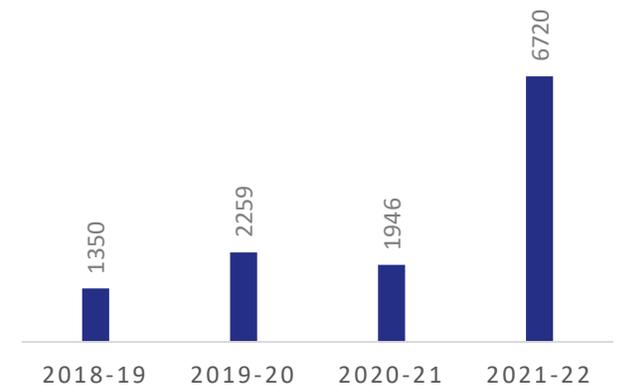
IT on wheel program is run to teach them Basic emphasizes elementary school digital literacy.

Highlights

- ✓ 40 laptops + 2 IT instructor + 01 Van with customize basic syllabus
- ✓ Catering students from classes: 4-8
- ✓ IT on Wheel visits fortnightly to each school under project Utthan.

Annual Mother's meet

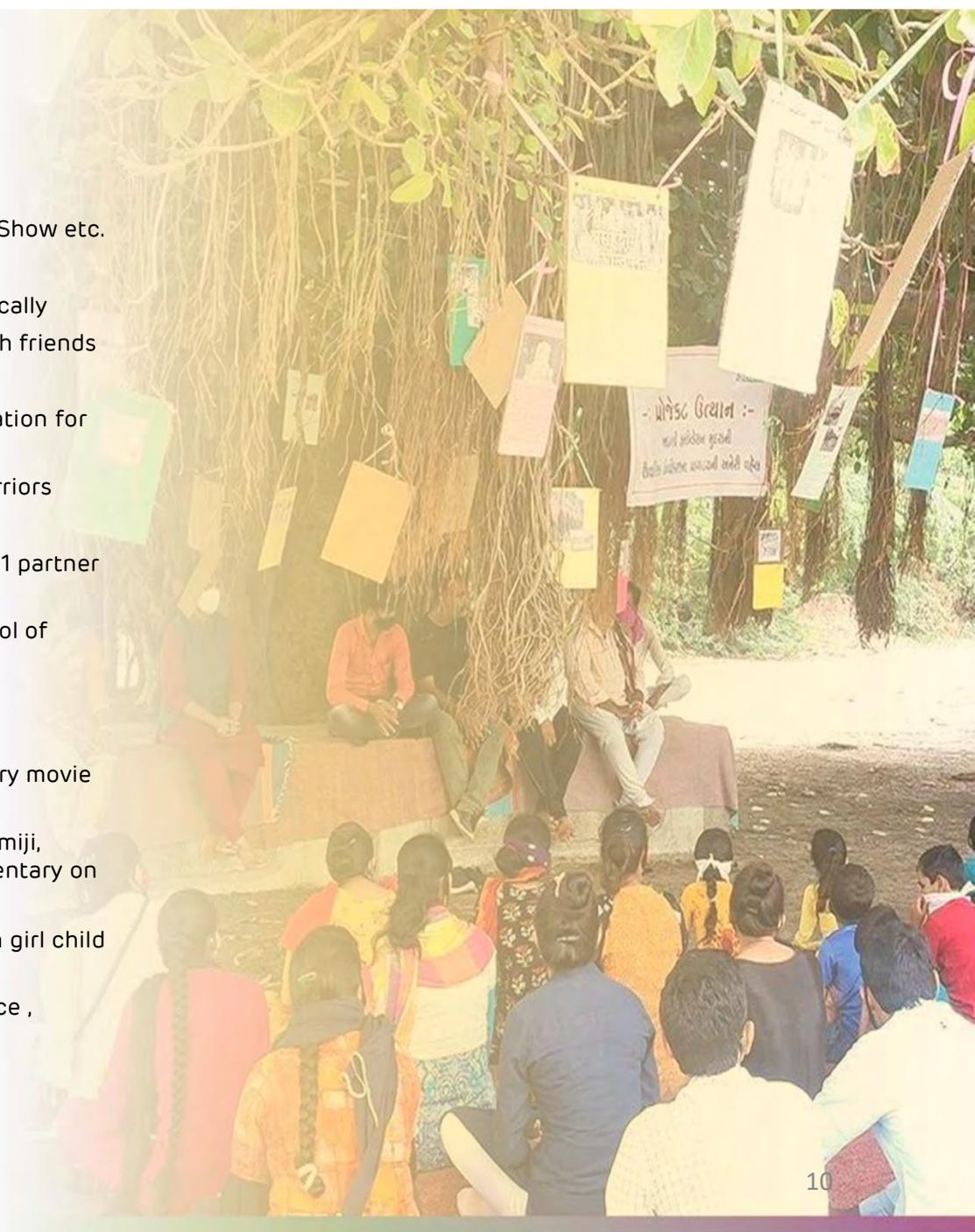
A child's maximum growth occurs in initial years of education where involvement of teacher as well as mother plays a key role in nurturing their character and personality. Many of the students are first generation learners with uneducated parents, in such case, Mother's meet helps mother and teacher are both in sync towards child's education. Moreover, mothers feel empowered and valued and gets insight of the school activities regularly.



Celebration/competition

Activities performed

- World Book Day
 - Mother's Day
 - International Yoga Day
 - World emoji day
 - Azadi ka Amrut Mahotsav
 - Rashtra Gaan
 - Raksha Bandhan
 - Teachers' day
 - ISLM Participation
 - Virtual connection around the World
 - Children's Day
 - World computer literacy day
 - National Maths Day
 - National Youth Day
 - National Girl Child Day
 - National Science Day
 - International Women's Day
- Virtual Group Reading, Puppetry Show etc.
 - Letter to supermom
 - Performing Yoga Virtually + Physically
 - Preparing emoji + exchanging with friends
 - Poster making competition
 - Certificate from Ministry of Education for 'Recitation of Rashtragaan'.
 - Eco Friendly Rakhi for Corona warriors
 - Gratitude wall for teachers
 - Digital bookmark exchange with 11 partner schools from 5 countries
 - Live connected with partner school of Croatia
 - Paint party
 - Restart of 'IT on Wheel'
 - Match Competition & Documentary movie on Shri Ramanujan.
 - Character sketch, Speech on Swamiji, Quote Competition ,Short documentary on Swamiji.
 - Contribution of Savitribai Phule in girl child education
 - Girl/Women noble laurels in science , Model making
 - Documentary on Raman effect
 - Women's Day with 1000 Mothers



Utthan's outreach strategies to support children's learning

- 100 hours capacity building programs for Utthan sahayaks and school Teachers
- 90% students were involved in various activities under Aazadi ka Amrit Mahotsav
- 6600 hours were given in 'SAMAYDAAN'
- 100 % participation in 100 days reading campaign
- Project is in alignment with NIPUN Bharat: FLN
- Dedicatedly 80 hours provided for preparing JNV and NMMS examination. 19 number of students qualified for JNV and NMMS.

100% Utthan Schools are equipped with:

- ✓ Smart classrooms
- ✓ LED TV
- ✓ Library cupboard with 350 books
- ✓ Annual subscription of 07 magazines
- ✓ Sports materials
- ✓ Music instruments
- ✓ BALA Painting
- ✓ TLMs focusing language and numeracy
- ✓ Kitchen garden – 4200 plants planted

Reaching out to students with no smartphones at home

24,748 Voice messages sent to create awareness regarding Precautions during Covid19

All students taught during sheri shikshan by Utthan sahayaks

74% progressive learners virtually connected on various platform



Adani Vidya Mandir, Bhadreshwar (SDG - 4/4.1)



EDUCATION: FREE AND COMPULSORY – WHAT A WAY TO LEARN LOGIC!" The quote mentioned unfolds the distinguished vision of Adani Foundation to provide cost-free education, food, uniform, books to the children of economically challenged families of Mundra Bock. Adani Vidya Mandir, Bhadreshwar was established in June 2012, with aim of uplifting the communities through education.

The school is equipped with excellent infrastructure and resources required for all-round development of the student. The child is given admission in class 1 and is molded to be an educated and a good human being by experienced and compassionate teachers.

The school follows a curriculum designed by GSEB. Due to Covid Pandemic this year Class 1st Admission was done.



AVMB –Adani Vidhya Mandir, Bhadreswar is accredited By NABET under 'Quality Council of India'

SDG

- ✓ ***Quality education - 4***
- ✓ ***GenderEquality - 5***
- ✓ ***Reduced Inequality - 10***

National Accreditation Board for Education and Training is a constituent Board of Quality Council of India.

NABET is offering accreditation program for Quality School Governance in the Country, with a view to provide framework for the effective management and delivery of the holistic education program aimed at overall development of students.

State level First Gujarati Medium school accredited by NABET



Adani Vidya Mandir Bhadreswar Gujarat Board Standard 10th Examination Result is 100% (27 students have passed the examination out of 27). Adani Foundation took complete responsibility of further study of students with respect to their interest.

The global upsurge of the Covid-19 pandemic and the resultant lockdown has brought all of us to face such unprecedented times and situations. The challenge was rural locality, network unavailability, lack of health awareness, apprehensions for technology and gadgets and financial crunch to spend on mobile / Internet.

But We did not Give-up and reached out to our students to pursuit educational through virtual platform by various initiative.

Objective

- Provide free and Quality Education to economically and socially under-privileged students
- Support to students for academics and co-curricular activities and overall well-being

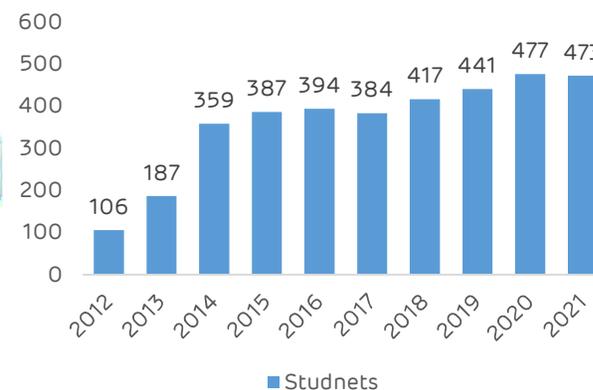
Project Activity

- Balwadis started in 2010, for students in age group of 2-5 yrs. In 2013, this school was built on a donated land
- Cost Free food, education, uniforms, online tablets
- Classes from Gr-I to Gr-X with 22 qualified teachers and 8 helping staffs
- Monthly stay of Gr-X students at school before exam, along with teachers

Outcome

- **473 underprivileged students** of Fisherman & Maldhari communities from **8 villages** taking education at the school
- Educated children have better opportunities of income beyond fishing
- Quality of life and change of mindset of students & families
- With education, many addictions reduced

AVMB STD - 10 SE BATCH RESULT Year 2021-2022		
SR NO	GRADE	STUDENTS
1	Above 80 %	01
2	Above 70 %	00
3	Above 60 %	07
4	Above 50 %	07
5	Above 35 %	12
TOTAL		27



- Street Education popularly known as 'Sheri Shikshan' was initiated for the students who could not attend sessions online.
- Offline education was started for Class 10 students under the Covid19 Guidelines.
- 'Fit India week' celebrated by arranging various sports events, Elocution, Written and Drawing competition for class 9 and 10 students.
- Covid Vaccination drive for Class 10 students in coordination with GKGH, Bhuj Hospital.
- Various National and International day celebrations at School level with learn and fun activities as well as conducted Motivation Sessions.
- Motivating Girl Child from fisherfolk families for Education after 10th Standard.



Community Health Projects

Good Health is extremely important, invaluable and indispensable. A Healthy body paves the way for a healthy mind. Adani Foundation team at Kutch works towards better health of community and access to easy consultation with expert doctors in collaboration with G.K General Hospital, Bhuj and Adani Hospital, Mundra. For more than a decade, Community care is provided through Mobile Health Care Units, Rural Clinics and Health Cards for senior citizens.

In span of 6 years, there are number of cases reported for Kidney related diseases. Under those circumstances, periodic and special health camps are scheduled to address this issue, provide them necessary treatment support. We also conduct awareness camps for preventive measures against kidney problems.



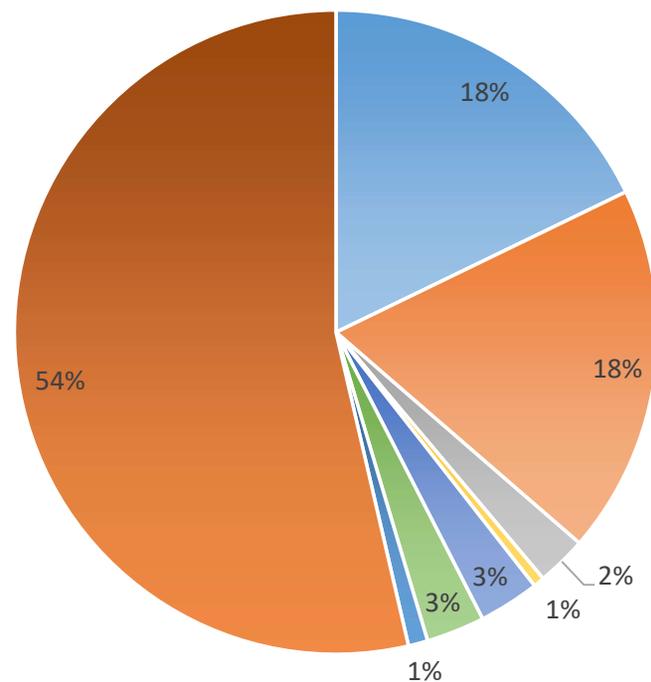
It is health that is real Wealth , not a piece of Gold and silver.



Preventive and curative healthcare are critical to sustaining community health and promoting economic prosperity. The objective is to find the proper balance that will lead to a long, healthy, and fulfilling life journey for that AF



Direct Beneficiaries (%)



- Medical Mobile van
- Rural Clinic
- Medical Supports
- Dialysis Supports
- General Health camp
- Spe. Health camp
- COVID-19 AHMPL
- AHMPL-OPD & IPD

Project	Direct Beneficiary	In-Direct Beneficiary
Medical Mobile van	10043	39844
Rural Clinic	10439	41436
Medical Supports	1409	5532
Dialysis Supports	314	30
General Health camp	1715	6852
Spe. Health camp	1655	6624
COVID-19 AHMPL	554	2770
AHMPL-OPD & IPD	31291	90573
Total	57420	193661

Rural Clinic & Mobile Health Care unit

Health is the most basic prerequisite for community development and in order to transform rural healthcare landscape Adani Foundation has initiated '**Mobile Health Care**' and '**Rural Clinic Service**' to providing primary, preventative and curative healthcare services accessible in inaccessible areas which is being executed since a decade. Adani Foundation has acted as catalyst to reduce health disparity and hardship of medical expenses among community.



- ✓ Time saving
- ✓ Reduce Medical expenses
- ✓ diagnosis and treatment
- ✓ Preventive health screenings
- ✓ Early disease diagnosis
- ✓ Chronic disease management
- ✓ Health education & Counseling

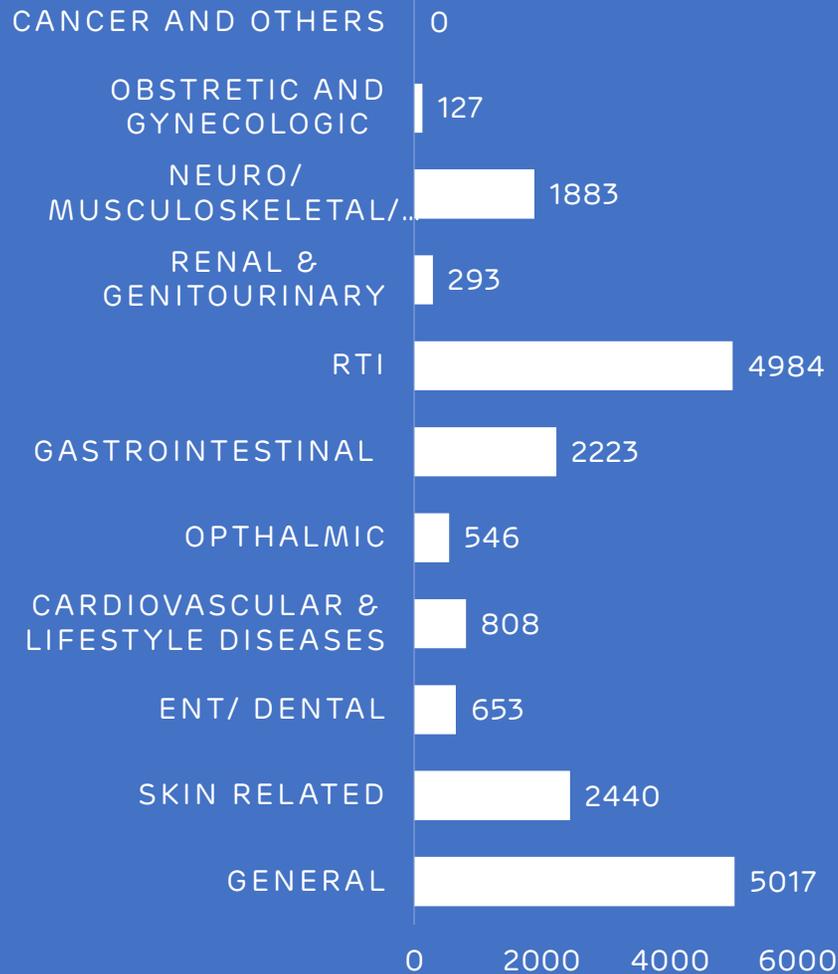
The mobile health care unit is operated by Medical officer and health care assistant and equipped with various integrated medical devices that allows Medical staff to conduct preliminary check up. more than 90 types of general life saving medicines are available in MHCU and covered 29 villages and 07 fishermen settlements population. MHCU and Rural Clinics are providing services of Blood pressure checking, Sugar testing and ECG as well,

Similarly rural clinics are serving at **9 Villages of Mundra 3 Villages of Anjar Block and Mandavi Block.**

The MHCU and Rural Clinics services are available with Token Charges Rs. 20 per patient.



DISEASE WISE DATA OF MHCU & RURAL CLINIC



Under the '**Preventive Health Care**' programme, specific screening and questionnaire are developed for Non communicable disease(NCD) like **Blood pressure, Sugar, Thyroid** and suspected patients are referred for secondary examination at Adani Hospital, Mundra.

More than 110 Patients are diagnosed with NCD and are cured before patient reaches to severity stage.



Support to Vulnerable Patients

Adani foundation provide financial assistance to the most economically challenged patients who are suffering from life threatening diseases related to heart, liver, kidney and cancer cases with Minimum Participation.

In the current year total **1409 patients from Mundra, Mandavi and Anjar Block were supported in Adani Hospital Mundra.**

Dialysis Support

Patients with kidney disorders must undergo periodic dialysis, which is expensive and lends financial burden to family.

Adani Foundation has initiated a dialysis program to support foremost needy patients .

Till date 5 patients with critical and severe condition has been supported for dialysis with token charge of Rs. 150 per session. Regular dialysis has improved patients condition prolonging their life.



Senior Citizen Project

Adani Foundation has launched Senior citizen project with the aim to provide access for Promotive, Preventive and Curative health service to more than **8500+** elderly people of Mundra since 2011 to 2020 – A Decade.

After 2021 to make the project sustainable, Linkages with Government Schemes and senior citizens are initiated. Total **61 Senior citizens has been Facilitated with Senior Citizen and Widow Pension Scheme Rs. 1250/Month in 2021.** Till more than **750+ Senior citizens ARE Linked with Gov.schmes..**



Health camps

Getting the right health screenings and treatments is the key to living longer and better.

Major Activities

- Under Dignity of workforce program, weekly medical camps organized at labour colonies.
- General health check up of work force plus deaddiction counselling done by Medical Officers.
- Motivational sessions by “**Prajapita Brahmakumaris**” are also organized to make them strong against addiction.
- General Health camps, Specialty camps, Pediatric camp especially for Malnourished children are organized frequently to provide health care treatment to the community.

In this year **total 5200+ People are diagnosed and treated accordingly.**





Corona Related Work at GKGH and AHMPL

- Started Covid care centre service at **Samudra town ship** to Provide medical services at 24 x7 hrs. Home Visit for examining patients with severe conditions and providing them immediate relief.
- AHMPL, Mundra was converted into Covid Hospital with 100 bed Facilities with oxygen to extend treatment to Covid patients. All related coordination done by our team for more than **350+ OPDs and IPDs**.
- Provided Oxygen Concentrators to home isolated patients to safeguard their lives during pandemic.
- Provide hearses to shift Covid deceased patients to Crematorium with all dignity.
- Precautionary voice message dissemination through '*Awaj de*' voice message service **Over 11000+** Community.
- Sanitized villages, Distribution of Vitamin C tablet to **2300+people**
- Adani Foundation employees volunteered for providing service in G K General Hospital, Bhuj during pandemic.



Machhimar Ajivika Uparjan Yojana

The availability of water for personal and domestic hygiene has been found to be an important factor in decreasing the rates of water-related diseases such as ascariasis, diarrhea, schistosomiasis, and trachoma. **2091 female beneficiaries** at nine fisherfolk vasahats.

- To Reduce women drudgery to get water at fisherfolk settlement
- To Reduce Water borne disease

Sr. No	Vashat	Family	Requirement	Remarks
1	Luni	116	15000	9 Months
2	BavdiBandar	107	17500	9 Months
3	RandhBandar	245	25000	9 Month
4	KutdiBandar	118	-	Linkages with MSPVL
5	ZarapraVasahat	90	-	Linkages with Port
6	Virabandar	80	-	Linkage with GWIL
7	Junabandar	160	-	Linkage with Mundra GP
8	GhavarvaroBanada	60	-	Linkage with GWIL
9	Zaraprachacha	55	-	Linkages with Port GWIL
Total		1031		

Adani Foundation Team has initiated coordination with GKGH hospital since 2015 and established a reception area for the smooth patient coordination.

- GKGH Hospital is Covid Care Hospital since 22nd March 2020. in the second wave of Covid Adani Foundation staff members supported in patient counselling, coordinating and supporting for dead body Covid care van.

- Total **7826** Covid patients got treatment from overall Kutch with satisfaction.

- Dead body medical van –Dignity to death is one of the noble initiatives taken up by the Adani Foundation. If any death occurs in GKGH, dead bodies are shifted to the native village of the concerned in the Kutch District free of cost. Total 1163 dead bodies privileged till now to different locations in Kutch including Covid Patients.

- Mahiti Setu, A Platform at GKGH to Guide and Assist to get Government health scheme benefit. Through Mahiti Setu 6923 beneficiaries are sourced and more than 947 beneficiaries are linked with Ayushman Yojna and MAA Yojna.

Facilitation of Government Bal sahay Yojna- Rs.50000 Financial support to **527 family** who had lost their members due to covid-19.

Patient Care and Coordination at GKGH Bhuj to avail proper treatment and Guide for 100% satisfaction.

Gujarat Adani Institute of Medical Science (GAIMS) - Bhuj



Environment Sustainability

Environmental sustainability involves making decisions and taking actions that are in the interests of protecting the natural world, with particular emphasis on preserving the capability of the environment to support human life. It is an important topic at the present time, as people are realizing the full impact that businesses and individuals can have on the environment.

Sustainable development has many important facets/components like social, economic, environmental, etc. these components are closely interrelated and mutually re-enforcing. Under Corporate Environmental responsibility 10 km radius villages from SEZ Boundaries.

To make connections between human actions and the level of biological diversity found within a habitat and/or ecosystem, In year 2017-18 project "Sanrakshan" was launched in coordination with GUIDE. MOU has been signed with Dr. Vijay Kumar – GUIDE for conservation of five species of mangroves.



Miyawaki-Nana Kapaya

Miyawaki is a technique pioneered by Japanese botanist Akira Miyawaki, that helps build dense, native forests. The Miyawaki method of reconstitution of "indigenous forests by indigenous trees" produces a rich, dense and efficient protective pioneer forest in 20 to 30 years. The approach is supposed to ensure that plant growth is 10times faster and the resulting plantation is 30 times denser than usual. It involves planting dozens of native species in the same area, and becomes maintenance-free after the first three years.

Nana Kapaya village and proposed site for Miyawaki-Dense Plantation is very close to many industries in and around the Mundra landscape. This area is also very close to main roads and coastal creeks. Mainly dense to sparse *Prosopis Juliflora*- (Ganda Bavar cover) is recorded surrounding to project site with very few scattered native trees like-Limda, Deshi Bavaretc. Shrubs species like-Akadoand Aavarare also predominant close to site; while, grasses like Chhabarand Dhrabare recorded in proposed plot area.

As shared and discussed by villagers, this proposed plot is also very close to sewage water tank and nallahs; and proposing for watering to our proposed plantation.

As discussed with villagers and Adani Foundation, we proposed the close or dense plantation at site-called 1Miyawaki Types of Plantations with following four major compartments (45X20 meters approx.) and with following strategies:

- 1.Mixed Plantation dominant Drought Resistant Plants
 - 2.Mixed Plantation dominant by Larger Leaves
 - 3.Mixed Plantation dominant by Saline Resistant Plants
 - 4.Mixed Plantation dominant by Medicinal Values.
- Plantation of 4965 saplings of different 42 spices is completed which will result in dense forest within 2 years.





Smriti van

Smriti van Memorial park is a unique initiative by Prime Minister in order to commemorate the death of about 13,805 people during this massive earthquake which had its epicenter in Bhuj District. The memorial will occupy around 406 acres of space of the Bhujia Dungar near Bhuj, Kutch that will show people's oppressive response to a natural disaster. As a part of this Smritivan Memorial Park, it will have a museum, convention Centre, sunset point and Ecological park with around varied species of trees to attract different biodiversity. For the ecological park, approx. 24 acres of land has been demarcated, wherein it is proposed to plant ~3 lakh local species trees.

Under Phase -1 project, Govt of Gujarat through GSDMA will be planting across 1 lakh trees, across 8 acres through "Miyawaki" methodology(Japanese technology of tree plantation). They have already enrolled the services of M/s Forest Creator, a Mumbai, based agency expertise in carrying out afforestation project, through Miyawaki technology.

Forest Creators have already been involved and completed 58 such kind of project of Terrestrial afforestation, across India and this will be their 59th project. (Details of project carried out Forest Creator attached)

Under this project, 60+ local species of trees will be planted and further the entire scope of development of Nursery, Soil enrichment, Plantation of saplings, mulching, biomass application, water supply & maintenance for 3 years are considered .

All Corporate of Kutch has supported fund for the same. APSEZ has done monitory support under CSR and Adani Foundation is coordinating for monitoring.



Coastal Bio diversity

Mangrove is a tropical tree or shrub that grows in swampy areas and has tangled roots located above ground. Mangroves, seagrass beds, and coral reefs work as a single system that keeps coastal zones healthy and provide essential habitat for thousands of Flora and Fauna.

Mangrove cover in India is 4992 km² which is around 3% of global distribution and 0.15% of the country's total geographical area. With the second-largest mangrove cover in India, mangroves cover in Kutch increased from 794.77 km² to 798.44 km² With dominant species of *Avicennia marina*, *Rhizophora*, *Ceriops*, *Aegiceros* For the past two decades and APSEZ, Mundra is actively involved in mangrove conservation and management activities.

Adani Foundation contemplated to establishment of multi-species Mangrove Biodiversity Park to help disseminate knowledge on the mangrove ecosystem and simultaneously conserve the species with collaboration of Gujarat Institute of Desert Ecology (GUIDE), Bhuj, Kachchh.

Total 12 hector area have been developed with multi-species Mangrove plantation of ***Avicenna Marina***, ***Rhizophora Mucronata***, ***Ceriops Tagal***, ***Ceropos decandra*** at Luni Coast as phase wise in the year 2018-2019 (Phase-I). & Phase-II (2019-2020) with good survival rate.

So, to develop that as Bio- diversity park ,another 03 ha area coastal stretches have been planted with selected true mangrove species.



Fisheries Diversity

Mudskippers and bivalves were found near the waterfront. The gastropod, *Pirenella cingulata* few crabs, Dead razor clams were also found inside the plantation site, A few crablets of *Scylla serrata* species and mud-skippers (*Periophthalmus waltoni*) were found in the cultivation site. In addition, catfish and mullets also occurred at the intertidal zone that the fisherman collected.



Macro Fauna

- *Gelasimus tetragonon*
- *Austruca variegata*
- *Periophthalmus waltoni*
- *Tubuca dussumieri*
- *Calidris pugnax*
- *Ardea cinerea*
- *Recurvirostra avosetta*
- *Larus fuscus*
- *Pirenella cingulata*
- *Solen sp.*
- *Painted strock*

- ✓ reduce carbon sequestration by 3 T per hector annually in early five years - after it reduces up to 20-25 T per hector
- ✓ provide alternate livelihood to fisherman by providing 3500 person days employment annually .
- ✓ Provide natural Habitat for Flora and Fauna.



Water Conservation (SDG 6/6.6)



At the turn of millennium, the state watched with growing alarm the steady depletion of its ground water and launched massive drive to achieve water security in Mundra region.

As a part of pre monsoon activities due to negligible rainfall we are getting less outcome of this intervention.

The Foundation's Water Conservation program, Swajal, is aimed at addressing the alarming depletion of groundwater levels and reduction in water sources in various parts of the country. Devising eco-friendly and cost-efficient methods of water body rejuvenation, the project works to revive existing water resources, plan sustainable infrastructure for protection of natural water bodies and improve ecological conditions around the area. Interventions are focused on groundwater recharge, sustainable agriculture and boosting livelihoods post stream rejuvenation.

Total 110 Roof Top Rain Water Harvesting, 190 Recharge Borewell and 56 Pond Deepening carried out in up to year.

Impact

- ✓ 218500 men, women, children and elderly impacted by this initiative.
- ✓ Total Dissolved Solids (TDS) in the ground water down by 16.7%.
- ✓ Ground water table up by 4.2 ft. over the last 5 years.
- ✓ In four villages water levels have increased by 15-20 ft. through bore-well recharging facility
- ✓ Storage capacities of check dams and ponds increased by 106.44 MCFT. Total area benefited 2857 hectors.
- ✓ Annually 10000 Liters of water saved and up to INR 10000 saved per family.
- ✓ 80% reduction in money spent on labour.
- ✓ Up to 20% less money spent on electricity bills.
- ✓ 50% less water used as compared to conventional methods.
- ✓ Potable water available at doorstep. Earlier on an average women used to walk 1.3 kms to fetch water.
- ✓ On an average there has been up to 25% decrease in expenses on healthcare.
- ✓ Water availability has also ensured safety, security and overall well-being of women and children in the area.
- ✓ Initiatives and efforts made under water projects by Adani Foundation continues to provides sustainable solutions for community for their improved farming and ease of living.



Initiative	FY 2021	Total
Roof Top Rain Water Harvesting	50	115
Bore & well recharge	83	189
Pond Deepening	-	56
Check dams	-	21
Drip Irrigation	180	1158

Drip Irrigation Project (SDG 2/2.4)

The fragile economy of Kutch is hampered by the salinity ingress and higher saline ground water which consequently impact on cultivation area and farmers yields as well.

Hence, To Conserve the Water. It is necessary to bring the land under '**Micro Irrigation System**' by allowing water to drip slowly to the roots of the plants, either from above the soil surface or buried below the surface we have started project Drip irrigation to Provide Financial support to adopt & Install Drip irrigation system.

This year **More than 180** farmers are supported with 15% Amount of Total Cost for maximum Rs.0.40lac.

Till the date Total **2229 acre of land are covered under Drip system by 1158 farmers** impacted to save their Money ,time and water and electricity as well.

The process to availing Benefits

- Farmers have to apply in the prescribed form of Adani foundation with photographs _
- Inspection and verification will be by AF representative.
- Ration card, work order of GGRC, 7/12 certificate, and all bills must be attached.
- Solutions to Queries .
- Primary information about farmer land will be recorded.
- Farm visit within 10 days of receipt of application and verified installation of the system as per map and material.
- Feedback from farmers.

Farmers selection Criteria

- Farmer should belong to the intervention villages of AF (Adhar Card) within Mundra block
- Small/marginal farmer – having maximum 3 hectors total family land were considered.
- Submit copy of application and copy of approval certificate from GGRC for drip irrigation .

- Consent to contribute and participate as per the provision of the AF scheme.
- Spot check/ field visit at the farmer's farmland by AF team before and after setting up the drip irrigation system and regular monitoring visit.
- Opening a bank account (the financial assistance was provided only through cheque).



Grassland Ecosystem Restoration project - Guneri

Lakhpat taluka is bestowed with rich mineral resources, lignite being the most important. Additionally, the area is also known for presence of tropical thorn forest. The region exhibits a great correlation between floral and faunal species and many rare and threatened species including *Helichrysum cutchicum* (endemic species), *Cistanche tubulosa*, *Campylanthus ramoissimus*, and *Sida tiagii* hence area is a proposed Biodiversity Heritage Site. However, the stress on this biological pool is constant, which arises primarily due to dynamic environmental conditions culminating in frequent droughts.

- With this background, and as a part of Biodiversity initiatives, to conceptualizing the landscape ecology and social-ecological systems together, by taking grassland restoration as its epicenter, APSEZ has proposed to take the pioneering steps towards building sustainable growth in the Lakhpat region, Kutch by taking **the initiation of restoring the natural grassland habitats (Ecological Restoration) along the Guneri village, i.e. ~40 Ha grassland ecosystem in gauchar land**, by collaboration with Gujarat Ecology Society (GES) – A Nonprofit Organization, based in Vadodara, Gujarat.



Grassland Ecosystem Restoration project - Guneri

Guneri village is situated north of Lakhpat fort with a population of 967 as per the 2011 census. A Biodiversity Management Committee (BMC) already exists there and hence it becomes easy to undertake grassland restoration with the help of committee members. The gauchar land available for restoration is around 100 Ha and about 40 Ha of the area can be considered for restoration. The restoration process will be spread over a time period of three years, starting initially with 10 Ha and slowly moving up to 40 Ha by the third year.

The faunal survey was initiated in the month of December and continued till February 2022. This time is suitable to record the migratory birds. The survey highlights the presence of 9 threatened species based on IUCN (2021) viz., Monitor Lizard Black tailed Godwit, Black-headed Ibis, Common Pochard, Tawny Eagle, Steppe Eagle and White-backed Vulture were sighted in the area.

MILESTONES ACHIEVED

- Restoring the grasslands in the Gauchar lands.
- Preparatory phase for plantation activity.
- Capacity building of the locals in the ecological monitoring process and process of documentation and observation of changes.
- faunal Survey Mambles-07 species ,Reptiles-04 Species Birds-59 Species ,Threatened species-09 Species were Found.
- On Soil day celebration, An expert session was presented by Dr. Jayendra Lakhmapurkar for the APSEZ staff, students and farmers.
- International Wetland day was celebrated on 2nd February jointly by Adani port and logistics and GES with the theme "**Action on wetlands for people and nature**". Key note speaker Dr. Deepa Gavali took insightful session to create awareness.



Sustainable Livelihood Projects

Empowering lives and broadening their scope for economic opportunities, Adani Foundation's initiatives introduced under 'Sustainable Livelihood Development Program', is formed to empower and uplift community towards better living and better livelihood.

At Mundra Taluka, several communities are economically side-lined and depend on a sole income source or are unemployed.

Sustainable livelihood projects have been launched to cater financial independence through building local partnerships, providing diverse livelihood avenues, inculcate the attitude to establish savings, equipping to earn and updating local skills by making use of existing resources to encourage self-reliant lifestyles. Participation is encouraged by launching specific projects for fishermen communities, farmers and cattle owners, youth and women.

A comprehensive program for Fishermen community is developed with holistic approach to improve their Education, health, economic status, Employment opportunities, Infrastructure and social awareness.





With support of Adani Foundation, Education Scenario is changing in fisher folk community which wasn't a cake walk but with the hard work and commitment Adani Foundation has created miracles to motivate this vulnerable students to pursue Education for their bright future .

To inculcate Education in first generation learners – **SMART Balwadis** are set up with an aim to provide quality education, scholarship support to girl child along with transportation facility.



SMART Balvadi

A child's early years experience provide strong base for their lifelong learning. A Balvadi center for their holistic development was set up at Four fishermen vasahat where trained Balvadi teachers looks after Children's Physical, cognitive, Emotional and Social development.

Initiatives taken to provide Study Material and Cycle are the distributed to keep fisher folk children motivated to continue their study as well as reduce financial burden of their parents.

68 fisher folk children studying in 9th to 12th standard were provided with educational material and stationary material and Cycle support to Juna bandar secondary school going students.

Economic Empowerment is necessary for "ATMA NIRBHAR BHARAT" and Skill Development is the base of comprehensive growth. To Develop various technical and Non-Technical Skills in youth - training was conducted for Fisher Youth and Women.

Digital literacy and spoken English class:- Basic computer and spoken English training for 152 Fisherfolk students of Zarpara and Luni Vasahat which will help them to grow with confidence.



sewing training given to 26 fisher women of Juna bandar to make them Self-reliance. Planning industry tie-ups to provide them with livelihood opportunities.

Awareness programs For fisherwomen :

Fisherfolk women are still living in 19th Century, due to lack of education they are having issues of addiction, hygiene and independence.

More than **1250+ women** participated in various sessions awareness workshop at Fisherfolk settlements periodically.

Process for livelihood support to Fisher folk
39 Fisher Youth were interviewed in various industries among that 12 are selected.

Mangroves Nursery Development

Optional livelihood provision during Two-month Fishing Offseason is taken care by Mangrove Planation and maintaining at Luni Hamiramora site.

Till the date 162 hector area have been planted with Avacinia marina mangrove species which provided **46247 person days** and create environment Sustainability as well.

Years	Mandays
2012-13	6943
2013-14	1480
2014-15	3240
2015-16	3533
2016-17	3125
2017-18	3666
2018-19	7539
2019-20	6261
2020-21	5020
2021-22	5440
Total	46247



Project Fish

Skill Enhancement of Fisher folk Youth

Objectives

To Promote long-term socio-ecological effectiveness through focused interventions like employment through Skill enhancement.

Engage more than 500 fisher folk youth in Skill Development Training to provide consistent scope of income

Alternative incomes mean fishers are less pressured to go out to fish especially when the weather is bad

Skill Enhancement in technical sector will motivate them for Education provision in future generations

Livelihood interventions to improve fisheries dependent households and also reduce risk during open sea fishing

Project Goal

To develop new livelihoods opportunities for more than 500 fishing families and therefore to helping with family finances this leads to an increased sense of empowerment and confidence.



Pre-launch Activities

Brewing Big

Fish project ideation bring into existence after researching and analyzing the existing situation of Fisher folk youth and challenges they face due to which the future of the community was at stake.

The future of any community depends upon its youth. Considering this phenomenon, Adani Foundation targets fishermen youth at remotest location of Kutch district covering villages like Zarpara, Navinal, Mundra, Shekhadiya and others.

The key activities conducted before the launch were:

Mobilization - Team reaches out to villages to created awareness regarding the purpose of project and providing detailed information about training and the employment opportunities provided to them.

Counselling - A regular Interaction with every potential beneficiary to understand their educational background and interest areas along with mental and emotional capabilities. On the basis of individual's educational background and capabilities, counsellor suggests best fit course to the beneficiaries.

1 Jan'
2022

Project Launch

Getting started

Project 'FISH' was inaugurated with an aim to enable fishermen community youth in 3 trades
Assistant Electrician, Mason and Digital Literacy.

52 aspirants from community were given an opportunity to get holistic skilled development environment by Adani Foundation under Adani Skill Development Centre. The certified training program of ___months. The expert trainers of ASDC acts as a catalyst to develop not just technical skills but to provide trainees a holistic learning platform to develop their personality and to make them industry ready.

Job Roles

- Mason General
- Bar Bender & Steel Mixer
- Assistant Electrician

11 Jan'
2022

10 April
2022

Training & Beyond

Skill journey of Beneficiaries

Life at Skill Centre

Once beneficiary enrolls in a skill training program, he undergoes various modes and methods of training to develop his overall personality during his technical skill journey.

The training cycle started with theory sessions and practical sessions in respective job roles. Post that, Soft skills sessions and activity based learning sessions were conducted to boost their confidence. Though, beneficiaries start career at entry level, to grow themselves further ASDC prepares them with well with sessions like communication skills and Digital literacy.





I am happy that I am getting chance to get skilled and choose to make a living doing other occupation and no more dependent on just fishing. When my trainer appreciated my drawing skills for project and grasping power, I got determined to study dedicatedly to score maximum in my assessment.

- Rahim Bhatti

In 3 months of training, I feel immense confidence in myself. My changed personality is even witnessed by my family and friends. Post training session, I even do home study and discuss queries with trainers regularly to get myself prepare for my first job.

- Ayub Vagher



Initially I was hesitant to speak in class and also struggled in theory sessions. But our trainer is so supportive and helped me to understand better through practical. I am looking forward to start my career post skill training and all set to enter into an occupation to make my parents and fishermen community proud.

- Abdullah Vagher

Transforming Lives

Home like meal service by SHG members

One of the interesting initiative of project the 'Fish' is the involvement of SHG group women named 'Saheli Gruh Udhyog' in the successful training of fishermen youth in the form of providing freshly cooked meal for the beneficiaries and arranging their lunch at training centre.

Adani Skill Development centre has given a meal service contract to SHG member and bears complete cost of beneficiaries meal and supporting SHG members in expanding their services.

About 'Saheli Gruh Udhyog'

It's a group of 10 members among whom, some are widows. They are making active efforts to run their SHG group by providing meal services for their sustenance.

Getting a chance to serve 52 young men for 3 months proved as a big achievement for their SHG group. *Moreover, food quality is appreciated by trainees and they express their gratitude by saying 'the food reminds them of home as it tastes like home'.*



Sustainable Livestock Management

The inadequate rainfall and high saline ground water acts as a threat for agriculture practices. Also, cattle sustenance is the main cause of concern due to dry arid region in lean months. Adani Foundation contributed its exceptional efforts in Mundra block for consistent betterment in livelihood sector.

The organization has carried out remarkable activities in the agricultural and animal husbandry sectors i.e. Cattle Health care, Natural Farming, Soil health enhancement, Fodder sustainability etc.



Pashudhan : Fodder Support Programme, Individual Fodder Cultivation

- ❑ Adani Foundation provides good Quality dry and green fodder to 24 Villages. Project is covering total 14116 Cattle's / 3008 farmers and hence enhancing cattle productivity. Fodder support is of prime importance for sustaining the cattle in dry months.
- ❑ Fodder Cultivation- To made fodder sustain villages - 25 Acre Gaucher land of Siracha village is being cultivated for the same.
- ❑ Fodder support MOU- with Gram panchayat at Zarpara, Nana Kapaya, Borana, Mangara, Sadau, Shekhdiya , tuna , Rampar, Dharab, Navinal, Luni, Gundala, hamiamora , Raga.
- ❑ Individual Farmer fodder cultivation supported for Maize seed and NB21 to more than 200 farmers which has created revenue of Rs. 27 Lacs.

Preventive Health Care

- ❑ Adani foundation and Government Animal hospital jointly organizing Cattle awareness camps total 22 villages .
- ❑ Vaccination of susceptible animals against foot-and-mouth disease (FMD) is a well established strategy for helping to combat the disease. Traditionally, FMD vaccine has been used **to control a disease incursion in countries where the disease has been endemic rather than in countries considered free of the disease.**
- ❑ Foot-and-mouth disease (FMD) and Deworming done with 1883 cattle owner benefitted to 15700 cattle.
- ❑ Sheep and goats have weakened immune systems when they are sick with other diseases, are quite young or old, and during highly stressful events such as lambing. Deworming strategies should seek to protect these higher at-risk groups, controlling parasite levels in all animals to prevent visible effects of parasitism.
- ❑ Special Camps organized at Kira Dungar Nakhatrana for camel which benefitted 525 camels.



Bovine brucellosis is a chronic infectious disease of cattle that causes abortion, the birth of weak or dead calves, infertility and, as a consequence, reduced milk production. Cattle and buffaloes of all ages are susceptible, and infection can persist for many years. In females, abortion is the major clinical sign, typically occurring between five and seven months of gestation. Most infections result from ingestion of bacteria either from diseased animals or contaminated feed. Infection may also be acquired by respiratory exposure and by contamination of abraded skin and mucosal surfaces. Infected bulls can spread the disease through semen. This disease is also zoonotic (a disease that can be transmitted from animals to people or, more specifically, a disease that normally exists in animals but that can infect humans). Under this project following activities were carried out so far,



- Meeting with Gram Panchayat, Farmers and Livestock Owners.
- Development and Distribution of the Awareness Materials among the stakeholders.
- Mass Level awareness by pasting the poster and meetings with Village Leaders and Gram Panchayats.
- Primary Survey and Sample Collections i.e. Milk Ring Test, Blood Collection and testing.
- Brucella Vaccination and Ear Tagging etc.

To protect Cattles against **Bovine Brucellosis** zoonotic disease, Awareness and vaccination program is ongoing with Kutch fodder fruit & Forest development trust (KFFT) in our 13 Villages , Last year 287 families 2132 Animals benefited. In 2021, **In Total 666 families 5083 animal benefited.**



Sustainable Agriculture

Sustainable agriculture is to protect the environment, public health, communities, and the welfare of animals. Sustainable agriculture also promotes economic stability for farms and helps farmers to better their quality of life.

Soil Enrichment, Crop Pattern, Agro Cover, Natural Farming, Orchard Development, Tissue Culture, Water Harvesting Practices, Replacement of chemical fertilizers and pesticides, Bio intensive Integrated Pest Management are the main parameters of Sustainable Agriculture Practices.

Sustainable Agriculture benefits are:

1. Contributes to Environmental Conservation
2. Saves Energy for Future
3. Prevents Soil Erosion
4. Enriches Soil quality
5. Biodiversity
6. Sustainable Livestock management
7. Economically Beneficial For Farmer
8. Quality Food to consumers



Home biogas

Home biogas is the Israel based company was founded in 2012 manufactures dynamic biogas unit not only for farm waste but for kitchen waste too.

- Reducing organic waste,
- Transitioning to renewable energy
- Motivation for reduction in use for fertilizer

And Improving the health and living conditions for the millions of families that are still cooking on charcoal and wood. Adani Foundation is not only supporting but creating awareness to save environment and health of the community who regularly cooking on Chula. It is proven that one hour cooking on Chula is as dangerous as smoking 40 cigarettes.

As a Main Process, Bacteria break down organic waste in a naturally occurring process, and Home Biogas stores and harnesses the energy created so that it can be used for gas.

Sustainable agriculture Project is revolving around Home biogas which is not just utilized for cooking gas but its by product is bio slurry which is replacement of chemical fertilizers and promotes soil enrichment.

Adani Foundation has supported for **223 Home biogas system** till date with 20% participation by the community.

As per SORI use of biogas each farmer can save Rs.23399/-year. Total 223 farmers can save Rs.5217977/- in a year.



Promotion of Natural Farming

To promote Natural farming Adani Foundation has originated cow based farming initiative with interconnected techniques which can increase farmer yield – our main objective is to improve quality of soil. Pre testing and post testing is carried out for designing carbon content management of soil.

Implementation

- Survey and identification of farmers to adopt Natural farming –**Total 150 Farmers were selected as criteria in first phase of the Project.**
- Arranged Workshop & Hands on training for them which was conducted by Agri expert ,KVK and Progressive farmers with 700+ farmers.
- **23 vermi compost unit have been set-up** to give guidance n training to other farmers. This units are provided Which is facilitated through Government with farmer Contribution.
- **150 Farmers have started to preparing JivaMrut & Gaukrupa Amrutam Bio-fertilizer** and using in agri crop. Series of Training is arranged by ATMA and Adani Foundation in which more than 700 farmers participated.
- Four Farmers Groups is registered with **ATMA –Agricultural technology management Agency – it will leverage Government schemes.**





Promotion of Horticulture : Kutch Kalptaru FPO

Kutch Kalptaru Producer Company (KKPC) is established to address the challenges faced by the farmers, particularly to enhanced access for inputs, technology up gradation in Agri practices, output, Sorting, Grading, Value addition & marketing. by the farmers of Mundra Block in the year of 2020. The company is started with 350 shares of 280 holders, Right now it is on path of expansion up to 5000 Farmers.

Current year for the dates Packaging and Marketing, KKPC Started to sell **10 Kg capacity packaging Box** at Minimum Profit Margin At **Rs.29/Boxes** which resulted in turn over of Rs. **24 Lacs with Profit of 1 Lac.** This initiative has supported more than 1800 farmers indirectly.

Regular Director Board Meeting as well as capacity building Training were arranged.

In Coordination with KKPC, Adani Foundation has supported for Dates Offshoot plants to 100 farmers. It will start fruiting from 4th year and matured from 7th year. 4th year



expected yield is 50 Kg. and Minimum fetch rate is 50 per Kg so each farmer will produce 1000 Kg high quality dates and Rs.50000/- income from it and all 100 farmers will produce 100000 Kg dates and income will be generate Rs.50 Lacs in first fruiting year.

It will increasing year by year till 7th year, when dates plants matured and after that 2000 plants produced 300000 Kg expected high quality dates and expected income will 1.5 Cr. Approx.

Five farmers are cultivating Dragon Fruits in 2 acre each – Total 11000 plants.



Women Empowerment Projects

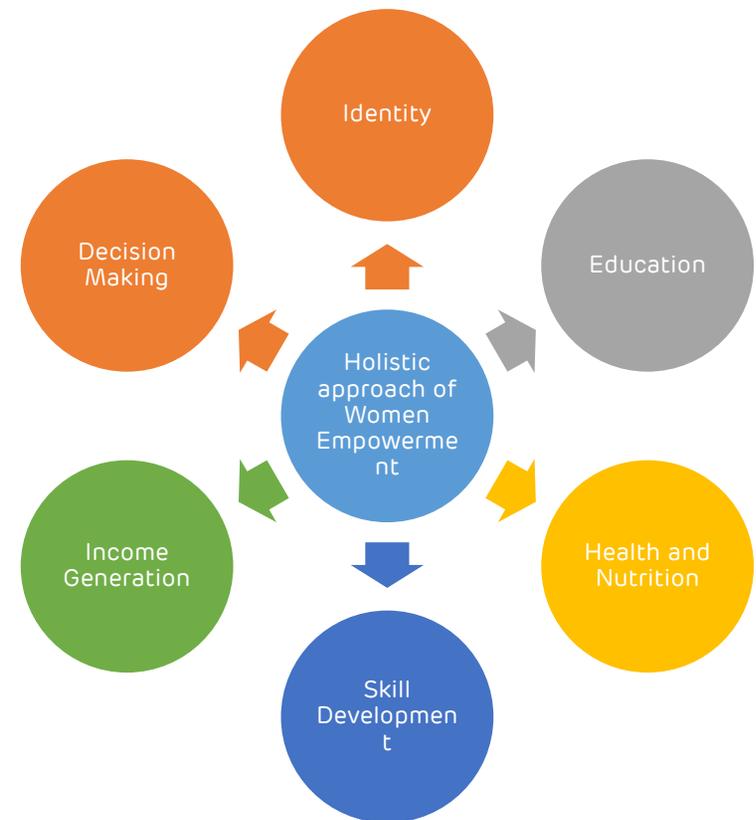
Women are central to the entire development process, be it in an individual family, village, state or to a nation. Adani Foundation provides platform to community women to break the ceiling and move out as a change makers in their communities and among societies keeping their traditions intact. A considerable change has been witnessed in Mundra in terms of development of women beneficiaries in various fields of occupation like farming, self entrepreneurship, agriculture, etc. Adani Foundation has a special focus on empowering rural women and uplift by providing sustainable livelihood support resulting socio-economic shifts in rural population.



The below mentioned figure shows determinants associated with the empowerment of women and these are the challenges for us as a CSR to work upon.

Adani Foundation focuses on is all parameters as a part of holistic approach towards empowering Women.

- Education – **More than 1200** girls are impacted under project Utthan. Project promotes girl child education, Creating awareness through various Govt schemes like Vahali Dikri Yojana, Sukanya Samriddhi Yojana and others.
- Health and Nutrition – Suposhan Project focus on adolescent and Reproductive age women nutrition part. Till date covered more than **12500 women** and **8700 adolescent** under this Project and brought them to considerable status.
- Skill Development and Income Generation – Adani Foundation is working with **15 Self help groups** and supporting to develop entrepreneur skills to become self reliant, sourcing more than 350 women to absorb in various job – this will give them identity, confidence and right to speak in any decision for home, village and working area.
- Drinking Water and Sanitation – Total **115** Roof Top Rain Water Harvesting is supported for hassle free household chores. **1057** families are supported for Potable water at Fisherfolk settlement to reduce drudgery of women.





Total 15 Active SHG Groups are engaged as mentioned in table Income generation activity. We facilitate them capacity building training for quality ,Marketing Finance and team work to made them self sustain.

Major Achievements:

- Saheli Swa Sahay Juth have **completed order of 15000 Sanitary pad** from District Health Department.
- **“Shradha Saheli Sva sahay Juth”** has won tender to provide Catering service in Block level Government.
- **Tejasvini SHG has received order** of three layer mask preparation worth Rupees Nine Lacks
- **Sonal Saheli** Women SHG had **supplied 500 KG washing powder** to Adani port & Will mar.
- Shradha Saheli & Jay Adhar Saheli have been registered in FSSAI (Food safety and standards Authority of India.
- Turn over of Tejaswi Saheli, Shradha Saheli and Meghdhanush Saheli is **@ 40 Lacs till date.**

Sr. No	Name of IG activity	Activity	Nos
1	Sonal Saheli Swa Sahay Juth	Phynale & Washing Powder	11
2	Jay Adhar Saheli Swa Sahay Juth	Dry Nasta	12
3	Tejasvi Saheli Swa Sahay Juth	Stiching,Uniform,Bag	12
4	Umang Saheli Swa Sahay Juth	Soft toys, Jula,	13
5	Vishvas Saheli Swa Sahay Juth	Tie & Die, Stiching	13
6	Jay Momay Saheli Swa Sahay Juth	Tie & Die, Stiching	12
7	Meghadhanush Saheli Swa Sahay Juth	Mud Works,	10
8	Saheli Swa Sahay Juth	Sanitary Pad	10
9	Radhe Saheli Swa Sahay Juth	Dhadaki, Small Godadi	14
10	Shraddha Saheli Swa Sahay Juth	Fresh Food	10
11	Chamunda Saheli Swa Sahay Juth	Tie & Die	10
12	Jay shakti Saheli Swa Sahay Juth	Stiching	10
13	Navdurga Saheli Swa Sahay Juth	Sanitary Pad Sale	10
14	Sakhi Saheli Swa Sahay Juth	Sanitary Pad Sale	10
15	Sonal Krupa Saheli Swa Sahay Juth	Stiching	10
			168 Members in Group





Registration Certificate
Government of Gujarat
Food And Drugs Control Administration
Food Safety and Standards Authority of India
Registration Certificate under FSS Act, 2006



/ Registration Number: 20721013000245

1. Name and permanent address of Food Business Operator (FBO) JAY AADHAR SAHILI SVA SAHAY JUTHI BAROI , Baroi , Mundra, BHUJ(KUTCHH), Gujarat-370421
2. Address of location where food business is to be conducted / premises BAROI, Baroi , Mundra, BHUJ(KUTCHH), Gujarat - 370421
3. Kind of Business General Manufacturing
4. Photo Identity Card N/A

This Registration certificate is issued under and is subject to the provisions of FSS Act, 2006 all of which must be complied with by the petty food business.



Place / BHUJ(KUTCHH)

Registering Authority

Issued On / 12-03-2021 (New Registration)

Valid Upto: 11-03-2022 (For details, refer Annexure)

Annexures:

1. Product Annexure
2. Validity Annexure
3. Registration Id Card

Note:

1. Application for renewal of Registration Certificate can be filed as early as 180 days prior to expiry date of Registration Certificate. You can file application for renewal or modification of Registration Certificate by login into FSSAI's Food Safety Compliance System(<https://foscos.fssai.gov.in>) with your user id and password or call us at 1800112100 for any clarification.
2. This Registration Certificate is only to commence or carry on food businesses and not for any other purpose.
3. This is computer generated Registration Certificate and doesn't require any signature or stamp by authority.
4. This Registration Certificate is allowed to conduct food businesses activities having annual turnover upto Rs. 12 Lacs only.

Economic Empowerment of women means "Enhancing the role of women as drivers of poverty reduction, promoting female investors and entrepreneurs as per SDG 5" in this half year all 15 women groups did turn over of Rs. 11.5 Lacs. 43 women got job in various SEZ industries by AF intervention and 11 women got absorbed as Gram Rakshak Dal, Bank Sakhi and Bima Sakhi.

Community Resource Center

Adani foundation acting as bridge between Government and needy beneficiaries to facilitated government scheme leverages since 2015. and after our efforts and observation, we decided to established Community resource center, where people can have easy access for Guidance and complete all necessaries document for Government Scheme.

CRC is Located just near to Mundra Bus stand and known to all People.

In the year of 2021-22 Total 667 people have benefitted through CRC center.

Total 2243 beneficiaries have been benefited and get support through Government and Adani Foundation. Among them more than 712 people have been getting financial support as Monthly base that is. Rs16.Lacs.



Scheme Detail	Beneficiaries 2021-22	Remarks	Total Beneficiaries	Revenue Convergence (Rs)
Senior Citizen	10	Rs.750/ Month	104	78000
Online Application	13		13	
Widow Pension	289	Rs.1250/ Month	526	657500
Medical Certificate	59		59	
AF Support	32		32	
Divyang pension	2	Rs.1000/ Month	7	7000
E-Shram CARD	8		8	
Divyang Job	14		14	
Sukanya	123		123	
Vahali Dikri	23		23	
Bal Yog Yojna	51	Rs.2000/ Month	51	102000
Covid -Support	13	Rs.50000/ one time	13	650000
Aditya birla Scholarship	30		30	
palak mata pita		Rs.3000/ Month	9	27000
sanakat Mochan		Rs.40000- One Time	2	80000
Tool and Kits Support by through Government			1057	
Support By AF (Widow and Divyag)			159	
Ration support To Widow and Niradhar			13	
Total	667	0	2243	1601500

Project Swavlamban

Project Swavlamban Launched with an aim to make **differently abled people of MUNDRA TALUKA self sustainable.**

Our objectives:

- To increase awareness about Government schemes for Divyang people, widows and senior citizens and coordinate them with Social Welfare Department, Government of Gujarat.
- After getting income generation equipment support - Proper training provision to make them self-reliant in true sense!!
- Adani Foundation is playing key role as facilitator in case of tie up with Government Scheme for Widows, Senior Citizens and Handicapped people. The identity cards are issued for the handicapped in coordination with Bhuj Samaj Suraksha Khata which is beneficial for them to get specific kit for their disability type. This year **154 beneficiaries** linked up with pension scheme.
- The financial benefit of the senior citizen Yojana is Rs. 500 per month and the widow scheme is of Rs. 1250 per month. Jilla Samaj Suraksha Officer and team remain present every time.



Community Infrastructure Development

Building a strong community relationship is the key to progress of Adani Foundation. The programs such as Education, Health and Sustainable livelihood development play a very important role in building this strong relationship with the community. These three programs are incomplete without the inclusion of the Rural Infrastructure Development program.

This year on path of sustainability, we have taken some steps as follows...

Under Fisherfolk Development Project, Adani Foundation has constructed 46 shelters at Randh Bandar with pre cast structure. Fisherfolk Community cum Training center is the biggest project of current year and will also create impact as a boon for fisherfolk youth for various trainings.

Balwadi development work at Bandar and Shed for Adani Skill Development Center for technical trainings will also improve quality of many lives in true sense.



- 23 Fishermen of Randar bandar are benefitted to Pakka House constructed under AF Fishermen Avasa yojna
- Renovation and Up-gradation of Check Dam & River Rejuvenate work at siracha and Bhupur villages.
- RRWHS & Bore well recharge Construction at Various Villages.
- Basic amenities and maintenance and repairing work at all Fishermen vasahat.
- Community gathering and training Center construction at Different villages
- LED Street Light and Sky Lifter Structure at Municipality Mundra Baroi.
- Supply & Fixing of Hi Mask Tower at Gundala village work.

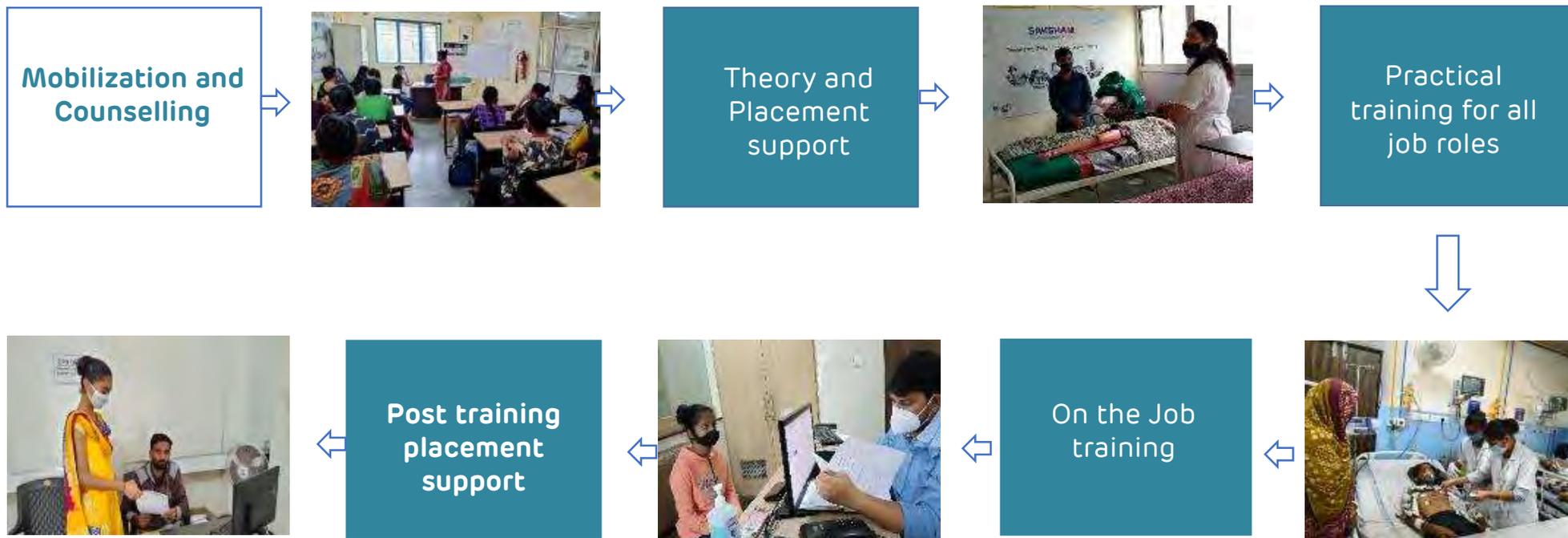


Adani Skill Development Centre

A section 8, not-for-profit company, registered on May 16, 2016, 'Adani Skill Development Centre' is an initiative of Adani Foundation. ASDC focuses on skill development activities to contribute towards nation building by bridging the skill gap demand & supply, in line with Government of India's Skill India Mission.

"SAKSHAM" is an ideology of the Adani Skill Development Centre to make youth of India 'SAKSHAM' (capable) of achieving their goals in life by becoming skilled professionals.





A strategic model of skill training is implemented by ASDC in which Mobilisers visit remotest locations to encourage youth and women to get skilled, Counsellors provide in-depth information and assist in suggesting need based course, Certified trainers with expertise provides theory and practical training. Trainees are provided with soft skills sessions and interview preparation sessions to make them employable and industry ready. For each batch, ASDC team will arrange Panel Interviews and Campus Interviews for trainees to get directly selected as soon as they complete training.



Practical Training : As a training part we are conducting other activities. We have conducted Learn with Fun activities, Parents Meeting, Certificate distribution program, Preparation for Interview etc.



Women's Day Celebration : Conducted 7 days seminar to empower female candidates in line with International Women's Day theme. More than 60 women participated.



Educational Exposure Visit of GDA candidates (DDU-GKY) at K. D. Hospital Ahmedabad. 21 candidates visited.



Guest session organised for trainees to provide them soft skills training and make them industry ready with a doze of motivation.



Certificate distribution to GDA batch Students

Course wise Admission Bhuj

Name of Trade	Total
General Duty Assistant	90
Digital Literacy	42
Financial Literacy	45
GST with Tally	169
Frontline Health Worker	11
Welding Technician	1
Basic Functional English	5
Beauty Therapist	5
Logistics & Supply Chain Management	1
Junior Crane Operator	3
Occupational Safety and Health Administration	1
Pedicurist and Manicurist	2
Domestic Data Entry Operator	2
Diet & Nutrition	41
First Aid	81
Total Admission	499

Name of Trade	Bhuj	Kutch University	Chanakya College	DDU-GKY	Total
Total Admission	97	179	191	32	499

Name of Trade	Total Trained	Placement	Self-Employed	Upskilled
General Duty Assistant	32	10	0	22
Digital Literacy	38	0	0	38
Financial Literacy	20	0	0	20
GST with Tally	92	0	0	92
Beauty Therapist	3	0	3	0
Junior Crane Operator	3	1	0	2
Pedicurist and Manicurist	1	0	1	0
Domestic Data Entry Operator	1	0	0	1
Diet & Nutrition	41	0	0	41
First Aid	41	0	0	41
Total	272	11	4	257



Name of Trade	Mundra
Basic Functional English	170
Digital Literacy	152
Self Employed Tailor	120
Pedicurist and Manicurist	107
Junior Crane Operator	54
Mason General	42
Bar Bender and Steel Fixer	42
Dori Work	22
Mud Work	18
Assistant Electrician	10
General Duty Assistant	6
GST with TALLY	5
Beauty Therapist	2
Data Entry Operator	3
Checker	1
5S	1
Total Admission	755

Placement Details for the F.Y. of 2021-22 (Mundra)

Name of Trade	Total Trained	Placement	Self-Employed	Upskilled
General Duty Assistant	6	0	0	6
Digital Literacy	99	0	0	99
GST with TALLY	5	0	0	5
Mud Work	18	0	18	0
Basic Functional English	105	0	0	105
Dori Work	22	0	22	0
Junior Crane Operator	46	25	1	20
Data Entry Operator	3	0	0	3
Pedicurist and Manicurist	27	0	27	0
Self Employed Tailor	29	0	29	0
Total Admission	360	25	97	230

CSR Nakhtrana

Adani Green Energy(MP) Limited (AGEMPL) proposes to setup an integrated wind energy project as Green Energy Works which includes Limestone 750 Mw, Through approx. **1250 windmill** at Dayapar to Nakhtrana in District Kutch (Gujarat).

- Socio economic survey of Widow women and than linked with Government Widow pension scheme Rs.1250 /Month. Total **246 widow women have been facilitated with Widow pension scheme** with convergence of Rs.307500 /Month on Regular basis.
- **Till the date 22 Bore well** were recharged at Ugedi and Deshalpar Villages. Two pond deepening work and **4 Old check dams** were repaired. Tree Plantation at Jinjay & Ugedi Villages Primary schools.
- **Government Scheme Awareness Session** was held at Deshalpar village on the silver Jubille of Foundation day .
- **Distribution of 1000+ Mangoes Sapling** to farmers of Ugedi and Deshalpar Villages for promotion of Horticulture farming.



CSR Lakhpat

Adani Cementation Limited (ACL) proposes to setup an integrated cement project as Lakhpat Cement Works which includes Limestone Mine in 251.9 ha area.

Main focus of Adani Foundation is to prevent community from life threatening diseases and provide basic healthcare services.

Activities:

- Barred land of the Kapurashi crematorium afforestation with **2222 different type of trees in collaboration of forest department and Bhagvati Gramaya Vikas trust**. Arranging **water pipelines to facilitate regular watering** of plants to ensure nurturing. Impact: Attracts peacocks and other birds at crematorium site.
- General health camp and specility health camp was arranged frequently at villages. More than **425 Patients were diagnosed and refer to GK General Hospital** for further treatment and operation if needed.
- Sewing machine training was conducted Kapurashi women. Main objective of the training was to empower women to boost their self confidence and thus financial independency,



CSR Tuna Port (AKBPTL)

Adani Kandla Bulk Terminal Pvt. Ltd. is joint venture of Adani Ports and SEZ Limited and handles all types of dry bulk cargo including coal, fertilizers, minerals, industrial salt and agriculture products.

Various activities were carried out for the community development under core areas of Education ,Health ,SLD & community Infrastructure of Tuna ,Ramapar Vandi villages and Fishermen vasahat

Rural clinic and MHCU

Basic health facilities is being facilitated through Rural clinic Rampar, vandi and MHCU to vira bandar.

Specialist health camp was arranged at Tuna Villages. More than **184 patients was diagnosed and treated** as well as suggest to GKGH for Further test and treatment.

Drinking Water

Potable water supply to Dhavlavaro and Vira bandar vandi villages impact on fishermen health to reduce water born disease.

Covid Vaccination camp

covid vaccination camp was held at AKBPTL for labors and security Staff through government health department.

Fodder support

Fodder scarcity is always remained prime need of farmers which is being resolve through Fodder supply intervention to Rampar and Tuna village from April to July -2021 which improved cattle health and milk quality.

26680Kg Dry fodder support

721855Kg green fodder support

Pond deepening and bund strengthen of Rampar village pond increase water storage capacity.

Construction of Community gathering center at vandi village provide access for community function and training as well.

Water pipeline installation near to Rampar village pond to Watering tree planation which was developed by villagers and maintain regularly.



CSR Bitta

One of the Largest single location solar power project was commissioned by the Adani Group at Bitta, in Gujarat in year 2011. It spans a vast area of 450 acres. The massive plant comprises 2 lakh solar modules, 73782 foundations, 4500 tons of structure, 2800 km of cables, 56 inverters and 33 transformers. And now fully operational mode as well as connected with the 66 kV GETCO substation of GETCO TO powering 16,326 homes in a suitable manner and for the Sustainable rural development various Activities was carried by AF as mentioned.

- Avail Dinking Water and drainage line facilities by availing pipeline connection to Dhufi village which reduce drudgery and lead toward 'Swachh village'.
- Repairing and maintenance Bavnipar village cricket ground to offer hassle free playing ground as well; crated strong repo with Youth.
- Cleanliness of village Pond inlet in the Bita Village which lead more storage capacity and Village. Pond bunding construction in Dhufi village.
- Support Bita Primary school with Four Solar Light which reduce Electricity consumption and nurture renewable energy concept.
- Pota container and LED light support at Mathla check post for security and safety purpose.
- Cleanliness awareness session was conducted with Cleanliness program with youth involvement to create my Village clean village concept.
- Panchayat Building construction was carried out by Adani Foundation's support and technical guidance.



Dignity of Work Force Programme - EVP



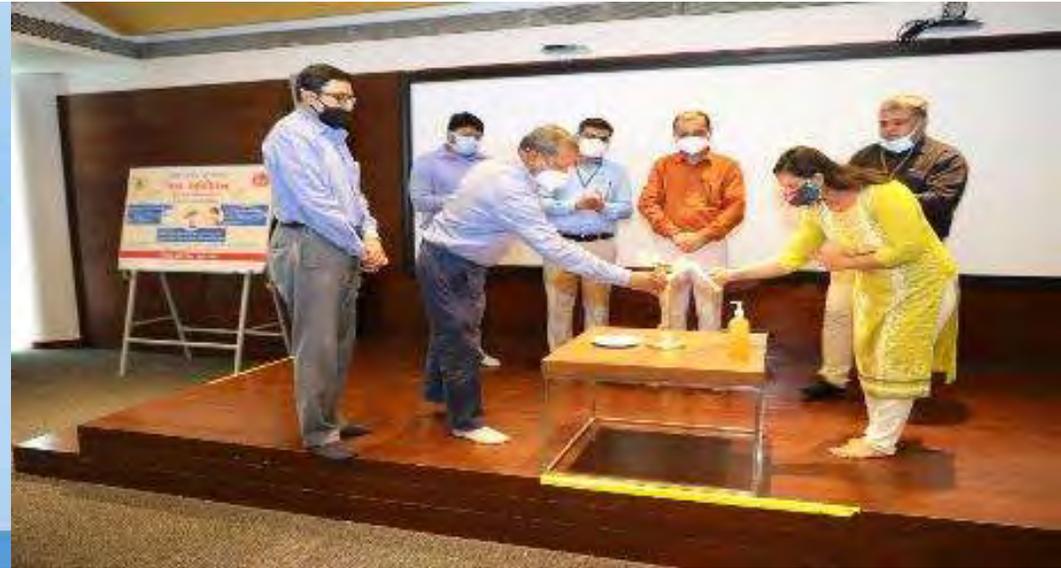
Ports and Logistics

Growth with Goodness

Corporate TB Pledge

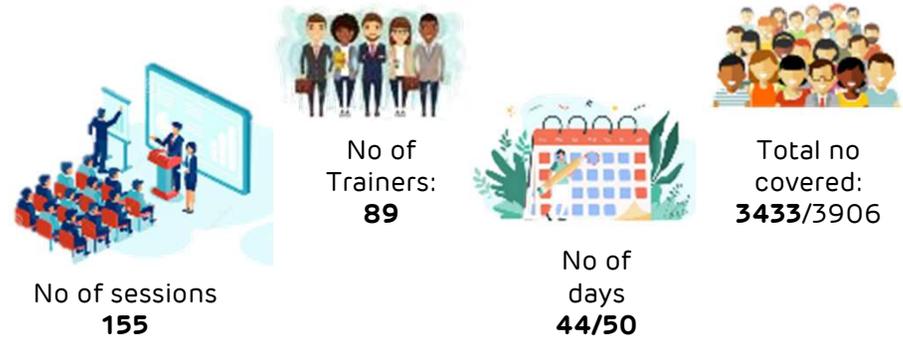
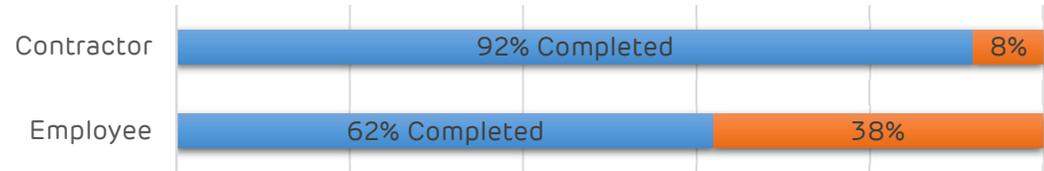
Eliminating Tuberculosis from our Workplace
– Our Journey thus far

“जन जन को जगाना है, टीबी को भगाना है”



India's National TB Elimination Programme (NTEP) aims to meet the ambitious goal, announced by the Honorable Prime Minister Shri. Narendra Modi, of ending the TB epidemic by 2025, five years ahead of the UN Sustainable Development Goals (SDG) of 2030. In response to this call, the Government of India and USAID jointly launched the Corporate TB pledge (CTP), in April 2019 to galvanized corporate support to end TB.

To continue the momentum and efforts, the USAID-supported iDEFEAT TB project, which is working towards institutional strengthening to accelerate actions for Tuberculosis (TB) and drug resistant TB (DR-TB) in India; was launched as USAID/India's flagship TB project. The project works in collaboration with the Central TB Division (CTD), Ministry of Health and Family Welfare (Mo HFW) of the Government of India across a network of diagnostic, treatment, and program management institutions.



The CTP secretariat, hosted at The Union under the iDEFEAT TB project, provides technical assistance to government and corporates to adapt, implement TB interventions, and guide corporate resources for TB and DR-TB care.

Early diagnostics and treatment initiation are key to saving lives and minimizing disease transmission. In 2019, India reached a milestone of 24 lakh notified cases in India, an increase of 12% compared with 2018. Even then, an estimated 5.4 lakh were 'missing' across India, a serious drawback to our TB elimination efforts as what is not measured is unlikely to be improved. Diagnostic delays are also prevalent in India, with studies indicating that these can be attributed to patients as well as health systems.

Adani foundation with APSEZ, APML, AWL and MSPVL HR department in coordination of FOKIA has launched cluster based screening program to eliminate TB in labors under Dignity of workforce program. Adani Ports and SEZ Limited has initiated screening with 2300 work force in first phase with target of screening more than 10,000 workforce of all group businesses and SEZ Industries.

USAID/India team including Director – Health Office has planned to visit Adani Foundation CSR Activities related to community health. He visited Adani Hospital, GKGH Hospital and related activities.

“जन जन को जगाना है, टीबी को भगाना है”



Dignity of Work Force Programme - EVP



"Joy of giving week" celebrated by employees of APSEZ and AWL by distributing clothes and stationary items to labour workforce of APSEZ.

More than 7500 Clothes distributed to 650 workers of Labor Colony.

Support to children Vallabh Vidyalaya

In year 2018-19 year Adani group employees has adopted **704 students** and in year 2019-20 adopted **800 students** who are from families of migrant labourers working in various industries in and around Mundra.

And in 2021, **997 students were registered and** to make employees connected with children Vallabh Vidyalaya regularly send progress report twice in a year. Current year Women group of Samundra Ladies has donated Rs. 55,000 for support activities of School and motivation to teaching staff in street education.



De-addiction Awareness Campaign is going on with "Prajapati Brahmakumaris" at Labour Vasahat Areas. This campaign has changed life of many labours. Cleanliness Drive is organized in May and August with Adani Willmar Limited at vasahat areas. In this series of event 225+ labours remained present and 9 labours took pledge to leave liquor and Tabaco.

Events

Community Resource Inauguration

Inauguration of '**Community Resource Centre**' to support and facilitate community regarding various government schemes.

District Magistrate of Kutch Ms.Pravina D,K , IAS, District Development Officer was guest of Honour. Other dignitaries present was Mr Bhavya Verma – IAS ,Director, DRDA Mr Joshi , Director- Social welfare office Mr Arvind Rohadiya, Mr Chaudhary Sub Divisional Magistrate , Sarpach and volunteers from villages were remain present.

'**Schematic Guideline book super -51**' book launch on 3rd April . Book consists in-depth scheme information on , Health, Education, Fisher folk based schemes and Social welfare schemes.

All dignitaries along with National Rural Livelihood Mission (NRLM) **visited to Sanitary pad making unit**, ensuing support to create sustainable Group.



International Day of Persons with Disabilities

International Day of Persons with Disabilities is an international observance promoted by the United Nations since 1992. Since 2011 – **Adani Foundation Mundra is celebrating the day with enthusiasm and Zeal in coordination with District Social Welfare office** by planning various support to divyang people.

Adani Foundation has supported **more than 35 Divyang** to initiate their livelihood i.e. Stitching, Flour mill, Ration shop, E-Rickshaw, Gift Shop and Agarbatti making machine. In connection with this, current year Adani Foundation has organized '**Divyang Employment Fair**' in coordination with more than 14 Industries of Mundra on 1st December 2021. Same platform was utilized for distributing "**E-Shram Card**" with Labor Commissioner of GOG which will give benefit of Rs. 2 Lacs accidental Insurance and unique pension scheme (3000 INR per month for any Divyang after age of 60 years) for all Disable people of Mundra.

Total 28 Divyang had applied for interview and out of them 11 received confirmation for job. Apart from this 92 E-shram cards were developed.



World Wetlands Day programme

Adani Foundation, Mundra and Gujarat Institute of Desert Ecology (GUIDE), Bhuj-Kachchh has jointly organized the **World Wetlands Day programme on 2nd February 2022**

Shri. V. S. Gadhavi, IAS (Retd.) was the chief guest proceeded by Smt. Pankti Shah and officials from Adani Groups and Adani Foundation along with Dr. V. Vijay Kumar, Director, GUIDE and scientists from GUIDE were participated in the programme.

Eminent personalities; Prof. K. Padmakumar, Former PVC Kerala University of Fisheries and Ocean Studies, also Director, Centre for Marine Biodiversity, Department of Aquatic Biology and Fisheries, University of Kerala delivered an enlightening talk on "Mangroves Ecosystem – Global and Indian Perspectives".

Prof. I. R. Gadhvi, Head, Dept of Marine Sciences, Maharaja Krishnakumarsinhji Bhavnagar University delivered a talk on "Mangrove Scenario of Kachchh" and in his talk highlighted the increase of mangrove cover especially in Kachchh district.

Dr. Sheetal Pachpande, Mangrove Foundation, Mumbai delivered a talk on "Mangrove Interpretation Center" that highlighted replication of such centers in Mundra, Kachchh for enhancing the knowledge among students, naturalists and local inhabitants in mangroves and marine sciences.

Students from the HSC Science school of Mundra Block are Participated in Drawing competition and Students from Maharaja Krishnakumarsinhji Bhavnagar University, Bhavnagar; Atmiya University, Rajkot Did paper presentation. Among them declared 1st winner for Paper presentation and 1st to 5th winner for Drawing competition as well Provide Precipitation certificate to all.

Apart Them Site Head and Adani foundation and All site head were remain present Virtually Program is conveyed by Mrs Panktiben Shah –UCH and concluded by Shri. V. S Gadhavi, in which he has pointed out the conservation and management of coastal and mangrove ecosystem and the need for the preparation of long-term action plan for the effective conservation of the same.



International Women's Day

Activities:

Bhuj

- Session on Gender Equality and Women Empowerment at G.K General Hospital, Bhuj. The guest of honour was Mr Nimaben Acharya, Speaker, Gujarat Vidhan Sabha.
- Felicitating **Disha Gada**, a woman pilot who rescued 275 students from Ukraine.

Mundra

- Session on Importance of Health and Hygiene for women organized in association with Rotary Club at Mundra.
- Honored 230 women of best two blocks of Anganwadi with certificate and memento for their successful contribution at work.

Nakhtrana

- General Health camp was organized at Nakhtrana Gram panchayat specially for women in collaboration with GKGH.
- Utthan
- Recreational activities for woman sahayaks, Educationalist, Principals, Sarpanch of 42 Utthan schools.

2059 Women participated in celebration of Women's Day week.





Fishermen Youth Employment Training

Inauguration of Technical Skill Development Training Program for the Fisher folk youth by Adani Foundation

Adani Foundation and Adani Skill Development Center had jointly inaugurated of the **"Technical Skill Development Training Program for Fisher folk youth on 10th January**. To Promote long-term socio-ecological effectiveness through focused interventions like employment through Skill enhancement and "To improve fisheries dependent households

In Phase I, 51 fish folk community youth will be skilled and certified in job roles like Assistant Electrician, Mason and Bar bender under 90 days training program supported by placements.



World Environment day Celebration

- Adani Foundation celebrated World Environment day on 5th June with Inauguration of Maiyawanki forest development.

Activities done on World Environment Day:

- **MOU with KSKV Kutch University** and Adani Foundation to provide technical guidance on **'Cow based'** natural farming.
- Conducted **training on 'Jivamrut' and 'Vermi compost preparation'** to farmers promote cow-based natural Farming with Home Bio-gas distribution.
- **Inauguration of Miyawaki forest developed at Nana Kapaya village** in 2.5-acre land with collaboration of Forest and Manrega Department and Gram Panchayat participation.
- **2000 trees have been planted with spreading awareness among people at various places of Mundra, Nakatrana and Tuna location.**



Adani Foundation Day

Silver Jubilee of Adani Foundation was celebrated on 11th August at Adani House Mundra. **11 women** were felicitated who have done Remarkable work in the their filed of Agriculture , Education , Entrepreneur, Government and having special recongnization among society and Communities for their work by Shree Rakshit Shah, Executive Managing Director- APSEZ and HR Head- APSEZ.

Also felicitated first fisherman youth- Shakil Manjaiya with Offer letter to work with APSEZ after completing Mechanical Diploma.



World water day celebration

World water day was celebrated on the Theme of "Groundwater, making the invisible visible" at Adani House auditorium **felicitating all progressive farmers with a memento** who have done remarkable work for water harvesting and management as an individual and at village level.

The event was graced by chief guest, Mr. Dipeshbhai Shroff, President of Kutch Nav Nirman, Mr. Rakshit Shah- EDM ,APSEZ , Mr. Yogesh bhai Jadeja Director of Arid Community and Technology, Mr. Niraj Kumar, Deputy director of NABARD ,Kutch.

Mr. Rakshit Shah, Executive Director, APSEZ expressed compliments to all **14** progressive farmers for their exceptional work for water conservation and management.



International Coastal Cleanup Drive

Indian Coast Guard, Adani Foundation team, NGO team, Students of SV Arts and Commerce College unanimously dedicated a day to clean Mandvi Beach and to create awareness among local community towards save guarding coastal areas by becoming responsible citizen towards clean ocean.



Utthan Second Phase Inauguration

Inauguration of Phase II of Utthan was inaugurated on 28th September spreading its impact to more 14 schools. On this occasion District Primary Education Officer, Utthan schools Principal and teachers have graced the occasion.

"Like an Oasis in a desert"

Demaben's family has returned home from a neighbour country in 1971 war. Today Demaben is happy to be in her own country but prior to that she and her family faced lot of stress and underwent a lot of trauma living in a conflicted place away from home.

She lives with her Husband and daughters. Her one daughter is suffering from mental illness and completely dependent for care. Her husband is doing labour work in farms. He is sole bread earner of this vulnerable family. Being single earning person of the family doing labour work and a responsible father of a dependent daughter, his income is never sufficing which creates constant distress in family. Her willpower is strong, but all these did a toll on his health, and she suffered constant headache, Fatigue, High Blood Pressure, Nausea, etc.



Demaben Umed
Village Pragpar-2, Kutch

Dr. Mukesh Parmar, Adani Foundation inspected her condition, her BP was 197 /97 mmhg. He immediately started symptomatic treatment and later second follow-up, Dr started anti-hypertensive treatment and provided required medicines and advised her some lifestyle changes and list of food items to add in her regular intake of meals. On regular follow-up checkups and treatment, Demaben followed her road to recovery. Dr has witnessed steady progress in her health, and she finally got a relief from a disease.

She expresses gratitude in her vernacular language expresses Adani Foundation as 'વિરાન જંગલ મા મીઠા જલ ની વિરડી સમાન' meaning 'Sweet water well in barren Jungle'.

"Live many more years Chacha!"

Ramzan Adam Chacha lives with his family at Juna Bandar. For the last 8 years he is the victim of Kidney Failure. He needs to go for dialysis regularly. However, the treatment facility was only available in Bhuj which compelled him to travel to Bhuj for 2 days in a week. He had to skip his work for the days, if there is any delay in his dialysis routine, which is very difficult situation for a fisherman whose income depends on daily catch, he need to skip his work to rest. Moreover, in his thin financial position, it was difficult for him to arrange money for the treatment and transportation too was a big issue. Learning about dialysis centre at Adani Hospital Mundra, he approached for aid from Adani Foundation.



**Ramzan Adam Chacha
Village Shekhdiya, Kutch**

In no time Adani Foundation team planned a routine dialysis for him against no cost. Earlier he used to visit thrice in a week and from the last two years, he is coming twice in a week. "Watching him every year is the biggest source of inspiration for not just me but our whole team. I wish Chaha to live many more years" says Manharbhai, Adani Foundation Employee.

"Mari toh umer vadhari didhi Adani Foundation e, treatment ma sahay kari," chuckles Ramzan Chacha in his local language. Meaning "Adani Foundation has prolonged my age by providing Dialysis support for the last 8 years".

: 'Hands are softer than a stick'

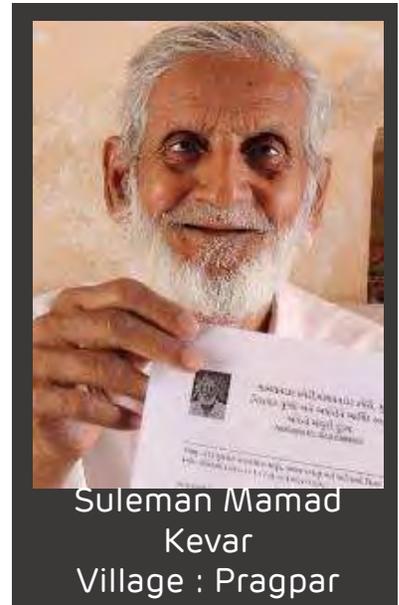
A senior citizen named Suleman bhai hails from Pragpar village. Father of 6 girls out of which 5 got married. He lives with her wife and 1 daughter. Both Suleman bhai and his wife are senior citizens. Being a father of 6 girls, Suleman bhai was concerned about his financial situations, this did not stop him from giving best life to his daughters. 5 of them got married and youngest one is graduated. Suleman bhai and his wife along with daughters used to work as house helps and did labour work to earn living.

Due to their slim economic condition and constant labour work, Suleman Bhai's health started deteriorating. He started having blur vision, watery eyes and constant discomfort in his eyes. On consulting doctor, he got to know that he needs to undergo cataract surgery for both his eyes. It was heart wrenching to know for the family as the cost of surgery was too high. Someone recommended him to consultant Doctor from whom he got to know about 'Adani Vadil Swasth Yojana' under which Adani provides necessary health care support to senior citizens who are from underprivileged families. He inquired about the scheme and immediately completed all the necessary procedures to avail benefit of the scheme.

After completion of necessary formalities, He got his cataract surgery done for both the eyes on pro bono basis. He and his family were overjoyed that the surgery happened on time, saving his eyes from complete loss of vision. From here, Sulemanbhai stayed in constant touch with Adani Foundation team as a family.

He was also counselled about Vrudh Pension Yojana scheme of government by concerned Adani Foundation employee under which seniors above the age of 60 receives Rs. 750/- monthly in the form of pension. Adani Foundation has a dedicated group of employees working for rural senior citizens providing liasoning support to avail benefit of schemes to support the community. Under 'Vrudh Pension Scheme' both Sulemanbhai and his wife received Rs.1500/- every month. It might not be suffice but for them, it's like a shade of tree from scorching heat.

On receiving amount for the first time, they contacted AF and expressed gratitude. He also encouraged his daughter Ruksana to spread awareness about these schemes to fellow villagers so that they can also get benefit from these schemes.



A naturalistic learner, shines bright in the class!

We have been fascinated to see how the holistic development took place in Seda Malshree Karaman, studying in class 5. An introverted student transforming into a dynamic learner is not only surprising to us but also to her family members. Mr. Mahendrasingh Solanki, School Principal of Zarpara Shala no. 3 says "I would like to congratulate Utthan team and Utthan Sahayk named Rajendra Chauhan for his commendable work in empowering progressive students and bringing them in line with average and above average performance level."

Malshree's story of transformation began during the pandemic period when schools were shut, and education was made available for the students at their doorstep under the title 'Sheri shikshan' provided by the Government of Gujarat. Seda Malshree Karaman was in class 4 in 2020. However, she is finding difficulties with the minimum level of learning.

During the home visit, Rajendra(Utthan Sahayak) met Seda Malshree. Initially, dealing with an introverted child was challenging. But slowly, within 10 days, he could boost her confidence.

On mentoring her regularly, Sahayak identified that she was a 'Naturalistic learner'. From the very next day, he started teaching Malshree with multiple natural resources which are easily available at her residence lived in 'Wadi'(backyard). This was observed by her parents too. Slowly and steadily, Malshree took an interest in language and arithmetic. Gradually, Mr. Rajendra measured her learning outcomes by conducting a timely assessment. Her academic growth inspired other students too to give a lot of attention during classes. Today she is in class 5 where she can read, write, and do basic arithmetic calculations.





Hanif Mohammad
School: Deshalpar Group Shala

As Sunflower faces Sun, Progressive students always look forward to Sahayaks

Hanif, a small child was abandoned by his parents. Such young boy might even don't know what happened to him and why his parents left him. Hanif might not ask these questions today as he is too young to absorb all of it but it did affect him mentally and emotionally. It was obvious to feel isolated and different from other fellow student.

On one side, he is dealing with this somber transformation in life and adapting to living life with his uncle and aunt, and on other side, he has this immense interest and curiosity towards knowledge but lacked direction in life and also in academics. Under project Utthan, the purpose is to identify and uplift progressive students and bring them at par with fellow students. To do that, it's the duty of Sahayak to know a student inside out and that's what happened to Hanif.

On regular interaction, Uthhan sahayak motivated Hanif and taught him to start reading and practice writing skills. With consistent efforts Sahayak managed to make Hanif regular in school and made sure he does his homework daily. Not just that, Sahayak shared inspiring stories and motivated him to participate in 'Bal Mela Program' in which Hanif with the support of Sahayak prepared a Wind Mill from the waste. The project was successfully exhibited receiving appreciation from the visitors at Mela.

It is said that 'Distraction heals Pain' and in Hanif's case, he has completely changed his focus from pain towards his passion for learning. Hanif is rejuvenated to learn in this new academic year holding Utthan Sahayak's hand.



Anju Chauhan
Village : Zarpara

Uplifting progressive students

Little Anju studies in class 4th of Zarpara Primary School. She was in 2nd Class when the lockdown declared. Unlike urban schools, rural students do not get a chance to immediately start learning through online platforms. In such situation, Utthan Sahayak initiated online teaching and mentoring and tried to reach out to rural students who do not have access to mobile phones in their families.

Anju could not cope up with her education for 2 years and when she resumed school, she found out to be a progressive student due to her inability to read, write and count. School teachers noticed Anju's poor performance and handed over her case to Utthan Sahayak. It took few months, where one to one mentoring and teaching sessions were arranged for Anju and dedicated Utthan Sahayk made rigorous efforts to improve Anju's performance till examinations, preventing her from failing in class.

"Hard work and consistent efforts of Anju is appreciable. Yes, the start was tough but I was determined to bring Anju out of progressive students zone to average learner and we did it successfully." Says Bindya, Utthan Shayak

Adani Foundation as 'Moonbeem in Valima's lightless life.'

Valima is a senior citizen with disability (blind with both eyes) residing at Gurjarvas of Kutch District. Living in extremely poor condition. Her story is heart wrenching. She has proved to be an epitome of strength. She is a strong woman and even stronger as a mother who is taking care of her divyang and mentally challenged daughter who is 30 years old as of 2021.

One could get goose bumps to witness how this old blind mother takes care of her divyang daughter. Valima's two sons got married and started new life leaving mother and sister to suffer and survive on their own. With no vision but only pain in her eyes, Valima has fulfilled all responsibilities but now she is old. Adani Foundation's encounter with Valima was a beginning of the end of her problems. Earlier when her husband was alive, he used to make arrangements for family's survival. But now, Valima being blind and living in remote area is unaware of any of the schemes which can ease her living. Moreover, to get support from any of the rural development scheme, one needs identity proof and documents. Kanta, her daughter was not even having her identity proof, Valima was unaware of her widow pension rights and the support provided to divyang by government.

Here comes the role of Adani Foundation, to support the most needy and vulnerable who is completely devoid of information and their rights. Under project swavlamban, Adani Foundation provides end to end support to senior Citizens, Divyang and Widows. Adani Foundation team assisted Valima to get necessary documents first. Starting from Ration card, Adhar Card, Voter Id, Disability card and Bank account was requested for her daughter and mother from respective departments. Post completion of all necessary compliances for documents, Valima started receiving 'Senior Citizen Pension', 'Widow Pension' and got free 'Bus Pass' for their ease of mobility.



Name: Valima L.
Sibhi
Gurjarvas, Mundra



Narpant Singh Jadeja
Village Hatadi, Ta. Mundra

Overshadowing disability with his ability to make living.

Narpat singh resides in outskirts of Mundra. He lives a simple life. He, being Divyang, is unable to walk. Before few years, Adani Foundation provided him wheelchair for his ease of life. That's when he met Foundation team and stayed connected. His life was in routine before pandemic. He used to run flour mill and earn basic livelihood. At times, the mill does not work and creates problem. In those situations, Narpatbhai himself juggled with spare parts and repair it.

In 2021, His flour mill stopped working. He tried repeatedly but could not repair it by himself. Due to his less mobility, he was not able to move out and explore other options to repair it. With damaged machine, his income also stopped, and he got worried for his living. He contacted Adani Foundation again for the support. On inspecting his machine's condition, Adani Foundation decided that it does not require repairing, it requires total replacement.

Narpat Singh took a breath of relief as he was provided with new flour mill. 70% cost of flour mill was borne by Adani Foundation and 30% by Narpat Singh. Hearing about his new flour mill, villagers again started visiting Narpatsingh and his earning rose to 8000/- from 6000/- monthly.



Shakil Manjaliya
Village : Luni, Ta. Mundra

"From AVMA to APSEZ, Fishermen communities pride'

"From fishing to studying, from helping to hold a pencil to helping to have a social position, from my first book to my first offer letter, Adani has played a key role in my life." Proudly states Shakil

Shakil, A first generation learner of a fisherman community has studied in Adani Vidya Mandir School. It is an initiative of Adani Foundation to establish a school to provide free education to underprivileged and economically challenged community children providing best in class education for their bright future.

Hailing from fisherman community whose income mostly depends on daily wages, it was impossible for his parents to bare the cost of his education. Learning about Adani Vidya Mandir school, they applied for his admission. They fulfill the criteria of a deserving family and shakil's journey of change began by studying in school. He got 78percentage in 10th standard, which motivated him to pursue engineering stream. He then, successfully completed Mechanical Engineering Diploma course and applied to APSEZ.

His intelligence and hard work surpassed his poor financial conditions. All the struggles he and family faced due to low income have come to an end. Shakil says "I used to dream in Adani Vidya Mandir that one day I will work and earn enough to change my family condition."

It's a fruit of his continuous sowing of hard work and dedication that he reaps employment in APSEZ. He got his first offer letter from Mr Rakshit Shah, EDM, APSEZ. Not just his family but even his teachers of Adani Vidya Mandir are proud of him today to see him grown so far and starting his career as first generation learner of his family who has managed to get livelihood in the form of job. Small steps taken for years will now lead to an socio-economic shift for all those fisher folk young boys and girls who have completed their education and will enter into a professional world with a dream to bring out community from a difficult living to an improved standard of living.



Ishaq
Village : , Ta. Mundra

“There is no greater disability in society, than the inability to see a person as more.” – Robert M. hensel

Ishaq is a young 29-year-old responsible husband and a sole bread winner of a family. He was 14, when he got hit by Polio. He managed to complete his schooling and got H.S.C cleared successfully. He also achieved computer diploma degree to cope up with the present work scenario. Hailing from a Fisherman community, he is a first-generation individual who dreams to get employment. He always dreamt of working with Adani but never applied as he thought he is not ready yet. Therefore, He decided to get work experience for couple of years and apply confidently.

On one occasion where Adani Foundation organized 'Divyang Rojgar Mela' where Ishaq applied in an interview and showcased his knowledge, skills and dedication towards work. *Looking at his zeal and agility towards work and his preparedness, he was offered a job as a weight-bridge operator Job in APSEZ.*

Ishaq elated receiving an offer let his dream company and made his community extremely proud.

With open arms, Adani always welcomes Talent Divyang and Energetic Fisherman community to join hands for nation's growth with goodness.

Getting back on track with Sheri Shikshan !



Dipak Maheshwari
Village :

Dipak Maheshwari is a student of Muru Primary School. Losing his father at an early age has made him numb and inattentive in class. At first, he showed no interest in studies and slowly he started skipping lessons. His irregularity was concerning his school teachers where Utthan Sahayaks are contributing their mentorship and guidance to progressive student.

The root of his loss of interest in academics and difficulty to cope up with academics has started when his father was constantly keeping unwell and losing him has made Dipak vulnerable. He lost hope and was tired of making efforts to balance his emotions and studies. He chooses to remain at home.

On learning about Dipak's situation, Utthan Sahayak visited him to check on his mental and emotional condition. When Utthan Sahayak visited his place, Sahayak decided that it was not the right time to push Dipak to attend school, therefore he planned to teach Dipak under Sheri Shiksha teaching methodology (Study at home under the guidance of Sahayak).

Dipak found comfort and developed great understanding with Shayak and was able to grasp Foundation Learning Numeracy. Sometimes with written and other time by activities, Dipak used to study well. When he resumed his confidence and zeal back on track, Sahayak encouraged him to start his schooling again.

Utthan Sahayak keeps close contact with his family and still keeps a track on his academic performance.



Rasilaben Goyal

Right treatment at a right time !

Rasilaben is a 28-year-old woman from Fechariya village, Kutch. She has 6 sisters and 1 brother. Her father died due to cancer. Family's financial condition was stressful because they have incurred a lot of expense for father's treatment but couldn't save him. Rasila, being the eldest among all siblings, took all responsibilities on her shoulders. Losing her husband and a father of 7 children, Rasila's mother suffered a huge shock. She could not come out from the trauma and started keeping unwell. Unfortunately, her mother died in just a few months after the father's demise. The situation could not get more worse than this for the family. Rasila had her uncle who used to run a small tea shop, he used to help the family a bit as per his own capacity.

In 2013, Rasila started facing some health issues. She used to complain of trouble in her stomach and also was facing gynecological problems. On her visit to hospital, she came to know that she has ulcers in her intestine. Her world had turned upside down, her siblings were not prepared to hear this devastating news. She started her treatment with a hope but continued to manage household chores and responsibilities of her siblings. But, the cost of treatment was 3,000 to 4,000 monthly, which is too much for a family to manage on their own. In such a critical situation, they were in a dilemma as to how to manage the cost of treatment when they don't have sufficient funds with them.

On her visit to G. K General Hospital, Rasila got satisfactory treatment but some of the medicines prescribed were supposed to be bought from a pharmacy. She was not having enough money to purchase medicine regularly, therefore she approached Adani Foundation expecting some relief to support her in completing her treatment and medicines. Her issues were immediately taken into consideration, her medicines were arranged and provided to her for free.

For the past 2 years, Rasila's medicine expenditure is taken care of by Adani Foundation, observing fair improvement in her condition.



Ankita Bhatt
Beauty Therapist

'Smile on my client's face is my final touchup'

Ankita bhatt hails from Bhuj, kutch. She runs her own beauty parlor for the last 5 years now. Though her beauty treatment skills were good, she used to do selective basic treatment. Ankita believes, gone are the days, where we used to think this is a small service. Now, it's a booming industry where every year there is something new and advanced techniques comes up daily in beauty industry. Keeping up with industry is not an easy task.

Ankita's beauty skills were limited and stagnant and that's when she decided to take her profession seriously and master her beauty treatment skills and understanding through proper training. Also, the Covid years hit badly to small scale, self-entrepreneurs and service providers. She decided to utilize the no-rush time in developing new skills.

In Adani Skill Development Centre, online training program was a big hit in rural areas which enable women and girls to get trained just by sitting at home without Hustle. Post covid, all trainees were invited to complete their practical training at ASDC Bhuj Centre where Ankita cleared the program with flying colours and started earning better than before giving a new look to her parlour at home.

From Failures, one only gets better for the future!

"It was my mother's dream to see me working in Healthcare Industry. Even after ample efforts to get admission in GNM course to pursue dream, I didn't make it due to inadequate percentage. My confidence broke, thinking I will never get another chance to study further and will always remain a 12th pass.

I never knew any other way to fulfill my mother's dream until I learned about *GDA training course provided by Adani Skill Development Centre under DDUGKY scheme*. I decided to grab this moment to visit ASDC Centre. On my visit, I got amazed to see a hospital like setup which they call it as Practical Lab. I was well explained regarding the GDA training contents, systematic training methodology and as soon as I got to know that they are providing On the Job Training (OJT) with placement support, I got prompted to join immediately.

Unlike regular training centres, ASDC provides a lot more. *Regular guest sessions, activities and soft skills training helped us become industry ready*. Post completion of GDA course, it was the time to appear for interviews. I was confident not just because of the knowledge I gained but also because of my successful OJT period organized by ASDC. After undergoing GDA training, I became certified GDA , my lost confidence is back and I am determined to update and advance my health care skills to climb more ladders in future.

After 6 months of rigorous GDA training, OJT and placement support by ASDC, *my career kick started as Patient Care Assistant at Dr. Rashmi Shah Hospital, Kutch. I will never forget the moment when I hugged my mother and informed about my selection*.

ASDC has paved way for my successful career journey!" shares Hetal .



Hetal Purabiya
General Duty
Assistant



Hiral S. Darad
Beauty Therapist

From a next-door beautician to a professional one

"I am a 12th pass self-employed Beautician; I do beauty treatments at home. With no professional degree or certification, I never got a chance to take this work to the next level. Also, self-learning was not enough, I was looking for a training program, where I could get a mentor and practical training. In my locality, there was no option to learn beautician course and its difficult to learn from random videos. I am glad that I got recommendation from my friend about Adani Skill Development Centre, where Beauty Therapist training is provided in the form of certified course along with the planned theory and practical sessions. I got so happy thinking I will finally get to attend a professional training program which will add value to my basic skills and bring me close to my dream to become expert beautician.

It gave me lot of joy to see so many young girls and women coming to ASDC Centre while undergoing training at Centre, even housewives, working women joins courses as per their interest. In many of the cases, they have developed interest and became self-employed. One of the main reasons I love ASDC Centre is to see fellow friends/batch mates and develop a network of people with similar interests in our small town. Making friends and networking with trainees is very empowering. The reason is, we got to know stories of many women and how they are utilizing skills post completion of training course.

As I was also running beauty parlour before joining course, my aim was clear that I need to master beauty treatment skills and become professional. Not just me, but even my clients have witnessed a huge transformation in my beauty treatment methodologies post training. My training journey has been a most memorable one. Post completion of the course, my income increased significantly and the number of my clients rose to a level that most days I remain busy. "

Knowledge gives Degree, Skill gives employment.

"I am a resident of Naliya village, Kutch district. I completed my Graduation and also did ITI. Coming from a village location, I couldn't find enough of job opportunities with me. Most youth of our locality, move out of hometown in search of job but this is not an option for many of us because of the responsibilities.

Khushal adds, "as much as I loved attending GDA sessions, I also thoroughly enjoyed my On-the-Job experience because we got to experience working directly under expert nurses and learnt that patient care which is the most critical and crucial element in any hospital. It was an overwhelming experience on initial days of OJT when we had to deal with lot of patients, managing time and serving patients with right kind of care in case-to-case basis. *No wonder why Health Care Providers are called as 'Warriors'. OJT was no less than a Healthcare training camp where me and my fellow batch mates were prepared to become Warriors to provide best of care to the patients.*"

The major impact of GDA course run by ASDC Bhuj is that many young graduates who are from Bhuj and are looking for employment are preferring to come to the Centre because they don't have to move out of Bhuj to get skilled.

ASDC has provided a platform to get skilled under various courses and supports in placement which helps local residents to stay in their hometown and generate livelihood."

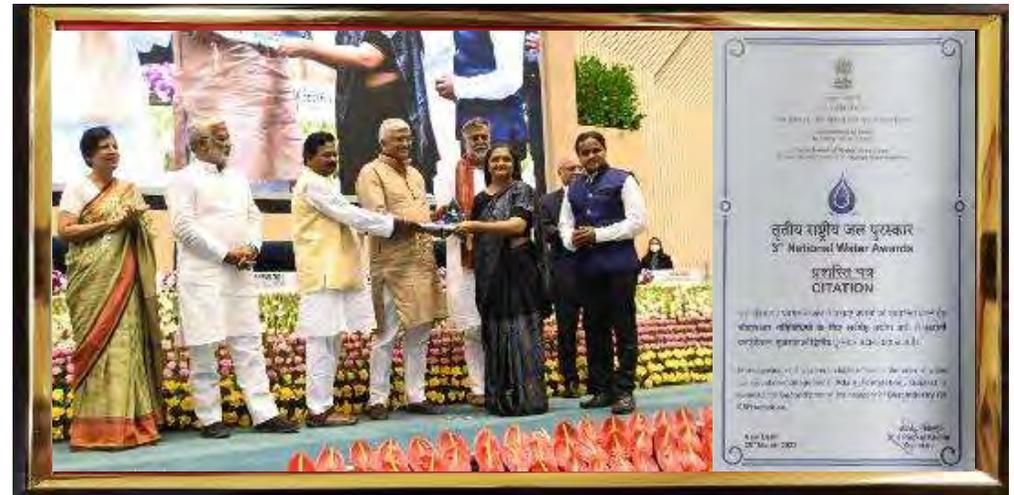


Khushal Pargadu
General Duty Assistant

Awards



Adani Foundation received CII National Award for Excellent in Water Management 2021 for 'Water Conservation Project' on 7th January 2022 under National Competition for Water Management 2021. The Award ceremony was announced by Union Jal Shakti Minister in virtual presence of dignitaries from CII and nominees from other industries.



Adani Foundation awarded for CSR in water conservation at 3rd National Water Awards from the Ministry of Jal Shakti in the category of Best Industry for CSR activities, on 29 March 2022.

The award ceremony was conducted in the presence of President Shri Ramnath Kovind, Minister of State for Jal Shakti and Food Processing Industries, Shri Gajendra Singh Shekhawat, and Minister of State for Jal Shakti and Tribal Affairs, Shri Bishweswar Tudu.

Beneficiaries Data F.Y. 2021-2022

Sr.No	Program	Direct	Indirect	Remarks
1	Education	6585	26340	Utthan , Mundra & Nakhtrana
2	AVMB-Vidhyamandir	473	2365	AVMB Students
3	Community Health-Mundra	26129	193661	Rural clinic, MHCU,Health camp, AHMUPL
4	Community Health-Bhuj	16261	65044	Medical Support , Mahiti setu, Patients Care & Co-ordination
5	AHMUPL	31291		OPD and IPD Patients
6	SLD-Women	780	3900	SHG Group & Individual Incoem Generation
7	SLD-Agri & Animal Husbandry	7398	29731	Drip,Fooder,Home bio gas,Farmers training
8	SLD -Fisherfolk	6114	5490	Education, Mangrove, Water and Livelihood
9	CRC-Gov Schemes	667	3272	Government Schmes
10	CID	138174	189617	Fishermen Amenities & Shelter & Other Amenties
11	Nakhtrana	1428	5712	Utthan, Governemnt schems
12	Tuna	6601		Fodder,Health , Pond deepning
13	Bitra	2150		CID & Pond deepning
14	Lakhat	2455		women training and palnttaion
15	ASDC	1374	6870	soft skill and DL .GDA & Online Training
	Total	247880	657166	

Summary - Budget Utilization F.Y. 2021-2022

Rs. In lacs

Sr No	Particulars	Budget 2021-22	Utilization(LE) 2021-22	% of utilization
A.	General Management and Administration	76.12	79.27	104%
B.	Education	172.05	110.38	64%
B1	Utthan-Education -Mundra & Anjar	149.51	99.88	67%
B2	Utthan : Fisherfolk	22.54	10.50	47%
C.	Community Health	330.38	323.51	98%
D.	Sustainable Livelihood Development	426.28	453.84	106%
E.	Community Infrastructure Development	141.35	130.71	92%
F.	EDM Recommended Projects	100.00	82.01	82%
G.	COVID 19 Support	25.00	22.16	89%
	Total AF CSR Budget :	1,271.18	1,201.89	95%
[I]	Adani Vidya Mandir-Bhadreshwar	189.84	117.86	62%
[II]	Project Udaan-Mundra	167.42	66.85	40%
	TOTAL Budget with AVMB & UDAAN :	1,628.45	1386.60	85%
	Project "FISH"		106.00	
	GRAND TOTAL :	1,628.45	1,492.60	92%

Media coverage

adani અદાણી ફાઉન્ડેશનનો મંત્ર : સેવાનું ઉત્તરદાયિત્વ

વિવિધ આયોજિત કાર્યક્રમોમાં ફાઉન્ડેશનના સેવાનું ઉત્તરદાયિત્વને પ્રમુખસ્થાને મૂકવાનો અદાણી ફાઉન્ડેશનનો મંત્ર છે. આ મંત્રને અમલીકરણમાં લાવવા માટે ફાઉન્ડેશનના સેવાનું ઉત્તરદાયિત્વને પ્રમુખસ્થાને મૂકવાનો અદાણી ફાઉન્ડેશનનો મંત્ર છે. આ મંત્રને અમલીકરણમાં લાવવા માટે ફાઉન્ડેશનના સેવાનું ઉત્તરદાયિત્વને પ્રમુખસ્થાને મૂકવાનો અદાણી ફાઉન્ડેશનનો મંત્ર છે.

મુંદરા એસઇજેડ ઔદ્યોગિક વિવિધતાની ઓળખ

મુંદરા, તા. ૨૦ : અહીંના માનવ ક્ષમતા ટ્રસ્ટ સંચાલિત સાર્વજનિક ભવનમાં મુંદરા એસઇજેડ ઔદ્યોગિક વિવિધતાની ઓળખ મુદ્રા, તા. ૨૦ : અહીંના માનવ ક્ષમતા ટ્રસ્ટ સંચાલિત સાર્વજનિક ભવનમાં મુંદરા એસઇજેડ ઔદ્યોગિક વિવિધતાની ઓળખ મુદ્રા, તા. ૨૦ : અહીંના માનવ ક્ષમતા ટ્રસ્ટ સંચાલિત સાર્વજનિક ભવનમાં મુંદરા એસઇજેડ ઔદ્યોગિક વિવિધતાની ઓળખ



પ્રજાલક્ષી કાર્યોમાં અદાણી ફાઉન્ડેશન હંમેશાં અગ્રેસર

માનવ ક્ષમતા ટ્રસ્ટ સંચાલિત સાર્વજનિક ભવનમાં મુંદરા એસઇજેડ ઔદ્યોગિક વિવિધતાની ઓળખ મુદ્રા, તા. ૨૦ : અહીંના માનવ ક્ષમતા ટ્રસ્ટ સંચાલિત સાર્વજનિક ભવનમાં મુંદરા એસઇજેડ ઔદ્યોગિક વિવિધતાની ઓળખ



મુંદરાના માનવ ક્ષમતા ટ્રસ્ટ સંચાલિત સાર્વજનિક ભવનમાં મુંદરા એસઇજેડ ઔદ્યોગિક વિવિધતાની ઓળખ મુદ્રા, તા. ૨૦ : અહીંના માનવ ક્ષમતા ટ્રસ્ટ સંચાલિત સાર્વજનિક ભવનમાં મુંદરા એસઇજેડ ઔદ્યોગિક વિવિધતાની ઓળખ

પુજ - રવિવાર, તા. ૦૨-૦૫-૨૦૨૦

કોરોના સામેના જંગમાં અદાણી શુપના પ્રયાસો

કોરોના સામેના જંગમાં અદાણી શુપના પ્રયાસો. કોરોના સામેના જંગમાં અદાણી શુપના પ્રયાસો. કોરોના સામેના જંગમાં અદાણી શુપના પ્રયાસો.

કોરોના સામેના જંગમાં અદાણી શુપના પ્રયાસો. કોરોના સામેના જંગમાં અદાણી શુપના પ્રયાસો. કોરોના સામેના જંગમાં અદાણી શુપના પ્રયાસો.

વિશ્વ દિવ્યાંગ દિને અદાણી ફાઉન્ડેશન દ્વારા મુન્દ્રામાં ૧૪ દિવ્યાંગને રોજગારી પૂરી પાડી દિવ્યાંગ દિવસની ઉજવણી કરાઈ

વિશ્વ દિવ્યાંગ દિને અદાણી ફાઉન્ડેશન દ્વારા મુન્દ્રામાં ૧૪ દિવ્યાંગને રોજગારી પૂરી પાડી દિવ્યાંગ દિવસની ઉજવણી કરાઈ. વિશ્વ દિવ્યાંગ દિને અદાણી ફાઉન્ડેશન દ્વારા મુન્દ્રામાં ૧૪ દિવ્યાંગને રોજગારી પૂરી પાડી દિવ્યાંગ દિવસની ઉજવણી કરાઈ.



કચ્છ પત્રિકા અહીંની વિશેષ

અદાણી ફાઉન્ડેશન અને તાલુકા હેલ્થ ઓફીસના સંયુક્ત ઉપક્રમે “ટી.બી.હારેગા દેશ જીતગા” અંતર્ગત કાર્યક્રમ યોજાયો

અદાણી ફાઉન્ડેશન અને તાલુકા હેલ્થ ઓફીસના સંયુક્ત ઉપક્રમે “ટી.બી.હારેગા દેશ જીતગા” અંતર્ગત કાર્યક્રમ યોજાયો. અદાણી ફાઉન્ડેશન અને તાલુકા હેલ્થ ઓફીસના સંયુક્ત ઉપક્રમે “ટી.બી.હારેગા દેશ જીતગા” અંતર્ગત કાર્યક્રમ યોજાયો.



અદાણી ફાઉન્ડેશનના પશુ વિકાસ કાર્યક્રમ અંતર્ગત પશુઓને રસીકરણ, કૃમિનાશક દવા તથા સારવાર

૧૨ ગામોના ૧૮૦૦૦ થી ૨૦૦૦૦ નાના અને મોટા પશુઓને આવરી લેવાના લક્ષ્યાંક સાથે શરૂઆત

અદાણી ફાઉન્ડેશનના પશુ વિકાસ કાર્યક્રમ અંતર્ગત પશુઓને રસીકરણ, કૃમિનાશક દવા તથા સારવાર. ૧૨ ગામોના ૧૮૦૦૦ થી ૨૦૦૦૦ નાના અને મોટા પશુઓને આવરી લેવાના લક્ષ્યાંક સાથે શરૂઆત.



‘જોય ઓફ ગિવિંગ’ અંતર્ગત ૭૫૦ જરૂરતમંદોને અદાણી શુપના કર્મચારીઓ દ્વારા કપડાં અને રમકડાંનું વિતરણ કરાયું

‘જોય ઓફ ગિવિંગ’ અંતર્ગત ૭૫૦ જરૂરતમંદોને અદાણી શુપના કર્મચારીઓ દ્વારા કપડાં અને રમકડાંનું વિતરણ કરાયું. ‘જોય ઓફ ગિવિંગ’ અંતર્ગત ૭૫૦ જરૂરતમંદોને અદાણી શુપના કર્મચારીઓ દ્વારા કપડાં અને રમકડાંનું વિતરણ કરાયું.



અદાણી ફાઉન્ડેશનને CSR પ્રવૃત્તિ માટે એવોર્ડ

અદાણી ફાઉન્ડેશનને CSR પ્રવૃત્તિ માટે એવોર્ડ. અદાણી ફાઉન્ડેશનને CSR પ્રવૃત્તિ માટે એવોર્ડ.



Thank You

Annexure – 3



GUJARAT POLLUTION CONTROL BOARD

PARYAVARAN BHAVAN

Sector-10-A, Gandhinagar-382 010

Phone : (079) 23226295

Fax : (079) 23232156

Website : www.gpcb.gov.in

““Consent to Establish-Amendment”
(CTE-117485)

BY R.P.A.D.

NO: PC/ CCA- KUTCH-1044(3)/ GPCB ID: 31463 / 6369 23

Date: -29/03/2022

To,
M/s. Adani Port and Special Economic Zone Limited,
Plot no. Notified SEZ area,
Mundra, Tal: Mundra,
Dist: Kutch - 370 421.

Sub: Amendment to Consent to Establish (CTE) issued vide order No CTE -46449 vide letter no. PC/CCA-KUTCH-1044/GPCB ID-31463/109800 dated 16/04/2012.

- Ref:** 1. This office CTE vide order No PC/CCA-KUTCH-1044/GPCB ID-31463/109800 dated 16/04/2012.
2. This office CCA order vide No AWH-88998 dated 26/10/2017 & its amended on 31/12/2018 valid upto 21.8.2022.
3. Your application for CTE validity extension inward no. 119116 dated 19/04/2021.
4. This office circular dated 8.3.2022.

Without prejudice to powers of this Board under, Water (Prevention and Control of Pollution) Act-1974, the Air Act-1981 and Environment (Protection) Act-1986 and without reducing your responsibilities under the said Acts in any way, the Board had Granted Consent to Establish for development of multi product SEZ in 8481.27 Hectare area for development of Desalination plant, sea water intake, outfall facility and pipeline, CETP, STP at existing plant located at Mundra, Tal: Mundra, Dist: Kutch vide this office order No PC/CCA-KUTCH-1044/GPCB ID-31463/109800 dated 16/04/2012.

Accordingly, considering your request and Board circular dated 8.3.2022 and applying for CTE amendment, CTE Amendment of CTE-46449 vide order no. PC/CCA-KUTCH-1044/GPCB ID-31463/109800 dated 16/04/2012 is hereby amended as below:

AND WHEREAS, The Board has right to review and amend the conditions of the said CTE order.

And whereas, the Board has amended the Circular regarding validity extension vide order no. GPCB/P-1/251/625017 dated 08/03/2022.

Now, considering your application for CTE amendment inward ID No.193116 dated 19/04/2021, with a request to extend the validity of the said CTE order up to the validity of Environment Clearance issued by the MoEF & CC vide order no. 10-138/2008-IA.III dated 12/02/2020, the said CTE and its amendment order is amended as below.

1. The validity mentioned in CTE order no.46449 vide letter no. PC/CCA-KUTCH-1044/GPCB ID-31463/109800 dated 16/04/2012 shall be read as 14.7.2022 instead of 04/08/2018.

Clean Gujarat Green Gujarat

ISO - 9001 - 2008 & ISO - 14001 - 2004 Certified Organisation

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2. The Board had granted CTE for Development of multi product SEZ for 8481.27 Hectare area of development of SEZ (1st Phase) at Mundra, Dist: Kutch vide this office order no. 46449 letter no. GPCB/CCA-KUTCH-1044, sea water intake, outfall facility and pipeline, CETP, STP.
3. Industry shall strictly comply all conditions of Environment Clearance granted by MoEF & CC, New Delhi vides order No 10-138/2008-IA.III dated 15/07/2014 & 10-138/2008-IA-III dated 12/02/2020.
4. Rest of the conditions of Consent to Establish issued vide order No CTE- 46449 vide letter no. PC/CCA-KUTCH-1044/GPCBID-31463/109800 dated 16/04/2012 shall remain unchanged and industry shall comply with the same judicially

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


**(Smt. U.K. Upadhyay)
Senior Environment Engineer**

Annexure – 4

Details of Greenbelt Development at APSEZ, Mundra

Total Green Zone Detail Till Up to March - 2022					
LOCATION	Area (In Ha.)	Trees (Nos.)	Palm (Nos.)	Shrubs (SQM)	Lawn (SQM)
SV COLONY	71.66	34920	7962	69696.00	100646.00
PORT & NON SEZ	81.61	149359	19220	75061.78	62966.38
SEZ	116.60	227120	20489	220583.60	28162.03
MITAP	2.52	8168	33	3340.00	4036.00
WEST PORT	109.37	256552	70831	24612.00	22854.15
AGRI PARK	8.94	17244	1332	5400.00	2121.44
SOUTH PORT	14.45	27530	3470	3882.00	3327.26
Samudra Township	57.27	63722	11834	23908.89	47520.07
Productive Farming (Vadala Farm)	23.79	27976	--	--	--
TOTAL (APSEZL)	486.19	8,12,591	1,35,171	426484.27	271633.33
		<i>Total Saplings: 9,47,762 Nos.</i>			

Details of Mangrove Afforestation done by APSEZ

Sl. no.	Location	District	Area (Ha)	Duration	Species	Implementation agency
1	Mundra Port	Kutch	24	-	Avicennia marina	Dr. Maity, Mangrove consultant of India
2	Mundra Port	Kutch	25	-	Avicennia marina	Dr. Maity, Mangrove consultant of India
3	Luni/Hamirmora (Mundra.)	Kutch	160.8	2007 - 2015	Avicennia marina, Rhizophora mucronata, Ceriops tagal	GUIDE, Bhuj
4	Kukadsar (Mundra)	Kutch	66.5	2012 - 2014	Avicennia marina	GUIDE, Bhuj
5	Forest Area (Mundra)	Kutch	298	2011 - 2013	Avicennia marina	Forest Dept, Bhuj
6	Jangi Village (Bhachau)	Kutch	50	2012 - 2014	Avicennia marina	GUIDE, Bhuj
7	Jakhau Village (Abdasa)	Kutch	310.6	2007-08 & 2011-13	Avicennia marina, Rhizophora mucronata, Ceriops tagal	GUIDE, Bhuj
8	Sat Saida Bet	Kutch	255	2014-15 & 2016-17	Avicennia marina & Bio diversity	GUIDE, Bhuj
9	Dandi Village	Navsari	800	2006 - 2011	Avicennia marina, Rhizophora mucronata, Ceriops tagal	GEC, Gandhinagar
10	Talaja Village	Bhavnagar	50	2011-12	Avicennia marina	Forest Dept, Talaja
11	Narmada Village	Bhavnagar	250	2014 - 2015	Avicennia marina	GEC, Gandhinagar
12	Malpur Village	Bharuch	200	2012-14	Avicennia marina	SAVE, Ahmedabad
13	Kantiyajal Village	Bharuch	50	2014-15	Avicennia marina	SAVE, Ahmedabad
14	Devla Village	Bharuch	150	210-16	Avicennia marina	SAVE, Ahmedabad
15	Village Tala Talav (Khambhat)	Anand	100	2015 - 2016	Avicennia marina	SAVE, Ahmedabad
16	Village Tala Talav (Khambhat)	Anand	38	2015 - 2016	Avicennia marina	GEC, Gandhinagar
17	Aliya Bet, Village Katpor (Hansot)	Bharuch	62	2017-18	Avicennia marina & Rhizophora spp.	GEC, Gandhinagar
18	Kukadsar- (Bhadeswar- Mundra)	Kutch	250	2021-22	Avicennia marina	Shreeji Enterprise
Total			3140			

Annexure – 5

Compliance Report of EMP & Mitigation Measures

Sr. No.	Suggested Measures	Compliance Status
Construction Phase:		
A Air Environment		
1	Water sprinkling in vulnerable areas	Water sprinkling on road and other construction area as well as on construction materials is being carried out on regular bases.
2	Enforce proper maintenance of vehicles and construction equipment. Allowing only PUC approved vehicles in the site.	Please refer Condition No. ix of Part-B (General Conditions Construction phase) of EC and CRZ Clearance.
3	Enforce usage of covered trucks for transport of construction material.	Covered trucks are being used for handling of construction materials.
B Noise Environment		
4	Enforce proper maintenance of vehicles and construction equipment. Enforce use of earmuffs / earplugs to workers in high noise level areas.	The vehicles of on-going construction work enter inside the premises after the fitness check. Ear protection device is provided to workers in high noise areas.
C Water Environment		
5	Provide temporary drinking water supply and proper sanitation facilities within the site	Provision of drinking water and sanitation facility is being provided.
D Land / Soil Environment		
6	Proper disposal of construction debris at regular intervals	Construction debris is being kept at identified temporary storage area and is being utilized for area development.
E Thermal Environment		
7	Enforce (i) use of Portland Pozzalano Cement / (ii) use of Portland Slag Cement / (iii) use fly ash as admixture in construction	Fly ash mixed paver blocks are being used are used for development of back up area, footpath, colonies area, parking area, approach road etc. Please refer Condition No. xii of Part-B (General Conditions: Construction phase) of EC and CRZ Clearance.
F Energy		
8	Wherever possible, piping shall be along the natural topography to permit gravity flow. Else, energy efficient pumps shall be used. Pipe material shall be such as to minimize friction losses.	Energy efficient pumps and HDPE Pipelines are used for supply of utilities. Refer point no. xii of EC & CRZ Clearance in Part – B (Operation Phase) for energy efficient electrical fittings. Few of the buildings in MSTPL are designed as green building.
9	Wherever possible, natural light shall	

Sr. No.	Suggested Measures	Compliance Status
	be used. Energy efficient electrical fittings and fixtures shall be used.	
Operation Phase:		
A	Land / Soil Environment	
1	Good quality non-corrosive type pipeline should be used. Regular checking of the pipelines for early detection of any possible leakage and damage. Regular ground water monitoring should be done within the SEZ.	<p>HDPE pipelines are used for supply of utility. Regular visual surveillance along the utility lines corridor is being done to check leakage or damage.</p> <p>Third party analysis of the ground water is being carried out at every three month by NABL and MoEF&CC accredited agency namely M/s. Pollucon Laboratories Pvt. Ltd. Surat and Unistar Environment and Research Labs Pvt. Ltd., Vapi.</p> <p>Please refer Condition No. v of Part-B (General Conditions: Construction phase) of EC and CRZ Clearance.</p>
2	The waste should be transported in covered trucks. Vermi-composting is highly recommended for treatment and disposal of biodegradable and kitchen wastes. Other domestic solid waste (garbage) shall be disposed through MSW facility or as per prevailing norms.	Please refer Condition No. iv of Part-B (General Conditions: Construction phase) of EC and CRZ Clearance.
3	The waste should be transported in covered trucks. Transporter should be informed of remedial measures required to be taken in case of spillage of waste	Waste handling vehicles are being handled through covered trucks only. Details were submitted along with compliance report submission i.e. Apr'17 to Sep'17.
B	Socio-Economic Environment	
4	It will encourage development of surrounding areas & further generate employment. People from various cultures shall mingle encouraging a more tolerant society.	Please refer Condition No. vii of Annexure - B (Compliance Status of MoEF & CC Order dated 18.09.2015).

Annexure – 6



“Half Yearly Environmental Monitoring Reports “



M/S. ADANI PORTS & SEZ Limited.

Notified SEZ area, Tal. – Mundra, Dist. – Kutch – 370421.

Monitoring Period: November – 2021 to March - 2022

Submitted By



UniStar Environment & Research Labs Pvt. Ltd.

White House, Near GIDC Office, Char Rasta, Vapi, Gujarat, India – 396195



RESULTS OF STP OUTLET WATER

SR.NO.	TEST PARAMETERS	UNIT	PUB ADANI HOUSE STP OUTLET				GPCB Permissible Limit	TEST METHOD
			NOVEMBER 2021		DECEMBER 2021			
			08/11/2021	24/11/2021	08/12/2021	20/12/2021		
1.	pH @ 25 ° C	--	8.74	8.24	7.04	7.74	6.5 to 9	APHA 23 rd Ed.,2017,4500-H ⁺ B
2.	Total Suspended Solids	mg/L	22	24	26	18	100	APHA 23 rd Ed.,2017,2540 -D
3.	Biochemical Oxygen Demand (BOD) (5 days at 20 ° C)	mg/L	22	20	14	12	30	APHA 23 rd Ed,2017,5210-B 5-6
4.	Residual chlorine	mg/L	0.8	0.8	0.9	0.6	0.5 Min.	APHA 23 rd Ed.,2017,4500-Cl-B
5.	Fecal Coliform	MPN Index/100ml	<2(Absent)	12	<2(Absent)	<2(Absent)	1000	IS 1622: 1981

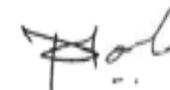
Continue...

RESULTS OF STP OUTLET WATER

SR.NO.	TEST PARAMETERS	UNIT	PUB ADANI HOUSE STP OUTLET						GPCB Permissible Limit	TEST METHOD
			JANUARY 2022		FEBRUARY 2022		MARCH 2022			
			10/01/2022	19/01/2022	10/02/2022	28/02/2022	10/03/2022	22/03/2022		
1.	pH @ 25 ° C	--	7.12	7.66	7.28	7.32	7.55	7.44	6.5 to 9	APHA 23 rd Ed.,2017,4500-H ⁺ B
2.	Total Suspended Solids	mg/L	22	16	24	18	19	16	100	APHA 23 rd Ed.,2017,2540-D
3.	Biochemical Oxygen Demand (BOD) (5 days at 20 ° C)	mg/L	16	14	12	14	14	11	30	APHA 23 rd Ed,2017,5210-B 5-6
4.	Residual chlorine	mg/L	0.6	0.8	0.8	0.7	0.6	0.6	0.5 Min.	APHA 23 rd Ed.,2017,4500-Cl-B
5.	Fecal Coliform	MPN Index/100ml	<2(Absent)	<2(Absent)	<2(Absent)	<2(Absent)	<2(Absent)	<2(Absent)	1000	IS 1622: 1981



Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

Results of Ambient Air Quality Monitoring

Name of Location		PUB / Adani House						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	HC µg/m ³	Benzene µg/m ³
1.	01-11-2021	57.23	23.45	11.23	20.15	0.15	NOT DETECTED	NOT DETECTED
2.	02-11-2021	62.34	25.67	15.23	21.34	0.18	NOT DETECTED	NOT DETECTED
3.	08-11-2021	54.50	22.34	12.17	18.76	0.11	NOT DETECTED	NOT DETECTED
4.	09-11-2021	52.34	20.17	11.21	19.35	0.18	NOT DETECTED	NOT DETECTED
5.	15-11-2021	61.78	24.54	12.35	17.65	0.07	NOT DETECTED	NOT DETECTED
6.	16-11-2021	70.23	27.85	14.18	22.35	0.15	NOT DETECTED	NOT DETECTED
7.	22-11-2021	56.72	21.36	15.23	23.15	0.20	NOT DETECTED	NOT DETECTED
8.	23-11-2021	64.23	24.78	11.72	18.23	0.13	NOT DETECTED	NOT DETECTED
9.	29-11-2021	60.23	21.54	13.25	19.45	0.11	NOT DETECTED	NOT DETECTED
10.	30-11-2021	53.57	18.94	12.43	17.32	0.08	NOT DETECTED	NOT DETECTED
11.	05-12-2021	60.23	28.83	7.84	25.67	0.05	NOT DETECTED	NOT DETECTED
12.	06-12-2021	73.45	32.45	8.15	28.11	0.23	NOT DETECTED	NOT DETECTED
13.	13-12-2021	65.24	30.18	15.24	26.15	0.15	NOT DETECTED	NOT DETECTED
14.	14-12-2021	86.15	33.45	13.17	28.15	0.20	NOT DETECTED	NOT DETECTED
15.	20-12-2021	76.23	30.15	15.14	25.89	0.05	NOT DETECTED	NOT DETECTED
16.	21-12-2021	68.23	25.43	12.38	27.15	0.12	NOT DETECTED	NOT DETECTED

Continue...

Name of Location		PUB / Adani House						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	HC µg/m ³	Benzene µg/m ³
17.	27-12-2021	60.21	23.48	14.17	25.13	0.10	NOT DETECTED	NOT DETECTED
18.	28-12-2021	56.32	20.25	10.50	20.15	0.10	NOT DETECTED	NOT DETECTED
19.	03-01-2022	83.23	29.67	9.12	21.23	0.75	NOT DETECTED	NOT DETECTED
20.	04-01-2022	56.70	25.43	13.21	20.15	0.55	NOT DETECTED	NOT DETECTED
21.	10-01-2022	75.24	28.21	11.23	25.23	1.03	NOT DETECTED	NOT DETECTED
22.	11-01-2022	80.23	23.45	10.25	24.25	0.34	NOT DETECTED	NOT DETECTED
23.	17-01-2022	81.56	27.12	14.56	27.21	0.15	NOT DETECTED	NOT DETECTED
24.	18-01-2022	86.24	28.94	16.24	31.45	0.84	NOT DETECTED	NOT DETECTED
25.	24-01-2022	75.24	21.35	12.68	33.20	0.52	NOT DETECTED	NOT DETECTED
26.	25-01-2022	83.45	26.75	17.23	27.34	0.34	NOT DETECTED	NOT DETECTED
27.	31-01-2022	85.56	32.45	15.44	25.67	0.75	NOT DETECTED	NOT DETECTED
28.	03-02-2022	85.77	34.56	15.78	25.18	0.87	NOT DETECTED	NOT DETECTED
29.	07-02-2022	89.21	30.18	19.21	32.95	1.05	2.45	NOT DETECTED
30.	10-02-2022	88.45	35.81	16.25	29.17	0.65	NOT DETECTED	NOT DETECTED
31.	14-02-2022	85.76	37.25	16.36	28.35	0.89	NOT DETECTED	NOT DETECTED
32.	16-02-2022	88.34	34.23	19.25	28.79	0.23	3.12	NOT DETECTED
33.	21-02-2022	83.45	36.12	21.18	29.34	1.00	1.97	NOT DETECTED

Continue...

Name of Location		PUB / Adani House						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	HC µg/m ³	Benzene µg/m ³
34.	23-02-2022	84.64	39.12	17.25	31.29	0.85	NOT DETECTED	NOT DETECTED
35.	28-02-2022	86.77	32.00	23.19	34.95	0.68	2.15	NOT DETECTED
36.	03-03-2022	82.15	27.00	12.45	20.45	0.05	1.15	NOT DETECTED
37.	07-03-2022	75.62	29.14	17.21	27.18	1.00	2.10	NOT DETECTED
38.	10-03-2022	85.67	31.18	20.14	30.18	1.13	1.76	NOT DETECTED
39.	14-03-2022	84.54	29.12	18.77	27.15	0.75	1.23	NOT DETECTED
40.	17-03-2022	78.32	35.84	21.34	28.91	0.90	2.10	NOT DETECTED
41.	21-03-2022	77.35	30.48	16.93	25.62	1.14	1.52	NOT DETECTED
42.	24-03-2022	85.34	36.75	20.16	27.85	0.75	1.00	NOT DETECTED
43.	28-03-2022	88.23	34.52	21.15	28.92	0.90	1.43	NOT DETECTED
44.	30-03-2022	85.34	30.92	24.56	30.25	0.75	1.95	NOT DETECTED
Permissible Value as per NAAQMS		100.0	60.0	80.0	80.0	2.0	---	5.0
Test Method		IS - 5182, Part-23	UERL/AIR/SOP/11	IS - 5182, Part - 2	IS - 5182, Part - 6	IS - 5182, Part - 10	Gas analyzer	IS - 5182, Part - 11



Nikunj D. Patel
(Chemist)




Jaivik S. Tandel
(Manager - Operations)

Results of Ambient Air Quality Monitoring

Name of Location		Adani Guest House				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
1.	03-02-2022	84.35	23.56	13.18	20.17	--
2.	07-02-2022	85.12	27.21	10.21	22.34	--
3.	10-02-2022	68.94	24.18	14.13	19.21	--
4.	14-02-2022	89.14	27.15	14.21	22.19	--
5.	16-02-2022	84.53	31.16	12.19	22.10	--
6.	21-02-2022	78.25	27.15	14.23	23.14	--
7.	23-02-2022	89.18	30.15	11.18	20.16	--
8.	28-02-2022	76.84	24.19	13.24	24.15	--
9.	03-03-2022	85.34	32.13	10.67	17.84	--
10.	07-03-2022	81.45	29.15	15.23	24.51	--
11.	10-03-2022	78.20	26.34	12.19	20.47	--
12.	14-03-2022	83.45	30.15	16.23	25.35	--
13.	17-03-2022	80.15	27.89	15.10	20.18	--
14.	21-03-2022	70.25	25.64	10.38	17.85	--

Continue...

Name of Location		Adani Guest House				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
15.	24-03-2022	84.51	32.89	14.56	21.35	--
16.	28-03-2022	80.24	35.18	11.15	18.90	--
17.	30-03-2022	85.22	30.15	15.33	23.47	--
Permissible Value as per NAAQMS		100.0	60.0	80.0	80.0	2.0
Test Method		IS - 5182, Part- 23	UERL/AIR/SOP/11	IS - 5182, Part - 2	IS - 5182, Part - 6	IS - 5182, Part - 10



Nikunj D. Patel
(Chemist)




Jaivik S. Tandel
(Manager - Operations)

Results of Noise Level Monitoring

Location Name		PUB / Adani House				
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Day Time				
		16-11-2021	06-12-2021	18-01-2022	15-02-2022	09-03-2022
1	06:00 to 07:00	62.5	62.8	61.23	59.45	60.1
2	07:00 to 08:00	63.5	63.5	62.54	60.14	61.86
3	08:00 to 09:00	64.9	64.5	63.4	66.83	65.91
4	09:00 to 10:00	65.8	66.9	65.23	64.2	63.28
5	10:00 to 11:00	67.8	66.5	63.21	67.16	68.72
6	11:00 to 12:00	69.6	66.7	64.35	65.34	66.32
7	12:00 to 13:00	68.2	68.5	67.34	64.56	65.97
8	13:00 to 14:00	67.8	65.5	66.23	62.75	63.12
9	14:00 to 15:00	66.8	62.6	61.23	60.45	59.54
10	15:00 to 16:00	65.4	63.5	65.23	63.46	62.38
11	16:00 to 17:00	65.1	66.7	67.2	65.29	66.39
12	17:00 to 18:00	60.5	62.4	63.22	66.21	67.31
13	18:00 to 19:00	60.8	61.5	62.45	65.21	66.79
14	19:00 to 20:00	67.3	60.5	61.23	62.3	63.21
15	20:00 to 21:00	61.9	60.3	59.87	58.45	59.54
16	21:00 to 22:00	62.5	60.1	58.75	57.19	58.42
Day Time		<75 dB (A)				

Continue...

Location Name		PUB / Adani House				
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) – Night Time				
		16-11-2021	06-12-2021	18-01-2022	15-02-2022	09-03-2022
1	22:00 to 23:00	62.8	60.3	57.34	56.24	57.17
2	23:00 to 24:00	63.1	60.2	60.23	58.25	59.64
3	24:00 to 01:00	62.5	62.5	59.25	57.25	58.43
4	01:00 to 02:00	61.5	60.4	58.34	55.21	56.34
5	02:00 to 03:00	60.6	60.4	57.64	54.59	53.76
6	03:00 to 04:00	60.6	60.2	57.45	58.69	59.73
7	04:00 to 05:00	64.3	62.3	58.23	59.23	58.21
8	05:00 to 06:00	63.6	62.3	59.25	57.38	56.24
Night Time		<70 dB (A)				

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




Jaivik S. Tandel
(Manager - Operations)

Results of Noise Level Monitoring

Location Name		Adani Guest House	
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Day Time	
		24-02-2022	21-03-2022
1	06:00 to 07:00	61.24	60.21
2	07:00 to 08:00	65.23	64.84
3	08:00 to 09:00	62.89	63.58
4	09:00 to 10:00	65.12	64.36
5	10:00 to 11:00	63.89	62.96
6	11:00 to 12:00	59.76	60.32
7	12:00 to 13:00	61.23	59.43
8	13:00 to 14:00	60.98	58.36
9	14:00 to 15:00	61.43	60.87
10	15:00 to 16:00	61.34	62.34
11	16:00 to 17:00	60.98	59.39
12	17:00 to 18:00	65.23	64.32
13	18:00 to 19:00	59.76	60.28
14	19:00 to 20:00	60.12	59.32
15	20:00 to 21:00	56.78	55.39
16	21:00 to 22:00	59.65	58.74
Day Time		<75 dB (A)	

Continue...

Location Name		Adani Guest House	
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) – Night Time	
		24-02-2022	21-03-2022
1	22:00 to 23:00	57.12	56.27
2	23:00 to 24:00	56.89	56.28
3	24:00 to 01:00	54.12	51.21
4	01:00 to 02:00	59.87	53.47
5	02:00 to 03:00	52.45	49.54
6	03:00 to 04:00	52.98	48.28
7	04:00 to 05:00	56.43	54.11
8	05:00 to 06:00	59.87	56.38
Night Time		<70 dB (A)	

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




Jaivik S. Tandel
(Manager - Operations)

Results of Stack Monitoring

Monitoring Period: **October - 2021 to March - 2022**

Sr. No.	Parameter	Unit	Adani House D.G.Set No. S-1 (750 KVA)	GPCB LIMIT	Method of Test
			Feb-22		
			24-02-2022		
1	Particulate Matter	mg/Nm ³	18.4	150	IS 11255 (Part - 1)
2	Sulfur Dioxide as SO ₂	ppm	5.3	100	IS 11255 (Part - 2)
3	Oxides of Nitrogen as NO _x	ppm	27.8	50	IS 11255 (Part - 7)

Sr. No.	Parameter	Unit	PUB Building D.G.Set No. S-1 (500 KVA)	GPCB LIMIT	Method of Test
			Feb-22		
			24-02-2022		
1	Particulate Matter	mg/Nm ³	16.3	150	IS 11255 (Part - 1)
2	Sulfur Dioxide as SO ₂	ppm	6.4	100	IS 11255 (Part - 2)
3	Oxides of Nitrogen as NO _x	ppm	29.12	50	IS 11255 (Part - 7)



Nikunj D. Patel
(Chemist)




Jaivik S. Tandel
(Manager - Operations)

RESULTS OF BORE HOLE WATER

SR.NO.	TEST PARAMETERS	UNIT	PUB	FLYOVER BRIDGE	DHRUB	TEST METHOD
			10/12/2021	10/12/2021	10/12/2021	
1.	pH @ 25 ° C	--	7.37	7.41	7.77	IS 3025(Part 11)1983
2.	Salinity	ppt	5.49	5.69	22	APHA 23 rd Ed.,2017,2520 B
3.	Oil & Grease	mg/L	BDL	BDL	BDL	IS 3025(Part39)1991, Amd. 2
4.	Hydrocarbon	mg/L	Not Detected	Not Detected	Not Detected	GC/GCMS
5.	Lead as Pb	mg/L	BDL	BDL	0.061	IS 3025 (PART 47) 1994
6.	Arsenic as As	mg/L	BDL	BDL	BDL	APHA 23 rd Ed.,2017,3114-C
7.	Nickel as Ni	mg/L	0.089	0.168	0.074	IS 3025 (PART 54) 2003
8.	Total Chromium as Cr	mg/L	BDL	0.067	BDL	IS 3025 (PART 52) 2003
9.	Cadmium as Cd	mg/L	BDL	0.097	BDL	IS 3025(PART 41) 1992
10.	Mercury as Hg	mg/L	BDL	BDL	BDL	APHA 23 rd Ed.,2017, 3112-B
11.	Zinc as Zn	mg/L	0.261	0.168	0.386	IS 3025(PART 49) 1994
12.	Copper as Cu	mg/L	BDL	BDL	BDL	IS 3025 (PART 42) 1992
13.	Iron as Fe	mg/L	BDL(MDL:0.1)	0.383	0.109	IS 3025(PART 53) 2003
14.	Insecticides/Pesticides	µg/L	Absent	Absent	Absent	USEPA 8081 B
15.	Depth of Water Level from Ground Level	meter	2.2	2.2	2.3	--



Mr. Nilesh Patel
Sr. Chemist




Mr. Nitin Tandel
Technical Manager

Minimum Detection Limit

Ambient Air Quality Monitoring

Sr. No.	Test Parameter	Unit	MDL
1	Particulate Matter (PM10)	µg/m ³	5 µg/m ³
2	Particulate Matter (PM10)	µg/m ³	5 µg/m ³
3	Sulphur Dioxide (SO ₂)	µg/m ³	4 µg/m ³
4	Nitrogen Dioxide (NO ₂)	µg/m ³	5 µg/m ³
5	Carbon Monoxide (CO)	mg/m ³	1-30 mg/m ³
6	Ammonia (NH ₃)	µg/m ³	5 µg/m ³
7	Ozone (O ₃)	µg/m ³	5 µg/m ³
8	Lead (Pb)	µg/m ³	0.5 µg/m ³
9	Nickle (Ni)	ng/m ³	1 ng/m ³
10	Arsenic (As)	ng/m ³	1 ng/m ³
11	Benzene	µg/m ³	1µg/m ³
12	Benzo(o)Pyrene	ng/m ³	0.1 ng/m ³
14	Hydro Carbon	µg/m ³	1 µg/m ³

Stack Emission Monitoring

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

CETP water

Sr. No.	Test Parameter	Unit	MDL
1	pH @ 27 ° C	--	2
2	Temperature	OC	5
3	Colour	Pt. Co. Scale	5
4	Total Suspended Solids	mg/L	4
5	Oil & Grease	mg/L	2
6	Phenolic Compound	mg/L	0.1
7	Fluoride	mg/L	0.2
8	Iron as Fe	mg/L	0.1
9	Zinc as Zn	mg/L	0.05
10	Trivalent Chromium	mg/L	0.05
11	Sulphide	mg/L	0.05
12	Ammonical Nitrogen	mg/L	2
13	BOD (3 days at 27 OC)	mg/L	1
14	COD	mg/L	2
15	Chloride (as Cl) ⁻	mg/L	1
16	Sulphate (as SO ₄)	mg/L	1
17	Total Dissolved Solids	mg/L	4
18	Total Residual Chlorine	mg/L	0.1
19	Copper as Cu	mg/L	0.05
20	Bio Assay test (%)	%	--

STP OUTLET

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



“Half Yearly Environmental Monitoring Reports “

For,



M/S. ADANI MUNDRA SEZ INFRASTRUCTURE PVT. LTD. (AMSIPL)

PLOT NO/Survey No. 141 (Part), Village – Mundra, Tal.: Mundra, Dist. – Kutch.

Monitoring Period: November – 2021 to March - 2022

Submitted By



UniStar Environment & Research Labs Pvt. Ltd.

White House, Near GIDC Office, Char Rasta, Vapi, Gujarat, India – 396195



RESULTS OF STP OUTLET WATER

SR.NO.	TEST PARAMETERS	UNIT	SAMUNDRA TOWNSHIP STP OUTLET						GPCB Permissible Limit	TEST METHOD
			Nov-21		Dec-21		Jan-22			
			09-11-2021	24-11-2021	08-12-2021	20-12-2021	10-01-2022	19-01-2022		
1	pH @ 25 ° C	--	8.04	7.44	7.68	7.62	7.56	7.52	6.5 to 9	APHA 23 rd Ed.,2017,4500- H ⁺ B
2	Total Suspended Solids	mg/L	10	8	12	8	14	12	100	APHA 23 rd Ed.,2017,2540 -D
3	Biochemical Oxygen Demand (BOD) (5 days at 20 ° C)	mg/L	12	10	16	14	12	10	30	APHA 23 rd Ed,2017,5210- B 5-6
4	Residual chlorine	mg/L	0.7	0.8	0.7	0.6	0.8	0.7	0.5 Min.	APHA 23 rd Ed.,2017,4500- Cl-B
5	Fecal Coliform	MPN Index/100ml	170	140	80	130	110	80	1000	IS 1622: 1981

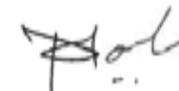
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RESULTS OF STP OUTLET WATER

SR.NO.	TEST PARAMETERS	UNIT	SAMUNDRA TOWNSHIP STP OUTLET				GPCB Permissible Limit	TEST METHOD
			Feb-22		Mar-22			
			08-02-2022	28-02-2022	10-03-2022	22-03-2022		
1	pH @ 25 ° C	--	7.51	7.46	7.45	7.58	6.5 to 9	APHA 23 rd Ed.,2017,4500- H ⁺ B
2	Total Suspended Solids	mg/L	16	14	18	18	100	APHA 23 rd Ed.,2017,2540 -D
3	Biochemical Oxygen Demand (BOD) (5 days at 20 ° C)	mg/L	13	10	10	17	30	APHA 23 rd Ed,2017,5210- B 5-6
4	Residual chlorine	mg/L	0.7	0.6	0.8	0.9	0.5 Min.	APHA 23 rd Ed.,2017,4500- Cl-B
5	Fecal Coliform	MPN Index/100ml	140	110	140	110	1000	IS 1622: 1981



Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

Results of Ambient Air Quality Monitoring

Name of Location		SAMUDRA TOWNSHIP – STP				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
1.	01-11-2021	65.78	27.51	7.12	17.50	--
2.	02-11-2021	56.78	23.25	6.14	15.83	--
3.	08-11-2021	51.60	20.48	10.23	21.34	--
4.	09-11-2021	70.34	33.18	8.76	19.45	--
5.	15-11-2021	66.45	27.16	9.15	17.32	--
6.	16-11-2021	62.78	23.85	6.70	18.15	--
7.	22-11-2021	55.44	21.90	6.94	21.20	--
8.	23-11-2021	69.32	28.45	9.12	17.25	--
9.	29-11-2021	47.84	19.45	11.23	19.28	--
10.	30-11-2021	59.21	23.18	8.70	17.45	--
11.	05-12-2021	55.78	21.30	5.15	12.60	--
12.	06-12-2021	61.20	22.65	5.67	10.34	--
13.	13-12-2021	68.34	19.26	7.54	16.80	--
14.	14-12-2021	60.32	22.30	6.15	15.21	--
15.	20-12-2021	65.25	17.30	5.14	13.21	--
16.	21-12-2021	56.82	20.16	7.13	12.19	--

Continue...

Name of Location		SAMUDRA TOWNSHIP – STP				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
17.	27-12-2021	40.36	14.56	5.15	12.36	--
18.	28-12-2021	46.23	18.32	6.15	13.45	
19.	03-01-2022	60.50	19.45	8.12	15.21	0.07
20.	04-01-2022	52.70	15.80	6.10	14.50	0.14
21.	10-01-2022	72.90	23.50	9.15	17.30	0.11
22.	11-01-2022	65.70	20.80	7.14	12.15	0.10
23.	17-01-2022	60.50	24.60	6.18	16.23	0.06
24.	18-01-2022	52.60	19.80	9.11	15.43	0.09
25.	24-01-2022	66.80	21.50	7.20	18.42	0.13
26.	25-01-2022	70.30	23.40	5.11	15.17	0.11
27.	31-01-2022	85.10	20.50	8.13	16.25	0.06
28.	03-02-2022	87.15	28.44	7.15	13.28	--
29.	07-02-2022	84.21	31.20	11.23	22.45	--
30.	10-02-2022	80.45	25.67	8.21	19.34	--
31.	14-02-2022	76.43	33.23	10.25	17.84	--
32.	16-02-2022	79.15	25.34	5.13	15.10	--
33.	21-02-2022	88.34	21.28	12.17	22.38	--

Continue...

Name of Location		SAMUDRA TOWNSHIP – STP				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
34.	23-02-2022	73.12	34.23	8.26	20.21	--
35.	28-02-2022	85.44	30.15	17.10	23.45	--
36.	03-03-2022	73.20	22.10	10.45	17.23	--
37.	07-03-2022	70.45	19.40	8.15	14.56	--
38.	10-03-2022	83.80	27.80	14.32	20.16	--
39.	14-03-2022	72.45	31.30	12.31	17.89	--
40.	17-03-2022	75.50	28.12	9.13	16.20	--
41.	21-03-2022	85.10	29.75	10.56	14.32	--
42.	24-03-2022	78.60	30.12	11.30	18.80	--
43.	28-03-2022	80.40	27.34	15.32	21.45	--
44.	30-03-2022	71.20	23.42	18.14	23.17	--
Permissible Value as per NAAQMS		100.0	60.0	80.0	80.0	2.0
Test Method		IS - 5182, Part- 23	UERL/AIR/SOP/11	IS - 5182, Part - 2	IS - 5182, Part - 6	IS - 5182, Part - 10



Nikunj D. Patel
(Chemist)




Jaivik S. Tandell
(Manager - Operations)

Results of Ambient Air Quality Monitoring

Name of Location		SAMUDRA TOWNSHIP CUSTOMER CARE				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
1.	01-11-2021	71.23	29.86	8.76	19.45	--
2.	02-11-2021	54.52	26.73	7.14	7.15	--
3.	08-11-2021	62.80	29.45	9.12	21.34	--
4.	09-11-2021	53.45	21.30	6.78	16.78	--
5.	15-11-2021	74.21	28.34	8.15	19.32	--
6.	16-11-2021	68.23	25.29	9.21	22.15	--
7.	22-11-2021	65.20	22.80	8.15	16.78	--
8.	23-11-2021	52.95	21.30	7.23	15.34	--
9.	29-11-2021	67.23	28.35	8.15	18.34	--
10.	30-11-2021	63.21	25.44	9.17	16.23	--
11.	05-12-2021	60.24	23.45	6.18	14.56	--
12.	06-12-2021	55.23	21.20	7.12	15.13	--
13.	13-12-2021	62.34	23.45	6.19	18.25	--
14.	14-12-2021	65.78	25.21	7.89	14.23	--
15.	20-12-2021	72.35	23.45	8.14	17.95	--
16.	21-12-2021	66.84	21.25	9.12	15.37	--

Continue...

Name of Location		SAMUDRA TOWNSHIP CUSTOMER CARE				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
17.	27-12-2021	44.53	16.14	7.18	14.15	--
18.	28-12-2021	50.21	20.23	8.12	15.21	
19.	03-01-2022	53.12	21.40	6.12	17.65	0.05
20.	04-01-2022	63.40	18.35	7.11	19.35	0.10
21.	10-01-2022	47.80	15.34	5.15	15.67	0.08
22.	11-01-2022	55.21	24.29	9.13	18.34	0.15
23.	17-01-2022	76.12	20.54	5.12	20.18	0.12
24.	18-01-2022	82.34	28.95	10.23	21.34	0.17
25.	24-01-2022	54.32	24.23	5.67	16.14	0.05
26.	25-01-2022	84.50	27.15	14.21	23.20	0.16
27.	31-01-2022	87.50	23.18	9.15	17.21	0.14
28.	03-02-2022	77.23	25.23	5.17	13.26	--
29.	07-02-2022	62.34	20.19	8.14	20.23	--
30.	10-02-2022	81.38	23.21	6.10	22.17	--
31.	14-02-2022	69.25	26.78	13.21	21.16	--
32.	16-02-2022	72.56	26.12	10.14	17.32	--
33.	21-02-2022	78.18	29.13	15.21	24.17	--

Continue...

Name of Location		SAMUDRA TOWNSHIP CUSTOMER CARE				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
34.	23-02-2022	79.35	33.21	9.28	20.14	--
35.	28-02-2022	69.26	26.25	12.20	17.55	--
36.	03-03-2022	65.80	21.37	7.18	17.89	--
37.	07-03-2022	82.90	29.45	11.34	18.27	--
38.	10-03-2022	74.70	25.31	10.42	15.69	--
39.	14-03-2022	70.80	23.29	14.23	22.34	--
40.	17-03-2022	84.56	29.37	12.83	20.68	--
41.	21-03-2022	88.50	32.45	17.21	24.19	--
42.	24-03-2022	71.24	26.40	15.23	22.51	--
43.	28-03-2022	88.56	29.18	11.60	19.28	--
44.	30-03-2022	72.55	32.48	14.23	22.36	--
Permissible Value as per NAAQMS		100.0	60.0	80.0	80.0	2.0
Test Method		IS - 5182, Part- 23	UERL/AIR/SOP/11	IS - 5182, Part - 2	IS - 5182, Part - 6	IS - 5182, Part - 10



Nikunj D. Patel
(Chemist)




Jaivik S. Tandell
(Manager - Operations)

Results of Noise Level Monitoring

Location Name		SAMUDRA TOWNSHIP – STP				
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Day Time				
		29-11-2021	22-12-2021	13-01-2022	16-02-2022	10-03-2022
1	06:00 to 07:00	62.8	63.5	61.2	62.76	61.44
2	07:00 to 08:00	62.5	64.2	62.86	63.45	64.57
3	08:00 to 09:00	64.5	62.5	60.95	61.76	62.35
4	09:00 to 10:00	68.5	64.5	65.15	64.32	63.84
5	10:00 to 11:00	63.5	62.9	62.86	63.89	64.27
6	11:00 to 12:00	66.2	67.5	65.14	66.74	65.43
7	12:00 to 13:00	58.5	60.4	62.35	63.25	62.34
8	13:00 to 14:00	63.9	62.8	61.4	62.87	61.28
9	14:00 to 15:00	65.6	65.1	63.2	64.87	63.78
10	15:00 to 16:00	61.6	63.3	62.3	61.22	60.37
11	16:00 to 17:00	57.5	63.5	65.55	66.97	65.31
12	17:00 to 18:00	58.9	62.8	63.4	62.45	61.85
13	18:00 to 19:00	60.4	61.7	59.35	60.97	59.36
14	19:00 to 20:00	63.5	60.2	58.43	59.43	58.76
15	20:00 to 21:00	64.2	59.5	55.75	56.34	55.27
16	21:00 to 22:00	60.5	61.3	56.35	57.43	56.37
Day Time		<75 dB (A)				

Continue...

Location Name		SAMUDRA TOWNSHIP – STP				
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) – Night Time				
		29-11-2021	22-12-2021	13-01-2022	16-02-2022	10-03-2022
1	22:00 to 23:00	56.5	60.3	55.75	56.43	57.25
2	23:00 to 24:00	58.5	59.5	56.15	57.98	56.21
3	24:00 to 01:00	57.2	59.8	54.25	55.34	54.38
4	01:00 to 02:00	55.5	60.3	56.13	57.98	56.48
5	02:00 to 03:00	60.5	58.5	53.15	54.12	55.16
6	03:00 to 04:00	61.6	57.3	55.23	56.43	57.38
7	04:00 to 05:00	56.7	59.2	54.95	55.98	56.38
8	05:00 to 06:00	55.3	60.5	57.8	56.32	55.28
Night Time		<70 dB (A)				

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




Jaivik S. Tandell
(Manager - Operations)

Results of Noise Level Monitoring

Location Name		SAMUDRA TOWNSHIP CUSTOMER CARE				
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Day Time				
		30-11-2021	29-12-2021	12-01-2022	17-02-2022	17-03-2022
1	06:00 to 07:00	61.9	62.6	60.15	61.23	62.65
2	07:00 to 08:00	62.3	65.4	61.35	62.89	63.27
3	08:00 to 09:00	61.5	67.1	60.55	62.78	61.57
4	09:00 to 10:00	66.7	64.5	62.25	61.24	62.11
5	10:00 to 11:00	64.8	69.6	66.45	65.43	66.43
6	11:00 to 12:00	62.8	65.2	62.85	63.98	64.76
7	12:00 to 13:00	61.9	63.2	60.25	61.23	62.34
8	13:00 to 14:00	68.5	65.5	64.15	63.42	64.27
9	14:00 to 15:00	67.5	62.8	60.15	61.28	60.89
10	15:00 to 16:00	62.8	64.1	58.25	59.76	60.48
11	16:00 to 17:00	64.5	66.3	62.45	61.27	60.37
12	17:00 to 18:00	66.3	68.3	61.85	60.98	59.46
13	18:00 to 19:00	61.6	63.5	57.25	58.9	57.32
14	19:00 to 20:00	64.5	65.2	55.25	56.43	55.38
15	20:00 to 21:00	60.7	62.3	53.45	54.12	53.25
16	21:00 to 22:00	62.6	60.7	55.25	56.89	55.82
Day Time		<75 dB (A)				

Continue...

Location Name		SAMUDRA TOWNSHIP CUSTOMER CARE				
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Night Time				
		30-11-2021	29-12-2021	12-01-2022	17-02-2022	17-03-2022
1	22:00 to 23:00	60.5	60.5	54.21	55.87	54.23
2	23:00 to 24:00	63.5	59.8	55.23	56.34	57.87
3	24:00 to 01:00	62.8	58.5	53.18	54.89	55.23
4	01:00 to 02:00	60.5	57.5	52.9	53.45	54.28
5	02:00 to 03:00	57.5	55.6	51.25	50.98	51.23
6	03:00 to 04:00	56.5	55.5	52.37	54.32	55.84
7	04:00 to 05:00	57.8	58.4	51.65	50.43	51.27
8	05:00 to 06:00	58.5	59.5	54.25	55.23	56.37
Night Time		<70 dB (A)				

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




Jaivik S. Tandel
(Manager - Operations)

Results of Stack Monitoring

Sr. No.	Parameter	Unit	December - 2021	GPCB LIMIT	Method of Test
			Adani Hospital DG Set		
			15-12-2021		
1	Particulate Matter	mg/Nm ³	18.7	150	IS 11255 (Part - 1)
2	Sulfur Dioxide as SO ₂	ppm	5.25	100	IS 11255 (Part - 2)
3	Oxides of Nitrogen as NO _x	ppm	29.14	50	IS 11255 (Part - 7)



Nikunj D. Patel
(Chemist)




Jaivik S. Tandel
(Manager - Operations)

Minimum Detection Limit

Ambient Air Quality Monitoring

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

Stack Emission Monitoring

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

STP Water

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



“Half Yearly Environmental Monitoring Reports “

For,
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Ports and
Logistics

M/S. MPSEZ Utilities Ltd. (MUL)

Survey No. 141, Village - Mundra, APSEZ, Tal: Mundra, Dist.: Kutch – 370 421

Monitoring Period: November – 2021 to March - 2022

Submitted By



UniStar Environment & Research Labs Pvt. Ltd.

White House, Near GIDC Office, Char Rasta, Vapi, Gujarat, India – 396195



RESULTS OF CETP INLET WATER

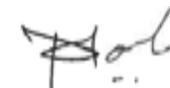
SR.NO.	TEST PARAMETERS	UNIT	CETP INLET						GPCB Permissible Limit CETP Inlet	TEST METHOD
			NOVEMBER 2021	DECEMBER 2021		JANUARY 2022	FEBRUARY 2022	MARCH 2022		
			01/11/2021	02/12/2021	09/12/2021	03/01/2022	01/02/2022	02/03/2022		
1.	pH @ 27 °C	--	7.42	7.68	7.74	7.68	7.68	7.72	6.5 to 8.5	APHA 23 rd Ed.,2017,4500-H ⁺ B
2.	Temperature	°C	29	30	30	29.9	29.9	30	--	IS 3025(Part 9)1984
3.	Colour	Pt. Co. Scale	50	50	45	60	60	50	100	IS 3025(Part 4)
4.	Total Suspended Solids	mg/L	28	44	38	76	76	64	800	APHA 23 rd Ed.,2017,2540 –D
5.	Oil & Grease	mg/L	4	5	3	6	6	7	20	IS 3025(Part39)1991, Amd. 2
6.	Phenolic Compound	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	2	IS 3025(Part 43)1992, Amd.2
7.	Fluoride	mg/L	0.8	0.74	1.1	0.68	0.68	0.74	2	APHA 23 rd Ed.,2017,4500 F, D
8.	Iron as Fe	mg/L	0.66	0.57	0.25	0.52	0.52	0.64	3	IS 3025(Part 53)2003,
9.	Zinc as Zn	mg/L	0.48	0.24	0.086	0.38	0.38	0.48	15	IS 3025(Part 49)1994
10.	Trivalent Chromium	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	3	By Calculation
11.	Sulphide	mg/L	0.18	0.38	1.4	0.44	0.44	0.58	2	APHA 23 rd Ed.,2017,4500-H ⁺ B

Continue...

SR.NO.	TEST PARAMETERS	UNIT	CETP INLET						GPCB Permissible Limit CETP Inlet	TEST METHOD
			NOVEMBER 2021	DECEMBER 2021		JANUARY 2022	FEBRUARY 2022	MARCH 2022		
			01/11/2021	02/12/2021	09/12/2021	03/01/2022	01/02/2022	02/03/2022		
12.	Ammonical Nitrogen	mg/L	18.8	28.5	26.3	36.4	36.4	38.1	50	IS 3025(Part 9)1984
13.	BOD (3 days at 27 °C)	mg/L	112	126	48	130	130	144	1000	IS 3025(Part 4)
14.	COD	mg/L	475.4	574	169	588.2	588.2	608.1	2000	APHA 23 rd Ed.,2017,2540 –D
15.	Chloride (as Cl ⁻)	mg/L	832.8	882.4	848.7	882.4	882.4	910.2	1000	IS 3025(Part39)1991, Amd. 2
16.	Sulphate (as SO ₄)	mg/L	218.3	192.8	151.7	204.2	204.2	216.2	1000	IS 3025(Part 43)1992, Amd.2
17.	Total Dissolved Solids	mg/L	1750	2064	1884	1780	1780	1842	2100	APHA 23 rd Ed.,2017,4500 F, D
18.	Total Residual Chlorine	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	2	IS 3025(Part 53)2003,
19.	Copper as Cu	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	3	IS 3025(Part 49)1994



Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

RESULTS OF CETP OUTLET WATER

SR.NO.	TEST PARAMETERS	UNIT	CETP OUTLET						GPCB Permissible Limit CETP Outlet	TEST METHOD
			NOVEMBER 2021	DECEMBER 2021		JANUARY 2022	FEBRUARY 2022	MARCH 2022		
			01/11/2021	02/12/2021	09/12/2021	03/01/2022	01/02/2022	02/03/2022		
1.	pH @ 27 °C	--	8.03	8.09	7.98	7.78	7.62	7.51	6.0 – 9.0	APHA 23 rd Ed.,2017,4500-H+B
2.	Temperature	°C	29	30	30	29.9	30.1	30.1	Shall not exceed more than 5 °C above received water temperature	IS 3025(Part 9)1984
3.	Colour	Pt. Co. Scale	30	30	30	25	30	25	100	IS 3025(Part 4)
4.	Total Suspended Solids	mg/L	14	23	28	18	14	12	100	APHA 23 rd Ed.,2017,2540 –D
5.	Oil & Grease	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	10	IS 3025 (Part39)1991, Amd. 2
6.	Phenolic Compound	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	1	IS 3025(Part 43)1992, Amd.2
7.	Fluoride	mg/L	0.7	0.64	1	0.41	0.32	0.44	2	APHA 23 rd Ed.,2017,4500F, D
8.	Iron as Fe	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	3	IS 3025(Part 53)2003,
9.	Zinc as Zn	mg/L	0.077	0.086	0.077	0.14	0.19	0.26	15	IS 3025(Part 49)1994
10.	Trivalent Chromium	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	2	By Calculation

Continue...

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GPCB Recognized Environmental Auditor (Schedule-II)

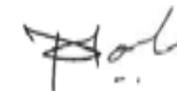
ISO 9001:2015 Certified Company

ISO 45001:2018 Certified Company

SR.NO.	TEST PARAMETERS	UNIT	CETP OUTLET						GPCB Permissible Limit CETP Inlet	TEST METHOD
			NOVEMBER 2021	DECEMBER 2021		JANUARY 2022	FEBRUARY 2022	MARCH 2022		
			01/11/2021	02/12/2021	09/12/2021	20/01/2022	01/02/2022	02/03/2022		
11.	Sulphide	mg/L	BDL	0.2	BDL	0.29	0.34	0.94	2	APHA 23 rd Ed.,2017,4500-H*B
12.	Ammonical Nitrogen	mg/L	4.3	3.2	3.3	3.8	4.1	5.8	50	IS 3025(Part 9)1984
13.	BOD (3 days at 27 °C)	mg/L	24	22	26	24	24	25	100	IS 3025(Part 4)
14.	COD	mg/L	96.5	86.8	94.2	90.4	92.2	104.1	250	APHA 23 rd Ed.,2017,2540 -D
15.	Chloride (as Cl) ⁻	mg/L	767.2	878.5	903.3	784.2	859.8	844.2	1000	IS 3025(Part39)1991, Amd. 2
16.	Sulphate (as SO ₄)	mg/L	195.7	152.9	148.6	124.6	142.4	148.1	1000	IS 3025(Part 43)1992, Amd.2
17.	Total Dissolved Solids	mg/L	1680	2012	1856	1772	1816	1864	2100	APHA 23 rd Ed.,2017,4500F, D
18.	Total Residual Chlorine	mg/L	0.74	BDL	BDL	BDL	BDL	BDL	1	IS 3025(Part 53)2003,
19.	Copper as Cu	mg/L	BDL	BDL	BDL	BDL	BDL	BDL	3	IS 3025(Part 49)1994
20.	Bio Assay test (%)	%	90 % survival of fish after 96 hrs. in 100% effluent	90 % survival of fish after 96 hrs. in 100% effluent	90 % survival of fish after 96 hrs. in 100% effluent	90 % survival of fish after 96 hrs. in 100% effluent	90 % survival of fish after 96 hrs. in 100% effluent	90 % survival of fish after 96 hrs. in 100% effluent	90 % survival of fish after 96 hrs. in 100% effluent	IS:6582-1971



Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

Results of Ambient Air Quality Monitoring

Name of Location		WTP- Nr. CETP				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
1.	01-11-2021	80.54	45.62	21.48	38.48	--
2.	02-11-2021	76.52	37.41	18.74	29.56	--
3.	08-11-2021	80.54	42.26	20.53	34.54	--
4.	09-11-2021	67.81	35.68	17.65	27.84	--
5.	15-11-2021	79.56	39.45	28.11	36.74	--
6.	16-11-2021	92.44	47.24	25.32	37.25	--
7.	22-11-2021	85.58	43.14	21.85	32.44	--
8.	23-11-2021	90.75	48.51	28.45	39.15	--
9.	29-11-2021	78.62	37.53	24.18	33.55	--
10.	30-11-2021	85.51	40.44	23.15	31.28	--
11.	05-12-2021	72.34	39.21	23.15	29.18	--
12.	06-12-2021	64.55	30.15	15.23	26.34	--
13.	13-12-2021	70.34	35.21	22.18	30.15	--
14.	14-12-2021	75.21	38.14	20.17	28.21	--
15.	20-12-2021	68.12	29.18	16.21	25.39	--
16.	21-12-2021	65.2	34.21	18.14	25.23	--

Continue...

Name of Location		WTP- Nr. CETP				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
17.	27-12-2021	60.35	23.45	17.22	26.78	--
18.	28-12-2021	53.44	21.67	19.25	27.44	--
19.	03-01-2022	84.23	33.56	16.12	24.12	0.23
20.	04-01-2022	70.51	28.43	19.34	28.15	0.67
21.	10-01-2022	81.25	30.13	25.21	27.23	0.1
22.	11-01-2022	68.23	26.72	22.18	25.16	0.84
23.	17-01-2022	93.45	37.65	19.14	26.15	0.25
24.	18-01-2022	84.12	30.15	21.17	29.15	0.16
25.	24-01-2022	93.45	39.12	10.18	21.45	0.54
26.	25-01-2022	95.43	44.35	14.12	23.12	1.05
27.	31-01-2022	90.6	40.21	10.25	19.21	0.88
28.	03-02-2022	86.54	44.21	22.45	27.53	--
29.	07-02-2022	88.12	34.23	25.14	31.27	--
30.	10-02-2022	83.77	29.23	21.16	30.22	--
31.	14-02-2022	79.52	31.67	18.45	34.21	--
32.	16-02-2022	75.35	46.86	23.67	30.22	--
33.	21-02-2022	83.45	39.17	20.45	33.12	--

Continue...

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QCI-NABET Accredited EIA Consultant Organization

GPCB Recognized Environmental Auditor (Schedule-II)

ISO 9001:2015 Certified Company

ISO 45001:2018 Certified Company

Name of Location		WTP- Nr. CETP				
Sr. No.	Date of Monitoring	Parameter with Results				
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³
34.	23-02-2022	87.33	30.5	23.21	35.18	--
35.	28-02-2022	77.68	46.25	20.45	27.38	--
36.	03-03-2022	72.34	37.15	18.15	28.13	--
37.	07-03-2022	75.42	41.23	23.34	30.15	--
38.	10-03-2022	78.35	44.64	20.17	26.73	--
39.	14-03-2022	76.55	37.15	24.54	32.18	--
40.	17-03-2022	69.85	33.45	22.23	35.21	--
41.	21-03-2022	74.55	40.18	26.18	30.15	--
42.	24-03-2022	79.42	42.61	21.44	29.17	--
43.	28-03-2022	70.47	38.25	17.25	28.55	--
44.	30-03-2022	83.45	42.37	22.18	30.19	--
Permissible Value as per NAAQMS		100.0	60.0	80.0	80.0	2.0
Test Method		IS - 5182, Part- 23	UERL/AIR/SOP/11	IS - 5182, Part - 2	IS - 5182, Part - 6	IS - 5182, Part - 10



Nikunj D. Patel
(Chemist)




Jaivik S. Tandel
(Manager - Operations)

Results of Ambient Air Quality Monitoring

Name of Location		AIR STRIP						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	HC µg/m ³	Benzene µg/m ³
1.	01-11-2021	78.34	30.12	16.45	23.42	0.15	NOT DETECTED	NOT DETECTED
2.	02-11-2021	82.60	34.55	14.35	20.16	0.12	NOT DETECTED	NOT DETECTED
3.	08-11-2021	65.73	27.65	15.21	22.45	0.17	NOT DETECTED	NOT DETECTED
4.	09-11-2021	72.81	30.12	13.56	26.71	0.11	NOT DETECTED	NOT DETECTED
5.	15-11-2021	68.44	26.45	11.84	22.21	0.08	NOT DETECTED	NOT DETECTED
6.	16-11-2021	75.37	29.51	12.65	19.84	0.14	NOT DETECTED	NOT DETECTED
7.	22-11-2021	60.42	23.18	16.43	23.25	0.09	NOT DETECTED	NOT DETECTED
8.	23-11-2021	67.14	27.15	12.75	20.15	0.05	NOT DETECTED	NOT DETECTED
9.	29-11-2021	56.84	21.72	19.21	24.32	0.12	NOT DETECTED	NOT DETECTED
10.	30-11-2021	69.45	30.15	16.35	21.15	0.15	NOT DETECTED	NOT DETECTED
11.	05-12-2021	65.32	31.23	15.21	20.18	0.11	NOT DETECTED	NOT DETECTED
12.	06-12-2021	70.25	30.23	27.83	24.68	0.15	NOT DETECTED	NOT DETECTED
13.	13-12-2021	63.40	26.21	19.33	27.25	0.15	NOT DETECTED	NOT DETECTED
14.	14-12-2021	70.23	35.44	15.67	26.21	0.17	NOT DETECTED	NOT DETECTED
15.	20-12-2021	76.52	33.42	16.34	25.88	0.14	NOT DETECTED	NOT DETECTED
16.	21-12-2021	81.23	35.67	15.34	26.60	0.05	NOT DETECTED	NOT DETECTED

Continue...

Name of Location		AIR STRIP						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	HC µg/m ³	Benzene µg/m ³
17.	27-12-2021	68.34	30.12	17.15	25.44	0.08	NOT DETECTED	NOT DETECTED
18.	28-12-2021	60.15	29.34	14.21	23.45	0.05	NOT DETECTED	NOT DETECTED
19.	03-01-2022	54.32	18.24	10.23	18.23	0.05	NOT DETECTED	NOT DETECTED
20.	04-01-2022	62.13	21.40	15.32	27.81	0.10	NOT DETECTED	NOT DETECTED
21.	10-01-2022	46.43	16.70	12.15	26.19	0.12	NOT DETECTED	NOT DETECTED
22.	11-01-2022	62.51	25.23	15.14	29.67	0.07	NOT DETECTED	NOT DETECTED
23.	17-01-2022	76.85	29.15	10.15	21.35	0.05	NOT DETECTED	NOT DETECTED
24.	18-01-2022	83.60	43.56	7.83	20.16	0.12	NOT DETECTED	NOT DETECTED
25.	24-01-2022	61.45	38.91	12.35	25.21	0.10	NOT DETECTED	NOT DETECTED
26.	25-01-2022	56.32	27.44	10.20	19.17	0.12	NOT DETECTED	NOT DETECTED
27.	31-01-2022	82.24	35.12	14.23	27.15	0.08	NOT DETECTED	NOT DETECTED
28.	03-02-2022	83.23	34.56	18.23	23.18	0.08	NOT DETECTED	NOT DETECTED
29.	07-02-2022	59.21	26.78	15.21	25.17	0.05	NOT DETECTED	NOT DETECTED
30.	10-02-2022	78.90	38.21	10.23	18.25	0.07	NOT DETECTED	NOT DETECTED
31.	14-02-2022	75.25	30.45	14.23	26.78	0.10	NOT DETECTED	NOT DETECTED
32.	16-02-2022	86.12	29.25	12.28	27.12	0.04	NOT DETECTED	NOT DETECTED
33.	21-02-2022	76.23	34.21	14.89	23.18	0.09	NOT DETECTED	NOT DETECTED

Continue...

Name of Location		AIR STRIP						
Sr. No.	Date of Monitoring	Parameter with Results						
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	CO mg/m ³	HC µg/m ³	Benzene µg/m ³
34.	23-02-2022	82.30	30.15	15.21	24.79	0.07	NOT DETECTED	NOT DETECTED
35.	28-02-2022	87.13	35.22	12.47	21.36	0.10	NOT DETECTED	NOT DETECTED
36.	03-03-2022	72.34	28.15	15.12	24.56	0.05	NOT DETECTED	NOT DETECTED
37.	07-03-2022	65.12	22.34	11.57	19.78	0.07	NOT DETECTED	NOT DETECTED
38.	10-03-2022	82.39	30.17	13.45	20.15	0.05	NOT DETECTED	NOT DETECTED
39.	14-03-2022	76.34	27.89	12.19	17.68	0.04	NOT DETECTED	NOT DETECTED
40.	17-03-2022	80.98	31.35	16.78	21.56	0.09	NOT DETECTED	NOT DETECTED
41.	21-03-2022	65.92	26.68	13.56	20.89	0.04	NOT DETECTED	NOT DETECTED
42.	24-03-2022	81.37	29.35	17.12	24.18	0.10	NOT DETECTED	NOT DETECTED
43.	28-03-2022	86.45	32.10	11.38	20.25	0.07	NOT DETECTED	NOT DETECTED
44.	30-03-2022	75.22	25.68	14.56	23.78	0.08	NOT DETECTED	NOT DETECTED
Permissible Value as per NAAQMS		100.0	60.0	80.0	80.0	2.0	---	5.0
Test Method		IS - 5182, Part- 23	UERL/AIR/ SOP/11	IS - 5182, Part - 2	IS - 5182, Part - 6	IS - 5182, Part - 10	Gas analyzer	IS - 5182, Part - 11



Nikunj D. Patel
(Chemist)




Jaivik S. Tandel
(Manager - Operations)

Results of Noise Level Monitoring

Location Name		WTP- Nr. CETP				
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Day Time				
		17-11-2021	15-12-2021	28-01-2022	02-02-2022	05-03-2022
1	06:00 to 07:00	66.7	65.8	64.45	63.24	64.34
2	07:00 to 08:00	64.9	67.9	66.25	67.89	68.94
3	08:00 to 09:00	65.3	69.3	68.15	69.73	67.5
4	09:00 to 10:00	67.1	68.6	70.4	69.3	66.5
5	10:00 to 11:00	64.6	68.3	71.25	69.15	67.3
6	11:00 to 12:00	63.8	67.3	68.35	69.87	68.43
7	12:00 to 13:00	61.9	66.2	67.45	66.34	65.32
8	13:00 to 14:00	63.5	68.2	70.15	66.43	66.5
9	14:00 to 15:00	65.2	67.5	66.39	67.89	68.32
10	15:00 to 16:00	69.8	62.9	64.8	65.32	64.23
11	16:00 to 17:00	65.5	66.4	69.12	64.85	69.84
12	17:00 to 18:00	68.3	62.6	65.17	64.23	63.23
13	18:00 to 19:00	67.7	65.5	61.4	60.72	61.98
14	19:00 to 20:00	65.2	68.5	60.25	59.43	58.35
15	20:00 to 21:00	62.4	66.7	62.19	63.31	64.52
16	21:00 to 22:00	64.4	62.8	60.15	59.42	58.74
Day Time		<75 dB (A)				

Continue...

Location Name		WTP- Nr. CETP				
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) – Night Time				
		17-11-2021	15-12-2021	28-01-2022	02-02-2022	05-03-2022
1	22:00 to 23:00	62.8	63.5	60.25	61.26	60.24
2	23:00 to 24:00	63.3	62.5	58.3	59.43	58.36
3	24:00 to 01:00	64.9	61.9	57.25	58.43	59.76
4	01:00 to 02:00	61.5	62.8	56.25	55.32	56.32
5	02:00 to 03:00	59.1	60.5	55.65	56.87	55.21
6	03:00 to 04:00	62.9	59.6	57.24	56.32	57.84
7	04:00 to 05:00	60.2	58.5	55.25	54.32	53.24
8	05:00 to 06:00	64.5	59.7	58.4	59.76	58.63
Night Time		<70 dB (A)				

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




Jaivik S. Tandel
(Manager - Operations)

Results of Noise Level Monitoring

Location Name		AIR STRIP				
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Day Time				
		30-11-2021	10-12-2021	11-01-2022	23-02-2022	24-03-2022
1	06:00 to 07:00	64.3	61.5	62.35	63.67	64.26
2	07:00 to 08:00	65.5	66.7	64.25	65.23	66.74
3	08:00 to 09:00	62.8	60.5	61.25	62.89	63.25
4	09:00 to 10:00	62.5	63.9	64.18	65.78	66.28
5	10:00 to 11:00	61.6	64.5	62.51	63.22	64.58
6	11:00 to 12:00	62.3	65.2	60.56	61.98	62.37
7	12:00 to 13:00	64.5	66.1	62.45	63.24	62.66
8	13:00 to 14:00	65.2	60.6	61.9	62.88	63.36
9	14:00 to 15:00	59.8	61.8	62.45	63.21	62.31
10	15:00 to 16:00	63.5	62.5	60.78	61.98	60.78
11	16:00 to 17:00	61.8	63.2	61.2	62.34	63.42
12	17:00 to 18:00	67.5	65.4	64.28	65.13	64.38
13	18:00 to 19:00	68.4	62.1	58.67	59.98	58.74
14	19:00 to 20:00	62.9	60.2	61.34	62.34	63.21
15	20:00 to 21:00	68.4	58.9	55.69	56.98	57.47
16	21:00 to 22:00	64.5	59.2	58.1	59.23	58.32
Day Time		<75 dB (A)				

Continue...

Location Name		AIR STRIP				
Sr. No.	Sampling Date and Time	Noise Level Leq. dB(A) - Night Time				
		30-11-2021	10-12-2021	11-01-2022	23-02-2022	24-03-2022
1	22:00 to 23:00	57.5	58.5	56.25	57.12	58.54
2	23:00 to 24:00	55.4	56.5	55.78	56.34	57.32
3	24:00 to 01:00	56.2	57.2	53.45	54.87	55.18
4	01:00 to 02:00	55.5	55.5	58.12	59.71	58.17
5	02:00 to 03:00	53.9	55.2	51.67	52.34	53.27
6	03:00 to 04:00	58.6	54.1	51.25	50.98	51.38
7	04:00 to 05:00	61.2	59.5	55.28	56.23	57.25
8	05:00 to 06:00	57.5	60.2	58.35	57.32	58.19
Day Time		<70 dB (A)				

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




Jaivik S. Tandel
(Manager - Operations)

Results of Stack Monitoring

Sr. No.	Parameter	Unit	February-2022	GPCB LIMIT	Method of Test
			D.G.Set No. S-1 (380 KVA)		
			24-02-2022		
1	Particulate Matter	mg/Nm ³	22.4	150	IS 11255 (Part - 1)
2	Sulfur Dioxide as SO ₂	ppm	6.5	100	IS 11255 (Part - 2)
3	Oxides of Nitrogen as NO _x	ppm	30.8	50	IS 11255 (Part - 7)



Nikunj D. Patel
(Chemist)



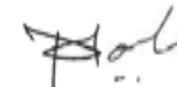

Jaivik S. Tandel
(Manager - Operations)

RESULTS OF BORE HOLE WATER

SR.NO.	TEST PARAMETERS	UNIT	MUL CETP	NEAR CETP	TEST METHOD
			01/11/2021	10/12/2021	
1.	pH @ 25 ° C	--	7.48	7.87	IS 3025(Part 11)1983
2.	Salinity	ppt	2.97	2.83	APHA 23 rd Ed.,2017,2520 B
3.	Oil & Grease	mg/L	BDL	BDL	IS 3025(Part39)1991, Amd. 2
4.	Hydrocarbon	mg/L	BDL	Not Detected	GC/GCMS
5.	Lead as Pb	mg/L	0.045	0.080	IS 3025 (PART 47) 1994
6.	Arsenic as As	mg/L	BDL(MDL:0.01)	BDL(MDL:0.01)	APHA 23 rd Ed.,2017,3114-C
7.	Nickel as Ni	mg/L	BDL(MDL:0.02)	0.073	IS 3025 (PART 54) 2003
8.	Total Chromium as Cr	mg/L	BDL	BDL	IS 3025 (PART 52) 2003
9.	Cadmium as Cd	mg/L	BDL(MDL:0.003)	BDL(MDL:0.003)	IS 3025(PART 41) 1992
10.	Mercury as Hg	mg/L	BDL(MDL:0.001)	BDL(MDL:0.001)	APHA 23 rd Ed.,2017, 3112-B
11.	Zinc as Zn	mg/L	0.35	0.352	IS 3025(PART 49) 1994
12.	Copper as Cu	mg/L	BDL	BDL	IS 3025 (PART 42) 1992
13.	Iron as Fe	mg/L	0.25	BDL	IS 3025(PART 53) 2003
14.	Insecticides/Pesticides	µg/L	Absent	Absent	USEPA 8081 B
15.	Depth of Water Level from Ground Level	meter	2.0	2.3	--



Mr. Nilesh Patel
Sr. Chemist

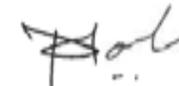
Mr. Nitin Tandel
Technical Manager

RESULTS OF SOIL SAMPLE

SR.NO.	TEST PARAMETERS	UNIT	MUL CETP	TEST METHOD
			01/11/2021	
1.	pH	--	8.96	Minimum Detection limit for Soil Sample prepared as per USEPA 3050 B
2.	Nitrogen as N	%	0.37	
3.	Phosphorus as P	mg/kg	356	
4.	Potassium as K	mg/kg	119	
5.	Baron as B	mg/kg	3.41	
6.	Calcium as Ca	mg/kg	467	
7.	Magnesium as Mg	mg/kg	616	
8.	Iron as Fe	%	0.49	
9.	Moisture	%	8.24	
10.	Organic Matter	%	0.19	
11.	Cation exchange capacity (CEC)	meq/100gm	9.68	
12.	TVC	CFU/gm	1.7 x 10 ⁶	
13.	Cadmium as Cd	mg/kg	BDL	
14.	Thorium as Th	mg/kg	BDL	
15.	Antimony as Sb	mg/kg	BDL	
16.	Arsenic as As	mg/kg	BDL	
17.	Lead as Pb	mg/kg	BDL	
18.	Chromium as Cr	mg/kg	BDL	
19.	Cobalt as Co	mg/kg	24.6	
20.	Copper as Cu	mg/kg	39.8	
21.	Nickel as Ni	mg/kg	12.5	
22.	Manganese and Mn	mg/kg	314	
23.	Vanadium as V	mg/kg	8.31	



Mr. Nilesh Patel
Sr. Chemist

Mr. Nitin Tandel
Technical Manager

Minimum Detection Limit

Ambient Air Quality Monitoring

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

Stack Emission Monitoring

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

CETP water

Sr. No.	Test Parameter	Unit	MDL
1	pH @ 27 ° C	--	2
2	Temperature	0C	5
3	Colour	Pt. Co. Scale	5
4	Total Suspended Solids	mg/L	4
5	Oil & Grease	mg/L	2
6	Phenolic Compound	mg/L	0.1
7	Fluoride	mg/L	0.2
8	Iron as Fe	mg/L	0.1
9	Zinc as Zn	mg/L	0.05
10	Trivalent Chromium	mg/L	0.05
11	Sulphide	mg/L	0.05
12	Ammonical Nitrogen	mg/L	2
13	BOD (3 days at 27 0C)	mg/L	1
14	COD	mg/L	2
15	Chloride (as Cl) ⁻	mg/L	1
16	Sulphate (as SO ₄)	mg/L	1
17	Total Dissolved Solids	mg/L	4
18	Total Residual Chlorine	mg/L	0.1
19	Copper as Cu	mg/L	0.05
20	Bio Assay test (%)	%	--

TEST REPORT

Report No.	URC /21/12/Soil/APL-001		
Name & Address of Customer	M/S. ADANI PORTS & SEZ Limited. Notified SEZ area, Tal. – Mundra, Dist. – Kutch – 370421.	Date of Report	17/12/2021
		Customer's Ref.	As Per W.O.
Sample Details	Soil Sample	Location	PUB Building
Sample Qty.	3 kg	Appearance	Brown
Sampling Date	10/12/2021	Sample Received Date	11/12/2021
Test Started Date	11/12/2021	Test Completion Date	16/12/2021
Sampled By	UERL-LAB	Sampling Method	UERL/CHM/SOP/113
UERL Lab ID. No.	21/12/Soil/APL-001		

TEST RESULTS:

Sr. No.	Parameters	Unit of Measurement	Results
1.	pH	--	9.06
2.	Nitrogen as N	%	0.12
3.	Phosphorus as P	mg/kg	342
4.	Potassium as K	mg/kg	209
5.	Baron as B	mg/kg	2.14
6.	Calcium as Ca	mg/kg	326
7.	Magnesium as Mg	mg/kg	362
8.	Iron as Fe	%	0.49
9.	Moisture	%	8.24
10.	Organic Matter	%	0.29
11.	Cation exchange capacity (CEC)	meq/100gm	10.18
12.	TVC	CFU/gm	3.0x 10 ⁶
13.	Cadmium as Cd	mg/kg	BDL(MDL:1.0)
14.	Thorium as Th	mg/kg	BDL(MDL:1.0)
15.	Antimony as Sb	mg/kg	BDL(MDL:1.0)
16.	Arsenic as As	mg/kg	BDL(MDL:1.0)
17.	Lead as Pb	mg/kg	BDL(MDL:1.0)
18.	Chromium as Cr	mg/kg	BDL(MDL:1.0)
19.	Cobalt as Co	mg/kg	14.1
20.	Copper as Cu	mg/kg	15.8
21.	Nickel as Ni	mg/kg	8.44
22.	Manganese and Mn	mg/kg	262
23.	Vanadium as V	mg/kg	9.34

Note: BDL= Below Detection Limit, MDL = Minimum Detection Limit,

Remarks: Soil Sample prepared as per USEPA method 3050 B

Opinion & Interpretation (If required):-

*****End of Report *****

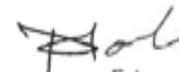
Checked By



(Nilesh C. Patel)
(Sr. Chemist)

Page 1 of 1

Authorized By



(Nitin B. Tandel)
(Technical Manager)

UERL/CHM/F-2/05

Note: This report is subject to terms and conditions mentioned overleaf.

TEST REPORT

Report No.	URC /21/12/Soil/APL-002		
Name & Address of Customer	M/S. ADANI PORTS & SEZ Limited. Notified SEZ area, Tal. – Mundra, Dist. – Kutch – 370421.	Date of Report	17/12/2021
		Customer's Ref.	As Per W.O.
Sample Details	Soil Sample	Location	Dhrub
Sample Qty.	3 kg	Appearance	Brown
Sampling Date	10/12/2021	Sample Received Date	11/12/2021
Test Started Date	11/12/2021	Test Completion Date	16/12/2021
Sampled By	UERL-LAB	Sampling Method	UERL/CHM/SOP/113
UERL Lab ID. No.	21/12/Soil/APL-002		

TEST RESULTS:

Sr. No.	Parameters	Unit of Measurement	Results
1.	pH	--	8.94
2.	Nitrogen as N	%	0.19
3.	Phosphorus as P	mg/kg	282
4.	Potassium as K	mg/kg	156
5.	Baron as B	mg/kg	1.94
6.	Calcium as Ca	mg/kg	384
7.	Magnesium as Mg	mg/kg	388
8.	Iron as Fe	%	0.64
9.	Moisture	%	8.36
10.	Organic Matter	%	0.75
11.	Cation exchange capacity (CEC)	meq/100gm	10.03
12.	TVC	CFU/gm	2.8 x 10 ⁶
13.	Cadmium as Cd	mg/kg	BDL(MDL:1.0)
14.	Thorium as Th	mg/kg	BDL(MDL:1.0)
15.	Antimony as Sb	mg/kg	BDL(MDL:1.0)
16.	Arsenic as As	mg/kg	BDL(MDL:1.0)
17.	Lead as Pb	mg/kg	BDL(MDL:1.0)
18.	Chromium as Cr	mg/kg	BDL(MDL:1.0)
19.	Cobalt as Co	mg/kg	12.1
20.	Copper as Cu	mg/kg	17.8
21.	Nickel as Ni	mg/kg	20.1
22.	Manganese and Mn	mg/kg	318
23.	Vanadium as V	mg/kg	8.03

Note: BDL= Below Detection Limit, MDL = Minimum Detection Limit,

Remarks: Soil Sample prepared as per USEPA method 3050 B

Opinion & Interpretation (If required):-

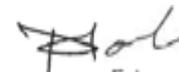
*****End of Report *****

Checked By



(Nilesh C. Patel)
(Sr. Chemist)

Authorized By



(Nitin B. Tandel)
(Technical Manager)

Page 1 of 1

UERL/CHM/F-2/05

Note: This report is subject to terms and conditions mentioned overleaf.

TEST REPORT

Report No.	URC /21/12/Soil/APL-003		
Name & Address of Customer	M/S. ADANI PORTS & SEZ Limited. Notified SEZ area, Tal. – Mundra, Dist. – Kutch – 370421.	Date of Report	17/12/2021
		Customer's Ref.	As Per W.O.
Sample Details	Soil Sample	Location	Near Flyover Bridge
Sample Qty.	3 kg	Appearance	Brown
Sampling Date	10/12/2021	Sample Received Date	11/12/2021
Test Started Date	11/12/2021	Test Completion Date	16/12/2021
Sampled By	UERL-LAB	Sampling Method	UERL/CHM/SOP/113
UERL Lab ID. No.	21/12/Soil/APL-003		

TEST RESULTS:

Sr. No.	Parameters	Unit of Measurement	Results
1.	pH	--	8.44
2.	Nitrogen as N	%	0.21
3.	Phosphorus as P	mg/kg	164
4.	Potassium as K	mg/kg	111
5.	Baron as B	mg/kg	2.28
6.	Calcium as Ca	mg/kg	394
7.	Magnesium as Mg	mg/kg	756
8.	Iron as Fe	%	0.69
9.	Moisture	%	7.13
10.	Organic Matter	%	0.72
11.	Cation exchange capacity (CEC)	meq/100gm	10.41
12.	TVC	CFU/gm	2.2 x 10 ⁶
13.	Cadmium as Cd	mg/kg	BDL(MDL:1.0)
14.	Thorium as Th	mg/kg	BDL(MDL:1.0)
15.	Antimony as Sb	mg/kg	BDL(MDL:1.0)
16.	Arsenic as As	mg/kg	BDL(MDL:1.0)
17.	Lead as Pb	mg/kg	BDL(MDL:1.0)
18.	Chromium as Cr	mg/kg	BDL(MDL:1.0)
19.	Cobalt as Co	mg/kg	26.2
20.	Copper as Cu	mg/kg	43.1
21.	Nickel as Ni	mg/kg	14.1
22.	Manganese and Mn	mg/kg	326
23.	Vanadium as V	mg/kg	8.44

Note: BDL= Below Detection Limit, MDL = Minimum Detection Limit,

Remarks: Soil Sample prepared as per USEPA method 3050 B

Opinion & Interpretation (If required):-

*****End of Report *****

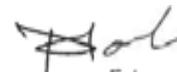
Checked By



(Nilesh C. Patel)
(Sr. Chemist)

Page 1 of 1

Authorized By



(Nitin B. Tandel)
(Technical Manager)

UERL/CHM/F-2/05

Note: This report is subject to terms and conditions mentioned overleaf.

TEST REPORT FOR NOISE LEVEL MONITORING

QF/7.8/19-EX

Page: 1 of 1

Customer's Name and Address :

M/S. ADANI PORTS & SEZ LTD. NOTIFIED SEZ AREA, TAL. –MUNDRA, DIST. - KUTCH – 370421.	Test Report No. : PL/AM 0994 Issue Date : 16/11/2021 Customer's Ref. : As Per W.O
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NOISE LEVEL MONITORING REPORT

Sampling Date	: As per table	Sampling By	: Pollucon Laboratories Pvt. Ltd.
Test Method	: IS 9876 : 2013 / IS 9989 : 2014	Protocol (purpose)	: Noise Level Monitoring
Instrument Used	: SLM-100 , 269 DTF 2015		

RESULT TABLE

SR NO	SAMPLING LOCATION & GPS LOCATION			DATE OF SAMPLING	DAY TIME RESULTS IN Leq dB(A)							
					06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00
					07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00
1	Samundra Township STP	N 22°48.568'	E 69°43.411'	13/10/2021	60.5	58.4	62.5	69.4	65.4	66.3	66.7	64.9
2	Samundra Township Customer Care	N 22°48.200'	E 69°42.797'	06/10/2021	64.4	68.8	65.3	68.5	62.3	66.1	61.8	65.5
3	Airstrip	N 22°50.179'	E 69°45.846'	12/10/2021	61.1	65.6	61.2	60.3	66.4	65.1	68.6	61.3

SR NO	SAMPLING LOCATION & GPS LOCATION			DATE OF SAMPLING	DAY TIME RESULTS IN Leq dB(A)							
					14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00
					15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00
1	Samundra Township STP	N 22°48.568'	E 69°43.411'	13/10/2021	66.8	63.6	64.8	62.2	68.4	67.1	60.2	63.4
2	Samundra Township Customer Care	N 22°48.200'	E 69°42.797'	06/10/2021	69.2	70.5	62.8	63.3	63.7	64.6	66.9	65.8
3	Airstrip	N 22°50.179'	E 69°45.846'	12/10/2021	60.4	62.1	64	62.7	60.8	60.1	63.1	69.8

SR NO	SAMPLING LOCATION & GPS LOCATION			DATE OF SAMPLING	DAY TIME RESULTS IN Leq dB(A)		
					AVERAGE	MAX	MIN
1	Samundra Township STP	N 22°48.568'	E 69°43.411'	13/10/2021	64.4	69.4	58.4
2	Samundra Township Customer Care	N 22°48.200'	E 69°42.797'	06/10/2021	65.6	70.5	61.8
3	Airstrip	N 22°50.179'	E 69°45.846'	12/10/2021	63.3	69.8	60.1



Ravi Jariwala
Sr. Environmental Scientist



Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

TEST REPORT FOR NOISE LEVEL MONITORING

QF/7.8/19-EX

Page: 1 of 1

Customer's Name and Address :

M/S. ADANI PORTS & SEZ LTD. NOTIFIED SEZ AREA, TAL. – MUNDRA, DIST. - KUTCH – 370421.	Test Report No. : PL/AM 0995 Issue Date : 16/11/2021 Customer's Ref. : As Per W.O
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NOISE LEVEL MONITORING REPORT

Sampling Date : As per table	Sampling By : Pollucon Laboratories Pvt. Ltd.
Test Method : IS 9876 : 2013 / IS 9989 : 2014	Protocol (purpose) : Noise Level Monitoring
Instrument Used : SLM-100 , 269 DTF 2015	

RESULT TABLE

SR NO	SAMPLING LOCATION & GPS LOCATION			DATE OF SAMPLING	DAY TIME RESULTS IN Leq dB(A)							
					06:00	07:00	08:00	09:00	10:00	11:00	12:00	13:00
					07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00
1	CETP	N 22° 48.446'	E 69° 42.238'	01/10/2021	63.2	66.2	68.2	65.9	69.1	62.6	69.5	63.5
2	PUB/Adani House	N 22°46.537'	E 69°41.030'	05/10/2021	65.6	61.6	69.7	63.5	65.4	60.8	62.9	64.3

SR NO	SAMPLING LOCATION & GPS LOCATION			DATE OF SAMPLING	DAY TIME RESULTS IN Leq dB(A)							
					14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00
					15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00
1	CETP	N 22° 48.446'	E 69° 42.238'	01/10/2021	61.4	64.7	66.5	62.4	65.2	68.7	62.9	65.7
2	PUB/Adani House	N 22°46.537'	E 69°41.030'	05/10/2021	64.4	71.9	66.4	68.2	63.1	65.7	61.4	66.9

SR NO	SAMPLING LOCATION & GPS LOCATION			DATE OF SAMPLING	DAY TIME RESULTS IN Leq dB(A)		
					AVERAGE	MAX	MIN
1	CETP	N 22° 48.446'	E 069° 42.238'	01/10/2021	65.4	69.5	61.4
2	PUB/Adani House	N 22°46.537'	E 069°41.030'	05/10/2021	65.1	71.9	60.8



Ravi Jariwala
Sr. Environmental Scientist



Dr. Arun Bajpai
Lab Manager (Q)

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TEST REPORT FOR NOISE LEVEL MONITORING

QF/7.8/19-EX

Page: 1 of 1

Customer's Name and Address :

M/S. ADANI PORTS & SEZ LTD. NOTIFIED SEZ AREA, TAL. -MUNDRA, DIST. - KUTCH - 370421.	Test Report No. : PL/AM 0996 Issue Date : 16/11/2021 Customer's Ref. : As Per W.O
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NOISE LEVEL MONITORING REPORT

Sampling Date : As per table	Sampling By : Pollucon Laboratories Pvt. Ltd.
Test Method : IS 9876 : 2013 / IS 9989 : 2014	Protocol (purpose) : Noise Level Monitoring
Instrument Used : SLM-100 , 269 DTF 2015	

RESULT TABLE

SR NO	SAMPLING LOCATION & GPS LOCATION			NIGHT TIME RESULTS IN Leq dB(A)				
				DATE OF SAMPLING	22:00-23:00	23:00-00:00	00:00-01:00	01:00-02:00
1	Samundra Township STP	N 22°48.568'	E 69°43.411'	13& 14/10/2021	66.2	62.7	64.5	60.1
2	Samundra Township Customer Care	N 22°48.200'	E 69°42.797'	06& 07/10/2021	60.3	65.2	62.3	55.2
3	Airstrip	N 22°50.179'	E 69°45.846'	12& 13/10/2021	63.4	56.1	59.4	63.3

SR NO	SAMPLING LOCATION & GPS LOCATION			NIGHT TIME RESULTS IN Leq dB(A)				
				DATE OF SAMPLING	02:00-03:00	03:00-04:00	04:00-05:00	05:00-06:00
1	Samundra Township STP	N 22°48.568'	E 69°43.411'	13&14/10/2021	62.4	62.8	62.4	61.5
2	Samundra Township Customer Care	N 22°48.200'	E 69°42.797'	06& 07/10/2021	62.9	60.7	65.3	60.5
3	Airstrip	N 22°50.179'	E 69°45.846'	12& 13/10/2021	60.2	57.1	58.9	61.3

SR NO	SAMPLING LOCATION & GPS LOCATION			DATE OF SAMPLING	NIGHT TIME RESULTS IN Leq dB(A)		
					AVERAGE	MAX	MIN
1	Samundra Township STP	N 22°48.568'	E 69°43.411'	13& 14/10/2021	62.8	66.2	60.1
2	Samundra Township Customer Care	N 22°48.200'	E 69°42.797'	06& 07/10/2021	61.6	65.3	55.2
3	Airstrip	N 22°50.179'	E 69°45.846'	12& 13/10/2021	60.0	63.4	56.1



Ravi Jariwala
Sr. Environmental Scientist



Dr. Arun Bajpai
Lab Manager (Q)

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TEST REPORT FOR NOISE LEVEL MONITORING

QF/7.8/19-EX

Page: 1 of 1

Customer's Name and Address :

M/S. ADANI PORTS & SEZ LTD. NOTIFIED SEZ AREA, TAL. -MUNDRA, DIST. - KUTCH – 370421.	Test Report No. : PL/AM 0997 Issue Date : 16/11/2021 Customer's Ref. : As Per W.O
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NOISE LEVEL MONITORING REPORT

Sampling Location : As per table Test Method : IS 9876 : 2013 / : IS 9989 : 2014 Instrument Used : SLM-100 , 269 DTF 2015	Sampling By : Pollucon Laboratories Pvt. Ltd. Protocol (purpose) : Noise Level Monitoring
--	--

RESULT TABLE

SR NO	SAMPLING LOCATION & GPS LOCATION			DATE OF SAMPLING	NIGHT TIME RESULTS IN Leq dB(A)			
					22:00-23:00	23:00-00:00	00:00-01:00	01:00-02:00
1	CETP	N 22° 48.446'	E 069° 42.238'	01 & 02/10/2021	64.6	65.2	69.2	66.8
2	PUB/Adani House	N 22° 46.537'	E 069° 41.030'	05 & 06/10/2021	60.9	68.5	66.5	60.8

SR NO	SAMPLING LOCATION & GPS LOCATION			DATE OF SAMPLING	NIGHT TIME RESULTS IN Leq dB(A)			
					02:00-03:00	03:00-04:00	04:00-05:00	05:00-06:00
1	CETP	N 22° 48.446'	E 069° 42.238'	01 & 02/10/2021	62.7	66.8	58.4	59.9
2	PUB/Adani House	N 22° 46.537'	E 069° 41.030'	05 & 06/10/2021	61.8	61.2	65.6	67.4

SR NO	SAMPLING LOCATION & GPS LOCATION			DATE OF SAMPLING	NIGHT TIME RESULTS IN Leq dB(A)		
					AVERAGE	MAX	MIN
1	CETP	N 22° 48.446'	E 069° 42.238'	01 & 02/10/2021	64.2	69.2	58.4
2	PUB/Adani House	N 22° 46.537'	E 069° 41.030'	05 & 06/10/2021	64.1	68.5	60.8



Ravi Jariwala
Sr. Environmental Scientist



Dr. Arun Bajpai
Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

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TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

QF/7.8/19-AQ

Page: 1 of 1

Customer's Name and Address :

**M/S. ADANI PORTS & SEZ LTD.
 NOTIFIED SEZ AREA, TAL. -MUNDRA,
 DIST. - KUTCH - 370421.**

 Test Report No. : **PL/AM 0991**

 Issue Date : **16/11/2021**

 Customer's Ref. : **As Per W.O.**

 Location of Sampling : **ADANI PORT - PUB/ADANI HOUSE**

 GPS Location : **N 22° 46.537' E 069° 41.030'**

 Date of Sampling : **As per table** Protocol (purpose) : **Ambient Air Quality Monitoring**

 Sampling By : **Pollucon Laboratories Pvt. Ltd.** Lab Id : **As per table**
RDS: POLLTECH RDS-8 NL /2013

 Instrument Used : **FDS: POLLTECH PEM -ADS-2.5/10 ,I.No.15613**
Gas Asse. Model No.TECI B1,Sr.No.5414 RotameterSr No.PT/30/14

RESULT TABLE

SR. NO	TEST PARAMETER	UNIT	RESULT							LIMIT#	METHOD OF MEASUREMENT	
			04/10/2021	07/10/2021	11/10/2021	14/10/2021	18/10/2021	21/10/2021	25/10/2021			29/10/2021
Date of Sampling			04/10/2021	07/10/2021	11/10/2021	14/10/2021	18/10/2021	21/10/2021	25/10/2021	29/10/2021		
Lab ID AMA/2110[A - G]			08	21	34	47	60	73	86	99		
1	Particulate Matter (PM ₁₀)	µg/m ³	52.61	63.42	70.42	51.34	62.52	58.31	64.51	50.36	100	IS 5182 (Part-23) 2017
2	Particulate Matter (PM _{2.5})	µg/m ³	30.48	24.50	34.53	26.55	31.27	23.45	28.47	21.20	60	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012 -13)
3	Sulphur Dioxide (SO ₂)	µg/m ³	17.61	21.63	12.30	10.52	16.33	11.56	13.63	15.69	80	IS 5182 (Part-2) 2017
4	Oxide of Nitrogen (NOx)	µg/m ³	26.58	29.50	20.38	23.48	27.58	18.57	25.47	19.39	80	IS 5182 (Part-6) 2014
5	Carbon Monoxide as (CO)	mg/m ³	0.31	0.26	0.32	0.38	0.36	0.23	0.44	0.54	4.0	IS 5182 (Part-10)
6	Hydrocarbon as CH ₄	mg/m ³	ND*	Not Specified	SOP: HC: GC/Gas analyzer							
7	Benzene (C ₆ H ₆)	µg/m ³	ND*	5.0	IS 5182 (Part-11) 2017							

 LIMIT#: Industrial, Residential, Rural and other Area Notification Dated 18th Nov.2009 as per national Ambient Air Quality Standards, CPCB New Delhi.
 ND*:NotDetected, Detection Limit,: Hydrocarbon (µg/m³):50, Benzene as C₆H₆(µg/m³): 2.0.


**Ravi Jariwala
 Sr. Environmental Scientist**

**Dr. Arun Bajpai
 Lab Manager (Q)**

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TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

QF/7.8/19-AO

Page: 1 of 1

Customer's Name and Address:

**M/S. ADANI PORTS & SEZ LTD.
 NOTIFIED SEZ AREA, TAL. -MUNDRA,
 DIST. - KUTCH - 370421.**

 Test Report No. : **PL/AM 0992**

 Issue Date : **16/11/2021**

 Customer's Ref. : **As Per W.O**

 Location of Sampling : **WTP - NEAR CETP**
 GPS Location : **N 22° 48.446' E 069° 42.238'**

 Date of Sampling : **As per table** Protocol (purpose) : **Ambient Air Quality Monitoring**
 Sampling By : **Pollucon Laboratories Pvt. Ltd.** Lab Id : **As per table**
RDS: EnvirotechM.No.-APM 460 BRUSHLESS S.R.-2769 DTH-2014
 Instrument Used : **FDS: POLLTECH PEM-ADS-2.5/10 , I.NO.19413**
Gas Asse. Model No.TECI B1,Sr.No.4813 RotameterSr No.PT/37/13

RESULT TABLE

SR. NO	TEST PARAMETER	UNIT	RESULT							LIMIT#	METHOD OF MEASUREMENT	
			Date of Sampling	04/10/2021	07/10/2021	11/10/2021	14/10/2021	18/10/2021	21/10/2021			25/10/2021
Date of Sampling			04/10/2021	07/10/2021	11/10/2021	14/10/2021	18/10/2021	21/10/2021	25/10/2021	29/10/2021	100	IS 5182 (Part-23) 2017
Lab ID			AMA/2110 [A - D]									
			11	24	37	50	63	76	89	102	60	CPCB guidelines for AAQM (Vol. 1, NAAQMS/36/2012-13)
1	Particulate Matter (PM ₁₀)	µg/m ³	68.55	88.42	76.31	69.33	84.52	78.64	87.42	59.61		
2	Particulate Matter (PM _{2.5})	µg/m ³	34.51	51.53	46.33	39.46	48.53	41.54	47.54	25.35		
3	Sulphur Dioxide (SO ₂)	µg/m ³	18.31	21.48	14.56	24.33	20.40	16.24	19.48	22.59		
4	Oxide of Nitrogen (NO _x)	µg/m ³	35.64	38.48	33.43	45.35	39.42	28.96	32.62	44.56	80	IS 5182 (Part-6) 2014

 LIMIT#: Industrial, Residential, Rural and other Area Notification Dated 18th Nov.2009 as per national Ambient Air Quality Standards, CPCB New Delhi.


Ravi Jariwala
Sr. Environmental Scientist

Dr. Arun Bajpai
Lab Manager (Q)

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TEST REPORT FOR AMBIENT AIR QUALITY MONITORING

QF/7.8/19-AQ
Page: 1 of 1

Customer's Name and Address :

**M/S. ADANI PORTS & SEZ LTD.
NOTIFIED SEZ AREA, TAL. –MUNDRA,
DIST. - KUTCH – 370421.**

Test Report No. : **PL/AM 0993**
Issue Date : **16/11/2021**
Customer's Ref. : **As Per W.O**

Location of Sampling : **AIR STRIP**
GPS Location : **N 22° 50.179' E 069° 45.846'**

Date of Sampling : **As per table** Protocol (purpose) : **Ambient Air Quality Monitoring**
Sampling By : **Pollucon Laboratories Pvt. Ltd. Lab Id : As per table**
RDS: POLLTECH RDS-8 NL /2313
Instrument Used : **FDS: POLLTECH PEM-ADS-2.5/10 , I.NO.20314**
Gas Asse. Model No.TECI B1, Sr.NO.4413 RotameterSr No.PT/26/13

RESULT TABLE

SR. NO	TEST PARAMETER	UNIT	RESULT							LIMIT#	METHOD OF MEASUREMENT	
			04/10 /2021	07/10 /2021	11/10 /2021	14/10 /2021	18/10 /2021	21/10 /2021	25/10 /2021			29/10 /2021
Date of Sampling			04/10 /2021	07/10 /2021	11/10 /2021	14/10 /2021	18/10 /2021	21/10 /2021	25/10 /2021	29/10 /2021		
Lab ID AMA/2110 [A-G]			13	26	39	52	65	78	91	104		
1	Particulate Matter (PM ₁₀)	µg/m ³	50.72	75.62	52.61	46.38	68.56	53.41	77.55	51.28	100	IS 5182 (Part-23) 2017
2	Particulate Matter (PM _{2.5})	µg/m ³	21.82	37.50	22.62	29.35	32.40	16.56	33.41	28.47	60	CPCB guidelines for AAQM (Vol. I, NAAQMS/36/2012-13)
3	Sulphur Dioxide (SO ₂)	µg/m ³	6.69	17.60	9.31	13.47	10.59	12.88	14.85	8.51	80	IS 5182 (Part-2) 2017
4	Oxide of Nitrogen (NO _x)	µg/m ³	24.67	31.57	30.66	26.35	23.83	34.82	18.61	25.65	80	IS 5182 (Part-6) 2014
5	Carbon Monoxide as (CO)	mg/m ³	0.26	0.11	0.21	0.13	0.31	0.27	0.18	0.22	4.0	IS 5182 (Part-10) 2017
6	Hydrocarbon as CH ₄	mg/m ³	ND*	Not Specified	SOP: HC: GC/Gas analyzer							
7	Benzene (C ₆ H ₆)	µg/m ³	ND*	5.0	IS 5182 (Part-11) 2017							

LIMIT#: Industrial, Residential, Rural and other Area Notification Dated 18th Nov.2009 as per national Ambient Air Quality Standards, CPCB New Delhi.
ND*: Not Detected ,Detection Limit: Hydrocarbon (µg/m³):50, Benzene as C₆H₆(µg/m³): 2.0.



Ravi Jariwala
Sr. Environmental Scientist



Dr. Arun Bajpai
Lab Manager (Q)

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Phone : 0261-2635750, 0261-2635751, 0261-2635775, 0701660514
Page 235 of 454
www.polluconlab.com, E. mail: pollucon@gmail.com, info@polluconlab.com

TEST REPORT FOR SEWAGE WATER SAMPLE

QF/7.8/19-WT

Page: 1 of 1

Customer's Name and Address :

M/S. ADANI PORTS & SEZ LTD. NOTIFIED SEZ AREA, TAL. – MUNDRA, DIST. - KUTCH – 370421.	Test Report No. : PL/AM 0998 Issue Date : 16/11/2021 Customer's Ref. : As Per W.O
--	--

Location Name	: Pub Adani House	Quantity/No. of Samples	: 02 Lit/Two
Description of Sample	: STP Water	Sampling Procedure	: Grab/ IS: 4733 1972
Sampling Date	: 06/10/2021	Lab ID	: AM/2110/09 & 10
Sampling By	: Pollucon Laboratories Pvt. Ltd.	Test Parameters	: As per table
Sample Receipt Date	: 07/10/2021	Date of Completion	: 12/10/2021
Packing/ Seal	: Sealed	Date of Starting of Test	: 07/10/2021

RESULT TABLE

SR. NO.	TEST PARAMETERS	UNIT	RESULTS		GPCB PERMISSIBLE LIMIT OF OUTLET**	TEST METHOD
			STP Inlet	STP Outlet		
1	pH	--	7.80	7.93	--	IS 3025 (Part-11) 2017 Electrometric Method
2	Total Suspended Solids	mg/L	72	15	30	IS 3025 (Part – 17) 2017
3	BOD (5 Days @ 20 °C)	mg/L	89	13	20	IS 3025 (Part-44) 2019
4	Residual Chlorine	mg/L	--	0.7	Min. 0.5	APHA (23 rd Edition 2017) 4500 Cl G DPD Colorimetric method
5	Fecal Coliform	MPN Index/ 100 ml	--	110	< 1000	APHA(23 rd Edition)9221 C&E 2017

**GPCB Limit consent order No. AWH-88998 Issue Date: 26/10/2017 Up to Date: 21/08/2022.


H. T. Shah
 Lab. Manager


Dr. Arun Bajpai
 Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

● FSSAI Approved Lab ● Recognised by MoEF, New Delhi Under Sec. 12 of Environmental (Protection) Act-1986 ● GPCB approved schedule II auditor ● ISO 14001:2004 ● OHSAS 18001:2007 ● ISO 9001:2008

**"Pollucon House", Plot No.5/6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart,
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TEST REPORT FOR SEWAGE WATER SAMPLE

QF/7.8/19-WT

Page: 1 of 1

Customer's Name and Address :

M/S. ADANI PORTS & SEZ LTD. NOTIFIED SEZ AREA, TAL. – MUNDRA, DIST. - KUTCH – 370421.	Test Report No. : PL/AM 0999 Issue Date : 16/11/2021 Customer's Ref. : As Per W.O
--	--

Location Name	Pub Adani House		
Description of Sample	: STP Water	Quantity/No. of Samples	: 02 Lit/Two
Sampling Date	: 19/10/2021	Sampling Procedure	: Grab/ IS: 4733 1972
Sampling By	: Pollucon Laboratories Pvt. Ltd.	Lab ID	: AM/2110/29 & 30
Sample Receipt Date	: 20/10/2021	Test Parameters	: As per table
Packing/ Seal	: Sealed	Date of Completion	: 25/10/2021
Date of Starting of Test	: 20/10/2021		

RESULT TABLE

SR. NO.	TEST PARAMETERS	UNIT	RESULTS		GPCB PERMISSIBLE LIMIT OF OUTLET**	TEST METHOD
			STP Inlet	STP Outlet		
1	pH	--	8.12	8.23	--	IS 3025 (Part-11) 2017 Electrometric Method
2	Total Suspended Solids	mg/L	87	14	30	IS 3025 (Part – 17) 2017
3	BOD (5 Days @ 20 °C)	mg/L	73	12	20	IS 3025 (Part-44) 2019
4	Residual Chlorine	mg/L	--	0.8	Min. 0.5	APHA (23 rd Edition 2017) 4500 Cl G DPD Colorimetric method
5	Fecal Coliform	MPN Index/ 100 ml	--	280	< 1000	APHA(23 rd Edition)9221 C&E 2017

**GPCB Limit consent order No. AWH-88998 Issue Date: 26/10/2017 Up to Date: 21/08/2022.


H. T. Shah
 Lab. Manager


Dr. Arun Bajpai
 Lab Manager (Q)

Note: This report is subject to terms & conditions mentioned overleaf.

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Phone : 0261-2635750, 0261-2635751, 0261-2635775, 0701660511 | www.polluconlab.com, E. mail: pollucon@gmail.com, info@polluconlab.com

Monthly Average Report
Ambient Air Quality Monitoring

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

Month of Monitoring : October - 2021

Name of Location : Village - Siracha

ID No. : URA/ID/A-21/10/001

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	01/10/2021	60.0	23.8	13.7	17.2		--
2.	05/10/2021	67.1	28.6	16.3	20.6		--
3.	08/10/2021	57.2	21.1	15.7	22.8	13.3	BDL
4.	12/10/2021	51.9	21.5	16.2	19.9		--
5.	15/10/2021	48.0	19.6	11.6	15.4		--
6.	19/10/2021	53.6	22.8	18.5	24.2		--
7.	22/10/2021	64.2	24.0	13.4	16.2		--
8.	26/10/2021	53.3	21.7	10.8	14.7		--
9.	29/10/2021	71.1	31.1	14.5	17.3		--
Average		58.6	23.8	14.5	18.7		--

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5}- Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment &
Research Labs Pvt. Ltd.



(Authorized Signatory)

Monthly Average Report
Ambient Air Quality Monitoring

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

Month of Monitoring : October - 2021

Name of Location : Village - Kandagara

ID No. : URA/ID/A-21/10/002

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	01/10/2021	58.8	23.2	15.3	21.6		--
2.	05/10/2021	60.6	21.8	12.1	17.2		--
3.	08/10/2021	62.5	27.9	20.6	24.6	15.8	BDL
4.	12/10/2021	73.2	27.2	17.7	21.4		--
5.	15/10/2021	56.8	22.8	15.1	17.3		--
6.	19/10/2021	40.8	20.6	11.6	13.7		--
7.	22/10/2021	64.6	23.8	19.4	22.3		--
8.	26/10/2021	52.8	25.6	13.2	17.7		--
9.	29/10/2021	66.0	28.7	17.5	22.1		--
Average		59.6	24.6	15.8	19.8		--

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

Analysis Method Reference: SPM- IS: 5182 (Part 4), 1999, PM₁₀- IS: 5182 (Part 23), 2006, PM_{2.5}- Guidelines by CPCB (Vol-1), SO₂- IS: 5182 (Part 2), 2001, NO_x- IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS - 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment & Research Labs Pvt. Ltd.



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Monthly Average Report
Ambient Air Quality Monitoring

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

Month of Monitoring : October - 2021

Name of Location : Village - Wandh

ID No. : **URA/ID/A-21/10/003**

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	01/10/2021	66.6	31.5	12.7	16.2		--
2.	05/10/2021	52.6	21.2	16.3	21.9		--
3.	08/10/2021	57.1	27.0	14.1	15.7	19.2	BDL
4.	12/10/2021	79.5	33.3	21.4	25.5		--
5.	15/10/2021	64.7	31.9	18.6	23.1		--
6.	19/10/2021	55.9	24.1	20.3	26.7		--
7.	22/10/2021	64.4	31.9	14.6	18.5		--
8.	26/10/2021	61.4	28.2	17.3	20.3		--
9.	29/10/2021	63.7	33.2	15.9	21.7		--
Average		62.9	29.1	16.8	21.1		--

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

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5}- Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS - 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment & Research Labs Pvt. Ltd.



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Monthly Average Report
Ambient Air Quality Monitoring

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

Month of Monitoring : October - 2021

Name of Location : Nr.20 MLD Plant

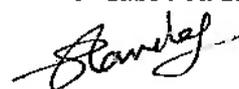
ID No. : **URA/ID/A-21/10/004**

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1	13/10/2021	72.1	28.6	15.8	23.9	19.7	BDL
Average		72.1	28.6	15.8	23.9	19.7	BDL

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

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5}- Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment & Research Labs Pvt. Ltd.



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Monthly Average Report
Ambient Air Quality Monitoring

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

Month of Monitoring : October - 2021

Name of Location : Nr. Shantiniketan - 1

ID No. : **URA/ID/A-21/10/005**

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1	13/10/2021	61.1	22.9	13.4	21.1	16.7	BDL
Average		61.1	22.9	13.4	21.1	16.7	BDL

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

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5}- Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

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QC-NABET Accredited EIA Consultant Organization

GPCB Recognized Environmental Auditor [Schedule-II]

ISO 9001:2015 Certified Company

ISO 45001:2018 Certified Company

Monthly Average Report
AMBIENT AIR MONITORING

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

Month of Monitoring : November - 2021

Name of Location : Village - Siracha

ID No. : **URA/ID/A-21/11/001**

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	16/11/2021	53.2	22.7	16.5	20.3		--
2.	19/11/2021	49.1	21.8	11.3	14.0	15.1	BDL
3.	23/11/2021	63.0	23.9	17.1	21.6		--
4.	26/11/2021	74.4	25.0	14.5	17.8		--
Average		59.9	23.4	14.9	18.4		--

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5}- Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment & Research Labs Pvt. Ltd.



(Authorized Signatory)

Remarks:

Opinion & Interpretation (if required):

***** End of Report *****

MoEF&CC (GOI) Recognized Environmental Laboratory under the EPA-1986 (12.01.2020 to 17.03.2023)

QCNABET Accredited EIA Consultant Organization

GPCB Recognized Environmental Auditor (Schedule-II)

ISO 9001:2015 Certified Company

ISO 45001:2018 Certified Company

Monthly Average Report

AMBIENT AIR MONITORING

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

Month of Monitoring : November - 2021

Name of Location : Village - Kandagara

ID No. : URA/ID/A-21/11/002

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	16/11/2021	71.6	26.7	15.8	19.1		--
2.	19/11/2021	61.9	25.0	13.5	16.5	17.6	BDL
3.	23/11/2021	59.2	22.4	18.0	22.9		--
4.	26/11/2021	55.1	23.6	15.4	18.2		--
Average		62.0	24.4	15.7	19.2		--

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

Analysis Method Reference: SPM– IS: 5182 (Part 4), 1999, PM₁₀– IS: 5182 (Part 23), 2006, PM_{2.5}– Guidelines by CPCB (Vol-1), SO₂– IS: 5182 (Part 2), 2001, NO_x– IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment & Research Labs Pvt. Ltd.



(Authorized Signatory)

Remarks:

Opinion & Interpretation (if required):

***** End of Report *****

MoEF&CC (GOI) Recognized Environmental Laboratory under the EPA-1986 (12.01.2020 to 17.03.2023)

QCI-NABET Accredited EIA Consultant Organization

GPCB Recognized Environmental Auditor (Schedule-II)

ISO 9001:2015 Certified Company

ISO 45001:2018 Certified Company

Monthly Average Report

AMBIENT AIR MONITORING

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

Month of Monitoring : November - 2021

Name of Location : Village - Wandh

ID No. : URA/ID/A-21/11/003

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	16/11/2021	75.5	30.3	14.2	18.2		--
2.	19/11/2021	67.4	28.6	20.3	25.4	21.1	BDL
3.	23/11/2021	51.3	20.4	15.8	20.8		--
4.	26/11/2021	65.9	24.8	17.6	21.2		--
Average		65.0	26.0	17.0	21.4		--

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

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5} - Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS - 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment & Research Labs Pvt. Ltd.



(Authorized Signatory)

Remarks:

Opinion & Interpretation (if required):

***** End of Report *****

MoEF&CC (GOI) Recognized Environmental Laboratory under the EPA-1986 (12.01.2020 to 17.03.2023)

QC-NABET Accredited EIA Consultant Organization

GPCB Recognized Environmental Auditor (Schedule-II)

ISO 9001:2015 Certified Company

ISO 45001:2018 Certified Company

**Monthly Average Report
AMBIENT AIR MONITORING**

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

Month of Monitoring : November - 2021

Name of Location : Nr.20 MLD Plant

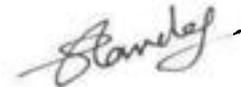
ID No. : **URA/ID/A-21/11/004**

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1	22/11/2021	61.3	24.2	17.8	20.4	18.8	BDL
Average		61.3	24.2	17.8	20.4	18.8	BDL

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

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5}- Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment & Research Labs Pvt. Ltd.



(Authorized Signatory)

Remarks:

Opinion & Interpretation (if required):

***** End of Report *****

MoEF&CC (GOI) Recognized Environmental Laboratory under the EPA-1986 (12.01.2020 to 17.03.2023)

QCI-NABET Accredited EIA Consultant Organization

GPCB Recognized Environmental Auditor (Schedule-II)

ISO 9001:2015 Certified Company

ISO 45001:2018 Certified Company

Monthly Average Report

AMBIENT AIR MONITORING

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

Month of Monitoring : November - 2021

Name of Location : Nr. Shantiniketan - 1

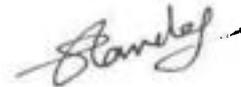
ID No. : **URA/ID/A-21/11/005**

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1	22/11/2021	56.2	20.4	12.6	19.3	15.4	BDL
Average		56.2	20.4	12.6	19.3	15.4	BDL

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

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5}- Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment &
Research Labs Pvt. Ltd.



(Authorized Signatory)

Remarks:

Opinion & Interpretation (if required):

***** End of Report *****

Monthly Average Report
AMBIENT AIR MONITORING

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

Month of Monitoring : December - 2021

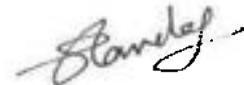
Name of Location : Village - Siracha

ID No. : URA/ID/A-21/12/001

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	03/12/2021	59.3	22.6	13.5	16.5		--
2.	07/12/2021	60.1	23.6	15.8	22.8		--
3.	10/12/2021	62.1	25.4	17.6	24.6		--
4.	14/12/2021	58.4	22.1	12.7	15.3	17.4	BDL
5.	17/12/2021	51.2	21.5	14.9	19.6		--
6.	21/12/2021	73.0	24.0	17.1	22.2		--
7.	24/12/2021	54.3	22.8	14.3	17.5		--
8.	31/12/2021	52.8	27.4	12.9	19.4		--
Average		58.9	23.7	14.9	19.7		--

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5}- Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment &
Research Labs Pvt. Ltd.



(Authorized Signatory)

Remarks:

Opinion & Interpretation (if required):

***** End of Report *****

MoEF&CC (GOI) Recognized Environmental Laboratory under the EPA-1986 (12.01.2020 to 17.03.2023)

QCHNABET Accredited EIA Consultant Organization

GPCB Recognized Environmental Auditor (Schedule-II)

ISO 9001:2015 Certified Company

ISO 45001:2018 Certified Company

Monthly Average Report

AMBIENT AIR MONITORING

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

Month of Monitoring : January - 2022

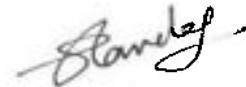
Name of Location : Village - Siracha

ID No. : URA/ID/A-22/01/001

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	04/01/2022	53.1	21.3	16.9	20.6		--
2.	07/01/2022	57.3	24.2	19.8	23.5		--
3.	11/01/2022	61.4	23.4	12.1	17.8		--
4.	14/01/2022	47.8	21.2	15.9	19.1		--
5.	18/01/2022	53.7	24.8	18.6	22.5		--
6.	21/01/2022	70.9	26.7	21.4	27.8	15.8	BDL
7.	25/01/2022	64.7	24.7	14.9	20.9		--
8.	28/01/2022	62.8	27.4	13.2	22.3		--
Average		59.0	24.2	16.6	21.8		--

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5}- Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS - 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment & Research Labs Pvt. Ltd.



(Authorized Signatory)

Remarks:

Opinion & Interpretation (if required):

***** End of Report *****

MoEF&CC (GOI) Recognized Environmental Laboratory under the EPA-1986 (12.01.2020 to 17.03.2023)

QCHNABET Accredited EIA Consultant Organization

GPCB Recognized Environmental Auditor (Schedule-II)

ISO 9001:2015 Certified Company

ISO 45001:2018 Certified Company

Monthly Average Report

AMBIENT AIR MONITORING

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

Month of Monitoring : January - 2022

Name of Location : Village - Kandagara

ID No. : URA/ID/A-22/01/002

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	04/01/2022	57.6	26.4	13.4	17.5		--
2.	07/01/2022	49.8	21.6	17.8	21.2		--
3.	11/01/2022	65.3	26.4	15.3	19.5		--
4.	14/01/2022	51.8	24.2	13.3	23.8		--
5.	18/01/2022	59.5	25.8	20.4	25.6		--
6.	21/01/2022	61.8	26.3	18.0	21.4	21.4	BDL
7.	25/01/2022	63.1	27.1	16.9	19.7		--
8.	28/01/2022	68.5	31.1	15.8	22.9		--
Average		59.7	26.1	16.4	21.5		--

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

Analysis Method Reference: SPM– IS: 5182 (Part 4), 1999, PM₁₀– IS: 5182 (Part 23), 2006, PM_{2.5}- Guidelines by CPCB (Vol-1), SO₂– IS: 5182 (Part 2), 2001, NO_x– IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment &
Research Labs Pvt. Ltd.



(Authorized Signatory)

Remarks:

Opinion & Interpretation (if required):

***** End of Report *****

MoEF&CC (GOI) Recognized Environmental Laboratory under the EPA-1986 (12.01.2020 to 17.03.2023)

QC/NABET Accredited EIA Consultant Organization

GPCB Recognized Environmental Auditor (Schedule-II)

ISO 9001:2015 Certified Company

ISO 45001:2018 Certified Company

Monthly Average Report

AMBIENT AIR MONITORING

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

Month of Monitoring : January - 2022

Name of Location : Village - Wandh

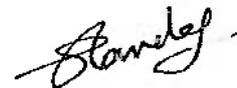
ID No. : URA/ID/A-22/01/003

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	03/12/2021	58.4	25.3	18.1	22.4		--
2.	07/12/2021	59.4	21.4	20.9	26.8		--
3.	10/12/2021	67.5	26.9	14.4	16.5		--
4.	14/12/2021	64.2	31.1	17.4	23.1		--
5.	17/12/2021	66.6	28.8	13.3	19.6		--
6.	21/12/2021	68.7	30.7	19.8	23.2	25.9	BDL
7.	24/12/2021	73.1	32.0	18.1	24.8		--
8.	31/12/2021	62.9	28.6	15.2	25.4		--
Average		65.1	28.1	17.2	22.7		--

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

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5} - Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment & Research Labs Pvt. Ltd.



(Authorized Signatory)

Remarks:

Opinion & Interpretation (if required):

***** End of Report *****

MoEF&CC (GOI) Recognized Environmental Laboratory under the EPA-1986 (12.01.2020 to 17.03.2023)

QCNABEI Accredited EIA Consultant Organization

GPCB Recognized Environmental Auditor (Schedule-II)

ISO 9001:2015 Certified Company

ISO 45001:2018 Certified Company

Monthly Average Report

AMBIENT AIR MONITORING

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

Month of Monitoring : January - 2022

Name of Location : Nr.20 MLD Plant

ID No. : URA/ID/A-22/01/004

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1	22/01/2022	61.4	26.8	14.7	20.6	16.7	BDL
Average		61.4	26.8	14.7	20.6	16.7	BDL

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

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5} - Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment & Research Labs Pvt. Ltd.



(Authorized Signatory)

Remarks:

Opinion & Interpretation (if required):

***** End of Report *****

MoEF&CC (GOI) Recognized Environmental Laboratory under the EPA-1986 (12.01.2020 to 17.03.2023)

QC/NABET Accredited EIA Consultant Organization

GPCB Recognized Environmental Auditor (Schedule-II)

ISO 9001:2015 Certified Company

ISO 45001:2018 Certified Company

Monthly Average Report
AMBIENT AIR MONITORING

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

Month of Monitoring : January - 2022

Name of Location : Nr. Shantiniketan - 1

ID No. : URA/ID/A-22/01/005

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1	22/01/2022	56.3	22.3	11.2	18.4	15.2	BDL
Average		56.3	22.3	11.2	18.4	15.2	BDL

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

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5} - Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment &
Research Labs Pvt. Ltd.



(Authorized Signatory)

Remarks:

Opinion & Interpretation (if required):

***** End of Report *****

MoEF&CC (GOI) Recognized Environmental Laboratory under the EPA-1986 (12.01.2020 to 17.03.2023)

GCNABET Accredited EIA Consultant Organization

GPCB Recognized Environmental Auditor (Schedule-II)

ISO 9001:2015 Certified Company

ISO 45001:2018 Certified Company

Monthly Average Report

AMBIENT AIR MONITORING

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

Month of Monitoring : February - 2022

Name of Location : Village - Siracha

ID No. : URA/ID/A-22/02/001

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	01/02/2022	55.4	22.6	16.9	18.4		--
2.	04/02/2022	61.3	24.2	15.8	21.3		--
3.	08/02/2022	70.7	27.3	14.1	15.6		--
4.	11/02/2022	59.5	22.3	12.9	16.9		--
5.	15/02/2022	67.8	22.7	18.6	20.3		--
6.	18/02/2022	58.9	25.1	19.4	25.6	16.9	BDL
7.	22/02/2022	44.8	20.3	14.9	18.7		--
8.	25/02/2022	52.8	27.4	13.2	20.1		--
Average		58.9	24.0	15.7	19.6		--

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

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5} - Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS - 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment &
Research Labs Pvt. Ltd.



(Authorized Signatory)

Remarks:

Opinion & Interpretation (if required):

***** End of Report *****

MoEF&CC (GOI) Recognized Environmental Laboratory under the EPA, 1986 (12.01.2020 to 17.03.2023)

QCI-NABET Accredited EIA Consultant Organization

GPCB Recognized Environmental Auditor (Schedule-II)

ISO 9001:2015 Certified Company

ISO 45001:2018 Certified Company

**Monthly Average Report
AMBIENT AIR MONITORING**

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

Month of Monitoring : February - 2022

Name of Location : Village - Kandagara

ID No. : URA/ID/A-22/02/002

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	01/02/2022	59.2	28.4	14.7	18.8		--
2.	04/02/2022	51.3	24.5	15.1	22.5		--
3.	08/02/2022	63.2	28.0	16.2	20.8		--
4.	11/02/2022	54.5	26.3	17.6	22.1		--
5.	15/02/2022	64.1	28.3	20.7	26.9		--
6.	18/02/2022	60.5	25.5	13.3	22.7	22.8	BDL
7.	22/02/2022	61.8	28.6	18.2	21.0		--
8.	25/02/2022	72.5	31.1	17.1	24.2		--
Average		60.9	27.6	16.6	22.4		--

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

Analysis Method Reference: SPM– IS: 5182 (Part 4), 1999, PM₁₀– IS: 5182 (Part 23), 2006, PM_{2.5}– Guidelines by CPCB (Vol-1), SO₂– IS: 5182 (Part 2), 2001, NO_x– IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS – 5182 (Part 9) 2009Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment &
Research Labs Pvt. Ltd.



(Authorized Signatory)

Remarks:

Opinion & Interpretation (if required):

***** End of Report *****

Monthly Average Report

AMBIENT AIR MONITORING

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

Month of Monitoring : February - 2022

Name of Location : Village - Wandh

ID No. : URA/ID/A-22/02/003

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	01/02/2022	60.0	27.1	17.5	21.8		--
2.	04/02/2022	66.8	30.6	20.3	27.2		--
3.	08/02/2022	73.5	28.3	13.8	18.9		--
4.	11/02/2022	74.9	32.1	16.8	22.5		--
5.	15/02/2022	64.2	29.4	15.7	19.0		--
6.	18/02/2022	62.4	28.4	19.2	24.6	30.2	BDL
7.	22/02/2022	56.8	31.3	17.5	24.2		--
8.	25/02/2022	67.4	32.6	16.6	24.8		--
Average		65.7	30.0	17.2	22.9		--

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

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5} - Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS - 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment &
Research Labs Pvt. Ltd.



(Authorized Signatory)

Remarks:

Opinion & Interpretation (if required):

***** End of Report *****

MoEF&CC (GOI) Recognized Environmental Laboratory under the EPA-1986 (12.01.2020 to 17.03.2023)

QCINABET Accredited EIA Consultant Organization

GPCB Recognized Environmental Auditor (Schedule-II)

ISO 9001:2015 Certified Company

ISO 45001:2018 Certified Company

**Monthly Average Report
AMBIENT AIR MONITORING**

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

Month of Monitoring : February - 2022

Name of Location : Nr.20 MLD Plant

ID No. : URA/ID/A-22/02/004

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1	22/02/2022	56.8	24.7	13.8	21.8	18.4	BDL
Average		56.8	24.7	13.8	21.8	18.4	BDL

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

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5} - Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method - 3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS - 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment &
Research Labs Pvt. Ltd.



(Authorized Signatory)

Remarks:

Opinion & Interpretation (if required):

***** End of Report *****

MoEF&CC (GOI) Recognized Environmental Laboratory under the EPA-1986 (12.01.2020 to 17.03.2023)

QCI-NABET Accredited EIA Consultant Organization

GPCB Recognized Environmental Auditor (Schedule-II)

ISO 9001:2015 Certified Company

ISO 45001:2018 Certified Company

Monthly Average Report

AMBIENT AIR MONITORING

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

Month of Monitoring : February - 2022

Name of Location : Nr. Shantiniketan - 1

ID No. : URA/ID/A-22/02/005

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1	22/02/2022	52.1	21.1	12.4	19.7	16.6	BDL
Average		52.1	21.1	12.4	19.7	16.6	BDL

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

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5} - Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment &
Research Labs Pvt. Ltd.



(Authorized Signatory)

Remarks:

Opinion & Interpretation (if required):

***** End of Report *****

MoEF&CC (GOI) Recognized Environmental Laboratory under the EPA-1986 (12.01.2020 to 17.03.2023)

QC/NABET Accredited EIA Consultant Organization

GPCB Recognized Environmental Auditor (Schedule-II)

ISO 9001:2015 Certified Company

ISO 45001:2018 Certified Company

Monthly Average Report

AMBIENT AIR MONITORING

Name and Address of Client

M/s. Adani Power (Mundra) Ltd.
Village: Tunda & Siracha,
Tal. Mundra, Dist.: Kutch.
GUJARAT – 370 435.

Month of Monitoring

: March - 2022

Name of Location

: Village - Siracha

ID No.

: **URA/ID/A-22/03/001**

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	01/03/2022	56.1	25.8	19.7	23.3		--
2.	04/03/2022	61.9	24.2	16.5	20.7		--
3.	08/03/2022	63.2	30.4	13.2	20.7		--
4.	11/03/2022	51.0	21.5	15.3	21.2		--
5.	15/03/2022	74.0	33.5	21.1	26.5		--
6.	18/03/2022	59.7	22.9	18.7	26.4	18.1	BDL
7.	22/03/2022	58.1	20.6	14.6	21.8		--
8.	25/03/2022	65.0	24.4	16.8	24.3		--
9.	29/03/2022	61.8	21.3	14.1	15.0		--
Average		61.2	24.9	16.7	12.2		--

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

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5}- Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment & Research Labs Pvt. Ltd.



(Authorized Signatory)

Remarks:

Opinion & Interpretation (if required):

***** End of Report *****

MoEF&CC (GOI) Recognized Environmental Laboratory under the EPA-1986 (12.01.2020 to 17.03.2023)

QCI-NABET Accredited EIA Consultant Organization

GPCB Recognized Environmental Auditor (Schedule-II)

ISO 9001:2015 Certified Company

ISO 45001:2018 Certified Company

Monthly Average Report
AMBIENT AIR MONITORING

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

Month of Monitoring : March - 2022

Name of Location : Village - Kandagara

ID No. : URA/ID/A-22/03/002

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	01/03/2022	66.4	25.4	18.5	25.7		--
2.	04/03/2022	53.1	24.7	12.8	17.5		--
3.	08/03/2022	69.7	30.2	16.8	22.3		--
4.	11/03/2022	51.8	25.3	14.3	20.2		--
5.	15/03/2022	48.6	21.6	17.7	24.6		--
6.	18/03/2022	58.6	25.8	13.5	18.2	20.6	BDL
7.	22/03/2022	59.2	28.7	19.1	27.4		--
8.	25/03/2022	67.0	25.2	15.9	22.8		--
9.	29/03/2022	59.6	28.8	15.4	18.2		--
Average		59.3	26.2	16.0	21.9		--

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

Analysis Method Reference: SPM– IS: 5182 (Part 4), 1999, PM₁₀– IS: 5182 (Part 23), 2006, PM_{2.5}- Guidelines by CPCB (Vol-1), SO₂– IS: 5182 (Part 2), 2001, NO_x– IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment &
Research Labs Pvt. Ltd.



(Authorized Signatory)

Remarks:

Opinion & Interpretation (if required):

***** End of Report *****

MoEF&CC (GOI) Recognized Environmental Laboratory under the EPA-1986 (12.01.2020 to 17.03.2023)

QCI-NABET Accredited EIA Consultant Organization

GPCB Recognized Environmental Auditor (Schedule-II)

ISO 9001:2015 Certified Company

ISO 45001:2018 Certified Company

Monthly Average Report

AMBIENT AIR MONITORING

Name and Address of Client

M/s. Adani Power (Mundra) Ltd.

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

Month of Monitoring

: March - 2022

Name of Location

: Village - Wandh

ID No.

: **URA/ID/A-22/03/003**

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	01/03/2022	63.7	27.9	15.1	21.7		--
2.	04/03/2022	70.9	34.8	17.3	23.8		--
3.	08/03/2022	63.3	34.3	19.6	20.3		--
4.	11/03/2022	61.2	30.1	16.9	25.1		--
5.	15/03/2022	59.6	24.0	13.3	19.6		--
6.	18/03/2022	72.0	31.6	17.1	25.8	27.6	BDL
7.	22/03/2022	70.8	35.8	15.8	22.0		--
8.	25/03/2022	51.2	23.0	18.4	27.5		--
9.	29/03/2022	71.1	31.0	21.3	28.5		--
Average		64.9	30.3	17.2	23.8		--

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

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5}- Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment & Research Labs Pvt. Ltd.



(Authorized Signatory)

Remarks:

Opinion & Interpretation (if required):

***** End of Report *****

Monthly Average Report

AMBIENT AIR MONITORING

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

Month of Monitoring : March - 2022

Name of Location : Nr.20 MLD Plant

ID No. : **URA/ID/A-22/03/004**

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1	21/03/2022	72.8	33.4	16.4	22.1	17.6	BDL
Average		72.8	33.4	16.4	22.1	17.6	BDL

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

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5}- Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS – 5182 (Part 9) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment &
Research Labs Pvt. Ltd.



(Authorized Signatory)

Remarks:

Opinion & Interpretation (if required):

***** End of Report *****

MoEF&CC (GOI) Recognized Environmental Laboratory under the EPA-1986 (12.01.2020 to 17.03.2023)

QCINABET Accredited EIA Consultant Organization

GPCB Recognized Environmental Auditor (Schedule-II)

ISO 9001:2015 Certified Company

ISO 45001:2018 Certified Company

Monthly Average Report

AMBIENT AIR MONITORING

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

Month of Monitoring : March - 2022

Name of Location : Nr. Shantiniketan - 1

ID No. : URA/ID/A-22/03/005

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM _{2.5} $\mu\text{g}/\text{M}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{M}^3$	Nitrogen Dioxide (NO ₂) $\mu\text{g}/\text{M}^3$	Ozone (O ₃) $\mu\text{g}/\text{M}^3$	Mercury (Hg) $\mu\text{g}/\text{M}^3$
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1	21/03/2022	62.6	27.7	14.4	19.5	15.3	BDL
Average		62.6	27.7	14.4	19.5	15.3	BDL

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

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5}- Guidelines by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edison & Hg: 2 ppb O₃: IS – 5182 (Part 9) 2009Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment & Research Labs Pvt. Ltd.



(Authorized Signatory)

Remarks:

Opinion & Interpretation (if required):

***** End of Report *****

Report No: - EE/ENV/2022/01/092

Date: 31/01/2022

ANALYSIS REPORT

(For the Month of January-2022)

Client Details		Sample Details	
Name	M/s. Britannia Industries Ltd.	Sample Code	BIL/AA1
Address	Survey No. 169/p,	Location	Near Security Gate
	Kadani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	19/01/2022
Analysis Starts on	21/01/2022	Sampling Method	IS 5182: Part - 5: 2020
Analysis Completion On	23/01/2022	Sample Received Date	20/01/2022

AMBIENT AIR MONITORING RESULTS

Sr. No.	Parameters	Unit	Results	National Ambient Air Quality Standards (NAAQS)	Reference Method
1.	Particulate Matter PM_{10}	$\mu\text{g}/\text{m}^3$	32.40	100	IS 5182 Part 23 : 2017
2.	Particulate Matter $PM_{2.5}$	$\mu\text{g}/\text{m}^3$	10.24	60	CPCB manual Volume I
3.	Sulphur Dioxide (SO_2)	$\mu\text{g}/\text{m}^3$	06.45	80	IS 5182 Part 2 : 2017
4.	Nitrogen Dioxide (NO_2)	$\mu\text{g}/\text{m}^3$	11.54	80	IS 5182 Part 6 : 2017

Dimple
Analyzed By:



- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained for 15 Days from the date of sampling.

Report No: - EE/ENV/2022/01/093

Date: 31/01/2022

ANALYSIS REPORT

(For the Month of January-2022)

Client Details		Sample Details	
Name	M/s. Britannia Industries Ltd.	Sample Code	BIL/ST1
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	L2-C-BS-11
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	19/01/2022
Analysis Starts on	21/01/2022	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	25/01/2022	Sample Received Date	19/01/2022

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			L2-C-BS-11	
1.	Oxygen (O ₂)	%	17.2	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	5.4	EPA method 3A
3.	Carbon Monoxide (CO)	ppm	09	EPA method 10
4.	Stack Temperature (ST)	°C	225	EPA method 3A
5.	Suspended Particulate matter	Mg/NM ³	21.54	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	3.12	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	1.95	IS 11255 (P-7)

Dimple
Analyzed By:



- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.

Report No: - EE/ENV/2022/01/094

Date: 31/01/2022

ANALYSIS REPORT

(For the Month of January-2022)

Client Details		Sample Details	
Name	M/s. Britannia Industries Ltd.	Sample Code	BIL/ST2
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	L2-C-85-21
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	19/01/2022
Analysis Starts on	21/01/2022	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	25/01/2022	Sample Received Date	19/01/2022

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			L2-C-85-21	
1.	Oxygen (O ₂)	%	18.1	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	5.8	EPA method 3A
3.	Carbon Monoxide (CO)	ppm	03	EPA method 10
4.	Stack Temperature (ST)	°C	230	EPA method 3A
5.	Suspended Particulate matter	Mg/NM ³	20.13	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	2.65	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	1.45	IS 11255 (P-7)

Analyzed By:




- Analysis is subject to the condition in which the Sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.

Report No. - EE/ENV/2022/01/095

Date: 31/01/2022

ANALYSIS REPORT

(For the Month of January-2022)

Client Details		Sample Details	
Name	M/s. Britannia Industries Ltd.	Sample Code	BIL/ST3
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	L2-C-BS-31
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	19/01/2022
Analysis Starts on	21/01/2022	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	25/01/2022	Sample Received Date	19/01/2022

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			L2-C-BS-31	
1.	Oxygen (O ₂)	%	15.7	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	5.5	EPA method 3A
3.	Carbon Monoxide (CO)	ppm	02	EPA method 10
4.	Stack Temperature (ST)	°C	350	EPA method 3A
5.	Suspended Particulate matter	Mg/NM ³	21.46	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	3.21	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	2.48	IS 11255 (P-7)


Analyzed By:


Authorized Signatory:

- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.

Report No: - EE/ENV/2022/01/096

Date: 31/01/2022

ANALYSIS REPORT

(For the Month of January-2022)

Client Details		Sample Details	
Name	M/s. Britannia Industries Ltd.	Sample Code	BI/ST4
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist, Kutch	Location	L2-C-BS-41
		Nature of Sample	Stack Monitoring @
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	19/01/2022
Analysis Starts on	21/01/2022	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/BO/2013-14
Analysis Completion On	25/01/2022	Sample Received Date	19/01/2022

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			L2-C-BS-41	
1.	Oxygen (O ₂)	%	14.8	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	3.4	EPA method 3A
3.	Carbon Monoxide (CO)	ppm	07	EPA method 10
4.	Stack Temperature (ST)	°C	365	EPA method 3A
5.	Suspended Particulate matter	Mg/NM ³	20.51	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	3.68	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	1.33	IS 11255 (P-7)

Analyzed By:




- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained for 15 Days from the date of sampling.

Report No. : EE/ENV/2022/01/097

Date: 31/01/2022

ANALYSIS REPORT

(For the Month of January-2022)

Client Details		Sample Details	
Name	M/s. Britannia Industries Ltd.	Sample Code	BIL/ST5
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	L2-C-B5
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	19/01/2022
Analysis Starts on	21/01/2022	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	25/01/2022	Sample Received Date	19/01/2022

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			L2-C-B5	
1.	Oxygen (O ₂)	%	14.3	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	3.2	EPA method 3A
3.	Carbon Monoxide (CO)	ppm	06	EPA method 10
4.	Stack Temperature (ST)	°C	245	EPA method 3A
5.	Suspended Particulate matter	Mg/NM ³	21.79	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	4.66	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	2.44	IS 11255 (P-7)

Analyzed By:



- Analysis is subject to the condition in which the sample is received at our laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.

Report No: - EE/ENV/2022/01/098

Date: 31/01/2022

ANALYSIS REPORT

(For the Month of January-2022)

Client Details		Sample Details	
Name	M/s. Britannia Industries Ltd.	Sample Code	BIL/ST6
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	L1-SD-BS-11
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	19/01/2022
Analysis Starts on	21/01/2022	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	25/01/2022	Sample Received Date	19/01/2022

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			L1-SD-BS-11	
1.	Oxygen (O ₂)	%	14.9	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	6.7	EPA method 3A
3.	Carbon Monoxide(CO)	ppm	06	EPA method 10
4.	Stack Temperature (ST)	°C	149	EPA method 3A
5.	Suspended Particulate matter	Mg/NM ³	20.51	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	4.98	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	2.43	IS 11255 (P-7)


 Analyzed By:


- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 days from the date of sampling.

Report No: - EE/ENV/2022/01/099

Date: 31/01/2022

ANALYSIS REPORT

(For the Month of January-2022)

Client Details		Sample Details	
Name	M/s. Britannia Industries Ltd.	Sample Code	BIL/ST7
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	L1-SD-BS-21
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	19/01/2022
Analysis Starts on	21/01/2022	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	25/01/2022	Sample Received Date	19/01/2022

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			L1-SD-BS-21	
1.	Oxygen (O ₂)	%	16.2	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	4.7	EPA method 3A
3.	Carbon Monoxide (CO)	ppm	11	EPA method 10
4.	Stack Temperature (ST)	°C	250	EPA method 3A
5.	Suspended Particulate matter	Mg/NM ³	23.31	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	4.35	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	2.94	IS 11255 (P-7)

 Analyzed By: 

 Authorized Signatory 

- Analysis is subject to the condition in which the sample is received at our laboratory.
- Report can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained for 15 Days from the date of sampling.

Report No. - EE/ENV/2022/01/100

Date: 31/01/2022

ANALYSIS REPORT

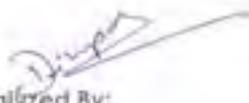
(For the Month of January-2022)

Client Details		Sample Details	
Name	M/s. Britannia Industries Ltd.	Sample Code	BIL/S18
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	L1-SD-BS-31
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	19/01/2022
Analysis Starts on	21/01/2022	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	25/01/2022	Sample Received Date	19/01/2022

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			L1-SD-BS-31	
1.	Oxygen (O ₂)	%	15.1	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	5.4	EPA method 3A
3.	Carbon Monoxide (CO)	ppm	13	EPA method 10
4.	Stack Temperature (ST)	°C	230	EPA method 3A
5.	Suspended Particulate matter	Mg/NM ³	25.46	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	5.24	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	2.97	IS 11255 (P-7)

Analyzed By:



Authorized Signatory:



- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.

Report No. - EE/ENV/2022/01/101

Date: 31/01/2022

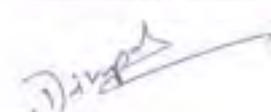
ANALYSIS REPORT

(For the Month of January-2022)

Client Details		Sample Details	
Name	M/s. Britannia Industries Ltd.	Sample Code	BIL/ST9
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	LI-SD-B5-41
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	20/01/2022
Analysis Starts on	21/01/2022	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	25/01/2022	Sample Received Date	20/01/2022

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			LI-SD-B5-41	
1.	Oxygen (O ₂)	%	17.4	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	4.9	EPA method 3A
3.	Carbon Monoxide (CO)	ppm	05	EPA method 10
4.	Stack Temperature (ST)	°C	28.5	EPA method 3A
5.	Suspended Particulate matter	Mg/NM ³	21.82	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	4.87	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	1.45	IS 11255 (P-7)


 Analyzed By:


- Analysis is subject to the condition in which the sample is received at our laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained 15 Days from the date of sampling.

Report No: - EE/ENV/2022/01/102

Date: 31/01/2022

ANALYSIS REPORT

(For the Month of January-2022)

Client Details		Sample Details	
Name	M/s. Britannia Industries Ltd.	Sample Code	BL/ST10
Address	Survey No. 169/p.	Location	LI-SD-B5
	Adani Port & Special Economic Zone.	Nature of Sample	Stack Monitoring Kit
	Ta. Mundra, Dist. Kutch	Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	20/01/2022
Analysis Starts on	21/01/2022	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	25/01/2022	Sample Received Date	20/01/2022

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			LI-SD-B5	
1.	Oxygen (O ₂)	%	15.7	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	6.9	EPA method 3A
3.	Carbon Monoxide (CO)	ppm	12	EPA method 10
4.	Stack Temperature (ST)	°C	255	EPA method 3A
5.	Suspended Particulate matter	Mg/NM ³	21.72	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	5.97	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	2.71	IS 11255 (P-7)

Ditpal

Analized By:



- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Report can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained for 15 Days from the date of sampling.

Report No: - EE/ENV/2022/01/103

Date: 31/01/2022

ANALYSIS REPORT

(For the Month of January-2022)

Client Details		Sample Details	
Name	M/s. Britannia Industries Ltd.	Sample Code	BIL/S111
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch.	Location	L3-RB-BS-11
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	20/01/2022
Analysis Starts on	21/01/2022	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/BO/2013-14
Analysis Completion On	25/01/2022	Sample Received Date	20/01/2022

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			L3-RB-BS-11	
1.	Oxygen (O ₂)	%	20.3	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	2.5	EPA method 3A
3.	Carbon Monoxide (CO)	Ppm	62	EPA method 10
4.	Stack Temperature (ST)	°C	135	EPA method 3A
5.	Suspended Particulate matter	Mg/NM ³	21.12	IS 11255 (P-1)
6.	Sulphur Di Oxide	Ppm	4.25	IS 11255 (P-2)
7.	Oxides of Nitrogen	Ppm	2.64	IS 11255 (P-7)

Analyzed By: 



- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.

Report No - EE/ENV/2022/01/104

Date: 31/01/2022

ANALYSIS REPORT

(For the Month of January-2022)

Client Details		Sample Details	
Name	M/s. Britannia Industries Ltd.	Sample Code	BI/ST12
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	L3-RB-BS-21
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	20/01/2022
Analysis Starts on	21/01/2022	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	25/01/2022	Sample Received Date	20/01/2022

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			L3-RB-BS-21	
1.	Oxygen (O ₂)	%	17.6	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	4.2	EPA method 3A
3.	Carbon Monoxide (CO)	Ppm	55	EPA method 10
4.	Stack Temperature (ST)	°C	225	EPA method 3A
5.	Suspended Particulate matter	Mg/NM ³	24.69	IS 11255 (P-1)
6.	Sulphur Di Oxide	Ppm	5.81	IS 11255 (P-2)
7.	Oxides of Nitrogen	Ppm	3.48	IS 11255 (P-7)


 Analyzed By:



- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.

Report No: -EE/ENV/2022/01/104

Date: 31/01/2022

ANALYSIS REPORT

(For the Month of January-2022)

Client Details		Sample Details	
Name	M/s. Britannia Industries Ltd.	Sample Code	BIL/ST14
Address	Survey No. 169/p. Adani Port & Special Economic Zone, Ta, Mundra, Dist, Kutch	Location	L3-RT-BS-21
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	20/01/2022
Analysis Starts on	21/01/2022	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	25/01/2022	Sample Received Date	20/01/2022

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			L3-RT-BS-21	
1.	Oxygen (O ₂)	%	20.9	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	5.8	EPA method 3A
3.	Carbon Monoxide (CO)	ppm	9	EPA method 10
4.	Stack Temperature (ST)	°C	285	EPA method 3A
5.	Suspended Particulate matter	Mg/NM ³	24.45	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	5.15	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	2.32	IS 11255 (P-7)

Analyzed By:



Authorized Signatory:



- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Report can not be used as evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained for 15 Days from the date of sampling.

Report No: - EE/ENV/2022/01/107

Date: 31/01/2022

ANALYSIS REPORT

(For the Month of January-2022)

Client Details		Sample Details	
Name	M/s. Britannia Industries Ltd.	Sample Code	BIL/ST15
Address	Survey No. 169/p, Adani Port & Special Economic Zone Ta. Mundra, Dist. Kutch	Location	L3-RT-BS-31
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	20/01/2022
Analysis Starts on	21/01/2022	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/60/2013-14
Analysis Completion On	25/01/2022	Sample Received Date	20/01/2022

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			L3-RT-BS-31	
1.	Oxygen (O ₂)	%	20.9	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	3.4	EPA method 3A
3.	Carbon Monoxide (CO)	Ppm	6	EPA method 10
4.	Stack Temperature (ST)	°C	173	EPA method 3A
5.	Suspended Particulate matter	Mg/NM ³	23.14	IS 11255 (P-1)
6.	Sulphur Di Oxide	Ppm	3.15	IS 11255 (P-2)
7.	Oxides of Nitrogen	Ppm	1.89	IS 11255 (P-7)

Analyzed By:



Authorized Signatory:



- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.

Report No: - EE/ENV/2022/01/108

Date: 31/01/2022

ANALYSIS REPORT

(For the Month of January-2022)

Client Details		Sample Details	
Name	M/s. Britannia Industries Ltd.	Sample Code	BIL/ST16
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	D.G set
		Nature of Sample	Stack Monitoring kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	20/01/2022
Analysis Starts on	21/01/2022	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	25/01/2022	Sample Received Date	20/01/2022

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			D.G set	
1	Oxygen (O ₂)	%	17.9	EPA method 3A
2	Carbon dioxide (CO ₂)	%	5.8	EPA method 3A
3	Carbon Monoxide (CO)	ppm	174	EPA method 10
4	Stack Temperature (ST)	°C	97	EPA method 3A
5	Suspended Particulate matter	Mg/NM ³	78.64	IS 11255 (P-1)
6	Sulphur Di Oxide	ppm	12.16	IS 11255 (P-2)
7	Oxides of Nitrogen	ppm	06.41	IS 11255 (P-7)

Analyzed By:



Authorized Signatory:



- Analysis is subject to the condition in which the sample is received at the Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.

Report No. - EE/ENV/2022/01/109

Date: 31/01/2022

ANALYSIS REPORT

(For the Month of January-2022)

Client Details		Sample Details	
Name	M/s. Britannia Industries Ltd.	Sample Code	BE/ST17
Address	Survey No. 169/p. Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	Diesel Engine Pump
		Nature of Sample	Stack Monitoring Kit
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	20/01/2022
Analysis Starts on	21/01/2022	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	25/01/2022	Sample Received Date	20/01/2022

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
			Diesel Engine Pump	
1.	Oxygen (O ₂)	%	13.0	EPA method 3A
2.	Carbon dioxide (CO ₂)	%	6.2	EPA method 3A
3.	Carbon Monoxide(CO)	ppm	295	EPA method 10
4.	Stack Temperature (ST)	°C	110	EPA method 3A
5.	Suspended Particulate matter	Mg/NM ³	61.52	IS 11255 (P-1)
6.	Sulphur Di Oxide	ppm	07.63	IS 11255 (P-2)
7.	Oxides of Nitrogen	ppm	04.21	IS 11255 (P-7)

 Analyzed By: 

 Authorized Signatory: 

- Analysis is subject to the condition in which the sample is received at our laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained for 15 Days from the date of sampling.

Report No. - EE/ENV/2022/01/110

Date: 31/01/2022

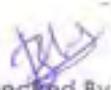
ANALYSIS REPORT

(For the Month of January-2022)

Client Details		Sample Details	
Name	M/s. Britannia Industries Ltd.	Sample Code	BIL/N1-N5
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta: Mundra, Dist. Kutch	Location	As per table
		Quantity	NA
		Date of Measurement	19/01/2022
Sampling Done By	Earth Envirotech Team	Sampling Instrument	Sound Level Meter (HTC/SL-1350)
Measurement Completion Date	19/01/2022	Sampling Method	IS 9876 : 1981 & 9989 : 1981

NOISE MONITORING RESULTS

Sr. No.	Location Name	Units	Day Time	
			Observed Value	Standard Limit
1.	Near Admin Office	dB (A)	58.9	75.0
2.	Near Cream Area	dB (A)	64.3	75.0
3.	Near Cream Preparation Room	dB (A)	69.4	75.0
4.	Near Biscuit Outline Sugar Grinder	dB (A)	71.8	75.0
5.	Near D.G.Set Area	dB (A)	70.9	75.0

 Checked By: 

 Authorized Signatory: 


- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till one month from the date of sampling.

Report No: - EE/ENV/2022/01/111

Date: 31/01/2022

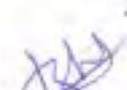
ANALYSIS REPORT

(For the Month of January-2022)

Client Details		Sample Details	
Name	M/s. Britannia Industries Ltd.	Sample Code	BIL/L1-16
Address	Survey No: 169/p.	Location	As per table
	Adani Port & Special Economic Zone.	Quantity	NA
	Ta. Mundra, Dist. Kutch	Date of Measurement	19/01/2022
Measurement Done By	Earth Envirotech Team	Sampling Instrument	Lux Meter (LX-101 A)
Measurement Completion Date	19/01/2022		Sampling Method

LUX MONITORING RESULTS

Sr. No.	Location Name	In Lux
1.	Near Cream Area	260
2.	Near Sugar Grading Room	225
3.	In RM storage room	298
4.	In Finished product storage Area	245
5.	Rusk Line	315
6.	Biscuit Line	201

 Checked By: 


- Analysis is subject to the condition in which the Sample is received at our Laboratory
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained for one 15 days from the date of sampling

Report No: - EE/ENV/2022/01/112

Date: 31/01/2022

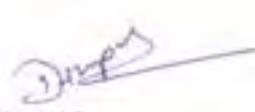
ANALYSIS REPORT

(For the Month of January-2022)

Client Details		Sample Details	
Name	M/s. Britannia Industries Ltd	Sample Code	BIL/WW1
Address	Survey No. 169/b.	Location	ETP Outlet
	Adani Port & Special Economic Zone Ta. Mundara, Dist. Kutch	Quantity	5 L
Sampling Done By	Earth Envirotech team	Date of Sampling	19/01/2022
Analysis Starts on	20/01/2022	Sampling Method	IS 3025 (P-1)
Analysis Completion On	31/01/2022	Sample Received Date	20/01/2022

WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	GPCB Limit
1.	pH	—	7.62	6.5 – 8.5
2.	Temperature	°C	26.3	45°C
3.	Colour	Units	8	100
4.	Suspended Solids	mg/l	25	100
5.	Oil & Grease	mg/l	0.9	10
6.	Phenolic Compound	mg/l	801	01
7.	% Sodium	mg/l	42.2	60
8.	Biochemical Oxygen Demand (5 days at 20°C)	mg/l	14.3	30
9.	Chemical Oxygen Demand	mg/l	39	100
10.	Chlorides	Mg/l	256.2	600
11.	Sulphate as SO ₄	mg/l	92.3	1000
12.	Total Dissolved Solids	mg/l	865	2100


 Analyzed By:


- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 days from the date of sampling.

Report No: - EE/ENV/2022/01/113

Date: 31/01/2022

ANALYSIS REPORT

(For the Month of January-2022)

Client Details		Sample Details	
Name	M/s. Britannia Industries Ltd.	Sample Code	BIL/WW2
Address	Survey No. 169/p.	Location	STP Outlet
	Adani Port & Special Economic Zone, Tq. Mundra, Dist. Kutch	Quantity	5 L
Sampling Done By	Earth Envirotech team	Date of Sampling	19/01/2022
Analysis Starts on	20/01/2022	Sampling Method	IS 3025 (P-1)
Analysis Completion On	31/01/2022	Sample Received Date	20/01/2022

WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	GPCB Limit
1.	pH	—	7.25	8.5 – 9.0
2.	Temperature	°C	26.1	—
3.	Colour	Units	1.6	—
4.	Suspended Solids	mg/l	17	50
5.	Oil & Grease	mg/l	1.5	—
6.	Ammonical Nitrogen	mg/l	5.2	—
7.	Biochemical Oxygen Demand (5 days at 20°C)	mg/l	15.2	20
8.	Chemical Oxygen Demand	mg/l	85.2	—
9.	Chlorides	Mg/l	432.2	—
10.	Total Dissolved Solids	mg/l	1050	—

Analyzed By:




- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained for 15 Days from the date of sampling.

Report No. - EE/ENV/2022/01/114

Date: 31/01/2022

ANALYSIS REPORT

(For the Month of January-2022)

Client Details		Sample Details	
Name	M/s. Britannia Industries Ltd.	Sample Code	BIL/DWT
Address	Survey No. 169/p, Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Location	Drinking Water
		Quantity	2 L
Sampling Done By	Earth Envirotech Team	Date of Sampling	19/01/2022
Analysis Starts on	20/01/2022	Sampling Method	IS 3025 (P-1)
Analysis Completion On	31/01/2022	Sample Received Date	20/01/2022

DRINKING WATER ANALYSIS RESULTS

Sr. No.	Parameter	Unit	Result	Desirable Limit IS-10500-2012 Max-limit
1.	pH	—	7.82	6.5-8.5
2.	Odor	—	Odorless	Unobjectionable
3.	Color	Pt. Co.	Colorless	05
4.	Taste	-	Agreeable	Agreeable
5.	Turbidity	NTU	Nil	05
6.	TDS	Mg/l	175.2	500
7.	Total Hardness (as CaCO ₃)	Mg/l	42	300
8.	Chloride	Mg/l	39.3	250
9.	Iron	Mg/l	BDL	0.3
10.	Residual Free Chlorine	Mg/l	BDL	0.2
11.	Calcium (as Ca)	Mg/l	18.2	75
12.	Magnesium	Mg/l	5.78	30
13.	Copper	Mg/l	BDL	0.08
14.	Manganese	Mg/l	BDL	0.12
15.	Sulphate	Mg/l	47	200
16.	Fluoride	Mg/l	BDL	0.87
17.	Zinc	Mg/l	BDL	03
18.	Anionic Detergents	Mg/l	BDL	0.1



Report No. - EE/ENV/2022/01/114				Date: 31/01/2022	
Sr. No.	Parameter	Unit	Result	Desirable Limit IS-10500-2012 Max-limit	
19	Mineral Oil	Mg/l	BDL	0.01	
20	Alkalinity	Mg/l	25	200	
21	Aluminium	Mg/l	BDL	0.02	
22	Boron	Mg/l	BDL	0.84	
23	Barium	Mg/l	BDL	0.7	
24	Silver	Mg/l	BDL	0.1	
25	Selenium	Mg/l	BDL	0.01	
26	Molybdenum	Mg/l	BDL	0.07	
27	Sulphide	Mg/l	BDL	0.05	
28	Ammonia	Mg/l	BDL	0.5	
29	Chloramine	Mg/l	BDL	4.0	
30	Phenolic Compound	Mg/l	BDL	0.001	
31	Nitrate	Mg/l	0.08	46	
32	Bacteriological Examination:				
	(i) E.Coli Test	Per 100 ml	Absent	Absent	

Note: ND: - Not Detected, BDL – Below Detectable Limit.

Dinpat
 Analyzed By;

Authorized Signatory:


- Analysis subject to the condition in which the sample is received at the Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 days from the date of sampling.

Report No.: EE/ENV/2022/01/115

Date: 31/01/2022

ANALYSIS REPORT

(For the Month of January-2022)

Client Details		Sample Details	
Name	M/s. Britannia Industries Ltd.	Sample Code	BIL/W1
Address	Survey No. 169/p.	Location	Raw Water (Adani)
	Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Quantity	2 L
Sampling Done By	Earth Envirotech team	Date of Sampling	19/01/2022
Analysis Starts on	20/01/2022	Sampling Method	IS 3025 (P-1)
Analysis Completion On	31/01/2022	Sample Received Date	20/01/2022

WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
1.	pH	—	7.10	IS 3025 (P-11)
2.	Total Dissolved Solids	mg/l	740	IS 3025 (P-16)
3.	Total Suspended Solids	mg/l	20	IS 3025 (P-17)
4.	Chloride as Cl	mg/l	356.77	IS 3025 (P-32)
5.	Total Hardness as CaCO ₃	mg/l	122.2	IS 3025 (P-21)
6.	Alkalinity	mg/l	24	IS 3025 (P-23)
7.	Acidity	mg/l	0.5	IS 3025 (P-22)
8.	Oil & Grease	mg/l	0.4	IS 3025 (P-39)
9.	Calcium	mg/l	57.78	IS 3025 (P-40)
10.	Magnesium	mg/l	15.66	IS 3025 (P-46)

Analyzed By:



Authorized Signatory:



- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Report can not be used as an evidence anywhere including judiciary purpose without our permission.
- Sample will be retained till 15 days from the date of sampling.

FORM NO.37

(Prescribed under rule 12-B)

Register containing particulars of monitoring of working environment required under section 7-A (a) (e).

 Name of the Department/Plant: **Britannia Industries Limited.**

1. Raw materials, by products and finished products involving in the process : Total Dust
2. Particular of sampling

Date of Sampling: 19/01/2022

ISSUE DATE	31/01/2022
REF. NO	BIL/F37/116

Sr. No	Location/ Operation Mentioned	Identified Contaminant	Sampling instrument used	Air borne Contamination			TWA concentration (As given in second schedule)	Reference Method	No of workers Exposed at the location being monitored	Remarks	Name of Person person taking sample
				No of samples	Range	Average	Mg/m ³				
1.	Packing Area (Rusk Toast tea)	RSPM (Total Dust)	RDS	02	5-6	5.30	10	Gravimetric	09	---	Mr. Sagar Bhandari



FORM NO.37

(Prescribed under rule 12-B)

Register containing particulars of monitoring of working environment required under section 7-A (a) (e).

 Name of the Department/Plant: **Britannia Industries Limited.**

1. Raw materials, by products and finished products involving in the process - Total Dust
2. Particular of sampling

Date of Sampling: 19/01/2022

ISSUE DATE	31/01/2022
REF. NO	BIL/F37/117

Sr. No	Location/ Operation Mentioned	Identified Contaminant	Sampling Instrument used	Air borne Contamination			TWA concentration (As given in second schedule)	Reference Method	No of workers Exposed at the location being monitored	Remarks	Name of Person taking sample
				No of samples	Range	Average	Mg/m ³				
1.	Mixing Area - Rusk Plant	RSPM (Total Dust)	RDS	02	5-6	5.25	10	Gravimetric	06	—	Mr. Sagar Bhnaderi

For, Earth Envirotech

 Authorized Signatory



FORM NO.37

(Prescribed under rule 12-B)

Register containing particulars of monitoring of working environment required under section 7-A (a) (e).

 Name of the Department/Plant: **Britannia Industries Limited.**

1. Raw materials, by products and finished products involving in the process : Total Dust
2. Particular of sampling

Date of Sampling: 19/01/2022

ISSUE DATE	31/01/2022
REF. NO	BIL/F37/118

Sr. No	Location/ Operation Mentioned	Identified Contaminant	Sampling instrument used	Air borne Contamination			TWA concentration (As given in second schedule)	Reference Method	No of workers Exposed at the location being monitored	Remarks	Name of Person taking sample
				No of samples	Range	Average	Mg/m ³				
1	Raw Material Area	RSPM (Total Dust)	RDS	02	5-9	5.25	10	Gravimetric	07	—	Mr. Sagar Bhandari

For, Earth Envirotech

Authorized Signatory,



FORM NO.37

(Prescribed under rule 12-B)

Register containing particulars of monitoring of working environment required under section 7-A (a) (e).

 Name of the Department/Plant: **Britannia Industries Limited.**

1. Raw materials, by products and finished products involving in the process : Total Dust
2. Particular of sampling

Date of Sampling: 19/01/2022

ISSUE DATE	31/01/2022
REF. NO	BIL/F37/119

Sr. No	Location/ Operation Mentioned	Identified Contaminant	Sampling instrument used	Air borne Contamination			TWA concentration (As given in second schedule)	Reference Method	No of workers Exposed at the location being monitored	Remarks	Name of Person person taking sample
				No of samples	Range	Average	Mg/m ³				
1.	Maida and Sugar Handling area	RSPM (Total Dust)	RDS	02	5-6	5.57	10	Gravimetric	06	—	Mr. Sagar Bhandari

For, Earth Envirotech

 Authorized Signatory



FORM NO.37

(Prescribed under rule 12-8)

Register containing particulars of monitoring of working environment required under section 7-A (a) (e).

 Name of the Department/Plant: **Britannia Industries Limited.**

1. Raw materials, by products and finished products involving in the process : Total Dust.
2. Particular of sampling

Date of Sampling: 19/01/2022

ISSUE DATE	31/01/2022
REF. NO	BIL/F37/120

Sr. No	Location/ Operation Mentioned	Identified Contaminant	Sampling instrument used	Air borne Contamination			TWA concentration (As given in second schedule)	Reference Method	No of workers Exposed at the location being monitored	Remarks	Name of Person person taking sample
				No of samples	Range	Average	Mg/m ³				
1	Maida Handling area - Bunk	RSPM (Total Dust)	RDS	02	5-0	5.30	10	Gravimetric	05	—	Mr Sagar Bhandari




 FORM NO.37
 (Prescribed under rule 12-8)

 Register containing particulars of monitoring of working environment required under section 7-A (a) (e).
 Name of the Department/Plant: **Britannia Industries Limited.**

1. Raw materials, by products and finished products involving in the process : Total Dust
2. Particular of sampling

Date of Sampling: 19/01/2022

ISSUE DATE	31/01/2022
REF. NO	BIL/F37/121

Sr. No	Location/ Operation Mentioned	Identified Contaminant	Sampling Instrument used	Air borne Contamination			TWA concentration (As given in second schedule)	Reference Method	No of workers Exposed at the location being monitored	Remarks	Name of Person taking sample
				No of samples	Range	Average	Mg/m ³				
1.	Mixing area - Biscuit plant	RSPM (Total Dust)	RDS	02	5-6	5.59	10	Gravimetric	08	—	Mr. Sagar Bhandari

For, Earth Envirotech

 Authorized Signatory



Report No: - EE/ENV/2021/12/049

Date: 18/12/2021

ANALYSIS REPORT

(For the month of December - 2021)

Client Details		Sample Details	
Name	M/s. Terram Geosynthetics Pvt. Ltd.	Sample Code	TGPL/AAT
Address	Plot No.: 5, Block – B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch.	Location	Near D. G. Set Area
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	11/12/2021
Analysis Starts on	13/12/2021	Sampling Method	IS 5182(Part – 5): 2020
Analysis Completion On	17/12/2021	Sample Received Date	11/12/2021

AMBIENT AIR MONITORING RESULTS

Sr. No.	Parameters	Unit	Results	National Ambient Air Quality Standards (NAAQS)	Reference Method
			Near Security Gate		
1.	Particulate Matter: PM ₁₀	µg/m ³	50.48	100	IS 5182 Part 23 : 2017
2.	Particulate Matter PM _{2.5}	µg/m ³	20.15	60	CPCB manual Volume I
3.	Sulphur Dioxide (SO ₂)	µg/m ³	07.94	80	IS 5182 Part 2 : 2017
4.	Nitrogen Dioxide (NO ₂)	µg/m ³	11.67	80	IS 5182 Part 6 : 2017

Dampak
 Analyzed By:


 Authorized Signatory:

- Analysis is subject to the condition in which the Sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained for 15 Days from the date of sampling.

Report No: - EE/ENV/2021/12/050

Date: 18/12/2021

ANALYSIS REPORT

(For the month of December - 2021)

Client Details		Sample Details	
Name	M/s. Terram Geosynthetics Pvt. Ltd.	Sample Code	TGPL/AA2
Address	Plot No.: 5, Block – B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch.	Location	Near Old Ramp Area
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	11/12/2021
Analysis Starts on	13/12/2021	Sampling Method	IS 5182 (Part – 5): 2020
Analysis Completion On	17/12/2021	Sample Received Date	11/12/2021

AMBIENT AIR MONITORING RESULTS

Sr. No.	Parameters	Unit	Results	National Ambient Air Quality Standards (NAAQS)	Reference Method
			Near Security Gate		
1.	Particulate Matter PM ₁₀	µg/m ³	52.45	100	IS 5182 Part 23 : 2017
2.	Particulate Matter PM _{2.5}	µg/m ³	19.48	60	CPCB manual Volume I
3.	Sulphur Dioxide (SO ₂)	µg/m ³	06.20	80	IS 5182 Part 2 : 2017
4.	Nitrogen Dioxide (NO ₂)	µg/m ³	10.45	80	IS 5182 Part 6 : 2017



Analyzed By:



Authorized Signatory:

- Analysis is subject to the condition in which the sample is received at our laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.

Report No: - EE/ENV/2021/12/051

Date: 18/12/2021

ANALYSIS REPORT

(For the month of December - 2021)

Client Details		Sample Details	
Name	M/s. Terram Geosynthetics Pvt. Ltd.	Sample Code	TGPL/ST1
Address	Plot No.: 5, Block – B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch.	Location	Boiler
		Sampling Instrument	Stack Monitoring Kit
Sampling Done By	Earth Envirotech Team	Date of Sampling	11/12/2021
Analysis Starts on	13/12/2021	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	18/12/2021	Sample Received Date	11/12/2021

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Limit as per GPCB Norms	Reference Method
			Boiler		
1.	Particulate Matter (PM)	mg/Nm ³	71.32	150	IS 11255 : Part 1
2.	Sulphur dioxide (SO ₂)	ppm	22.84	100	IS 11255 : Part 2
3.	Oxides of Nitrogen (NOx)	ppm	18.52	50	IS 11255 : Part 7

Dimple
 Analyzed By:

Amit
 Authorized Signatory



- Analysis is subject to the condition in which the Sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 days from the date of sampling.

Report No: - EE/ENV/2021/12/052

Date: 18/12/2021

ANALYSIS REPORT

(For the month of December - 2021)

Client Details		Sample Details	
Name	M/s. Terram Geosynthetics Pvt. Ltd.	Sample Code	TGPL/ST2
Address	Plot No.: 5, Block - B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch.	Location	D.G.Set.
		Sampling Instrument	Stack Monitoring Kit
Sampling Done By	Earth Envirotech Team	Date of Sampling	11/12/2021
Analysis Starts on	13/12/2021	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	18/12/2021	Sample Received Date	11/12/2021

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Limit as per GPCB Norms	Reference Method
			D.G.Set		
1.	Particulate Matter (PM)	mg/Nm ³	75.11	150	IS 11255 : Part 1
2.	Sulphur dioxide (SO ₂)	ppm	25.47	100	IS 11255 : Part 2
3.	Oxides of Nitrogen (NOx)	ppm	16.45	50	IS 11255 : Part 7

Dimple
Analyzed By:



- Analysis is subject to the condition in which the Sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.



Report No: - EE/ENV/2021/12/053

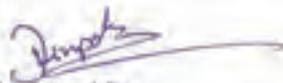
Date: 18/12/2021

ANALYSIS REPORT
(For the month of December - 2021)

Client Details		Sample Details	
Name	M/s. Terram Geosynthetics Pvt. Ltd.	Sample Code	TGPL/ST3
Address	Plot No.: 5, Block – B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch.	Location	Drying Oven
		Sampling Instrument	Stack Monitoring Kit
Sampling Done By	Earth Envirotech Team	Date of Sampling	11/12/2021
Analysis Starts on	13/12/2021	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	18/12/2021	Sample Received Date	11/12/2021

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Limit as per GPCB Norms	Reference Method
			Drying Oven		
1.	Particulate Matter (PM)	mg/Nm ³	59.48	150	IS 11255 : Part 1
2.	Sulphur dioxide (SO ₂)	ppm	13.54	100	IS 11255 : Part 2
3.	Oxides of Nitrogen (NOx)	ppm	10.13	50	IS 11255 : Part 7


Checked By:


Authorized Signatory:

- Analysis is subject to the condition in which the sample is received at our laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 days from the date of sampling.



Report No: - EE/ENV/2021/12/054

Date: 18/12/2021

ANALYSIS REPORT
(For the month of December - 2021)

Client Details		Sample Details	
Name	M/s. Terram Geosynthetics Pvt. Ltd.	Sample Code	TGPL/N1-N6
Address	Plot No.: 5, Block – B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch.	Location	As per table
		Quantity	NA
		Date of Measurement	11/12/2021
Measurement Done By	Earth Envirotech Team	Sampling Instrument	Sound Level Meter (HTC/SL-1350)
Measurement Completion Date	11/12/2021	Sampling Method	IS 9876 : 1981 & 9989 : 1981

NOISE MONITORING RESULTS

Sr. No.	Location Name	Units	Day Time	Night Time
			Spot Noise Level dB (A) Maximum	Spot Noise Level dB (B) Maximum
Standard Limit		dB	75	70
1.	Near Brattice Area	dB	72.1	69.7
2.	Near Lab Area	dB	69.7	60.1
3.	Near Raw Material Area	dB	73.9	68.5
4.	Near Capstan Machine	dB	72.8	66.9
5.	Near Winder Area	dB	69.4	68.2
6.	Near Utility Area	dB	66.7	63.1

[Signature]

Analyzed By:



Authorized Signatory:

- Analysis is subject to the condition in which the Sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 days from the date of sampling.

Report No: - EE/ENV/2021/12/055

Date: 18/12/2021

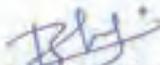
ANALYSIS REPORT

(For the month of December - 2021)

Client Details		Sample Details	
Name	M/s. Terram Geosynthetics Pvt. Ltd.	Sample Code	TGPL/L1
Address	Plot No.: 5, Block - B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch.	Location	As per table
		Quantity	NA
		Date of Measurement	11/12/2021
Measurement Done By	Earth Envirotech Team	Sampling Instrument	Lux Meter (LX-101 A)
Measurement Completion Date	11/12/2021	Sampling Method	Lutron - LX-101 Inst. Manual

LUX MONITORING RESULTS

Sr. No.	Location Name	In Lux (Day Time)	In Lux (Night Time)
1.	Near Capstan Machine	322	281


 Analyzed By:


- Analysis is subject to the condition in which the Sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till one 15 days from the date of sampling.

Report No: - EE/ENV/2021/12/056

Date: 18/12/2021

ANALYSIS REPORT
(For the month of December - 2021)

Client Details		Sample Details	
Name	M/s. Terram Geosynthetics Pvt. Ltd.	Sample Code	TGPL/WW1
Address	Plot No.: 5, Block – B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch.	Location	STP outlet
		Quantity	2 L
Sampling Done By	Earth Envirotech Team	Date of Sampling	11/12/2021
Analysis Starts on	13/12/2021	Sampling Method	APHA 1060
Analysis Completion On	18/12/2021	Sample Received Date	11/12/2021

WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
1.	pH	—	6.05	IS 3025 (P-11)
2.	Total Suspended Solids	mg/l	18	IS 3025 (P-17)
3.	Biochemical Oxygen Demand (5 days at 20°C)	mg/l	13.6	APHA 5210
4.	Fecal coliform MPN/100	MPN/100 ml	8	APHA 9221

Chiz
Analyzed By:



- Analysis is subject to the condition in which the Sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.

Report No: - EE/ENV/2021/12/057

Date: 18/12/2021

ANALYSIS REPORT
(For the month of December - 2021)

Client Details		Sample Details	
Name	M/s. Terram Geosynthetics Pvt. Ltd.	Sample Code	TGPL/WW2
Address	Plot No.: 5, Block – B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch.	Location	ETP outlet
		Quantity	2L
Sampling Done By	Earth Envirotech Team	Date of Sampling	11/12/2021
Analysis Starts on	13/12/2021	Sampling Method	APHA 1060
Analysis Completion On	18/12/2021	Sample Received Date	11/12/2021

WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
1.	pH	—	6.43	IS 3025 (P-11)
2.	Temperature	°C	26.1	APHA 2550 B
3.	Total Suspended Solids	mg/l	32	IS 3025 (P-17)
4.	Oil & Grease	mg/l	0.9	IS 3025 (P-39)
5.	Phenolic Compound	mg/l	BDL	IS 3025 (P-43)
6.	Biochemical Oxygen Demand (5 days at 20°C)	mg/l	15.2	APHA 5210
7.	Chemical Oxygen Demand	mg/l	68.3	IS 3025 (P-58)
8.	Chloride	mg/l	714	IS 3025 (P-32)
9.	Sulphate	mg/l	423	IS 3025 (P-24)
10.	Total Dissolved Solids	mg/l	1854	IS 3025 (P-16)
11.	Percent Sodium	%	8.9	IS 3025 (P-45)

BDL – Below Detectable Limit

Chet
Analyzed By:

[Signature]
Authorized Signatory:

- Analysis is subject to the condition in which the sample is received at our laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.

Report No: - EE/ENV/2022/04/052

Date: 15/04/2022

ANALYSIS REPORT

(For the month of March - 2022)

Client Details		Sample Details	
Name	M/s. Terram Geosynthetics Pvt. Ltd.	Sample Code	TGPL/WW1
Address	Plot No.: 5, Block - B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch.	Location	STP outlet
		Quantity	2 L
Sampling Done By	Earth Envirotech Team	Date of Sampling	28/03/2022
Analysis Starts on	29/03/2022	Sampling Method	APHA 1060
Analysis Completion On	08/04/2022	Sample Received Date	28/03/2022

WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
1.	pH	—	6.69	IS 3025 (P-11)
2.	Total Suspended Solids	mg/l	26	IS 3025 (P-17)
3.	Biochemical Oxygen Demand (5 days at 20°C)	mg/l	18.1	APHA 5210
4.	Fecal coliform MPN/100	MPN/100 ml	10	APHA 9221

Chaz
Analyzed By:



- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.

Report No: - EE/ENV/2022/04/053

Date: 15/04/2022

ANALYSIS REPORT

(For the month of March - 2022)

Client Details		Sample Details	
Name	M/s. Terram Geosynthetics Pvt. Ltd.	Sample Code	TGPL/WW2
Address	Plot No.: 5, Block - B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch.	Location	ETP outlet
		Quantity	2 L
Sampling Done By	Earth Envirotech Team	Date of Sampling	28/03/2022
Analysis Starts on	28/03/2022	Sampling Method	APHA 1060
Analysis Completion On	08/04/2022	Sample Received Date	28/03/2022

WATER ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Reference Method
1.	pH	—	6.71	IS 3025 (P-11)
2.	Temperature	°C	27.3	APHA 2550 B
3.	Total Suspended Solids	mg/l	44	IS 3025 (P-17)
4.	Oil & Grease	mg/l	1.6	IS 3025 (P-39)
5.	Phenolic Compound	mg/l	BDL	IS 3025 (P-43)
6.	Biochemical Oxygen Demand (5 days at 20°C)	mg/l	21.1	APHA 5210
7.	Chemical Oxygen Demand	mg/l	73.5	IS 3025 (P-58)
8.	Chloride	mg/l	541	IS 3025 (P-32)
9.	Sulphate	mg/l	614	IS 3025 (P-24)
10.	Total Dissolved Solids	mg/l	1942	IS 3025 (P-16)
11.	Percent Sodium	%	11.3	IS 3025 (P-45)

BDL – Below Detectable Limit

 Chos
 Analyzed By:


- Analysis is subject to the condition in which the sample is received at our laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained for 15 Days from the date of sampling.

Report No: - EE/ENV/2022/04/045

Date: 15/04/2022

ANALYSIS REPORT
(For the month of March - 2022)

Client Details		Sample Details	
Name	M/s. Terram Geosynthetics Pvt. Ltd.	Sample Code	TGPL/AA1
Address	Plot No.: 5, Block - B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch.	Location	Near Security Gate
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	28/03/2022
Analysis Starts on	29/03/2022	Sampling Method	IS 5182 (Part - 5): 2020 IS 5182 Part 23:2017 CPCB manual volume I
Analysis Completion On	06/04/2022	Sample Received Date	28/03/2022

AMBIENT AIR MONITORING RESULTS

Sr. No.	Parameters	Unit	Results	National Ambient Air Quality Standards (NAAQS)	Reference Method
			Near Security Gate		
1.	Particulate Matter (PM ₁₀)	µg/m ³	54.65	100	IS 5182 Part 23 : 2017
2.	Particulate Matter (PM _{2.5})	µg/m ³	23.78	60	CPCB manual Volume I
3.	Sulphur Dioxide (SO ₂)	µg/m ³	10.35	80	IS 5182 Part 2 : 2017
4.	Nitrogen Dioxide (NO ₂)	µg/m ³	13.51	80	IS 5182 Part 6 : 2017

Analyzed By: 

Authorized Signatory: 

- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained for 15 Days from the date of sampling.

Report No. - EE/ENV/2022/04/044

Date: 15/04/2022

ANALYSIS REPORT

(For the month of March - 2022)

Client Details		Sample Details	
Name	M/s. Terram Geosynthetics Pvt. Ltd.	Sample Code	TGPL/AA2
Address	Plot No.: 5, Block - B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch.	Location	Near Canteen Area
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	28/03/2022
Analysis Starts on	29/03/2022	Sampling Method	IS 5182 (Part - 5): 2020 IS 5182 Part 23:2017 CPCB manual volume I
Analysis Completion On	06/04/2022	Sample Received Date	28/03/2022

AMBIENT AIR MONITORING RESULTS

Sr. No.	Parameters	Unit	Results	National Ambient Air Quality Standards (NAAQS)	Reference Method
			Near Canteen Area		
1.	Particulate Matter PM ₁₀	µg/m ³	53.61	100	IS 5182 Part 23 : 2017
2.	Particulate Matter PM _{2.5}	µg/m ³	21.45	60	CPCB manual Volume I
3.	Sulphur Dioxide (SO ₂)	µg/m ³	10.34	80	IS 5182 Part 2 : 2017
4.	Nitrogen Dioxide (NO ₂)	µg/m ³	13.03	80	IS 5182 Part 6 : 2017


 Analyzed By:


- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained for 15 Days from the date of sampling.

Report No: - EE/ENV/2022/04/047

Date: 15/04/2022

ANALYSIS REPORT
(For the month of March - 2022)

Client Details		Sample Details	
Name	M/s. Terram Geosynthetics Pvt. Ltd.	Sample Code	TGPL/ST1
Address	Plot No.: 5, Block - B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch.	Location	Boiler
		Sampling Instrument	Stack Monitoring Kit
Sampling Done By	Earth Envirotech Team	Date of Sampling	28/03/2022
Analysis Starts on	29/03/2022	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	06/04/2022	Sample Received Date	28/03/2022

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Limit as per GPCB Norms	Reference Method
			Boiler		
1.	Particulate Matter (PM)	mg/Nm ³	74.36	150	IS 11255 : Part 1
2.	Sulphur dioxide (SO ₂)	ppm	20.65	100	IS 11255 : Part 2
3.	Oxides of Nitrogen (NOx)	ppm	15.72	50	IS 11255 : Part 7

Analyzed By:




- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be returned 15 days from the date of sampling.

Report No.: - EE/ENV/2022/04/048

Date: 15/04/2022

ANALYSIS REPORT

(For the month of March - 2022)

Client Details		Sample Details	
Name	M/s. Terram Geosynthetics Pvt. Ltd.	Sample Code	TGPL/ST2
Address	Plot No.: 5, Block – B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch.	Location	D.G.Set
		Sampling Instrument	Stack Monitoring Kit
Sampling Done By	Earth Envirotech Team	Date of Sampling	28/03/2022
Analysis Starts on	29/03/2022	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	06/04/2022	Sample Received Date	28/03/2022

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Limit as per GPCB Norms	Reference Method
			D.G.Set		
1.	Particulate Matter (PM)	mg/Nm ³	78.36	150	IS 11255 : Part 1
2.	Sulphur dioxide (SO ₂)	ppm	23.25	100	IS 11255 : Part 2
3.	Oxides of Nitrogen (NOx)	ppm	18.65	50	IS 11255 : Part 7


 Analyzed By:


- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 Days from the date of sampling.

Report No. - EE/ENV/2022/04/049

Date: 15/04/2022

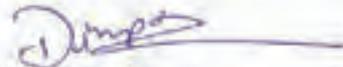
ANALYSIS REPORT

(For the month of March - 2022)

Client Details		Sample Details	
Name	M/s. Terram Geosynthetics Pvt. Ltd.	Sample Code	TGPL/ST3
Address	Plot No.: 5, Block - B, Sector-12 S, Adani Port & SEZ. Tal: Mundra, Dist: Kutch.	Location	Drying Oven
		Sampling Instrument	Stack Monitoring Kit
Sampling Done By	Earth Envirotech Team	Date of Sampling	28/03/2022
Analysis Starts on	29/03/2022	Sampling Method	Guidelines on methodologies for source emission monitoring LATS/80/2013-14
Analysis Completion On	06/04/2022	Sample Received Date	28/03/2022

STACK MONITORING ANALYSIS RESULTS

Sr. No.	Parameters	Unit	Results	Limit as per GPCB Norms	Reference Method
			Drying Oven		
1.	Particulate Matter (PM)	mg/Nm ³	56.85	150	IS 11255 : Part 1
2.	Sulphur dioxide (SO ₂)	ppm	15.58	100	IS 11255 : Part 2
3.	Oxides of Nitrogen (NOx)	ppm	12.65	50	IS 11255 : Part 7


Checked By:


- Analysis is subject to the condition in which the sample is received at our laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 days from the date of sampling.

Report No: - EE/ENV/2022/04/050

Date: 15/04/2022

ANALYSIS REPORT

(For the month of March - 2022)

Client Details		Sample Details	
Name	M/s. Terram Geosynthetics Pvt. Ltd.	Sample Code	TGPL/N1-N6
Address	Plot No.: 5, Block - B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch.	Location	As per table
		Quantity	NA
		Date of Measurement	28/03/2022
Measurement Done By	Earth Envirotech Team	Sampling Instrument	Sound Level Meter (HTC/SL-1350)
Measurement Completion Date	28/03/2022	Sampling Method	IS 9989:2020

NOISE MONITORING RESULTS

Sr. No.	Location Name	Units	Day Time	Night Time
			Spot Noise Level dB (A) Maximum	Spot Noise Level dB (B) Maximum
Standard Limit		dB	75	70
1.	Near Brattice Area	dB	71.9	67.2
2.	Near Lab Area	dB	68.4	62.3
3.	Near Raw Material Area	dB	72.7	67.5
4.	Near Capstan Machine	dB	73.4	67.8
5.	Near Winder Area	dB	72.2	66.1
6.	Near Utility Area	dB	73.8	68.7


 Analyzed By:


 Authorized Signatory

- Analysis is subject to the condition in which the sample is received at our laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till 15 days from the date of sampling.

Report No. - EE/ENV/2022/04/051

Date: 15/04/2022

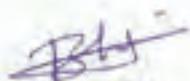
ANALYSIS REPORT

(For the month of March - 2022)

Client Details		Sample Details	
Name	M/s. Terram Geosynthetics Pvt. Ltd.	Sample Code	TGPL/L1
Address	Plot No.: 5, Block - B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch,	Location	As per table
		Quantity	NA
		Date of Measurement	28/03/2022
Measurement Done By	Earth Envirotech Team	Sampling Instrument	Lux Meter (LX-101 A)
Measurement Completion Date	28/03/2022	Sampling Method	Lutron - LX-101 Inst. Manual

LUX MONITORING RESULTS

Sr. No.	Location Name	In Lux (Day Time)	In Lux (Night Time)
1.	Near Capstan Machine	355	297


 Analyzed By:


- Analysis is subject to the condition in which the sample is received at our Laboratory.
- Reports can not be used as an evidence anywhere including judiciary purpose without our prior permission.
- Sample will be retained till one 15 days from the date of sampling.



**ANALYSIS REPORT
(AMBIENT AIR QUALITY MONITORING)**

Report No.:	ECS/OCCL/A/21-22/1024
Report issue Date:	06/12/2021
Field Data Sheet No.:	ECS/FDS/11/21/075
Sample ID No.:	ECS/ID/A-260-263/11/21/01-04
Name & Add. of Industry:	ORIENTAL CARBON & CHEMICALS LIMITED (PCB ID: 13896) Plot No: 141/P, Mundra SEZ, Tal:- Mundra, Dist.: Kutch 370421.
Analysis Started on:	29/11/2021
Analysis Completed on:	02/12/2021
Sampling Done By:	Envirochem Consultancy Services Team.
Sampling Method:	CPCB Guideline.

➤ **Test Parameter Results**

Sr. No.	Test Parameter	Unit	Location	Nr. Office Area	Nr. R O Plant	Nr. Storage Area (U34)	Nr. (CF) Boiler Area	Permissible Limit (As per NAAQMS)
			Date of Sampling	23.11.2021	23.11.2021	24.11.2021	24.11.2021	
			Test Method	Results				
1.	Particulate Matter. (PM ₁₀)	µg/m ³	IS - 5182, Part - 23	69.54	78.23	82.41	66.50	100
2.	Particulate Matter. (PM _{2.5})	µg/m ³	ECS/AIR/SOP/11	23.96	45.30	50.72	22.37	60
3.	Sulphur Dioxide (SO ₂)	µg/m ³	IS - 5182, Part - 2	12.25	18.77	19.80	16.35	80
4.	Nitrogen Dioxide (NO _x)	µg/m ³	IS - 5182, Part - 6	15.34	20.89	18.45	21.78	80

Sampling Done by: 

Tested By: 



Authorized by: 



TEST REPORT
(STACK EMISSION ANALYSIS REPORT)

Report No.:	ECS/OCCL/S/21-22/1025
Report issue Date:	06/12/2021
Field Data Sheet No.:	ECS/FDS/11/21/075
Sample ID No.:	ECS/ID/S-436-441/11/21/01-06
Name & Add. of Industry:	ORIENTAL CARBON & CHEMICALS LIMITED (PCB ID: 13896) Plot No: 141/P, Mundra SEZ, Tal:- Mundra, Dist.: Kutch 370421.
Analysis Started on:	29/11/2021
Analysis Completed on:	02/12/2021
Sampling Done By:	Envirochem Consultancy Services Team.
Sampling Method:	Sampling: Guidelines on methodologies for source emission monitoring LATS/80/2013-14

➤ **General Stack Monitoring Observation**

Stack Attached to	CF Boiler	D. G. Set (1010 KVA)	TFH - 2	Refiner (U1)	Refiner (U2)	Refiner (U3)
Fuel Used	Coal/Agro waste	HSD	HSD	HSD	HSD	HSD
Stack Height in (Meter)	40	22	40	10	10	10

➤ **Test Parameter Results**

Sr. No.	Test Parameter	Unit	Stack attached to	CFB Boiler	D. G. Set (1010 KVA)	TFH - 2	Refiner (U1)	Refiner (U2)	Refiner (U3)	Permissible Limit as per GPCB Consent
			Sampling Date	23.11.2021	24.11.2021	24.11.2021	24.11.2021	24.11.2021	24.11.2021	
			Test Method	Results						
1.	Particulate Matter (PM)	mg/N m ³	IS: 11255 (Part-1)	41.63	80.21	144.12	34.82	39.85	31.78	150
2.	Sulphur Dioxide (SO ₂)	ppm	IS: 11255 (Part-2)	11.62	26.55	30.72	40.57	44.65	38.91	100
3.	Oxide of Nitrogen (NO _x)	ppm	IS: 11255 (Part-7)	23.85	18.47	20.98	22.66	26.61	24.52	50

Sampling Done by:

Tested By:

Authorized by:

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TEST REPORT
WASTE WATER ANALYSIS REPORT

Report No.:	ECS/OCCL/W/21-22/1026
Report issue Date:	06/12/2021
Field Data Sheet No.:	ECS/FDS/11/21/075
Sample ID No.:	ECS/ID/W-303-306/11/21/01-04
Name & Add. of Industry:	ORIENTAL CARBON & CHEMICALS LIMITED (PCB ID: 13896) Plot No: 141/P, Mundra SEZ, Tal:- Mundra, Dist.: Kutch 370421.
Date of Sampling:	24/11/2021
Analysis Started on:	29/11/2021
Analysis Completed on:	05/12/2021
Sampling Done By:	Envirochem Consultancy Services Team.
Sampling Procedure:	IS 3025 Part 1
Mode of Collection	Grab
Parameters Analyzed onsite	pH & Temperature

➤ **Test Parameter Results**

Sr. No.	Parameters	Test Method	GPCB limit for Treated Effluent	Results			
				ETP Inlet	Aeration	Without Filtration	ETP Outlet
1.	pH @ 25 °C	(APHA 23 rd Ed.,2017, 4500-H+B)	6.5 - 8.5	6.71	6.80	6.75	7.14
2.	Temperature	(APHA 23 rd Ed.,2017,2550)	40 °C	26.1	27.2	26.4	27.5
3.	Color (pt. co. scale.)	(APHA 23 rd Ed.,2017,2120)	100 Units	41	89	24	Colorless
4.	Suspended Solids	(APHA 23 rd Ed.,2017,2540 -D)	100 mg/L	182	198	190	38
5.	Oil & Grease (mg/L)	(APHA 23 rd Ed.,2017,5220-B)	10 mg/L	4.0	3.7	3.8	2.7
6.	BOD (3 days at 27 °C)	(APHA 23 rd Ed.,2017,5210-B)	30 mg/L	154	41	37	26
7.	COD	(APHA 23 rd Ed.,2017,5220-B)	100 mg/L	432	117	82	73
8.	Chlorides	(APHA 23 rd Ed.,2017,4500-Cl)	600 mg/L	538	553	574	542



9.	Sulphates	(APHA 23 rd Ed.,2017,4500-E)	1000 mg/L	98	112	120	93
10.	Total Dissolved Solids	(APHA 23 rd Ed.,2017,2540- C)	2100 mg/L	1214	1278	1356	1321
11.	Phenolic Compound	IS 3025(Part 43)1992, Amd.2	02 mg/L	BDL	BDL	BDL	BDL
12.	Ammonical Nitorgen	(APHA 23 rd Ed.,2017,4500 NH ₃ -B&C)	50 mg/L	7.50	6.80	6.30	5.30
13.	Sodium Absorption Ratio	IS 11624	26	11.50	11.80	12.30	12.00
14.	Total Chromium (As Cr)	(APHA 23 rd Ed.,2017,3111-B)	0.2 mg/L	BDL	BDL	BDL	BDL
15.	Hexavalent Chromium (As Cr+6)	(APHA 23 rd Ed.,2017,3500 Cr-B)	0.1 mg/L	BDL	BDL	BDL	BDL
16.	Total Copper (As Cu)	(APHA 23 rd Ed.,2017,3111-B)	1.0 mg/L	BDL	BDL	BDL	BDL
17.	Total Iron (As Fe)	(APHA 23 rd Ed.,2017,3111-B)	1.0 mg/L	BDL	BDL	BDL	BDL

BDL = Below Detectable Limit.

Sampling Done by:

Tested By:



Authorized by:



TEST REPORT
WASTE WATER ANALYSIS REPORT

Report No.:	ECS/OCCL/W/21-22/1027
Report issue Date:	06/12/2021
Field Data Sheet No.:	ECS/FDS/11/21/075
Sample ID No.:	ECS/ID/W-307-308/11/21/01-02
Name & Add. of Industry:	ORIENTAL CARBON & CHEMICALS LIMITED (PCB ID: 13896) Plot No: 141/P, Mundra SEZ, Tal:- Mundra, Dist.: Kutch 370421.
Date of Sampling:	24/11/2021
Analysis Started on:	29/11/2021
Analysis Completed on:	05/12/2021
Sampling Done By:	Envirochem Consultancy Services Team.
Sampling Procedure:	IS 3025 Part 1
Mode of Collection	Grab
Parameters Analyzed onsite	pH & Temperature

Test Parameter Results

Sr. No.	Parameters	Test Method	GPCB limit for Treated Effluent	Results	
				STP Inlet	STP Outlet
1.	pH @ 25 °C	(APHA 23 rd Ed.,2017, 4500-H+B)	6.5 - 8.5	7.41	7.12
2.	Suspended Solids	(APHA 23 rd Ed.,2017,2540 -D)	30 mg/L	184	26.1
3.	BOD (3 days at 27 °C)	(APHA 23 rd Ed.,2017,5210-B)	20 mg/L	147	17.6
4.	Residual Chlorine	(APHA 23 rd Ed.,2017,4500 Cl-B)	0.5 Min	BDL	0.65

BDL = Below Detectable Limit.

Sampling Done by:

Tested By:

Authorized by:





TEST REPORT
(NOISE MONITORING REPORT)

Report No.:	ECS/OCCL/N/21-22/1028
Report issue Date:	06/12/2021
Field Data Sheet No.:	ECS/FDS/11/21/075
Sample ID No.:	ECS/ID/N-90/11/21/01
Name & Add. of Industry:	ORIENTAL CARBON & CHEMICALS LIMITED (PCB ID: 13896) Plot No: 141/P, Mundra SEZ, Tal:- Mundra, Dist.: Kutch 370421.
Date of Monitoring:	24/11/2021
Sampling Done By:	Envirochem Consultancy Services Team.
Sampling Method:	IS : 9989 : 1981

➤ **Results**

Sr. No.	Location	Noise Level dB(A) (Day Time)	Permissible Limit GPCB
1.	Near Office Area	50.3	<75 dB(A) (Day Time)
2.	Near Main Gate	58.4	
3.	Near RO Plant	53.9	
4.	Near ETP	67.1	
5.	Near STP	69.8	
6.	Near CFPC Boiler	68.5	
7.	Near Material Gate	64.7	
8.	Near Refiner Gate	70.2	
9.	Near Storage Area	65.4	
10.	Near Plant Boundary	50.1	

➤ **Note:** Ambient Air Quality Standards in respected of Noise as per CPCB.

Area Code	Category of Area/Zone	Limit in dB (A) Leq	
		Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 6:00 am)
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

Sampling Done by:

Authorized by:





TEST REPORT
(HAZARDOUS WASTE ANALYSIS REPORT)

Report No.:	ECS/OCCL/H/21-22/1029
Report issue Date:	06/12/2021
Field Data Sheet No.:	ECS/FDS/11/21/075
Sample ID No.:	ECS/ID/H-31/11/21/01
Name & Add. of Industry:	ORIENTAL CARBON & CHEMICALS LIMITED (PCB ID: 13896) Plot No: 141/P, Mundra SEZ, Tal:- Mundra, Dist.: Kutch 370421.
Date of Sampling:	24/11/2021
Analysis Started on:	01/12/2021
Analysis Completed on:	03/12/2021
Sampling Done By:	Envirochem Consultancy Services Team.
Sampling Location:	ETP Sludge
Sampling Method:	EPA SW 846

➤ **Test Parameter Results**

Sr. No.	Parameters	Test Method	Unit	Results
1.	pH @ 25 °C	(APHA 23 rd Ed.,2017,4500-H+B)	---	6.83
2.	Moisture Content	(APHA 23 rd Ed.,2017, 2540 D)	%	15.71
3.	Loss of Ignition	(APHA 23 rd Ed.,2017, 2540 E)	%	37.14
4.	Volatile Solids	(APHA 23 rd Ed.,2017, 2540 E)	%	44.32

Sampling Done by:

Tested By:



Authorized by:



ANALYSIS REPORT
(AMBIENT AIR QUALITY MONITORING)

Report No.:	ECS/OCCL/A/21-22/1564
Report issue Date:	29/03/2022
Field Data Sheet No.:	ECS/FDS/03/22/118
Sample ID No.:	ECS/ID/A-440-443/03/22/01-04
Name & Add. of Industry:	ORIENTAL CARBON & CHEMICALS LIMITED (PCB ID: 13896) Plot No: 141/P, Mundra SEZ, Tal:- Mundra, Dist.: Kutch 370421.
Analysis Started on:	18/03/2022
Analysis Completed on:	25/03/2022
Sampling Done By:	Envirochem Consultancy Services Team.
Sampling Method:	CPCB Guideline.

➤ **Test Parameter Results**

Sr. No.	Test Parameter	Unit	Location	Nr. Office Area	Nr. R O Plant	Nr. Storage Area (U34)	Nr. (CF) Boiler Area	Permissible Limit (As per NAAQMS)
			Date of Sampling	14.03.2022	14.03.2022	15.03.2022	15.03.2022	
			Test Method	Results				
1.	Particulate Matter. (PM ₁₀)	µg/m ³	IS - 5182, Part - 23	73.28	81.64	86.35	69.88	100
2.	Particulate Matter. (PM _{2.5})	µg/m ³	ECS/AIR/SOP/11	34.21	39.52	44.97	32.42	60
3.	Sulphur Dioxide (SO ₂)	µg/m ³	IS - 5182, Part - 2	14.33	16.87	28.56	19.26	80
4.	Nitrogen Dioxide (NO _x)	µg/m ³	IS - 5182, Part - 6	19.37	22.43	25.73	24.92	80

Sampling Done by:

Tested By:



Authorized by:



**TEST REPORT
(STACK EMISSION ANALYSIS REPORT)**

Report No.:	ECS/OCCL/S/21-22/1565
Report issue Date:	29/03/2022
Field Data Sheet No.:	ECS/FDS/03/22/118
Sample ID No.:	ECS/ID/S-646-648/03/22/01-03
Name & Add. of Industry:	ORIENTAL CARBON & CHEMICALS LIMITED (PCB ID: 13896) Plot No: 141/P, Mundra SEZ, Tal:- Mundra, Dist.: Kutch 370421.
Analysis Started on:	18/03/2022
Analysis Completed on:	25/03/2022
Sampling Done By:	Envirochem Consultancy Services Team.
Sampling Method:	Sampling: Guidelines on methodologies for source emission monitoring LATS/80/2013-14

➤ **General Stack Monitoring Observation**

Stack Attached to	Refiner (U1)	Refiner (U2)	Refiner (U3)
Fuel Used	HSD	HSD	HSD
Stack Height in (Meter)	10	10	10

➤ **Test Parameter Results**

Sr. No.	Test Parameter	Unit	Stack attached to	Refiner (U1)	Refiner (U2)	Refiner (U3)	Permissible Limit as per GPCB Consent
			Sampling Date	14.03.2022	14.03.2022	14.03.2022	
			Test Method	Results			
1.	Particulate Matter (PM)	mg/Nm ³	IS: 11255 (Part-1)	38.56	42.12	35.48	150
2.	Sulphur Dioxide (SO ₂)	ppm	IS: 11255 (Part-2)	31.20	37.41	30.96	100
3.	Oxide of Nitrogen (NO _x)	ppm	IS: 11255 (Part-7)	29.95	34.78	31.53	50

Sampling Done by:

Tested By:



Authorized by:

TEST REPORT
(STACK EMISSION ANALYSIS REPORT)

Report No.:	ECS/OCCL/S/21-22/1566
Report issue Date:	29/03/2022
Field Data Sheet No.:	ECS/FDS/03/22/118
Sample ID No.:	ECS/ID/S-649-651/03/22/04-06
Name & Add. of Industry:	ORIENTAL CARBON & CHEMICALS LIMITED (PCB ID: 13896) Plot No: 141/P, Mundra SEZ, Tal:- Mundra, Dist.: Kutch 370421.
Analysis Started on:	18/03/2022
Analysis Completed on:	25/03/2022
Sampling Done By:	Envirochem Consultancy Services Team.
Sampling Method:	Sampling: Guidelines on methodologies for source emission monitoring LATS/80/2013-14

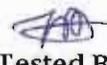
➤ **General Stack Monitoring Observation**

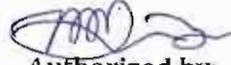
Stack Attached to	TFH - 2	CF Boiler	D. G. Set (1010 KVA)
Fuel Used	HSD	Coal/Agro waste	HSD
Stack Height in (Meter)	40	40	22

➤ **Test Parameter Results**

Sr. No.	Test Parameter	Unit	Stack attached to	TFH - 2	CFB Boiler	D. G. Set (1010 KVA)	Permissible Limit as per GPCB Consent
			Sampling Date	14.03.2022	15.03.2022	15.03.2022	
			Test Method	Results			
1.	Particulate Matter (PM)	mg/Nm ³	IS: 11255 (Part-1)	126.93	53.74	98.12	150
2.	Sulphur Dioxide (SO ₂)	ppm	IS: 11255 (Part-2)	27.74	12.86	30.65	100
3.	Oxide of Nitrogen (NO _x)	ppm	IS: 11255 (Part-7)	31.57	30.69	37.84	50

Sampling Done by: 

Tested By: 

Authorized by: 



Page 2 of 2



TEST REPORT
WASTE WATER ANALYSIS REPORT

Report No.:	ECS/OCCL/W/21-22/1567
Report issue Date:	29/03/2022
Field Data Sheet No.:	ECS/FDS/03/22/118
Sample ID No.:	ECS/ID/W-475-478/03/22/01-04
Name & Add. of Industry:	ORIENTAL CARBON & CHEMICALS LIMITED (PCB ID: 13896) Plot No: 141/P, Mundra SEZ, Tal:- Mundra, Dist.: Kutch 370421.
Date of Sampling:	15/03/2022
Analysis Started on:	18/03/2022
Analysis Completed on:	28/03/2022
Sampling Done By:	Envirochem Consultancy Services Team.
Sampling Procedure:	IS 3025 Part 1
Mode of Collection	Grab
Parameters Analyzed onsite	pH & Temperature

Test Parameter Results

Sr. No.	Parameters	Test Method	GPCB limit for Treated Effluent	Results			
				ETP Inlet	Aeration	Without Filtration	ETP Outlet
1.	pH @ 25 °C	(APHA 23 rd Ed.,2017, 4500-H+B)	6.5 - 8.5	4.15	7.42	7.28	7.69
2.	Temperature	(APHA 23 rd Ed.,2017,2550)	40 °C	33.5	34.2	34.9	35.3
3.	Color (pt. co. scale.)	(APHA 23 rd Ed.,2017,2120)	100 Units	52	76	29	Colorless
4.	Suspended Solids	(APHA 23 rd Ed.,2017,2540 -D)	100 mg/L	164	184	152	42
5.	Oil & Grease (mg/L)	(APHA 23 rd Ed.,2017,5220-B)	10 mg/L	5.8	4.9	3.5	2.4
6.	BOD (3 days at 27 °C)	(APHA 23 rd Ed.,2017,5210-B)	30 mg/L	199	77	28	23
7.	COD	(APHA 23 rd Ed.,2017,5220-B)	100 mg/L	597	233	81	74
8.	Chlorides	(APHA 23 rd Ed.,2017,4500-Cl)	600 mg/L	585	639	567	528





9.	Sulphates	(APHA 23 rd Ed.,2017,4500-E)	1000 mg/L	119	107	126	132
10.	Total Dissolved Solids	(APHA 23 rd Ed.,2017,2540- C)	2100 mg/L	1490	1427	1544	1521
11.	Phenolic Compound	IS 3025(Part 43)1992, Amd.2	02 mg/L	BDL	BDL	BDL	BDL
12.	Ammonical Nitrogen	(APHA 23 rd Ed.,2017,4500 NH ₃ -B&C)	50 mg/L	6.8	8.4	7.9	4.1
13.	Sodium Absorption Ratio	IS 11624	26	11.26	9.86	12.58	12.15
14.	Total Chromium (As Cr)	(APHA 23 rd Ed.,2017,3111-B)	0.2 mg/L	BDL	BDL	BDL	BDL
15.	Hexavalent Chromium (As Cr+6)	(APHA 23 rd Ed.,2017,3500 Cr-B)	0.1 mg/L	BDL	BDL	BDL	BDL
16.	Total Copper (As Cu)	(APHA 23 rd Ed.,2017,3111-B)	1.0 mg/L	BDL	BDL	BDL	BDL
17.	Total Iron (As Fe)	(APHA 23 rd Ed.,2017,3111-B)	1.0 mg/L	BDL	BDL	BDL	BDL

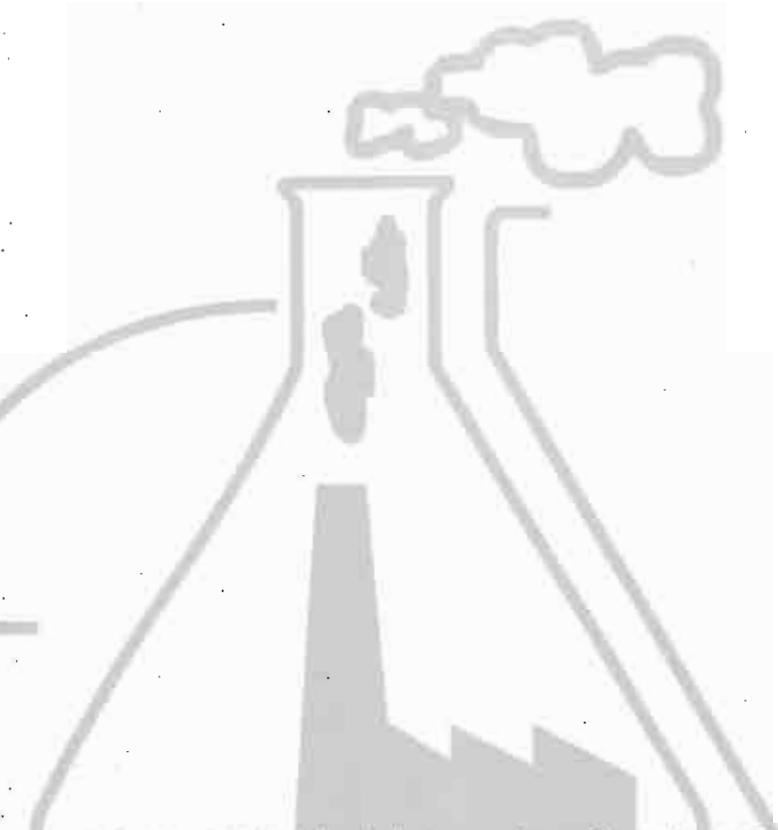
BDL = Below Detectable Limit.

Sampling Done by: 

Tested By: 



Authorized by: 



TEST REPORT
WASTE WATER ANALYSIS REPORT

Report No.:	ECS/OCCL/W/21-22/1568
Report issue Date:	29/03/2022
Field Data Sheet No.:	ECS/FDS/03/22/118
Sample ID No.:	ECS/ID/W-479-480/03/22/01-02
Name & Add. of Industry:	ORIENTAL CARBON & CHEMICALS LIMITED (PCB ID: 13896) Plot No: 141/P, Mundra SEZ, Tal:- Mundra, Dist.: Kutch 370421.
Date of Sampling:	15/03/2022
Analysis Started on:	18/03/2022
Analysis Completed on:	28/03/2022
Sampling Done By:	Envirochem Consultancy Services Team.
Sampling Procedure:	IS 3025 Part 1
Mode of Collection	Grab
Parameters Analyzed onsite	pH & Temperature

➤ **Test Parameter Results**

Sr. No.	Parameters	Test Method	GPCB limit for Treated Effluent	Results	
				STP Inlet	STP Outlet
1.	pH @ 25 °C	(APHA 23 rd Ed.,2017, 4500-H'B)	6.5 - 8.5	8.23	6.94
4.	Suspended Solids	(APHA 23 rd Ed.,2017,2540 -D)	30 mg/L	193.5	26.4
6.	BOD (3 days at 27 °C)	(APHA 23 rd Ed.,2017,5210-B)	20 mg/L	168.6	19.2
8.	Residual Chlorine	(APHA 23 rd Ed.,2017,4500 Cl-B)	0.5 Min	BDL	0.59

BDL = Below Detectable Limit.

Sampling Done by:

Tested By:

Authorized by:



Page 1 of 1

TEST REPORT
(NOISE MONITORING REPORT)

Report No.:	ECS/OCCL/N/21-22/1569
Report issue Date:	29/03/2022
Field Data Sheet No.:	ECS/FDS/03/22/118
Sample ID No.:	ECS/ID/N-135/03/22/01
Name & Add. of Industry:	ORIENTAL CARBON & CHEMICALS LIMITED (PCB ID: 13896) Plot No: 141/P, Mundra SEZ, Tal:- Mundra, Dist:- Kutch 370421.
Date of Monitoring:	15/03/2022
Sampling Done By:	Envirochem Consultancy Services Team.
Sampling Method:	IS : 9989 : 1981

➤ **Results**

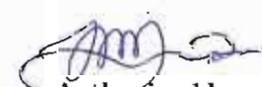
Sr. No.	Location	Noise Level dB(A) (Day Time)	Permissible Limit GPCB
1.	Near Office Area	51	<75 dB(A) (Day Time)
2.	Near Main Gate	56	
3.	Near RO Plant	57	
4.	Near ETP	68	
5.	Near STP	71	
6.	Near CFPC Boiler	64	
7.	Near Material Gate	66	
8.	Near Refiner Gate	69	
9.	Near Storage Area	63	
10.	Near Plant Boundary	52	

➤ **Note:** Ambient Air Quality Standards in respected of Noise as per CPCB.

Area Code	Category of Area/Zone	Limit in dB (A) Leq	
		Day Time (6:00 am to 10:00 pm)	Night Time (10:00 pm to 6:00 am)
(A)	Industrial area	75	70
(B)	Commercial area	65	55
(C)	Residential area	55	45
(D)	Silence Zone	50	40

Sampling Done by: 



Authorized by: 

Page 1 of 1

TEST REPORT
(HAZARDOUS WASTE ANALYSIS REPORT)

Report No.:	ECS/OCCL/H/21-22/1570
Report issue Date:	29/03/2022
Field Data Sheet No.:	ECS/FDS/03/22/118
Sample ID No.:	ECS/ID/H-52/03/22/01
Name & Add. of Industry:	ORIENTAL CARBON & CHEMICALS LIMITED (PCB ID: 13896) Plot No: 141/P, Mundra SEZ, Tal:- Mundra, Dist.: Kutch 370421.
Date of Sampling:	15/03/2022
Analysis Started on:	18/03/2022
Analysis Completed on:	25/03/2022
Sampling Done By:	Envirochem Consultancy Services Team.
Sampling Location:	ETP Sludge
Sampling Method:	EPA SW 846

➤ **Test Parameter Results**

Sr. No.	Parameters	Test Method	Unit	Results
1.	pH @ 25 °C	(APHA 23 rd Ed.,2017,4500-H*B)	---	7.32
2.	Moisture Content	(APHA 23 rd Ed.,2017, 2540 D)	%	21.56
3.	Loss of Ignition	(APHA 23 rd Ed.,2017, 2540 E)	%	41.78
4.	Volatile Solids	(APHA 23 rd Ed.,2017, 2540 E)	%	39.97

Sampling Done by:

Tested By:



Authorized by:

Page 1 of 1



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Ref.No.: 1001/10/2021-22

Date: 29/10/2021

REPORT OF STACK EMISSION ANALYSIS

Name of Company: Ahlstrom Munksjo Fibercomposites India Pvt. Ltd.

Address: Mundra SEZ Integrated Textile & Apparrie Park,

(MITAP), Plot No. - 07

Survey No. -141, Mundra,

Kutch-370421

Date of sampling : 26/10/2021

Test Method : As per IS Standards - 11255_1/2/3/7

Sr. No.	Particulars	Unit	S - 1
01	Stack Attached to	—	Boiler
02	Air Pollution Control Measures	—	—
03	Type of Fuel	—	Furnace Oil
04	Stack Diameter	Meter	0.92
05	Stack Height	Meter	42
06	Stack Temperature	Degree Centi.	114
07	Ambient Temperature	Degree Centi.	32
08	Average Velocity of Flue Gases	m/Sec	6.2
09	Isokinetic flow rate for P.M. Sampling	LPM	18
10	Gaseous Sampling Flow Rate	LPM	2.0
11	Permissible Limit for P.M.	mg/Nm ³	150
12	Measured Concentration of P.M.	mg/Nm ³	46
13	Permissible Limit for SO ₂	PPM	100
14	Measured Concentration of SO ₂	PPM	43.8
15	Permissible Limit for NO _x	PPM	50
16	Measured Concentration of NO _x	PPM	32.9

Instrument Used : Stack Monitoring Kit - Ecotech Make - ESS-100

Calibration Done On : 13/10/2020



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Ref.No. : 1002/10/2021-22

Date: 29/10/2021

REPORT OF EFFLUENT WATER SAMPLES

Name of Company : Ahlstrom Munksjo Fibercomposites India Pvt. Ltd.

Address: Mundra SEZ Integrated Textile & Apparile Park,

(MITAP), Plot No. - 07

Survey No. -141, Mundra.

Kutch-370421

Date of sampling : 26/10/2021

Source of Sample : ETP-Collection Tank

Sr. No.	Parameters	Unit	Inlet Limit for CETP	ETP- Collection Tank
01	Suspended Solids	mg/l	800	129
02	Oil & Grease	mg/l	20	1.8
03	Fluorides	mg/l	2.0	0.55
04	Sulphide	mg/l	2.0	N.D
05	Ammonical Nitrogen	mg/l	50	14.6
06	BOD (3 days for 27°C)	mg/l	1000	49
07	COD	mg/l	2000	123
08	TDS	mg/l	2100	1388

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Ref.No.: 1003/10/2021-22

Date: 29/10/2021

REPORT OF EFFLUENT WATER SAMPLES

Name of Company : Ahlstrom Munksjo Fibercomposites India Pvt. Ltd.

Address: Mundra SEZ Integrated Textile & Appartre Park,

(MITAP), Plot No. - 07

Survey No. -141, Mundra,

Kutch-370421

Date of sampling : 26/10/2021

Source of Sample : Sewage Treatment Plant

Sr. No.	Parameters	Unit	GPCB Limits (For Treated Water)	STP I/L	STP O/L
01.	pH	pH Units	6.5 - 8.5	6.55	7.32
02.	Total Suspended Solid	mg/l	30	129	30
03.	BOD (3 days for 27°C)	mg/l	20	52	19
04.	COD	mg/l	100	134	58.3
05.	Residue Chlorine	mg/l	Min 0.5	NIL	0.66

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Ref.No.: 604/10/2021-22

Date: 28/10/2021

REPORT OF AMBIENT AIR QUALITY MONITORING

Name of Company: Ahlstrom Murksjo Fibercomposites India Pvt. Ltd

Address: Mundra SEZ Integrated Textile & Apparell Park,

(MITAP), Plot No. - 07

Survey No. -141, Mundra,

Kutch-370421

Test Method : As per IS Standards - 5182, 2/4/6

Sr.No.	Particulars	Unit	Location No. 1	Location No. 2
01.	Location of Sampling	—	Nr. New Security Gate	Nr. Old Security Gate
02.	Date of sampling	—	28/10/2021	28/10/2021
03.	Time of sampling	Hr.	10.35	11.15
04.	Duration of sampling	Hrs.	24.00	24.00
05.	Dominant Wind Direction (From)	—	NE	NE
06.	Average Wind Speed	Km/Hr.	12.4	12.4
07.	Average flow rate during sampling	m ³ /minute	1.2	1.1
08.	Average flow rate for Gas sampling	Meter	0.2	0.2
09.	Permissible Limits of PM _{2.5}	µg/m ³	60	60
10.	Measured Concentration of PM _{2.5}	µg/m ³	31	37
11.	Permissible Limits of PM ₁₀	µg/m ³	100	100
12.	Measured Concentration of PM ₁₀	µg/m ³	64	62
13.	Permissible Limits of SO ₂	µg/m ³	80	80
14.	Measured Concentration of SO ₂	µg/m ³	12.8	13.4
15.	Permissible Limits of NO ₂	µg/m ³	80	80
16.	Measured Concentration of NO ₂	µg/m ³	21.6	19.7

Instrument Used : Ecotech make AAS - 217 BL , Gaseous Sampler AAS-109, PM 2.5 Sampler AAS 127

Calibration Done on : 15/06/2020



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Ref.No.: 605/10/2021-22

Date: 29/10/2021

REPORT OF AMBIENT NOISE LEVEL MEASUREMENT

Name of Company : Ahlstrom Munksjo Fibercomposites India Pvt. Ltd.

Address: Mundra SEZ Integrated Textile & Appartre Park,

(MITAP), Plot No. - 07

Survey No. -141, Mundra,

Kutch-370421

Date of sampling : 26/10/2021

Sr. No.	Location of Sampling	Day Time	Night Time
		6:00 AM - 10:00 PM	10:00 PM - 6:00 AM
	Permissible Limits	75 dB(A)	70 dB(A)
01	Nr. Sec.Main Gate	58.7	43.9
02	Nr. STP	69.2	52.6
03	Nr. FO Storage Area	66.5	53.5

Instruments used : Sound level meter, Model : IL - 006719 (SIGMA)

Calibration Done On : 30/09/2021

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Date: 26/11/2021

Ref.No.: 2001/11/2021-22

REPORT OF STACK EMISSION ANALYSIS

Name of Company: Ahlstrom Munksjo Fibercomposites India Pvt. Ltd.

Address: Mundra SEZ Integrated Textile & Apparile Park,

(MITAP), Plot No - 07

Survey No. -141, Mundra,

Kutch-370421

Date of sampling : 11/11/2021

Test Method : As per IS Standards - 11255_1/2/3/7

Sr. No.	Particulars	Unit	S - 1
01.	Stack Attached to	—	Boiler
02.	Air Pollution Control Measures	—	—
03.	Type of Fuel	—	Furnace Oil
04.	Stack Diameter	Meter	0.92
05.	Stack Height	Meter	42
06.	Stack Temperature	Degree Centi.	112
07.	Ambient Temperature	Degree Centi.	28
08.	Average Velocity of Flue Gases	m/Sec.	7.3
09.	Isokinetic flow rate for P.M. Sampling	LPM	20
10.	Gaseous Sampling Flow Rate	LPM	2.0
11.	Permissible Limit for P.M.	mg/Nm ³	150
12.	Measured Concentration of P.M.	mg/Nm ³	40
13.	Permissible Limit for SO ₂	PPM	100
14.	Measured Concentration of SO ₂	PPM	48.6
15.	Permissible Limit for NO _x	PPM	50
16.	Measured Concentration of NO _x	PPM	37.2

Instrument Used : Stack Monitoring Kit - Ecotech Make - ES5 100
Calibration Done On. - 13/10/2020

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Ref No.: 2002/11/2021-22

Date: 26/11/2021

REPORT OF EFFLUENT WATER SAMPLES

Name of Company : Ahlstrom Munksjö Fibercomposites India Pvt. Ltd.

Address: Mundra SEZ Integrated Textile & Apparrie Park,

(MITAP), Plot No. - 07

Survey No. -141, Mundra,

Kutch-370421

Date of sampling : 11/11/2021

Source of Sample : ETP-Collection Tank

Sr. No.	Parameters	Unit	Inlet Limit for CETP	ETP- Collection Tank
01.	Suspended Solids	mg/l	800	103
02.	Oil & Grease	mg/l	20	2.8
03.	Fluorides	mg/l	2.0	0.70
04.	Sulphide	mg/l	2.0	N.D
05.	Ammonical Nitrogen	mg/l	50	18.9
06.	BOD (3 days for 27°C)	mg/l	1000	42
07.	COD	mg/l	2000	116
08.	TDS	mg/l	2100	1169

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Date: 26/11/2021

Ref.No.: 2003/11/2021-22

REPORT OF EFFLUENT WATER SAMPLES

Name of Company : Ahlstrom Munksjo Fibercomposites India Pvt. Ltd.

Address: Mundra SEZ Integrated Textile & Apparell Park,
(MITAP), Plot No. - 07
Survey No. -141, Mundra,
Kutch-370421

Date of sampling : 11/11/2021

Source of Sample : Sewage Treatment Plant

Sr. No.	Parameters	Unit	GPCB Limits (For Treated Water)	STP I/L	STP O/L
01.	pH	pH Units	6.5 - 8.5	6.34	7.82
02.	Total Suspended Solid	mg/l	30	116	21
03.	BOD (3 days for 27°C)	mg/l	20	63	12
04.	COD	mg/l	100	156	47.8
05.	Residue Chlorine	mg/l	Min. 0.5	NIL	0.45

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Ref.No.: 3001/12/2021-22

Date: 03/01/2022

REPORT OF STACK EMISSION ANALYSIS

Name of Company: Ahlstrom Munksjo Fibercomposites India Pvt. Ltd.

Address: Mundra SEZ Integrated Textile & Apparrie Park,
(MITAP), Plot No. - 07
Survey No. -141, Mundra,
Kutch-370421

Date of sampling : 28/12/2021

Test Method : As per IS Standards - 11255 1/2/3/7

Sr. No.	Particulars	Unit	S - 1
01	Stack Attached to	—	Boiler
02	Air Pollution Control Measures	—	—
03	Type of Fuel	—	Furnace Oil
04	Stack Diameter	Meter	0.92
05	Stack Height	Meter	42
06	Stack Temperature	Degree Centi.	120
07	Ambient Temperature	Degree Centi.	30
08	Average Velocity of Flue Gases	m/Sec.	7.8
09	Isokinetic flow rate for P.M. Sampling	LPM	21
10	Gaseous Sampling Flow Rate	LPM	2.0
11	Permissible Limit for P.M.	mg/Nm ³	150
12	Measured Concentration of P.M.	mg/Nm ³	45
13	Permissible Limit for SO ₂	PPM	100
14	Measured Concentration of SO ₂	PPM	42.3
15	Permissible Limit for NO _x	PPM	50
16	Measured Concentration of NO _x	PPM	35.1

Instrument Used : Stack Monitoring Kit - Ecotech Make - ESS 100
Calibration Done On : 13/10/2020

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Ref.No : 3002/12/2021-22

Date: 03/01/2022

REPORT OF EFFLUENT WATER SAMPLES

Name of Company : Ahlstrom Manksjo Fibercomposites India Pvt. Ltd.

Address: Mundra SEZ Integrated Textile & Apparel Park,
(MITAP), Plot No. - 07
Survey No. -141, Mundra,
Kutch-370421

Date of sampling : 28/12/2021

Source of Sample : ETP-Collection Tank

Sr. No.	Parameters	Unit	Inlet Limit for CETP	ETP- Collection Tank
01	Suspended Solids	mg/l	800	108
02	Oil & Grease	mg/l	20	3.4
03	Fluorides	mg/l	2.0	0.58
04	Sulphide	mg/l	2.0	N.D
05	Ammonical Nitrogen	mg/l	50	18.7
06	BOD (3 days for 27°C)	mg/l	1000	53
07	COD	mg/l	2000	132
08	TDS	mg/l	2100	1224

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Ref.No.: 3003/12/2021-22

Date: 03/01/2022

REPORT OF EFFLUENT WATER SAMPLES

Name of Company : Ahlstrom Munksjo Fibercomposites India Pvt. Ltd.

Address: Mundra SEZ Integrated Textile & Apparile Park,

(MITAP), Plot No. - 07

Survey No. -141, Mundra,

Kutch-370421

Date of sampling : 28/12/2021

Source of Sample : Sewage Treatment Plant

Sr. No.	Parameters	Unit	GPCB Limits (For Treated Water)	STP I/L	STP O/L
01.	pH	pH Units	6.5 - 8.5	6.80	7.20
02.	Total Suspended Solid	mg/l	30	112	19
03.	BOD (3 days for 27°C)	mg/l	20	54	16
04.	COD	mg/l	100	141	42.7
05.	Residue Chlorine	mg/l	Min, 0.5	NIL	0.51

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Ref No.: 4001/01/2021-22

Date: 29/01/2022

REPORT OF STACK EMISSION ANALYSIS

Name of Company: Ahlstrom Munksjo Fibercomposites India Pvt. Ltd.

Address: Mundra SEZ Integrated Textile & Apparell Park,

(MITAP), Plot No. - 07

Survey No. -141, Mundra,

Kutch-370421

Date of sampling : 21/01/2022

Test Method : As per IS Standards - 11255_1/2/3/7

Sr. No.	Particulars	Unit	S - 1
01.	Stack Attached to	—	Boiler
02.	Air Pollution Control Measures	—	—
03.	Type of Fuel	—	LDO
04.	Stack Diameter	Meter	0.92
05.	Stack Height	Meter	42
06.	Stack Temperature	Degree Centi.	126
07.	Ambient Temperature	Degree Centi.	29
08.	Average Velocity of Flue Gases	m/Sec.	7.2
09.	Isokinetic flow rate for P.M. Sampling	LPM	20
10.	Gaseous Sampling Flow Rate	LPM	2.0
11.	Permissible Limit for P.M.	mg/Nm ³	150
12.	Measured Concentration of P.M.	mg/Nm ³	28.2
13.	Permissible Limit for SO ₂	PPM	100
14.	Measured Concentration of SO ₂	PPM	1.14
15.	Permissible Limit for NO _x	PPM	50
16.	Measured Concentration of NO _x	PPM	22.5

Instrument Used : Stack Monitoring Kit - Ecotech Make - ESS 100

Calibration Done On : 27/12/2021



Royal Environment Auditing & Consultancy Service

Ashish
Analyst



Royal

Environment Auditing & Consultancy Service

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Ph: +91 281 2360695 • E-mail: royalsenvironment@live.com • admin@royalconsultancy.com

Ref No. : 4002/01/2021-22

Date: 29/01/2022

REPORT OF EFFLUENT WATER SAMPLES

Name of Company : Ahlstrom Munksjo Fibercomposites India Pvt. Ltd.

Address: Mundra SEZ Integrated Textile & Apparell Park,

(MITAP), Plot No. - 07

Survey No. -141, Mundra.

Kutch-370421

Date of sampling : 21/01/2022

Source of Sample : ETP-Collection Tank

Sr. No.	Parameters	Unit	Inlet Limit for CETP	ETP- Collection Tank
01.	Suspended Solids	mg/l	800	115
02.	Oil & Grease	mg/l	20	3.8
03.	Fluorides	mg/l	2.0	0.39
04.	Sulphide	mg/l	2.0	N D
05.	Ammonical Nitrogen	mg/l	50	15.7
06.	BOD (3 days for 27°C)	mg/l	1000	57
07.	COD	mg/l	2000	143
08.	TDS	mg/l	2100	1266

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Ref.No.: 4003/01/2021-22

Date: 29/01/2022

REPORT OF EFFLUENT WATER SAMPLES

Name of Company : Ahlstrom Munksjo Fibercomposites India Pvt. Ltd.

Address: Mundra SEZ Integrated Textile & Apparell Park,

(MITAP), Plot No. - 07

Survey No. -141, Mundra,

Kutch-370421

Date of sampling : 21/01/2022

Source of Sample : Sewage Treatment Plant

Sr. No.	Parameters	Unit	GPCB Limits (For Treated Water)	STP I/L	STP O/L
01.	pH	pH Units	6.5 - 8.5	6.68	7.41
02.	Total Suspended Solid	mg/l	30	110	16
03.	BOD (3 days for 27°C)	mg/l	20	52	15
04.	COD	mg/l	100	136	38.1
05.	Residue Chlorine	mg/l	Min. 0.5	NIL	0.44

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Ref.No. 704/01/2021-22

Date: 29/01/2022

REPORT OF AMBIENT AIR QUALITY MONITORING

Name of Company: Ahlstrom Munksjo Fibercomposites India Pvt. Ltd.

Address: Mundra SEZ Integrated Textile & Apparell Park,

(MITAP), Plot No - 07

Survey No. -141, Mundra,

Kutch-370421

Test Method : As per IS Standards - 5182, 2/4/6

Sr.No.	Particulars	Unit	Location No. 1	Location No. 2
01.	Location of Sampling	—	Nr. New Security Gate	Nr. Old Security Gate
02.	Date of sampling	—	21/01/2022	21/01/2022
03.	Time of sampling	Hr.	9.50	10.10
04.	Duration of sampling	Hrs.	24.00	24.00
05.	Dominant Wind Direction (From)	—	NW	NW
06.	Average Wind Speed	Km/Hr.	15.2	15.2
07.	Average flow rate during sampling	m ³ /minute	1.1	1.2
08.	Average flow rate for Gas sampling	Meter	0.2	0.2
09.	Permissible Limits of PM _{2.5}	µg/m ³	60	60
10.	Measured Concentration of PM _{2.5}	µg/m ³	35	33
11.	Permissible Limits of PM ₁₀	µg/m ³	100	100
12.	Measured Concentration of PM ₁₀	µg/m ³	59	56
13.	Permissible Limits of SO ₂	µg/m ³	80	80
14.	Measured Concentration of SO ₂	µg/m ³	14.1	11.9
15.	Permissible Limits of NO ₂	µg/m ³	80	80
16.	Measured Concentration of NO ₂	µg/m ³	19.5	16.8

Instrument Used : Ecotech make AAS - 217 BL , Gaseous Sampler AAS 109, PM 2.5 Sampler AAS 127

Calibration Done on : 27/12/2021

Royal Environment Auditing & Consultancy Service

Ashish
Analyst



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Ref.No.: 705/01/2021-22

Date: 29/01/2022

REPORT OF AMBIENT NOISE LEVEL MEASUREMENT

Name of Company : Ahlstrom Munksjo Fibercomposites India Pvt. Ltd.

Address: Mundra SEZ Integrated Textile & Apparell Park,

(MITAP), Plot No. - 07

Survey No. -141, Mundra,

Kutch-370421

Date of sampling : 21/01/2022

Sr. No.	Location of Sampling	Day Time	Night Time
		6:00 AM - 10:00 PM	10:00 PM - 6:00 AM
	Permissible Limits	75 dB(A)	70 dB(A)
01	Nr. Sec.Main Gate	60.2	49.8
02	Nr. STP	66.8	60.1
03	Nr. FO Storage Area	62.3	55.4

Instruments used : Sound level meter, Model : IL - 006719 (SIGMA)

Calibration Done On : 30/09/2021

Royal Environment Auditing & Consultancy Service

Ashish
Analyst



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Ref.No.: 5001/02/2021-22

Date: 23/02/2022

REPORT OF STACK EMISSION ANALYSIS

Name of Company: Ahlstrom Munksjo Fibercomposites India Pvt. Ltd.

Address: Mundra SEZ Integrated Textile & Apparell Park.

(MITAP), Plot No. - 07

Survey No. -141, Mundra,

Kutch-370421

Date of sampling : 03/02/2022

Test Method : As per IS Standards - 11255 1/2/3/7

Sr. No.	Particulars	Unit	S - 1
01	Stack Attached to	—	Boiler
02	Air Pollution Control Measures	—	—
03	Type of Fuel	—	LDO
04	Stack Diameter	Meter	0.92
05	Stack Height	Meter	42
06	Stack Temperature	Degree Centi.	122
07	Ambient Temperature	Degree Centi	27
08	Average Velocity of Flue Gases	m/Sec.	6.8
09	Isokinetic flow rate for P.M. Sampling	LPM	18
10	Gaseous Sampling Flow Rate	LPM	2.0
11.	Permissible Limit for P.M.	mg/Nm ³	150
12.	Measured Concentration of P.M	mg/Nm ³	26.5
13.	Permissible Limit for SO ₂	PPM	100
14.	Measured Concentration of SO ₂	PPM	1.25
15.	Permissible Limit for NO _x	PPM	50
16.	Measured Concentration of NO _x	PPM	20.6

Instrument Used : Stack Monitoring Kit - Ecotech Make - ESS 100

Calibration Done On : 27/12/2021



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Ref.No.: 5002/02/2021-22

Date: 23/02/2022

REPORT OF EFFLUENT WATER SAMPLES

Name of Company : Ahlstrom Munksjo Fibercomposites India Pvt. Ltd

Address: Mundra SEZ Integrated Textile & Apparrie Park,

(MITAP), Plot No. - 07

Survey No. -141, Mundra,

Kutch-370421

Date of sampling : 03/02/2022

Source of Sample : ETP-Collection Tank

Sr. No.	Parameters	Unit	Inlet Limit for CETP	ETP- Collection Tank
01.	Suspended Solids	mg/l	800	118
02.	Oil & Grease	mg/l	20	3.5
03.	Fluorides	mg/l	2.0	0.48
04.	Sulphide	mg/l	2.0	N.D
05.	Ammonical Nitrogen	mg/l	50	12.8
06.	BOD (3 days for 27°C)	mg/l	1000	50
07.	COD	mg/l	2000	124
08.	TDS	mg/l	2100	1158

Royal Environment Auditing & Consultancy Service

Ashish
Analyst



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Ref.No.: 5003/02/2021-22

Date: 23/02/2022

REPORT OF EFFLUENT WATER SAMPLES

Name of Company : Ahlstrom Munksjo Fibercomposites India Pvt. Ltd.

Address: Mundra SEZ Integrated Textile & Apparrie Park,

(MITAP), Plot No. - 07

Survey No. -141, Mundra,

Kutch-370421

Date of sampling : 03/02/2022

Source of Sample : Sewage Treatment Plant

Sr. No.	Parameters	Unit	GPCB Limits (For Treated Water)	STP I/L	STP O/L
01.	pH	pH Units	6.5 - 8.5	6.87	6.96
02.	Total Suspended Solid	mg/l	30	105	18
03.	BOD (3 days for 27°C)	mg/l	20	49	13
04.	COD	mg/l	100	129	33.8
05.	Residue Chlorine	mg/l	Min. 0.5	NIL	0.63

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Ref.No. 6001/03/2021-22

Date: 31/03/2022

REPORT OF STACK EMISSION ANALYSIS

Name of Company: Ahlstrom Munksjo Fibercomposites India Pvt. Ltd.

Address: Mundra SEZ Integrated Textile & Apparell Park,
(MITAP), Plot No. - 07
Survey No. -141, Mundra,
Kutch-370421

Date of sampling : 24/03/2022

Test Method As per IS Standards - 11255_1/2/3/7

Sr. No.	Particulars	Unit	S - 1
01.	Stack Attached to	—	Boiler
02.	Air Pollution Control Measures	—	—
03.	Type of Fuel	—	LDO
04.	Stack Diameter	Meter	0.92
05.	Stack Height	Meter	42
06.	Stack Temperature	Degree Centi.	125
07.	Ambient Temperature	Degree Centi.	30
08.	Average Velocity of Flue Gases	m/Sec.	6.5
09.	Isokinetic flow rate for P.M. Sampling	LPM	20
10.	Gaseous Sampling Flow Rate	LPM	2.0
11.	Permissible Limit for P.M.	mg/Nm ³	150
12.	Measured Concentration of P.M.	mg/Nm ³	30.2
13.	Permissible Limit for SO ₂	PPM	100
14.	Measured Concentration of SO ₂	PPM	0.98
15.	Permissible Limit for NO _x	PPM	50
16.	Measured Concentration of NO _x	PPM	18.5

Instrument Used : Stack Monitoring Kit - Ecotech Make - ESS 100

Calibration Done On : 27/12/2021

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Ref.No.: 6002/03/2021-22

Date: 31/03/2022

REPORT OF EFFLUENT WATER SAMPLES

Name of Company : Ahlstrom Munksjo Fibercomposites India Pvt. Ltd.

Address: Mundra SEZ Integrated Textile & Apparell Park,

(MITAP), Plot No. - 07

Survey No. -141, Mundra,

Kutch-370421

Date of sampling : 24/03/2022

Source of Sample : ETP-Collection Tank

Sr. No.	Parameters	Unit	Inlet Limit for CETP	ETP- Collection Tank
01.	Suspended Solids	mg/l	800	112
02.	Oil & Grease	mg/l	20	3.2
03.	Fluorides	mg/l	2.0	0.51
04.	Sulphide	mg/l	2.0	N.D
05.	Ammonical Nitrogen	mg/l	50	15.4
06.	BOD (3 days for 27°C)	mg/l	1000	52
07.	COD	mg/l	2000	130
08.	TDS	mg/l	2100	1085

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Ashish
Analyst



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Ref No. : 6003/03/2021-22

Date: 31/03/2022

REPORT OF EFFLUENT WATER SAMPLES

Name of Company : Ahlstrom Munksjo Fibercomposites India Pvt. Ltd.

Address: Mundra SEZ Integrated Textile & Apparrie Park,

(MITAP), Plot No. - 07

Survey No. -141, Mundra,

Kutch-370421

Date of sampling : 24/03/2022

Source of Sample : Sewage Treatment Plant

Sr. No.	Parameters	Unit	GPCB Limits (For Treated Water)	STP I/L	STP O/L
01	pH	pH Units	6.5 - 8.5	6.75	6.92
02	Total Suspended Solid	mg/l	30	95	20
03	BOD (3 days for 27°C)	mg/l	20	45	15
04	COD	mg/l	100	118	38.3
05	Residue Chlorine	mg/l	Min. 0.5	NIL	0.81

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Ashish
Analyst

Annexure – 7

Cost of Environmental Protection Measures

Sr. No.	Activity	Cost incurred (INR in Lacs)			Budgeted Cost (INR in Lacs)
		2019 - 20	2020 - 21	2021 - 22	2021 - 22
1.	Environmental Study / Audit and Consultancy	0.33	6.2	6.82	7.0
2.	Legal & Statutory Expenses	0.84	10.58	10.52	12.0
3.	Environmental Monitoring Services	21.74	19.17	14.31	20.0
4.	Hazardous / Non-Hazardous Waste Management & Disposal	108.43	83.55	107.09	114.10
5.	Environment Days Celebration and Advertisement / Business development	1.5	5.3	4.04	7.0
6.	Treatment and Disposal of Bio-Medical Waste	1.62	2.09	2.14	2.04
7.	Mangrove Plantation, Monitoring & Conservation	Nil	32.59	53.6	53.6
8.	Other Horticulture Expenses	734.18	689	921	921
9.	O&M of Sewage Treatment Plant and Effluent Treatment Plant (including STP, ETP of Port & SEZ & Common Effluent Treatment Plant)	110.18	148.49	252.27	299.5
10.	Expenditure of Environment Dept. (Apart from above head)	105.13	89.11	149.8	85.35
Total		1083.95	1086.08	1371.79	1521.59

Annexure – 8

To,
Regional Director
Central Ground Water Board West Central Region
Swami Narayan College Building,
Shah Alam Tolnaka,
Ahmadabad,
Gujarat – 380022.

Sub: Intimation regarding monitoring of ground water level & quality through bore hole.

Dear Sir,

With reference to above stated subject, Adani Ports and Special Economic Zone Limited (APSEZ) located at Village: Mundra, Tal. Mundra, Dist. Kutch – 370421 would like to clarify you as below.

APSEZ has constructed 04 nos. of bore holes within multi-product SEZ for regularly monitoring of ground water level and its quality. Locations of bore holes are as below.

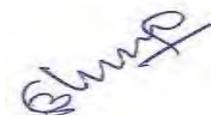
Sr. No.	Location	Latitude	Longitude
1.	Nr. Opp. Dhruv Railway Station	22°48'07.3"N	69°39'85.6"E
2.	Nr. Common Effluent Treatment Plant (CETP)	22°48'64.0"N	69°42'39.0"E
3.	Nr. PUB Building	22°77'92.58"N	69°68'34.4"E
4.	Nr. Flyover Bridge (ROB)	22°79'82.1"N	69°68'26.12"E

Ground water monitoring is being carried out at every six month by NABL accredited and MoEF&CC recognized agency namely M/s. Unistar Environment and Research Pvt. Ltd., Vapi. Latest ground water monitoring reports are enclosed here as **Annexure – A** for you reference.

APSEZ is requesting you to kindly consider above mentioned facts and provide your opinion regarding the same.

Thank you
Yours Faithfully,

For. M/s. Adani Ports and Special Economic Zone Limited (APSEZL)



Bhagwat Swaroop Sharma
Head – Environment

Encl As above

Copy to: Unit Head GPCB - Head Office, Paryavaran Bhavan Sector 10 A Gandhi Nagar 382010

Adani Ports and Special Economic Zone Ltd Tel +91 2838 25 5000
Adani House, Fax +91 2838 25 51110
PO Box No. 1 info@adani.com
Mundra, Kutch 370 421 www.adani.com
Gujarat, India
CIN: L63090GJ1998PLC034182

MoEF&CC (GOI) Recognized Environmental Laboratory under the EPA-1986 (12.01.2020 to 17.03.2023)

QCI-NABET Accredited EIA Consultant Organization

GPCB Recognized Environmental Auditor (Schedule-II)

ISO 9001:2015 Certified Company

ISO 45001:2018 Certified Company

TEST REPORT

Report No.	URC / 21/12/RO/DW/APL-0013		
Name & Address of Customer	M/S. ADANI PORTS & SEZ Limited. Notified SEZ area, Tal. – Mundra, Dist. – Kutch – 370421.	Date of Report	17/12/2021
		Customer's Ref.	As Per W.O.
Sample Details	Ground Water (Bore Hole) Sample	Location	PUB
Sample Qty.	2 Lit.	Appearance	Colorless
Sampling Date	10/12/2021	Sample Received Date	11/12/2021
Test Started Date	11/12/2021	Test Completion Date	16/12/2021
Sampled By	UERL-LAB	Sampling Method	UERL/CHM/SOP/116
UERL Lab ID. No.	21/12/RO/DW/APL-0013		

TEST RESULTS:

Sr. No.	Parameters	Test Method Permissible	Unit of Measurement	Results
1.	pH @ 25 ° C	IS 3025(Part 11)1983	--	7.37
2.	Salinity	APHA 23 rd Ed.,2017,2520 B	ppt	5.49
3.	Oil & Grease	IS 3025(Part39)1991, Amd. 2	mg/L	BDL(MDL:2.0)
4.	Hydrocarbon	GC/GCMS	mg/L	Not Detected
5.	Lead as Pb	IS 3025 (PART 47) 1994	mg/L	BDL(MDL:0.01)
6.	Arsenic as As	APHA 23 rd Ed.,2017,3114-C	mg/L	BDL(MDL:0.01)
7.	Nickel as Ni	IS 3025 (PART 54) 2003	mg/L	0.089
8.	Total Chromium as Cr	IS 3025 (PART 52) 2003	mg/L	BDL(MDL:0.05)
9.	Cadmium as Cd	IS 3025(PART 41) 1992	mg/L	BDL(MDL:0.003)
10.	Mercury as Hg	(APHA 23 rd Ed.,2017, 3112-B)	mg/L	BDL(MDL:0.001)
11.	Zinc as Zn	IS 3025(PART 49) 1994	mg/L	0.261
12.	Copper as Cu	IS 3025 (PART 42) 1992	mg/L	BDL(MDL:0.05)
13.	Iron as Fe	IS 3025(PART 53) 2003	mg/L	BDL(MDL:0.1)
14.	Insecticides/Pesticides	USEPA 8081 B	µg/L	Absent
15.	Depth of Water Level from Ground Level	--	meter	2.2

Remarks: BDL= Below Detection Limit, MDL = Minimum Detection Limit,

Opinion & Interpretation (If required):

*****End of Report *****

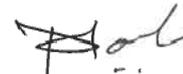
Checked By



(Nilesh C. Patel)
(Sr. Chemist)

Page 1 of 1

Authorized By



(Nitin B. Tandel)
(Technical Manager)

UERL/CHM/F-2/05

Note: This report is subject to terms and conditions mentioned overleaf.

TEST REPORT

Report No.	URC / 21/12/RO/DW/APL-0015		
Name & Address of Customer	M/S. ADANI PORTS & SEZ Limited. Notified SEZ area, Tal. – Mundra, Dist. – Kutch – 370421.	Date of Report	17/12/2021
		Customer's Ref.	As Per W.O.
Sample Details	Ground Water (Bore Hole) Sample	Location	Flyover Bridge
Sample Qty.	2 Lit.	Appearance	Colorless
Sampling Date	10/12/2021	Sample Received Date	11/12/2021
Test Started Date	11/12/2021	Test Completion Date	16/12/2021
Sampled By	UERL-LAB	Sampling Method	UERL/CHM/SOP/116
UERL Lab ID. No.	21/12/RO/DW/APL-0015		

TEST RESULTS:

Sr. No.	Parameters	Test Method Permissible	Unit of Measurement	Results
1.	pH @ 25 ° C	IS 3025(Part 11)1983	--	7.41
2.	Salinity	APHA 23 rd Ed.,2017,2520 B	ppt	5.69
3.	Oil & Grease	IS 3025(Part39)1991, Amd. 2	mg/L	BDL(MDL:2.0)
4.	Hydrocarbon	GC/GCMS	mg/L	Not Detected
5.	Lead as Pb	IS 3025 (PART 47) 1994	mg/L	BDL(MDL:0.01)
6.	Arsenic as As	APHA 23 rd Ed.,2017,3114-C	mg/L	BDL(MDL:0.01)
7.	Nickel as Ni	IS 3025 (PART 54) 2003	mg/L	0.168
8.	Total Chromium as Cr	IS 3025 (PART 52) 2003	mg/L	0.067
9.	Cadmium as Cd	IS 3025(PART 41) 1992	mg/L	0.097
10.	Mercury as Hg	(APHA 23 rd Ed.,2017, 3112-B)	mg/L	BDL(MDL:0.001)
11.	Zinc as Zn	IS 3025(PART 49) 1994	mg/L	0.168
12.	Copper as Cu	IS 3025 (PART 42) 1992	mg/L	BDL(MDL:0.05)
13.	Iron as Fe	IS 3025(PART 53) 2003	mg/L	0.383
14.	Insecticides/Pesticides	USEPA 8081 B	µg/L	Absent
15.	Depth of Water Level from Ground Level	--	meter	2.2

Remarks: BDL= Below Detection Limit, MDL = Minimum Detection Limit,

Opinion & Interpretation (If required):

*****End of Report *****

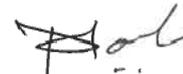
Checked By



(Nilesh C. Patel)
(Sr. Chemist)

Page 1 of 1

Authorized By



(Nitin B. Tandel)
(Technical Manager)

UERL/CHM/F-2/05

Note: This report is subject to terms and conditions mentioned overleaf.

TEST REPORT

Report No.	URC / 21/12/RO/DW/APL-0017		
Name & Address of Customer	M/S. ADANI PORTS & SEZ Limited. Notified SEZ area, Tal. – Mundra, Dist. – Kutch – 370421.	Date of Report	17/12/2021
		Customer's Ref.	As Per W.O.
Sample Details	Ground Water (Bore Hole) Sample	Location	Dhrub
Sample Qty.	2 Lit.	Appearance	Colorless
Sampling Date	10/12/2021	Sample Received Date	11/12/2021
Test Started Date	11/12/2021	Test Completion Date	16/12/2021
Sampled By	UERL-LAB	Sampling Method	UERL/CHM/SOP/116
UERL Lab ID. No.	21/12/RO/DW/APL-0017		

TEST RESULTS:

Sr. No.	Parameters	Test Method Permissible	Unit of Measurement	Results
1.	pH @ 25 ° C	IS 3025(Part 11)1983	--	7.77
2.	Salinity	APHA 23 rd Ed.,2017,2520 B	ppt	22
3.	Oil & Grease	IS 3025(Part39)1991, Amd. 2	mg/L	BDL(MDL:2.0)
4.	Hydrocarbon	GC/GCMS	mg/L	Not Detected
5.	Lead as Pb	IS 3025 (PART 47) 1994	mg/L	0.061
6.	Arsenic as As	APHA 23 rd Ed.,2017,3114-C	mg/L	BDL(MDL:0.01)
7.	Nickel as Ni	IS 3025 (PART 54) 2003	mg/L	0.074
8.	Total Chromium as Cr	IS 3025 (PART 52) 2003	mg/L	BDL(MDL:0.05)
9.	Cadmium as Cd	IS 3025(PART 41) 1992	mg/L	BDL(MDL:0.003)
10.	Mercury as Hg	(APHA 23 rd Ed.,2017, 3112-B)	mg/L	BDL(MDL:0.001)
11.	Zinc as Zn	IS 3025(PART 49) 1994	mg/L	0.386
12.	Copper as Cu	IS 3025 (PART 42) 1992	mg/L	BDL(MDL:0.05)
13.	Iron as Fe	IS 3025(PART 53) 2003	mg/L	0.109
14.	Insecticides/Pesticides	USEPA 8081 B	µg/L	Absent
15.	Depth of Water Level from Ground Level	--	meter	2.3

Remarks: BDL= Below Detection Limit, MDL = Minimum Detection Limit,

Opinion & Interpretation (If required):

*****End of Report *****

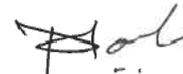
Checked By



(Nilesh C. Patel)
(Sr. Chemist)

Page 1 of 1

Authorized By



(Nitin B. Tandel)
(Technical Manager)

UERL/CHM/F-2/05

Note: This report is subject to terms and conditions mentioned overleaf.

TEST REPORT

Report No.	URC / 21/12/RO/DW/APL-0019		
Name & Address of Customer	M/S. MPSEZ Utilities Ltd. (MUL) Survey No. 141, Village - Mundra, APSEZ, Tal: Mundra, Dist.: Kutch – 370 421	Date of Report	17/12/2021
		Customer's Ref.	As Per W.O.
Sample Details	Ground Water (Bore Hole) Sample	Location	Near CETP
Sample Qty.	2 Lit.	Appearance	Colorless
Sampling Date	10/12/2021	Sample Received Date	11/12/2021
Test Started Date	11/12/2021	Test Completion Date	16/12/2021
Sampled By	UERL-LAB	Sampling Method	UERL/CHM/SOP/116
UERL Lab ID. No.	21/12/RO/DW/APL-0019		

TEST RESULTS:

Sr. No.	Parameters	Test Method Permissible	Unit of Measurement	Results
1.	pH @ 25 ° C	IS 3025(Part 11)1983	--	7.87
2.	Salinity	APHA 23 rd Ed.,2017,2520 B	ppt	2.83
3.	Oil & Grease	IS 3025(Part39)1991, Amd. 2	mg/L	BDL(MDL:2.0)
4.	Hydrocarbon	GC/GCMS	mg/L	Not Detected
5.	Lead as Pb	IS 3025 (PART 47) 1994	mg/L	0.080
6.	Arsenic as As	APHA 23 rd Ed.,2017,3114-C	mg/L	BDL(MDL:0.01)
7.	Nickel as Ni	IS 3025 (PART 54) 2003	mg/L	0.073
8.	Total Chromium as Cr	IS 3025 (PART 52) 2003	mg/L	BDL(MDL:0.05)
9.	Cadmium as Cd	IS 3025(PART 41) 1992	mg/L	BDL(MDL:0.003)
10.	Mercury as Hg	(APHA 23 rd Ed.,2017, 3112-B)	mg/L	BDL(MDL:0.001)
11.	Zinc as Zn	IS 3025(PART 49) 1994	mg/L	0.352
12.	Copper as Cu	IS 3025 (PART 42) 1992	mg/L	BDL(MDL:0.05)
13.	Iron as Fe	IS 3025(PART 53) 2003	mg/L	BDL(MDL:0.1)
14.	Insecticides/Pesticides	USEPA 8081 B	µg/L	Absent
15.	Depth of Water Level from Ground Level	--	meter	2.3

Remarks: BDL= Below Detection Limit, MDL = Minimum Detection Limit,

Opinion & Interpretation (If required):

*****End of Report *****

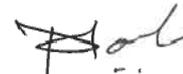
Checked By



(Nilesh C. Patel)
(Sr. Chemist)

Page 1 of 1

Authorized By



(Nitin B. Tandel)
(Technical Manager)

UERL/CHM/F-2/05

Note: This report is subject to terms and conditions mentioned overleaf.

Annexure – 9

DETAILED ENERGY AUDIT REPORT

AT



Adani Ports and Special Economic Zone Limited (AHMPL)

ADANI HOSPITAL

Near Samundra Township Mundra
Prepared by



Eco Energy Solution

49, Sector 2, Sarika Society, Samrat Nagar, Isanpur,
Ahmedabad – 382443, Gujarat, INDIA

January 2022

ACKNOWLEDEMENT

We are grateful to the management of Adani Port and SEZ for giving us an opportunity to contribute in their efforts towards efficient energy management by undertaking this Energy Audit study exercise.

Eco Energy Solution acknowledges with thanks the co-operation and support extended by management and operating personnel at Adani Port And SEZ during the audit exercise. Detailed discussions and interaction were held with plant personnel throughout the course of the audit and awareness of energy conservation was noted as exemplary. We would also like to place on record our sincere thanks and appreciation for all plant executives. Our special thanks are to,

- Mr. D. Varu - Associate Manager
- Mr. G.Pavar - Assistant Manager
- Mr. J.Nandaya - Senior Engineer
- Mr. D.Joshi - Senior Engineer
- Mr. S.Trivedi - Senior Engineer

We are also thankful to the other staff members who were actively involved while collecting the data and conducting the field studies. We take this opportunity to also thank all the team members at various departments associated with this study of energy audit for extending cooperation during collection of on-site data.

We trust that the findings of this study will help plant management in improving the equipment performance thereby giving optimum energy consumption at Adani Hospital, Adani Port And SEZ.

We have prepared this Energy Audit report document of Adani Hospital, Adani Port And SEZ, on a best judgment basis.

While all reasonable care has been taken in its preparation, details contained in this report have been compiled in good faith based on information provided and measurements undertaken at the facility.

For ECO ENERGY SOLUTION

Krunal Shah (Partner)

Pushkar Khanna (Partner)

Adani Hospital is a healthcare arm of Adani Group. Adani Healthcare Services, Gujarat Adani Institute of Medical Sciences and Adani Hospitals Mundra, are part of Corporate Social Responsibility initiatives of Adani Group, under the umbrella of Adani Foundation.

Adani Healthcare team is providing technical assistance to Adani Power for establishing a Nursing College & Hostel and construction of a new 300 bedded Hospital in place of the existing District Hospital at Baran, Rajasthan.

Adani Hospital is 100 bedded Hospital located in place of Mundra, Gujarat.

In order to reduce increasing energy costs, Adani Port And SEZ approached ECO ENERGY SOLUTION for conduct of energy audit for their A2/1 Samundra township, old, port road, near adani hospital, Gujarat 370421. This proposal was approved by plant vide its purchase order no 5702004681 dated 06.02.2022.

This energy audit report for Adani Hospital presents the analysis of the data collected, observations made and field trials undertaken from 21st Jan to 22nd Jan 2022. It is governed by the objectives, scope of work, and methodology discussed in ensuing report sections.

DETAILED ENERGY AUDIT REPORT

AT



Adani Ports & Special Economic Zone Ltd (4 MLD)
Mundra,
Gujarat-392130, India

Prepared by



Eco Energy Solution

49, Sector 2, Sarika Society, Samrat Nagar, Isanpur,
Ahmedabad – 382443, Gujarat, INDIA

FEB 2022

ACKNOWLEDEMENT

We are grateful to the management of Adani Ports & Special Economic Zone Ltd for giving us an opportunity to contribute in their efforts towards efficient energy management by undertaking this Energy Audit study exercise.

Eco Energy Solution acknowledges with thanks the co-operation and support extended by management and operating personnel at Adani Ports & Special Economic Zone Ltd during the audit exercise. Detailed discussions and interaction were held with plant personnel throughout the course of the audit and awareness of energy conservation was noted as exemplary. We would also like to place on record our sincere thanks and appreciation for all plant executives. Our special thanks are to,

- Mr. D. Varu - Associate Manager
- Mr. G.Pavar - Assistant Manager
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- Mr. D.Joshi - Senior Engineer
- Mr. S.Trivedi - Senior Engineer

We are also thankful to the other staff members who were actively involved while collecting the data and conducting the field studies. We take this opportunity to also thank all the team members at various departments associated with this study of energy audit for extending cooperation during collection of on-site data.

We trust that the findings of this study will help plant management in improving the equipment performance thereby giving optimum energy consumption at Adani Ports & Special Economic Zone Ltd.

We have prepared this Energy Audit report document Adani Ports & Special Economic Zone Ltd, on a best judgment basis.

While all reasonable care has been taken in its preparation, details contained in this report have been compiled in good faith based on information provided and measurements undertaken at the facility.

For ECO ENERGY SOLUTION

Krunal Shah (Partner)

Pushkar Khanna-AEA-0260 (Partner)

Company Profile

Adani Ports and Special Economic Zone Limited (APSEZ) is the largest commercial ports operator in India accounting for nearly one-fourth of the cargo movement in the country. Its presence across 13 domestic ports in seven maritime states of Gujarat, Maharashtra, Goa, Kerala, Andhra Pradesh, Tamil Nadu and Odisha presents the most widespread national footprint with deepened hinterland connectivity. The port facilities are equipped with the latest cargo-handling infrastructure which is not only best-in-class, but also capable of handling the largest vessels calling at Indian shores. Our ports are equipped to handle diverse cargos, from dry cargo, liquid cargo, crude to containers.

Through its subsidiary Adani Logistics Ltd., APSEZ operates three logistics parks located at Patli in Haryana, Kila-Raipur in Punjab and Kishangarh in Rajasthan. With the ability to handle 500,000 twenty foot equivalent units (TEUs) annually, the Adani logistics business is growing at a rapid pace.

Over the years, APSEZ has evolved into a provider of integrated port infrastructure services, of which the Mundra SEZ in Gujarat is a landmark validation. Spanning over 8,000 hectares, the Mundra Economic Hub offers investment options as the largest multi-product SEZ, Free Trade and Warehousing Zone (FTWZ) and Domestic Industrial Zone.

The Company's integrated services across three verticals, i.e. Ports, Logistics and SEZ, has enabled it to forge alliances with leading Indian businesses making APSEZ an undisputed leader in the Indian port sector.

Along with its expertise in providing end-to-end logistics solutions, operational excellence, low-cost operations and synergies through acquisitions, APSEZ was also certified as a Great Place to Work in FY 2021-22. The Company is backed by a young and dynamic workforce that propels it to greater heights.

In order to reduce increasing energy costs, Adani Ports and Special Economic Zone Limited (APSEZ) approached ECO ENERGY SOLUTION for conduct of energy audit for their Mundra Plant at APSEZ, Mundra, Gujarat. This proposal was approved by plant vide its purchase order no 5702004681 dated 06.02.2022.

This energy audit report for APSEZ Mundra Port presents the analysis of the data collected, observations made and field trials undertaken from 17th Jan to 18th Jan 2022. It is governed by the objectives, scope of work, and methodology discussed in ensuing report sections.

DETAILED ENERGY AUDIT REPORT

AT



Adani Ports & Special Economic Zone Ltd (WTP)
Mundra,
Gujarat-392130, India



Prepared by

Eco Energy Solution

49, Sector 2, Sarika Society, Samrat Nagar, Isanpur,
Ahmedabad – 382443, Gujarat, INDIA

FEB 2022

ACKNOWLEDEMENT

We are grateful to the management of Adani Ports & Special Economic Zone Ltd for giving us an opportunity to contribute in their efforts towards efficient energy management by undertaking this Energy Audit study exercise.

Eco Energy Solution acknowledges with thanks the co-operation and support extended by management and operating personnel at Adani Ports & Special Economic Zone Ltd during the audit exercise. Detailed discussions and interaction were held with plant personnel throughout the course of the audit and awareness of energy conservation was noted as exemplary. We would also like to place on record our sincere thanks and appreciation for all plant executives. Our special thanks are to,

- Mr. D. Varu - Associate Manager
- Mr. G.Pavar - Assistant Manager
- Mr. J.Nandaya - Senior Engineer
- Mr. D.Joshi - Senior Engineer
- Mr. S.Trivedi - Senior Engineer

We are also thankful to the other staff members who were actively involved while collecting the data and conducting the field studies. We take this opportunity to also thank all the team members at various departments associated with this study of energy audit for extending cooperation during collection of on-site data.

We trust that the findings of this study will help plant management in improving the equipment performance thereby giving optimum energy consumption at Adani Ports & Special Economic Zone Ltd.

We have prepared this Energy Audit report document Adani Ports & Special Economic Zone Ltd (WTP Plant), on a best judgment basis.

While all reasonable care has been taken in its preparation, details contained in this report have been compiled in good faith based on information provided and measurements undertaken at the facility.

For ECO ENERGY SOLUTION

Krunal Shah (Partner)

Pushkar Khanna (Partner)

Company Profile

Adani Ports and Special Economic Zone Limited (APSEZ) is the largest commercial ports operator in India accounting for nearly one-fourth of the cargo movement in the country. Its presence across 13 domestic ports in seven maritime states of Gujarat, Maharashtra, Goa, Kerala, Andhra Pradesh, Tamil Nadu and Odisha presents the most widespread national footprint with deepened hinterland connectivity. The port facilities are equipped with the latest cargo-handling infrastructure which is not only best-in-class, but also capable of handling the largest vessels calling at Indian shores. Our ports are equipped to handle diverse cargos, from dry cargo, liquid cargo, crude to containers.

Through its subsidiary Adani Logistics Ltd., APSEZ operates three logistics parks located at Patli in Haryana, Kila-Raipur in Punjab and Kishangarh in Rajasthan. With the ability to handle 500,000 twenty foot equivalent units (TEUs) annually, the Adani logistics business is growing at a rapid pace.

Over the years, APSEZ has evolved into a provider of integrated port infrastructure services, of which the Mundra SEZ in Gujarat is a landmark validation. Spanning over 8,000 hectares, the Mundra Economic Hub offers investment options as the largest multi-product SEZ, Free Trade and Warehousing Zone (FTWZ) and Domestic Industrial Zone.

The Company's integrated services across three verticals, i.e. Ports, Logistics and SEZ, has enabled it to forge alliances with leading Indian businesses making APSEZ an undisputed leader in the Indian port sector.

Along with its expertise in providing end-to-end logistics solutions, operational excellence, low-cost operations and synergies through acquisitions, APSEZ was also certified as a Great Place to Work in FY 2021-22. The Company is backed by a young and dynamic workforce that propels it to greater heights.

In order to reduce increasing energy costs, Adani Ports and Special Economic Zone Limited (APSEZ) approached ECO ENERGY SOLUTION for conduct of energy audit for their Mundra Plant at APSEZ, Mundra, Gujarat. This proposal was approved by plant vide its purchase order no 5702004681 dated 06.02.2022.

This energy audit report for APSEZ Mundra Port presents the analysis of the data collected, observations made and field trials undertaken from 23rd Jan to 24th Jan 2022. It is governed by the objectives, scope of work, and methodology discussed in ensuing report sections.

DETAILED ENERGY AUDIT REPORT

AT



Adani Ports & Special Economic Zone Ltd (Samudra Township)
Mundra,
Gujarat-392130, India

Prepared by



Eco Energy Solution

49, Sector 2, Sarika Society, Samrat Nagar, Isanpur,
Ahmedabad – 382443, Gujarat, INDIA

Feb 2022

ACKNOWLEDEMENT

We are grateful to the management of Adani Ports & Special Economic Zone Ltd for giving us an opportunity to contribute in their efforts towards efficient energy management by undertaking this Energy Audit study exercise.

Eco Energy Solution acknowledges with thanks the co-operation and support extended by management and operating personnel at Adani Ports & Special Economic Zone Ltd during the audit exercise. Detailed discussions and interaction were held with plant personnel throughout the course of the audit and awareness of energy conservation was noted as exemplary. We would also like to place on record our sincere thanks and appreciation for all plant executives. Our special thanks are to,

- Mr. D. Varu - Associate Manager
- Mr. G.Pavar - Assistant Manager
- Mr. J.Nandaya - Senior Engineer
- Mr. D.Joshi - Senior Engineer
- Mr. S.Trivedi - Senior Engineer

We are also thankful to the other staff members who were actively involved while collecting the data and conducting the field studies. We take this opportunity to also thank all the team members at various departments associated with this study of energy audit for extending cooperation during collection of on-site data.

We trust that the findings of this study will help plant management in improving the equipment performance thereby giving optimum energy consumption at Adani Ports & Special Economic Zone Ltd.

We have prepared this Energy Audit report document Adani Ports & Special Economic Zone Ltd, on a best judgment basis.

While all reasonable care has been taken in its preparation, details contained in this report have been compiled in good faith based on information provided and measurements undertaken at the facility.

For ECO ENERGY SOLUTION

Krunal Shah Lead Auditor
(Partner)

Pushkar Khanna AEA 0260
(Partner)

Company Profile

Adani Ports and Special Economic Zone Limited (APSEZ) is the largest commercial ports operator in India accounting for nearly one-fourth of the cargo movement in the country. Its presence across 13 domestic ports in seven maritime states of Gujarat, Maharashtra, Goa, Kerala, Andhra Pradesh, Tamil Nadu and Odisha presents the most widespread national footprint with deepened hinterland connectivity. The port facilities are equipped with the latest cargo-handling infrastructure which is not only best-in-class, but also capable of handling the largest vessels calling at Indian shores. Our ports are equipped to handle diverse cargos, from dry cargo, liquid cargo, crude to containers.

Through its subsidiary Adani Logistics Ltd., APSEZ operates three logistics parks located at Patli in Haryana, Kila-Raipur in Punjab and Kishangarh in Rajasthan. With the ability to handle 500,000 twenty foot equivalent units (TEUs) annually, the Adani logistics business is growing at a rapid pace.

Over the years, APSEZ has evolved into a provider of integrated port infrastructure services, of which the Mundra SEZ in Gujarat is a landmark validation. Spanning over 8,000 hectares, the Mundra Economic Hub offers investment options as the largest multi-product SEZ, Free Trade and Warehousing Zone (FTWZ) and Domestic Industrial Zone.

The Company's integrated services across three verticals, i.e. Ports, Logistics and SEZ, has enabled it to forge alliances with leading Indian businesses making APSEZ an undisputed leader in the Indian port sector.

Along with its expertise in providing end-to-end logistics solutions, operational excellence, low-cost operations and synergies through acquisitions, APSEZ was also certified as a Great Place to Work in FY 2021-22. The Company is backed by a young and dynamic workforce that propels it to greater heights.

In order to reduce increasing energy costs, Adani Ports and Special Economic Zone Limited (APSEZ) approached ECO ENERGY SOLUTION for conduct of energy audit for their Mundra Plant at APSEZ, Mundra, Gujarat. This proposal was approved by plant vide its purchase order no 5702004681 dated 06.02.2022.

This energy audit report for APSEZ Mundra Port presents the analysis of the data collected, observations made and field trials undertaken from 18th to 20th Jan 2022. It is governed by the objectives, scope of work, and methodology discussed in ensuing report sections.

DETAILED ENERGY AUDIT REPORT

AT



Adani Ports & Special Economic Zone Ltd (PUB Building)
Mundra,
Gujarat-392130, India

Prepared by



Eco Energy Solution

49, Sector 2, Sarika Society, Samrat Nagar, Isanpur,
Ahmedabad – 382443, Gujarat, INDIA

Feb 2022

ACKNOWLEDEMENT

We are grateful to the management of Adani Ports & Special Economic Zone Ltd for giving us an opportunity to contribute in their efforts towards efficient energy management by undertaking this Energy Audit study exercise.

Eco Energy Solution acknowledges with thanks the co-operation and support extended by management and operating personnel at Adani Ports & Special Economic Zone Ltd during the audit exercise. Detailed discussions and interaction were held with plant personnel throughout the course of the audit and awareness of energy conservation was noted as exemplary. We would also like to place on record our sincere thanks and appreciation for all plant executives. Our special thanks are to,

- Mr. D. Varu - Associate Manager
- Mr. G.Pavar - Assistant Manager
- Mr. J.Nandaya - Senior Engineer
- Mr. D.Joshi - Senior Engineer
- Mr. S.Trivedi - Senior Engineer

We are also thankful to the other staff members who were actively involved while collecting the data and conducting the field studies. We take this opportunity to also thank all the team members at various departments associated with this study of energy audit for extending cooperation during collection of on-site data.

We trust that the findings of this study will help plant management in improving the equipment performance thereby giving optimum energy consumption at Adani Ports & Special Economic Zone Ltd.

We have prepared this Energy Audit report document Adani Ports & Special Economic Zone Ltd, on a best judgment basis.

While all reasonable care has been taken in its preparation, details contained in this report have been compiled in good faith based on information provided and measurements undertaken at the facility.

For ECO ENERGY SOLUTION

Krunal Shah Lead Auditor (Partner)

Pushkar Khanna AEA-0260

(Partner)

Company Profile

Adani Ports and Special Economic Zone Limited (APSEZ) is the largest commercial ports operator in India accounting for nearly one-fourth of the cargo movement in the country. Its presence across 13 domestic ports in seven maritime states of Gujarat, Maharashtra, Goa, Kerala, Andhra Pradesh, Tamil Nadu and Odisha presents the most widespread national footprint with deepened hinterland connectivity. The port facilities are equipped with the latest cargo-handling infrastructure which is not only best-in-class, but also capable of handling the largest vessels calling at Indian shores. Our ports are equipped to handle diverse cargos, from dry cargo, liquid cargo, crude to containers.

Through its subsidiary Adani Logistics Ltd., APSEZ operates three logistics parks located at Patli in Haryana, Kila-Raipur in Punjab and Kishangarh in Rajasthan. With the ability to handle 500,000 twenty foot equivalent units (TEUs) annually, the Adani logistics business is growing at a rapid pace.

Over the years, APSEZ has evolved into a provider of integrated port infrastructure services, of which the Mundra SEZ in Gujarat is a landmark validation. Spanning over 8,000 hectares, the Mundra Economic Hub offers investment options as the largest multi-product SEZ, Free Trade and Warehousing Zone (FTWZ) and Domestic Industrial Zone.

The Company's integrated services across three verticals, i.e. Ports, Logistics and SEZ, has enabled it to forge alliances with leading Indian businesses making APSEZ an undisputed leader in the Indian port sector.

Along with its expertise in providing end-to-end logistics solutions, operational excellence, low-cost operations and synergies through acquisitions, APSEZ was also certified as a Great Place to Work in FY 2021-22. The Company is backed by a young and dynamic workforce that propels it to greater heights.

In order to reduce increasing energy costs, Adani Ports and Special Economic Zone Limited (APSEZ) approached ECO ENERGY SOLUTION for conduct of energy audit for their Mundra Plant at APSEZ, Mundra, Gujarat. This proposal was approved by plant vide its purchase order no 5702004681 dated 06.02.2022.

This energy audit report for APSEZ Mundra Port presents the analysis of the data collected, observations made and field trials undertaken from 25th Jan to 26th Jan 2022. It is governed by the objectives, scope of work, and methodology discussed in ensuing report sections.

DETAILED ENERGY AUDIT REPORT

AT



Adani Ports & Special Economic Zone Ltd (Adani House)
Mundra,
Gujarat-392130, India



Prepared by

Eco Energy Solution

49, Sector 2, Sarika Society, Samrat Nagar, Isanpur,
Ahmedabad – 382443, Gujarat, INDIA

Feb 2022

ACKNOWLEDEMENT

We are grateful to the management of Adani Ports & Special Economic Zone Ltd for giving us an opportunity to contribute in their efforts towards efficient energy management by undertaking this Energy Audit study exercise.

Eco Energy Solution acknowledges with thanks the co-operation and support extended by management and operating personnel at Adani Ports & Special Economic Zone Ltd during the audit exercise. Detailed discussions and interaction were held with plant personnel throughout the course of the audit and awareness of energy conservation was noted as exemplary. We would also like to place on record our sincere thanks and appreciation for all plant executives. Our special thanks are to,

- Mr. D. Varu - Associate Manager
- Mr. G.Pavar - Assistant Manager
- Mr. J.Nandaya - Senior Engineer
- Mr. D.Joshi - Senior Engineer
- Mr. S.Trivedi - Senior Engineer

We are also thankful to the other staff members who were actively involved while collecting the data and conducting the field studies. We take this opportunity to also thank all the team members at various departments associated with this study of energy audit for extending cooperation during collection of on-site data.

We trust that the findings of this study will help plant management in improving the equipment performance thereby giving optimum energy consumption at Adani Ports & Special Economic Zone Ltd.

We have prepared this Energy Audit report document Adani Ports & Special Economic Zone Ltd, on a best judgment basis.

While all reasonable care has been taken in its preparation, details contained in this report have been compiled in good faith based on information provided and measurements undertaken at the facility.

For ECO ENERGY SOLUTION

Krunal Shah (Partner)

Pushkar Khanna AEA-0260 (Partner)

Company Profile

Adani Ports and Special Economic Zone Limited (APSEZ) is the largest commercial ports operator in India accounting for nearly one-fourth of the cargo movement in the country. Its presence across 13 domestic ports in seven maritime states of Gujarat, Maharashtra, Goa, Kerala, Andhra Pradesh, Tamil Nadu and Odisha presents the most widespread national footprint with deepened hinterland connectivity. The port facilities are equipped with the latest cargo-handling infrastructure which is not only best-in-class, but also capable of handling the largest vessels calling at Indian shores. Our ports are equipped to handle diverse cargos, from dry cargo, liquid cargo, crude to containers.

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The Company's integrated services across three verticals, i.e. Ports, Logistics and SEZ, has enabled it to forge alliances with leading Indian businesses making APSEZ an undisputed leader in the Indian port sector.

Along with its expertise in providing end-to-end logistics solutions, operational excellence, low-cost operations and synergies through acquisitions, APSEZ was also certified as a Great Place to Work in FY 2021-22. The Company is backed by a young and dynamic workforce that propels it to greater heights.

In order to reduce increasing energy costs, Adani Ports and Special Economic Zone Limited (APSEZ) approached ECO ENERGY SOLUTION for conduct of energy audit for their Mundra Plant at APSEZ, Mundra, Gujarat. This proposal was approved by plant vide its purchase order no 5702004681 dated 06.01.2022.

This energy audit report for APSEZ Mundra Port presents the analysis of the data collected, observations made and field trials undertaken from 25th Jan to 26th Jan 2022. It is governed by the objectives, scope of work, and methodology discussed in ensuing report sections.

DETAILED ENERGY AUDIT REPORT

AT



Adani Ports & Special Economic Zone Ltd,
Central Effluent Treatment plant (CETP)
Mundra, Gujarat-392130, India

Prepared by



Eco Energy Solution

49, Sector 2, Sarika Society, Samrat Nagar, Isanpur,
Ahmedabad – 382443, Gujarat, INDIA

FEB 2022

ACKNOWLEDEMENT

We are grateful to the management of Adani Ports & Special Economic Zone Ltd for giving us an opportunity to contribute in their efforts towards efficient energy management by undertaking this Energy Audit study exercise.

Eco Energy Solution acknowledges with thanks the co-operation and support extended by management and operating personnel at Adani Ports & Special Economic Zone Ltd during the audit exercise. Detailed discussions and interaction were held with plant personnel throughout the course of the audit and awareness of energy conservation was noted as exemplary. We would also like to place on record our sincere thanks and appreciation for all plant executives. Our special thanks are to,

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- Mr. S.Trivedi - Senior Engineer

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We trust that the findings of this study will help plant management in improving the equipment performance thereby giving optimum energy consumption at Adani Ports & Special Economic Zone Ltd.

We have prepared this Energy Audit report document Adani Ports & Special Economic Zone Ltd, on a best judgment basis.

While all reasonable care has been taken in its preparation, details contained in this report have been compiled in good faith based on information provided and measurements undertaken at the facility.

For **ECO Energy Solution**

Krunal Shah Lead Auditor
(Partner)

Pushkar Khanna AEA -0260
(Partner)

Company Profile

Adani Ports and Special Economic Zone Limited (APSEZ) is the largest commercial ports operator in India accounting for nearly one-fourth of the cargo movement in the country. Its presence across 13 domestic ports in seven maritime states of Gujarat, Maharashtra, Goa, Kerala, Andhra Pradesh, Tamil Nadu and Odisha presents the most widespread national footprint with deepened hinterland connectivity. The port facilities are equipped with the latest cargo-handling infrastructure which is not only best-in-class, but also capable of handling the largest vessels calling at Indian shores. Our ports are equipped to handle diverse cargos, from dry cargo, liquid cargo, crude to containers.

Through its subsidiary Adani Logistics Ltd., APSEZ operates three logistics parks located at Patli in Haryana, Kila-Raipur in Punjab and Kishangarh in Rajasthan. With the ability to handle 500,000 twenty foot equivalent units (TEUs) annually, the Adani logistics business is growing at a rapid pace.

Over the years, APSEZ has evolved into a provider of integrated port infrastructure services, of which the Mundra SEZ in Gujarat is a landmark validation. Spanning over 8,000 hectares, the Mundra Economic Hub offers investment options as the largest multi-product SEZ, Free Trade and Warehousing Zone (FTWZ) and Domestic Industrial Zone.

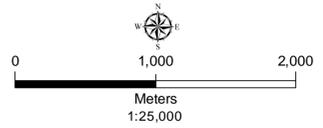
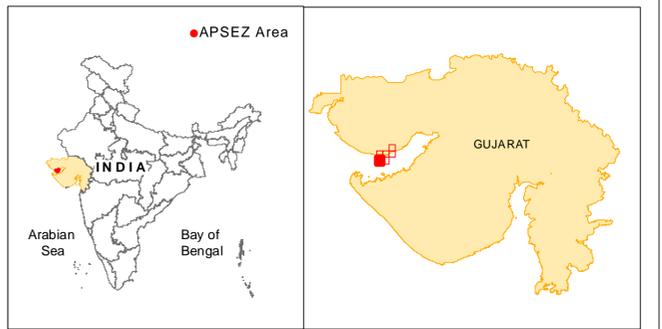
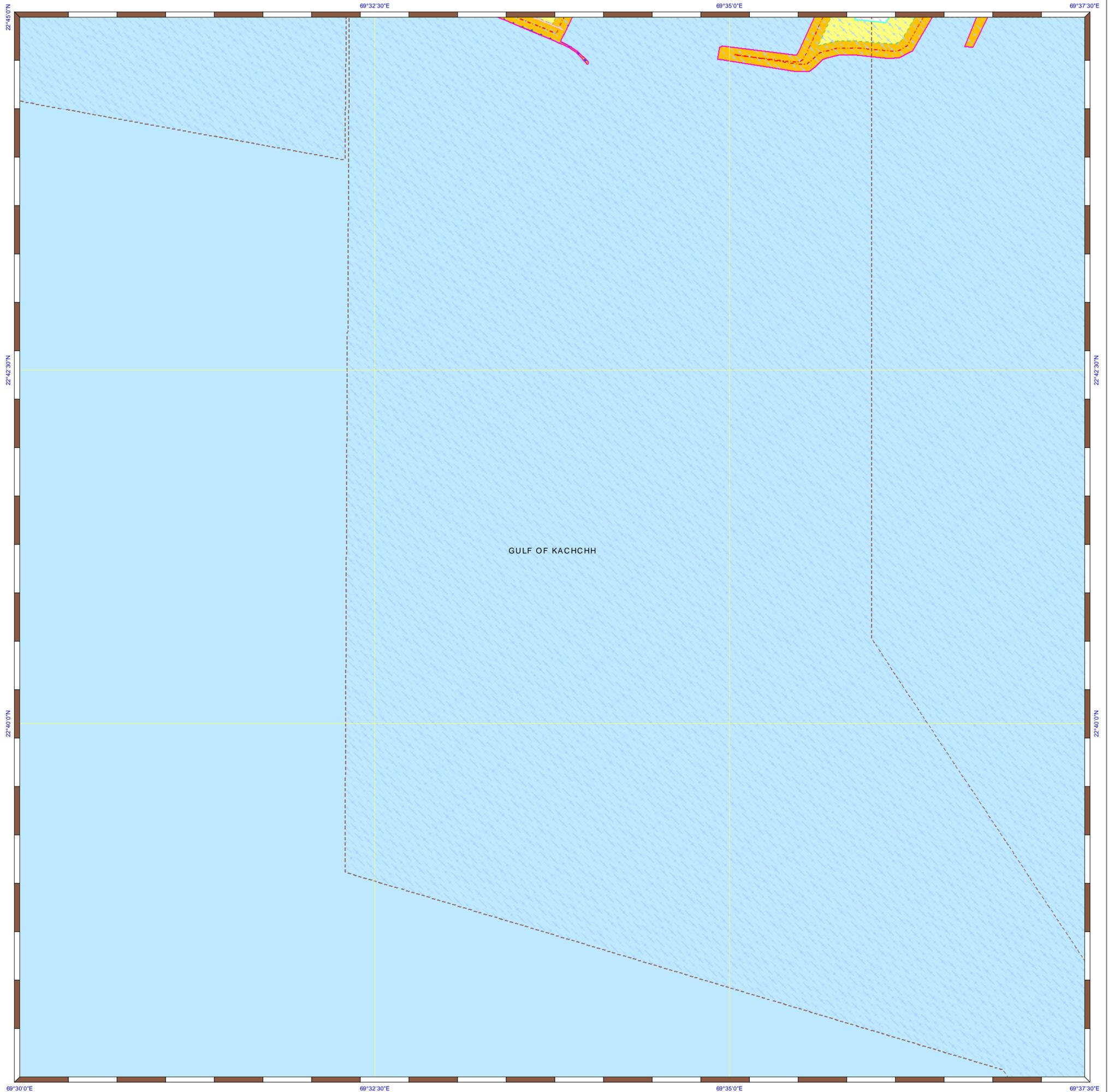
The Company's integrated services across three verticals, i.e. Ports, Logistics and SEZ, has enabled it to forge alliances with leading Indian businesses making APSEZ an undisputed leader in the Indian port sector.

Along with its expertise in providing end-to-end logistics solutions, operational excellence, low-cost operations and synergies through acquisitions, APSEZ was also certified as a Great Place to Work in FY 2021-22. The Company is backed by a young and dynamic workforce that propels it to greater heights.

In order to reduce increasing energy costs, Adani Ports and Special Economic Zone Limited (APSEZ) approached ECO ENERGY SOLUTION for conduct of energy audit for their Mundra Plant at APSEZ, Mundra, Gujarat. This proposal was approved by plant vide its purchase order no 5702004681 dated 06.02.2022.

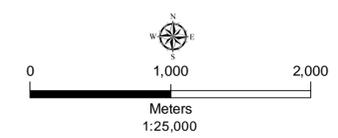
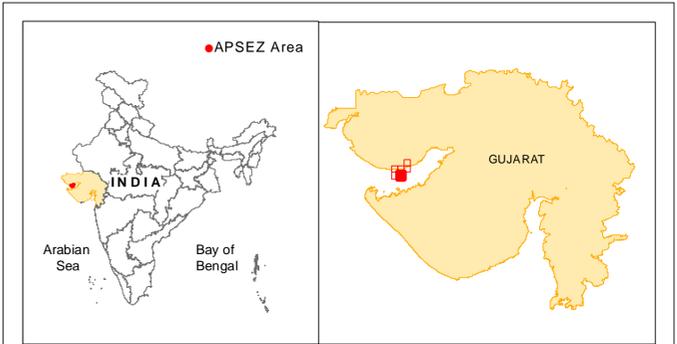
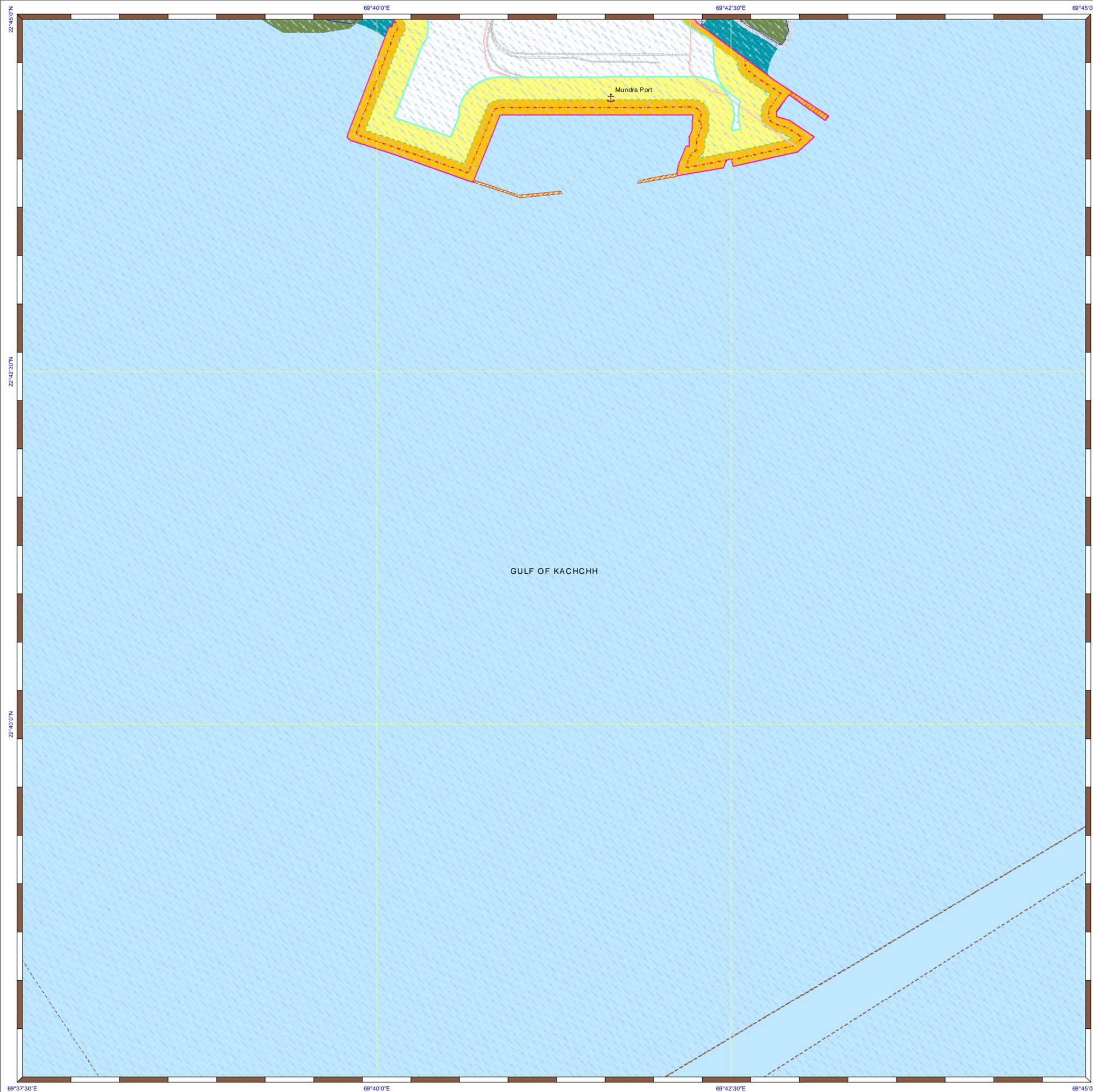
This energy audit report for APSEZ Mundra Port presents the analysis of the data collected, observations made and field trials undertaken from 24th Jan to 25th Jan 2022. It is governed by the objectives, scope of work, and methodology discussed in ensuing report sections.

Annexure – 10



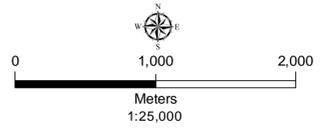
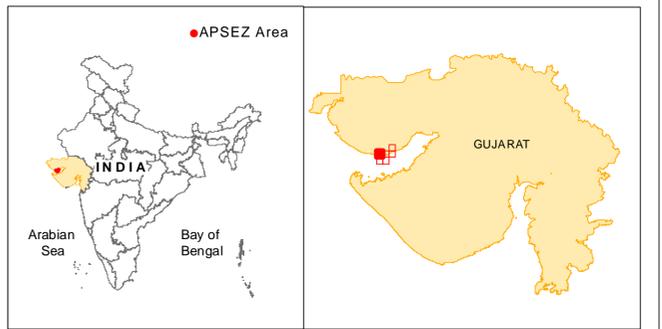
HTL AND CRZ BOUNDARY MAP PREPARED AS PER THE APPROVED CZMP MAP OF GUJARAT STATE (CRZ NOTIFICATION, 2011)

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- Port
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 - Port Limit
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- Hazard Line
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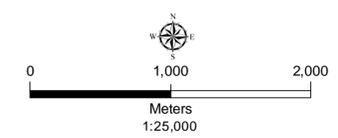
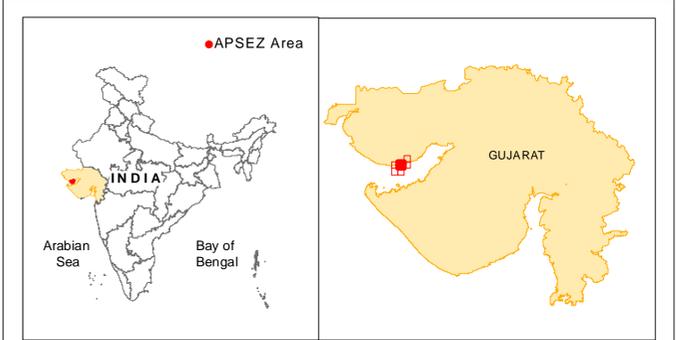
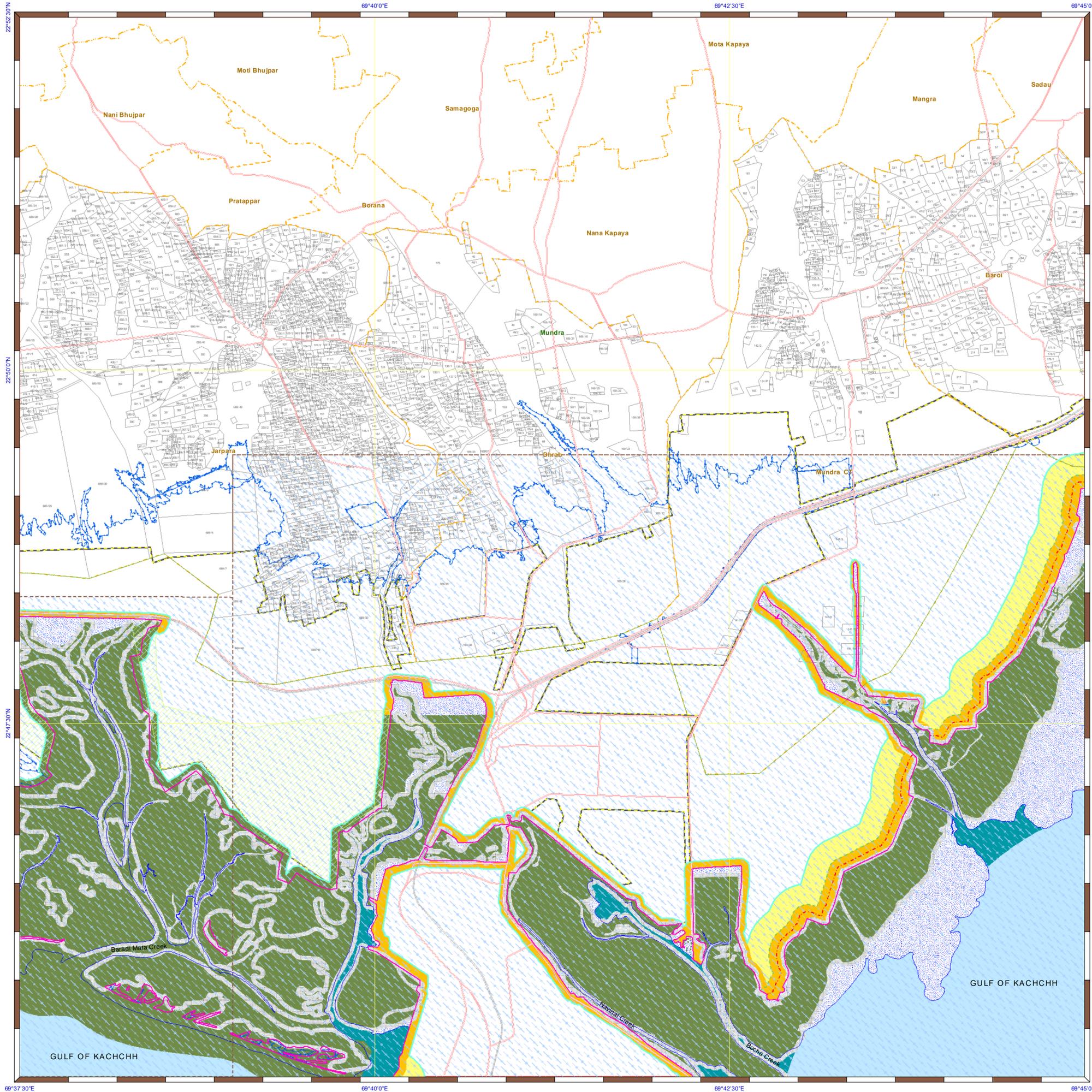


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National Centre for Sustainable Coastal Management
 (Ministry of Environment, Forest & Climate Change)
 Chennai - 25



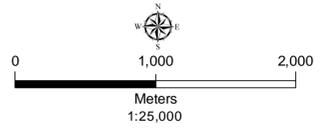
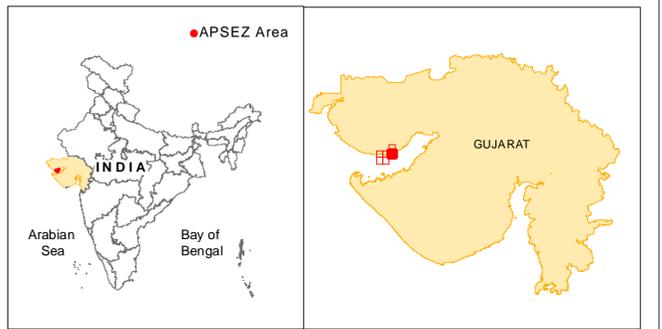
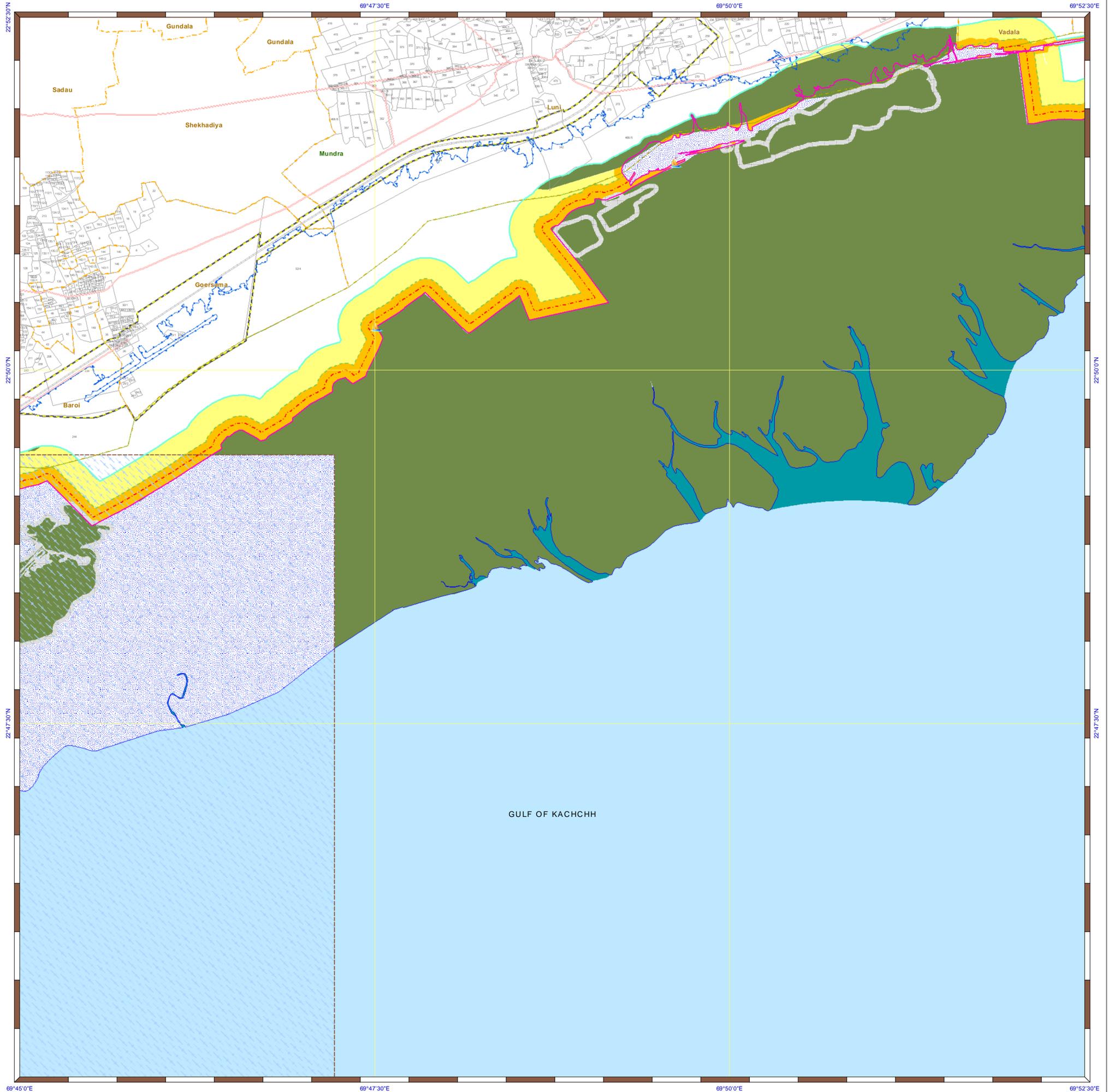
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08-04-2022



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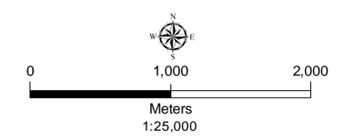
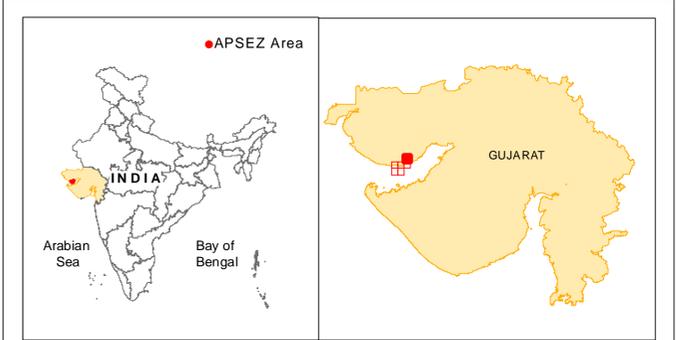
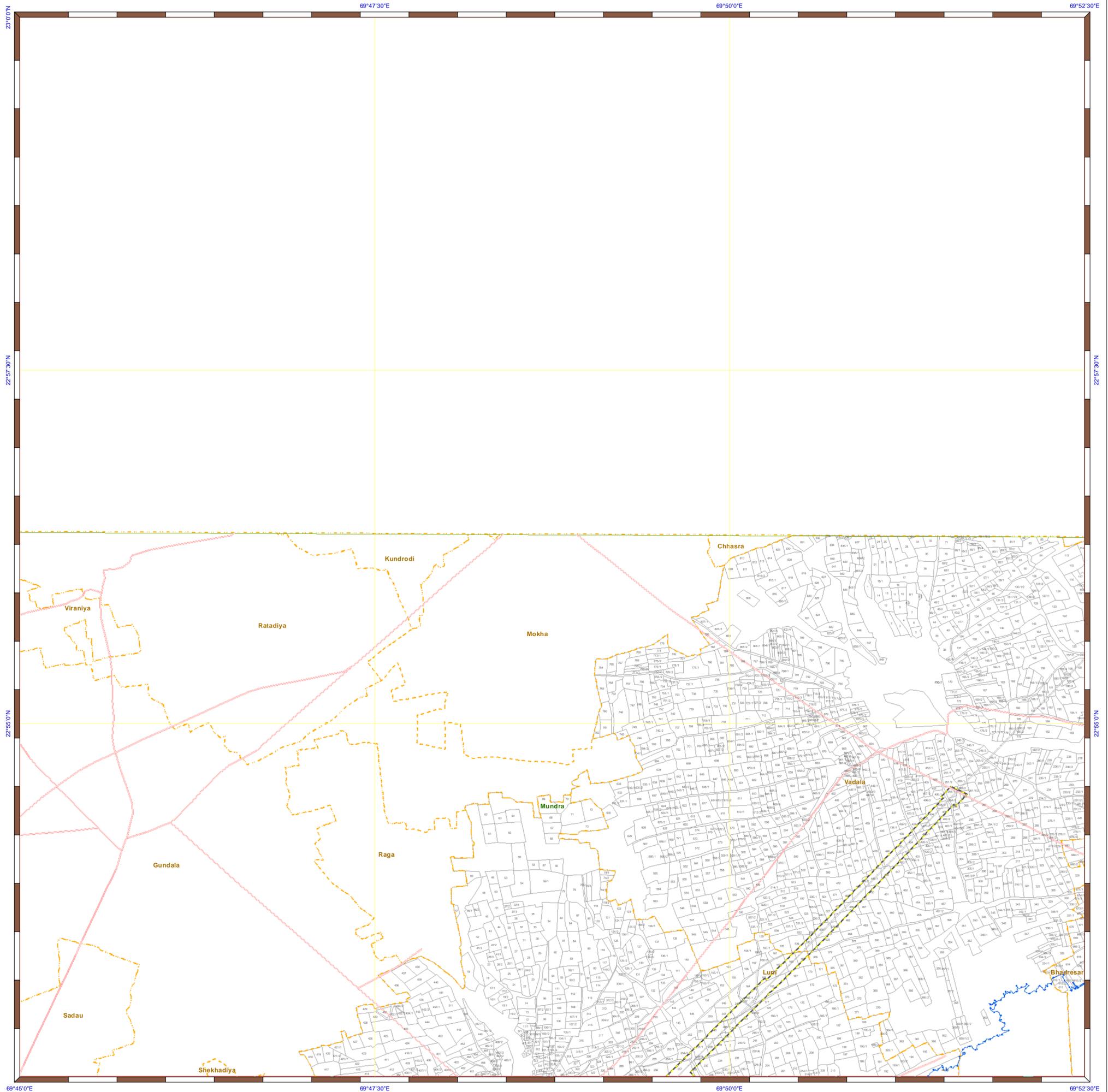
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Annexure – 11

Expense Details for Fisherfolk Amenities work in different core areas

Sr. No.	Details	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	TOTAL	AMT IN LACS
Expenditure Details (Amount in Rs.)									
1	Vidya Deep Yojana	2,069,300	193,000	2,087,000	1,771,000	110,225	580,103	6,810,628	68.11
2	Vidya Sahay Yojana	552,580	495,000	691,000	708,000	504,336	659,709	3,610,625	36.11
3	Adani Vidya Mandir – Shaping Lives	4,200,000	4,030,000	3,472,000	6,434,020	1,593,805	3,737,700	23,467,525	234.68
4	Senio Citizen Health Card	--	8,430,000	1,750,000	2,975,000	1,750,000	-	14,905,000	149.05
5	Financial Support to Poor Patients	4,439,507	1,275,000	813,000	1,296,063	763,800	1,255,000	9,842,370	98.42
6	Machhimar Kaushalya Vardhan Yojana	188,708	200,000	397,000	73,000	--	226,000	1,084,708	10.85
7	Machhimar Sadhan Sahay Yojana	--	--	315,000	522,000	--	-	837,000	8.37
8	Machhimar Awas Yojana	4,592,106	1,165,000	--	2,311,000	2,424,016	2,480,000	12,972,122	129.72
9	Machhimar Shudhh Jal Yojana	2,236,050	2,700,000	2,038,000	1,773,000	2,348,300	1,936,575	13,031,925	130.32
10	Sughad Yojana	1,367,300	170,000	--	192,000	30,000	-	1,759,300	17.59
11	Machhimar Akshay kiran Yojana	860,850	100,000	68,000	--	--	-	1,028,850	10.29
12	Machhimar Ajivika Uparjan Yojana-Mangroves plantation	1,558,800	500,000	1,382,000	1,400,000	1,900,272	2,069,432	8,810,504	88.11
13	Bandar Svachhata Yojana	106,400	50,000	--	--	367,000	145,000	668,400	6.68
14	Cricket league and Cycle Marathon	432,000	657,119	638,000	610,800	--	-	2,337,919	23.38
15	Sports Material For Children & Youth at Vasahats	197,797	--	--	--	--	-	197,797	1.98
16	New Pilot Initiative for Polyculture	398,240	160,000	--	--	--	-	558,240	5.58
17	New Pilot Initiative for Cage farming Asian Seabass & Lobster	864,000	660,000	--	--	--	-	1,524,000	15.24
18	Sea Weed Culture Project	--	--	--	200,000	--	-	200,000	2.00
19	Mangrove Biodiversity Project	--	--	1,890,000	684,000	499,210	997,642	4,070,852	40.71
20	Approach Road restoration at 9 vasahat	--	--	--	--	599,000	942,780	1,541,780	15.42
21	Community treading Centor & Maintenance work	--	--	--	--	--	6,022,000	6,022,000	60.22
	TOTAL	24,063,638	20,785,119	15,541,000	20,949,883	12,889,964	21,051,941	115,281,545	1,152.82

Annexure – 12

Compliance Report of CIA Study Environment Management Plan

S. No.	Identified environmental and social impacts for the fully developed scenario (year 2030)	Type of Impact & Magnitude	Environment management plans adopted or being adopted by APSEZ as per permits, clearances, applicable regulations and guidelines etc.	Additional Risk Mitigation Measures/ESMP	Responsible agency	Timeframe for implementation	Compliance
1	Land Use Change						
1.1	<p>It is predicted that the built up land in the rural areas would increase by an order 50% from the baseline 2015.</p> <p>New settlements near the SEZ area might create slums.</p> <p>Unorganized urban development leading to poor sanitation and proliferation of vectors and disease.</p>	Level - 1	<p>APSEZ has developed two townships (Shantivan and Samudra) presently accommodating 1668 households. Necessary permissions from concerned authorities were already obtained for the development of townships and Associated infrastructure facilities.</p>	<p>The existing townships will be expanded to accommodate about 4 lakh people when the APSEZ is fully developed.</p>	APSEZ	As and when Required	<p>APSEZ has developed two townships (Shantivan and Samudra) accommodating 2057 households and associated infrastructure facilities. Accommodation is made available for all interested employees working within Adani group & SEZ industries. Out of which 97.4% Occupancies are accommodated within the townships and rest are available for employees working within APSEZ.</p> <p>At present 65 nos. of industries (processing & non-processing) are present within the SEZ (51 nos. are in operation). Township facilities are also made by some of SEZ industries within Mundra town for their employees with basic infrastructure facilities and requirements.</p> <p>Most of the employees working in SEZ industries are residing in Mundra township having all basic requirements and associated facilities.</p> <p>The existing social infrastructure facilities are adequate for present development at APSEZ. The existing townships with associated facilities will be expanded as per requirement.</p>

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							APSEZ has also been granted permission for receiving domestic sewage @ 2.5 MLD from Mundra village (which was earlier discharged into open area within Mundra region) in to wastewater treatment plant for treatment and disposal. APSEZ has already started receiving of domestic sewage from Mundra, which abates the poor sanitation and unhygienic condition within Mundra region. Total project cost for laying domestic sewage underground pipeline with other associated facilities from Mundra to APSEZ is 362 Lacs.
1.2	Once the project is fully developed, due to increase in built up land in the APSEZ area, there will be an increase in the storm water runoff from the facility.	Level-1	The study area experiences scanty rainfall less than 400 mm/year. Considering the natural gradient, ASPEZ have designed and implemented storm water drains in the existing facility to meet the	Technical feasibility study can be carried out to explore the possibility of developing storm water collection ponds to utilize maximum possible storm water runoff for dust suppression in the coal yard areas during non-rainy days.	APSEZ	Technical Study - one time, Implementation - Continual process	Presently, ~51% of the total SEZ is developed. Based on technical studies, At present all existing coal yards are designed with drain, for collection of water during water sprinkling and rainfall, which is carried away to dump pond. Supernatant water from dump pond is being collected and used for dust suppression activities or after sedimentation, discharged to sea. Details of drain and dump pond has been submitted in along with EC compliance report (Oct 19 to March 20). Analysis of said water discharging into sea during monsoon season is being carried out (twice in a year during monsoon) through NABL / MoEF&CC accredited laboratory. Analysis report of the same shows there is no any contamination. The report is attached herewith as Annexure – i . During compliance period FY 2021-22, the maximum

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			<p>peak daily rainfall of 440 mm/hr. Hence flooding of water in the neighboring areas is not envisaged.</p>				<p>recorded rain fall was 5.6 mm/hr observed, which was much less than the design capacity of existing storm water drainage system. So our existing storm water management facility is adequate to handle the storm water runoff from the area. Hence flooding of water in the neighboring areas is not envisaged.</p>
			<p>As per the directions given in the environmental clearance issued for the proposed Multi-Product SEZ and CRZ clearance for Desalination, sea water intake, outfall facility and pipeline project, the master plan of the project was</p>	<p>The channel depth in all the natural streams shall be maintained to accommodate peak flood flow during the monsoon and periodical desilting activities in the natural streams passing through the APSEZ area</p>	<p>APSEZ, District Administration* and Irrigation department</p>	<p>As and When Required</p>	<p>Presently there is no Desalination plant, sea water intake and outfall facility developed as part of EC & CRZ clearance of Multiproduct SEZ. The project will be designed and implemented as per requirement without disturbing the natural flow of rainwater in all the seasonal streams.</p>

S. No.	Identified environmental and social impacts for the fully developed scenario (year 2030)	Type of Impact & Magnitude	Environment management plans adopted or being adopted by APSEZ as per permits, clearances, applicable regulations and guidelines etc.	Additional Risk Mitigation Measures/ESMP	Responsible agency	Timeframe for implementation	Compliance
			designed and being implemented without disturbing the natural flow of rainwater in all the seasonal streams.				
1.3	Due to conservation and protection of mangroves in the designated conservation area, it has been predicted that the current mangrove footprint area would marginally increase in next 15	Positive Impact with ecological benefits	In addition to conservation of the identified 1254 ha mangrove areas around Mundra port and SEZ, APSEZ has taken up large scale mangrove afforestation activities in an area of more than 2800 ha at various locations	APSEZ will continue mangrove afforestation as per the commitment made with concerned regulatory authority	APSEZ	Short Term	<p>APSEZ has carried out mangrove afforestation in 3140 ha. area across the coast of Gujarat till date. Total expenditure for the same till date is INR 847.8 lakh.</p> <p>No further mangrove afforestation is pending w.r.t. commitment made with concerned regulatory authority for APSEZ, Mundra project.</p> <p>As per study conducted by NCSCM, Chennai in 2017, mangrove cover in and around APSEZ, Mundra has increased from 2094 Ha to 2340 ha (as compared between 2011 to 2017). The analysis has shown an overall growth of 246 ha. The cost for said study was INR 3.15 Cr.</p> <p>Recently study was carried out in the year 2019 and based on that there is an increase of mangrove cover between March 2017 (Total 2340) and September 2019 with an extent of 256 Ha (Total 2596 Ha Area) which is about 10.94% rise in growth rate, also It</p>

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	years due to natural growth. This will enhance the overall biodiversity in the local coastal ecosystem.		across the coast of Gujarat state in consultation with various organizations				<p>reveals that the mangrove and the tidal system in the creeks remained undisturbed over this period.</p> <p>Hence, there is an overall growth of mangroves in creeks in and around APSEZ, Mundra is 502 Ha between 2011 and 2019.</p> <p>Analysis of data between categories indicated that there was an increase in dense mangroves along with the conversion of scattered into sparse, that shows the growth of mangroves in a progressive direction.</p> <p>As a part of GCZMA recommendations and NCSCM mangrove conservation action plan, APSEZ has undertaken following activities.</p> <table border="1" data-bbox="1396 982 2011 1421"> <thead> <tr> <th data-bbox="1396 982 1453 1112">Sr. No.</th> <th data-bbox="1453 982 1644 1112">Recommendations</th> <th data-bbox="1644 982 2011 1112">Compliance</th> </tr> </thead> <tbody> <tr> <td data-bbox="1396 1112 1453 1421">1.</td> <td data-bbox="1453 1112 1644 1421">Mangrove mapping and monitoring in and around APSEZ</td> <td data-bbox="1644 1112 2011 1421"> <ul style="list-style-type: none"> APSEZ entrusted NCSCM, Chennai to carry out Monitoring of mangrove distribution in creeks in and around APSEZ and shoreline changes in Bocha island. As a part of this study, overall growth of mangroves in the creeks in and around APSEZ was assessed comparing Google earth images of 2017 & 2019 and it is observed </td> </tr> </tbody> </table>	Sr. No.	Recommendations	Compliance	1.	Mangrove mapping and monitoring in and around APSEZ	<ul style="list-style-type: none"> APSEZ entrusted NCSCM, Chennai to carry out Monitoring of mangrove distribution in creeks in and around APSEZ and shoreline changes in Bocha island. As a part of this study, overall growth of mangroves in the creeks in and around APSEZ was assessed comparing Google earth images of 2017 & 2019 and it is observed
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									<p>that there was increase in mangrove cover between March 2017 and September 2019 to the extent of 256 Ha, which is about 10.7%.</p> <ul style="list-style-type: none"> This suggests that the mangroves and the tidal system in the creeks remain undisturbed over this period. Analysis of data between categories indicated that there was an increase in dense mangroves and also conversion of scattered to sparse which also shows that the growth of mangroves in a progressive direction. Hence, there is an overall growth of mangroves in creeks in and around APSEZ, Mundra is 502 Ha between 2011 and 2019. The cost of the said study was INR 23.56 Lacs incurred by APSEZ.
							2.	Tidal observation in creeks in and around APSEZ	<ul style="list-style-type: none"> APSEZ carried out the tidal observations at locations similar to 2017 in Kotdi, Baradimata, Navinal, Bocha and Khari creeks under the guidance of NCSCM. The observed tidal ranges indicate that the creeks experience normal tidal ranges, adequate for the growth of mangroves.

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									<ul style="list-style-type: none"> The cost of the said activity was INR 1.0 Lacs.
							3.	Removal of Algal and Prosopis growth from mangrove areas	<ul style="list-style-type: none"> Algal and Prosopis growth monitoring was done in and around mangrove area and algal encrustation was found in some of the mangrove areas, which has been removed manually. Algal & Prosopis removal from Mangrove area for FY 2021-22- The cost of the said activity was INR 2.8 Lacs incurred by APSEZ. Please refer attached Annexure - 1 for Report of Algal removal work in mangrove area.
							4.	Awareness of mangroves importance in surrounding communities	<ul style="list-style-type: none"> Adani Foundation – CSR Arm of Adani group has done awareness camps/activities created in the community regarding importance of mangroves. Adani Foundation provides Good Quality dry and green fodder to 24 Villages. Project is covering total 14116 Cattels / 3008 farmers and hence enhancing cattle productivity. Dry Fodder 895398 Kg Green –2425230 Kg.

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								<ul style="list-style-type: none"> Adani Foundation has also provided 117.11 lacs kg Dry Fodder and 89.00 lacs kg Green fodder in 29 villages of Mundra and Anjar Block to support the resource dependent villagers, to avoid their dependency on mangroves. The expenditure for fodder supporting activities was approx. 206.11 Lacs during FY 2021-22. Village Gauchar land development for the fodder cultivation to made fodder sustain village & Avail green fodder in scarcity phase. With the support of Gauchar Seva Samiti Grassland development in Siracha – 85 Acre & Zarpara – 25 Acre done which resulted in total production of 82 ton. Other than this dedicated security guard with gate system deployed by APSEZ across the coastal area and no any unauthorized persons allowed within coastal as well as mangrove areas. Refer CSR report attached as Annexure – 2.
Other than this Adani Foundation – CSR Arm of Adani Group at Mundra-Kutch has initiated multi-species								

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							plantation of mangroves in Luni village in association with GUIDE, Gujarat. During 2018-2019 (Phase-I) multi-species mangrove plantation was carried out in 10 ha, during Phase-II (2019-2020) it was 02 ha and during Phase III (2020-2021) it is 01 ha. During current FY 2021-22, 03 ha area coastal stretches have been planted with mangrove species. Total 16 Ha. multi-species mangrove plantation has been carried out till March-22 association with M/s. GUIDE, Gujarat.
1.4	Development activities along the coast might cause certain changes in hydro-dynamic characteristics along the shoreline. Shoreline of any area also can be influenced by storm surges and other natural processes.		Detailed hydro-dynamic modelling and shoreline change prediction for a fully developed APSEZ facility has been studied. The study reveals that the erosion and accretion in the study area at the end of 15th year will be	It is recommended to map the coastal morphology (Shoreline) at least once in three years	APSEZ	Continual Process	Shore line change study was carried out by M/s. Chola MS, Chennai (NABET accredited consultant) as a part of Waterfront Development Project – Expansion EIA study. The summary of the said study is as below. To estimate the shoreline change due to the earlier approved waterfront development plan, a historical shoreline change assessment has been undertaken using the satellite imagery for a period of 2008 to 2018. In order to avoid any major errors in estimating the shoreline, the satellite data for similar tidal condition was considered for 2008, 2013 and 2018. AMBUR Methodology was used to study the historical analysis 10km radius stretch of shoreline on either side of the APSEZ project boundary has been considered for assessing the historical shoreline change scenario. The baseline shoreline change assessment depicts the influence of both natural causes and also possible changes in the shore due to various development activities in the study area during the designated period. For the purpose of this study, shoreline on left side of APSEZ is termed as West Side

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			<p>within the designated criteria of ± 0.5 m/year. which reconfirms that the waterfront development activities of APSEZ would pose insignificant impact on the Mundra shoreline.</p>				<p>Shoreline and that of the right side as East Side Shoreline for ease of recognition.</p> <p>The maximum accretion and erosion rate of the west side shoreline over a period of 10 years during the year 2008 – 2018 are observed to be 4.78 m/yr and 1.93 m/yr respectively.</p> <p>The maximum accretion and erosion rate of the east side shoreline over a period of 10 years during the year 2008 – 2018 are observed to be 05 m/yr and 0.82 m/yr respectively.</p> <p>APSEZ has already awarded work to the agency namely M/s. Gujarat Institute of Desert Ecology, Bhuj for carrying out Shoreline Change Assessment Study for Mundra region vide P.O. No. 4802013270 dated 30.03.2022. The cost of said study is INR 1,739,320 Lacs. The said study is under progress.</p>
2	Regional Traffic Management Plan						
2.1	The projected traffic data as per the EIA Report of Multi-Product Special Economic Zone, the peak	Level-1	As per the master plan of APSEZ, eight artillery roads will be connected to either state highway or national highway for evacuating	Additional road as per master plan will be built in future based on the overall progress of the project. Currently about 25% of cargo from APSEZ is transported by	APSEZ	As and When Required	<p>Presently, ~51% of the total SEZ is developed. Based on technical studies,</p> <p>Existing road/rail/conveyer infrastructure facilities are adequate to evacuate the existing cargo. Further, APSEZ's cargo evacuation through rail / conveyer / pipeline has increased to ~38.36 %, thereby reducing the usage of road.</p> <p>Additional road facilities will be built as per master plan considering future development.</p>

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	<p>vehicular traffic from the port and SEZ operations (including supporting facilities and colony) could be in the order of 18,300 and 10,400 vehicles per day respectively.</p> <p>There could be a possible increase in traffic congestions on village-highway intersections and road accidents.</p>		<p>the goods from APSEZ. None of these roads are passing through settlements, thereby avoiding traffic Congestions in the respective villages. The carrying capacity of the eight artillery roads connecting APSEZ is estimated to be about 16,000 PCU/hr as against the envisaged peak traffic volume of 4,500</p>	<p>Rail and the same will be enhanced to 40% when the facility is fully developed in future. This will further reduce the traffic volumes on the regional road network.</p>			<p>The facilities for transportation of cargo other than road will be enhanced considering future development, which will reduce the traffic volumes on the regional road Network.</p>

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			<p>PCU/hr.</p> <p>Out of eight artillery roads considered in APSEZ master plan, seven roads were already developed and functional.</p>				
			<p>APSEZ has been imparting Driver Training Programs to all their contractors to enhance awareness on road safety.</p>	<p>APSEZ can undertake technical feasibility of implementing Intelligent Transport System (ITS) for the freight carriers associated with their development activities.</p>	<p>APSEZ & GSRDC*</p>	<p>Long Term</p>	<p>APSEZ is being imparting the regular in-house classroom and on-job training to all drivers and employees on below topics:</p> <ul style="list-style-type: none"> ✓ ✓ Basic induction Training for drivers ✓ ITV Driver Training ✓ ITV Driver Induction for Supervisor ✓ Defensive Driving for LMV & HVM ✓ Defensive Driving & BBS ✓ Driver Assessment ✓ Road accident & rescue ✓ Traffic Management & Road Signage ✓ Driving safety training ✓ RORO Driver training ✓ Road Safety ✓ Defensive Driving & Emergency Action Plan ✓ Drivers Responsibilities & Safe driving

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							<p>✓ Emergency Rescue (Vehicle) Training</p> <p>Approx. 1448 Participants (On roll and contractual manpower) were benefitted from above trainings in compliance period Oct 21 to Mar 22. The same will be continued in future also.</p> <p>APSEZ has also implemented the Remote traffic management system (RTMS) to manage the traffic movements and capturing the violations to further improve the system.</p> <p>Following steps were taken by APSEZ to reduce the accidents.</p> <ul style="list-style-type: none"> ✓ Handling and escorting of the ODC for ensuring the smooth movement on the roads. ✓ Traffic Awareness programs for the drivers and regular briefing of the drivers in the parking areas. ✓ Incident handling and root cause analysis for taking necessary action in order to avoid such incidents. ✓ BAC checks for the drivers in order to identify the intoxicated drivers and necessary action is being taken against them. ✓ Water spray drive at gates are being conducted on regular basis during night hours to avoid dozing by the driver while driving. ✓ RTMS devices are being installed at 08 critical locations in order to capture speed violations and enforcing road safety regulations.

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							<ul style="list-style-type: none"> ✓ Display of traffic signages and lane markings on road in coordination with the Civil team for ensuring road safety rules are being followed by the road users. ✓ We have approx. 100+ cameras which are being utilized for monitoring of traffic movement through CCTV and timely response in order to avoid any congestion and during traffic incidents. ✓ Regular traffic checks by Traffic Marshalls in order to ensure road safety rules (Wearing seat belt/Wearing helmet/Carrying driving license/Speed checks/Documents) is being followed by the drivers. ✓ Installation of Road furniture's (Cones/Water filled barriers/Cats eye/Spring Posts/Jersey Barriers) for lane segregation, Channelizing the traffic, at Junctions and indicating Caution for the road users.
3	Water resources Management and sewage treatment & disposal Plan						
3.1	For a fully developed APSEZ facility, water demand will be in the order of 4,30,000 m ³ /day (430 MLD). APSEZ will	No-Impact	APSEZ is meeting the current water demand through Narmada water supply scheme and 47 MLD captive desalination	As per the master plan and permissions granted under EC, APSEZ will be developing progressively 4,50,000 m ³ /day (450 MLD) of desalination plants to meet the future	APSEZ	As and When Required	<p>Currently there are two fresh water sources available with APSEZ.</p> <p>Desalination Plant – 47 MLD</p> <p>Narmada water through GWIL – 9 MLD (sanctioned capacity).</p> <p>Current water demand for APSEZ along with SEZ industries including Adani Power Plant is an avg. of 28 MLD.</p> <p>So presently, these sources are adequate to fulfill the current freshwater requirement of entire APSEZ</p>

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	be sourcing majority of the water from the captive desalination plants, which will be developed in progressive manner.		plant at site. Necessary water allocation from concerned authorities was obtained and the same will be renewed from time to time as per the directions of state government.	demand. Hence stress on regional water resources due to these developmental projects will be less significant.			including member units. The desalination plant of additional capacities will be installed on modular basis considering future requirement of APSEZ.
3.2	Existing water demand in the Mundra taluk is estimated as 8500 m ³ /day (@55 lpcd) and the potable and sanitation water needs	Level-2	Adani Foundation has been contributing to various watershed development projects in the Mundra region to enhance ground water	Adani Foundation is planning to implement the various water resource conservation programs in next ten years under various schemes.	APSEZ and CGWB*	Long Term	Water needs of APSEZ is being met through existing Desalination Plant of APSEZ and GWIL which may be further enhanced on modular basis, At present Ground water is not utilized for any activities within APSEZ. However various works are being carried out by Adani Foundation continuously under Water Conservation Work to achieve water security in Mundra region by Adani Foundation. Following works are carried out as a part of water conservation work since April – 2018. Water conservation Projects i.e. Roof Top Rain Water Harvesting, Desilting of Check dams, Bore Well Recharge and Pond deepening were taken up in past

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	<p>would increase to 37,000 m³/day (@125 lpcd) in future when the area is fully grown into larger municipality due to induced economic growth. Water demand of the local communities is met through Narmada water supply system to some extent, but largely depending on the</p>		<p>resources in the area. Adani Foundation has contributed about Rs. 300 Lakhs so far for the development of 18 check dams.</p>				<p>years, review and monitoring of all water harvesting structures had been taken up.</p> <p>To make connections between human actions and the level of biological diversity found within a habitat and/or ecosystem, this year Adani Foundation launch project "Sanrakshan" in coordination with GUIDE and Sahjeevan.</p> <p>Since, 10 years considerable Water Conservation Work carried out in Mundra Taluka. Due to satisfactory rain in current year 1.11 mtr ground water table increased as per increased in coastal belt of Mundra as per Government Figures.</p> <p>Our water conservation work is as below.</p> <ul style="list-style-type: none"> • A large number of water harvesting structure (Total 21 Nos. of check dams and Augmentation of 2 check dams (1 Check dam current year). • Ground recharge activities (pond deepening work for more than 56 ponds) individually and 26 ponds under Sujlam Suflam Jal Abhiyan were built leading to a significant increase in water table and higher returns to the farmers. • Pond deepening and bund strengthen of Rampar village pond increase water storage capacity • Roof Top Rain Water Harvesting 115 Nos. (50 Nos current FY 2021-22) which is having 10,000 litre storage which is sufficient for one year drinking water purpose for 5 people family.

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	ground water in the study area. Mundra block is reported to be a safe ground block as on date. Due to influx of people and rapid urbanization due to the economic development, there could be some stress on the ground water resources in future.						<ul style="list-style-type: none"> Recharge Borewell 189 Nos (83 Nos current FY 2021-22) which is best ever option to. Drip Irrigation 1158 Farmers (180 farmers are supported with 15% of amount of total cost for maximum 4.0 lac. in current FY 2021-22) Bund construction on way of Nagmati River could save more than 575 MCFT water quantity which recharged in ground due to which borewell depth decreased by 50-100 Ft in Zarpara, Bhujpur and Navinal Vadi Vistar. Luni Pond Bund Repairing Work is completed. <p>With the objective of to preserve the rainwater to reduce the impact of salinity and recharge the ground water (the main source of water) to facilitate the Agricultural activities as well as for drinking water.</p> <p>Adani foundation has spent approx. INR 6047.05 lakhs from April – 2018 to Mar – 2022 for CSR activities which also includes water conservation projects as mentioned above.</p>
3.3	It is estimated that about 60,000 m ³ /day (60	No Impact	Seven sewage treatment plants with an aggregate	APSEZ is permitted to develop decentralized sewage	APSEZ	As and When Required	Current installed capacity of wastewater treatment plants is 6.05 MLD (ETP, STPs & CETP) for treatment of effluent & sewage generated at various locations of APSEZ excluding wastewater treatment plants installed within individual member units.

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	MLD) of sewage will be generated from the APSEZ facility when the project is fully developed.		capacity of 3.1 MLD have already built at APSEZ. Treated sewage is utilized for greenbelt development and sewage is not discharged into either seasonal natural streams or marine environment.	treatment plants of total 62 MLD capacities. Existing sewage treatment facilities will be augmented progressively based on the development at APSEZ in future. Similar to existing practices, treated sewage will be utilized for greenbelt development.			<p>Out of 51, only 4 operational industries within the SEZ are sending their partially treated industrial as well as domestic effluent to the CETP conforming to CETP inlet norms for further treatment and final disposal. Other SEZ industries have their own STPs / ETPs for treatment of wastewater generated from their industrial operation and discharging the treated water on land for horticulture purpose within their premises as per specific permission granted by SPCB.</p> <p>APSEZ also granted permission to treat 2.5 MLD of sewage generated from Mundra village through CETP and STP.</p> <p>Presently avg. 2.03 MLD of wastewater (in to ETP, STPs & CETP) is treated and being utilized on land for horticulture purpose within APSEZ premises during October'21 to March'22. Existing wastewater treatment plants are adequate to treat and handle the total effluent / sewage load considering current development.</p> <p>Existing wastewater treatment facilities will be augmented, or new plants will be developed on modular basis considering future requirement.</p>
4	Air quality management Plan						
4.1	Although all the regulated activities in		APSEZ and other thermal power plants	All existing and new industrial establishments will obtain	APSEZ And Other Industries	Continual Process	APSEZ has been granted requisite permissions from the concerned authorities with stipulated norms for air emission (flue gas as well as ambient air).

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	the study area will be adopting promulgated emission norms, total air emission mass discharge from the study area would increase.	Level-2	have obtained valid consent to operate and have been operating the facilities as per the emission norms stipulated in respective consent orders. APSEZ and other two power plants are monitoring the ambient air quality on regular intervals as per GPCB/CPCB guidelines and the data is analyzed and	requisite consents from GPCB and adhere to the stipulated emission norms regulations and guidelines issued by authorities from time to time.			<p>Ambient Air Quality monitoring is being carried out by NABL accredited and MoEF&CC authorized agency namely M/s. Pollucon Laboratories Pvt. Ltd. Surat and Unistar Environment and Research Labs Pvt. Ltd., Vapi for APL as per NAAQ standards, 2009. Stack emission monitoring is also being carried out on regular basis. Reports of the same are being submitted to the concerned authorities on regular basis.</p> <p>Adani power plant has installed continuous emission and air quality monitoring instruments as per CPCB Directive and submitting the reports also. Another power plant of CGPL is outside APSEZ area.</p> <p>The AAQM summary for last six months (Oct'21 to Mar'22) are as below.</p> <p>Locations: 18 Nos. (APSEZ – 13 + APL – 5 including 4 villages) Frequency: Twice in a week</p> <table border="1" data-bbox="1398 1110 2020 1408"> <thead> <tr> <th>Parameter</th> <th>Unit</th> <th>Max</th> <th>Min</th> <th>Average</th> <th>Perm. Limit[§]</th> </tr> </thead> <tbody> <tr> <td>PM₁₀</td> <td>µg/m³</td> <td>95.43</td> <td>40.36</td> <td>69.15</td> <td>100</td> </tr> <tr> <td>PM_{2.5}</td> <td>µg/m³</td> <td>55.39</td> <td>14.56</td> <td>30.77</td> <td>60</td> </tr> <tr> <td>SO₂</td> <td>µg/m³</td> <td>44.16</td> <td>5.11</td> <td>17.29</td> <td>80</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Parameter	Unit	Max	Min	Average	Perm. Limit [§]	PM ₁₀	µg/m ³	95.43	40.36	69.15	100	PM _{2.5}	µg/m ³	55.39	14.56	30.77	60	SO ₂	µg/m ³	44.16	5.11	17.29	80						
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			<p>presented to GPCB on monthly basis. Both the thermal power plants located within the study area have installed continuous emission and air quality monitoring instruments as per CPCB directive.</p>				<table border="1" data-bbox="1398 513 2022 573"> <tr> <td data-bbox="1398 513 1541 573">NO₂</td> <td data-bbox="1541 513 1640 573">µg/m³</td> <td data-bbox="1640 513 1738 573">47.15</td> <td data-bbox="1738 513 1829 573">7.15</td> <td data-bbox="1829 513 1919 573">24.70</td> <td data-bbox="1919 513 2022 573">80</td> </tr> </table> <p>⁵ as per NAAQ standards, 2009 Values recorded confirms to the stipulated standards.</p> <p>Approx. INR 14.31 Lakhs is spent by APSEZ for environmental monitoring activities during the FY 2021-22, which also includes ambient air quality monitoring for overall APSEZ, Mundra.</p> <p>Other industries located within the SEZ have obtained requisite permissions from the competent authorities for their respective plant and they also carried out environmental monitoring within their premises to comply with the permission granted. The same has been ensured by APSEZ as well as SPCB during their regular visits. APSEZ carries out regular visits/inspections of member industries within SEZ and last visit was conducted during Jan to March' 2022 for EMS & compliance verification. During compliance verification, it was verified that monitoring of air emission was well within the permissible standards based on analysis reports. Same will be continued in future also.</p> <p>The monitoring reports of industries within SEZ are also being submitted to the regulatory authorities as a part of half yearly Compliance report of EC for Multi-Product SEZ.</p>	NO ₂	µg/m ³	47.15	7.15	24.70	80
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				<p>A common air quality management committee may be framed under the guidance of the State Pollution Control Board and district administration to manage regional level emission inventory data that can help to manage regional level air quality management goals.</p>	<p>APSEZ and Other Industries, Stakeholders, District Administration and GPCB*</p>	<p>Long Term And Continual</p>	<p>APSEZ will co-operate and comply with the directions from concerned regulatory authorities for air quality management within APSEZ area. However, at present, APSEZ has formed Internal Environment Monitoring Committee, involving officials from APSEZ, Adani Power Limited and other SEZ member units with following role and responsibilities:</p> <ul style="list-style-type: none"> • Identification of sources of air & noise emission and its dispersion in surrounding villages • Remedial measures to eliminate, control, reduce or capture air & noise emission • Identify available resource to abate the air and noise emission • Required additional resources for control of air and noise emission • Drinking water and its testing of all the available fresh water sources in surrounding villages • Identify any surrounding villages affected by organization's improper waste disposal mechanism. <p>Last committee meeting was conducted on dated 23rd March 2022, and below was the point of discussion for way forward.</p> <ul style="list-style-type: none"> • Brief introduction about the Environment Management Plan (EMP) • All members conveyed his environment management practices, issue & suggestions

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							<ul style="list-style-type: none"> Discussed about the various ways to improve existing practice to control the emission in terms of Air, Water and Noise. Discussed about the proper management of the canteen waste. Discussed about the cleaning of outside of the SEZ units. Discussed about the management of rain water & proper cleaning of the common storm water drainage system. Discussed about proper segregation & disposal of solid waste material. Discussed about to increase more green belt area inside plant premises of SEZ units <p>APSEZ and all the industries within SEZ are in compliance to NAAQS and same is being ensured by APSEZ. The monitoring reports of industries within SEZ are being submitted to the regulatory authorities as part of half yearly Compliance report of EC for Multi-Product SEZ.</p>
4.2	Release of particulate emissions from handling and storage of coal at the port and power plants	Health Impact	APSEZ has been implementing the following management plan to control emissions as per the	All industries located in the APSEZ shall adhere to the emissions norms and minimum stack height guidelines issued by CPCB and	APSEZ and Other Industries	Continual Process	<p>Following safeguard measures are taken by APSEZ for abatement of dust emissions.</p> <ul style="list-style-type: none"> Adequate stack heights to the Boilers, D.G. Sets, TFHs & HWGs for proper dispersion of pollutants within APSEZ Using of liquid & Gaseous fuels instead of solid fuels in Boilers, Thermic fluid heaters and hot water generators. Regular sprinkling on road and other open area

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	would influence PM10 and PM2.5 concentration in the background air. This could pose some health impacts such as asthma and COPD etc. among the local communities.		applicable regulations and similar practices will be adopted in future: Entire bulk material handling facilities are mechanized. Regular water sprinkling on road and other open areas, regular cleaning of roads, dry fog dust suppression systems (DSS) in hoppers, transfer towers and conveyor belts, use of water mist	consent to operate issued by Gujarat Pollution Control Board from time to time.			<ul style="list-style-type: none"> Regular cleaning of roads Dry fog Dust Suppression System (DSS) in hopper, transfer towers and conveyor belts Use of water mist canon Closed type conveyor belts Regular sprinkling on coal heaps Covering other types of dry bulk cargo heaps Installation of wind breaking wall Development of greenbelt along the periphery of the storage yards/back up area Mechanized handling system for coal and other dry bulk cargo Wagon loading and truck loading through closed silo <p>Adequate air pollution control measures like ESPs, FGDs, Bag Filters, etc. and adequate stack heights provisions are implemented within the thermal power plant.</p> <p>The stack monitoring summary for last six months (Oct'21 to Mar'22) are as below.</p> <p>Total Nos. of Stacks: 23 Nos. Frequency: Monthly / Half Yearly</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Unit</th> <th>GPCB Limit</th> <th>Min</th> <th>Max</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td>PM</td> <td>mg/Nm³</td> <td>150</td> <td>16.30</td> <td>22.40</td> <td>18.95</td> </tr> <tr> <td>SO₂</td> <td>Ppm</td> <td>100</td> <td>4.25</td> <td>6.50</td> <td>5.86</td> </tr> </tbody> </table>	Parameter	Unit	GPCB Limit	Min	Max	Average	PM	mg/Nm ³	150	16.30	22.40	18.95	SO ₂	Ppm	100	4.25	6.50	5.86
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SO ₂	Ppm	100	4.25	6.50	5.86																				

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			<p>canon, covered conveyor belts, regular sprinkling on coal heaps,</p>				<table border="1" data-bbox="1396 511 2005 544"> <tr> <td>NO_x</td> <td>ppm</td> <td>50</td> <td>18.76</td> <td>30.80</td> <td>28.23</td> </tr> </table> <p>Values recorded confirms to the stipulated standards.</p> <p>Approx. INR 14.31 Lakhs is spent by APSEZ for environmental monitoring activities during the FY 2021-22, which also includes stack monitoring for overall APSEZ, Mundra.</p> <p>All other industries located within SEZ are adhere to provide adequate stack height and pollution control measures for proper dispersion of pollutants as per respective permissions granted by the board. The same is being inspected and ensured by APSEZ as well as SPCB officials on regular basis.</p>	NO _x	ppm	50	18.76	30.80	28.23
NO _x	ppm	50	18.76	30.80	28.23								
			<p>covering of other types of dry bulk cargo heaps by protective materials, installation of wind breaking wall, development of greenbelt along the periphery of the storage</p>	<p>An internal Coal Dust Management Working Group shall be formed by APSEZ to effectively co-ordinate the approach to coal dust management and monitoring</p>	<p>APSEZ and Other Industries, Concerned Stake holders, District Administration*</p>	<p>Long Term</p>	<p>As mentioned above, presently, APSEZ has formed Internal Environment Monitoring Committee, involving Officials of APSEZ, Adani Power Limited & other member units, with specific role and responsibilities as defined above.</p> <p>The dry cargo is being handled by mechanized system and transported by covered conveyer system, trucks and rail wagons. Wind breaking wall is provided around the coal storage yards of APSEZ as well as Adani Power Plant.</p> <p>Adequate air pollution control measures like ESPs, FGDs, Bag Filters, etc. and adequate stack heights provisions within the thermal power plant for proper dispersion of pollutants.</p>						

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			yards/back up area and mechanized handling system for coal and other dry bulk cargo and Wagon loading and truck loading through closed silo. Both thermal power plants in the study area have installed electrostatic precipitators on the boilers and are meeting the emission norms as per the respective ECs granted. Due to installation				<p>Green belt / plantation is provided around the periphery of dry cargo storage area and regular water sprinkling is also being done to abate the dust emission from coal hips.</p> <p>Last committee meeting was conducted on dated 23rd March 2022, and below were the point of discussion for way forward.</p> <ul style="list-style-type: none"> • Brief introduction about the Environment Management Plan (EMP) • All members conveyed his environment management practices, issue & suggestions • Discussed about the various ways to improve existing practice to control the emission in terms of Air, Water and Noise. • Discussed about the proper management of the canteen waste. • Discussed about the cleaning of outside of the SEZ units. • Discussed about the management of rain water & proper cleaning of the common storm water drainage system. • Discussed about proper segregation & disposal of solid waste material. • Discussed about to increase more green belt area inside plant premises of SEZ units

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			of tall stacks as per CPCB guidelines and EC conditions, the relative air pollution impacts due to release of emissions from two power plants is insignificant.				
4.3	Ships are one of the significant sources of SO ₂ and NO _x emissions in the study area. Marine diesel engines on the ships often utilize fuel oils that might contain	Level-2	A Standard Operating Procedure (SOP) has been developed to be included as a part of APSEZ environment management plan to verify that all ships	The current global limit for Sulphur content of ships fuel oil is 3.5 % m/m (mass by mass). According to MARPOL, the new global cap on sulphur in the marine vessel fuels will be 0.50% m/m by the 1st January 2025.	APSEZ and Ship Owners	Long Term	The ships coming to the APSEZ is complying with MARPOL and other shipping rules and regulations. APSEZ has already started providing shore power supply to the tugs (11 Nos.), dredgers (2 Nos.) and barges (1 No.). The feasibility of shore power will be explored and implemented on large scale for the visiting vessels to reduce idling stage ship emissions.

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	<p>higher sulphur content. As per the international best practices, these marine diesel engines are designed to meet MARPOL regulations with NOX emissions less than 14.4 gram/Kwhr of engine. Due to lower stack heights of the marine diesel engine, ship emissions often gets dispersed in</p>		<p>anchored at the port are adopting the MARPOL4 regulations.</p>	<p>APSEZ should explore the possibility of providing shore power to the ships at the port to reduce idling stage ship emissions.</p>			

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	the local environment and might pose risk of fumigation during the early morning and evening hours due to atmospheric inversion break-up periods.						
4.4	Road vehicle emissions will be other major contributors to the air pollution in the region when the facility is fully	Level-2	Not Applicable	Due to implementation of Bharat VI fuels (MoEF&CC) ⁶ in near future the vehicular and diesel engine emissions will be reduced by about 50% from the current national levels. APSEZ should develop a robust contractor environmental	APSEZ and All Industries	Short Term	Presently, cargo evacuation through rail / conveyer / pipeline has increased to ~38.36 %, thereby reducing the usage of road. Vehicles having valid PUC certificate are only being allowed to enter within APSEZ area. In future, APSEZ will also explore the feasibility of using Electric Vehicles for internal cargo movement.

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	developed.			policy to ensure that Bharat Stage VI emission norms are adopted by all their contractors and sub-contractors.			
5	Noise emissions						
5.1	Noise emissions are envisaged from port operations, industrial operations and power plants in the study area. Any increase in noise levels beyond three decibels from the	Level-1	Due to adoption of various mechanized operations at the waterfront development, the noise emissions from the port cargo handling will be minimal. An adequate greenbelt is being developed by APSEZ to further	APSEZ, all the tenant industries and facilities within APSEZ are required to undertake noise monitoring at their facilities to demonstrate the compliance with the Noise level standards. Continuous noise recording units can be installed by APSEZ at facility boundary to address the community grievances, when	APSEZ	Continual Process	<p>Below Safeguard measures are already taken for abatement of noise emissions.</p> <ul style="list-style-type: none"> • Development of greenbelt along the periphery of the operational area. • D.G. Sets having Acoustic enclosures. • Maintenance of plant machineries and equipment's on regular frequency. <p>Noise monitoring is being carried out by NABL accredited and MoEF&CC authorized agency namely M/s. Pollucon Laboratories Pvt. Ltd. Surat and Unistar Environment and Research Labs Pvt. Ltd., Vapi as per permission granted and reports are being submitted to the concerned authorities on regular basis.</p> <p>The noise monitoring summary for last six months (Oct'21 to Mar'22) are as below.</p> <p>Locations: 13 Nos. Frequency: Once in a month (24 hourly)</p>

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	background levels would be perceived as noise nuisance (USEPA)7.		reduce any residual impacts due to noise emissions from the facility. Periodic noise level monitoring programs were adopted by APSEZ. Predicted noise levels were found to be well within the designated noise standards for Industrial facilities.	ever required. To assess the overall site wide compliance and also to address any community grievances related to noise issues due to operation of APSEZ facilities.			<table border="1" data-bbox="1398 506 2011 727"> <thead> <tr> <th>Noise</th> <th>Unit</th> <th>Leq Max</th> <th>Leq Min</th> <th>Leq Avr.</th> <th>Leq Perm. Limit⁵</th> </tr> </thead> <tbody> <tr> <td>Day Time</td> <td>dB(A)</td> <td>72.90</td> <td>53.25</td> <td>64.35</td> <td>75</td> </tr> <tr> <td>Night Time</td> <td>dB(A)</td> <td>67.80</td> <td>48.28</td> <td>59.26</td> <td>70</td> </tr> </tbody> </table> <p style="text-align: right;">⁵ as per GPCB standards</p> <p>Approx. INR 14.31 Lakhs is spent by APSEZ for environmental monitoring activities during the FY 2021-22, which also includes noise monitoring for overall APSEZ, Mundra.</p> <p>All the results are well within the standards. From this it can be inferred that there no impacts on the surrounding community.</p> <p>All other industries located in the APSEZ are adhere to monitor and control the ambient noise level as per permission granted by SPCB and same is being confirmed by APSEZ as well as SPCB on regular basis.</p> <p>Further, till date APSEZ has not received any grievances/notice for noise issues from any of the stakeholders.</p>	Noise	Unit	Leq Max	Leq Min	Leq Avr.	Leq Perm. Limit ⁵	Day Time	dB(A)	72.90	53.25	64.35	75	Night Time	dB(A)	67.80	48.28	59.26	70
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				In order to address the public grievances	APSEZ	Continual	As mentioned above, presently, APSEZ has formed Internal Environment Monitoring Committee, involving Officials of APSEZ, Adani Power Limited & other																		

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				related to noise from the facility, an internal Noise Management Committee can be formed by APSEZ to investigate the root cause and to develop and implement noise mitigation plans in the specific zones.		Process	<p>member units, having role and responsibilities as defined above.</p> <p>Last committee meeting was conducted on dated 23rd March 2022, and below were the point of discussion for way forward.</p> <ul style="list-style-type: none"> Brief introduction about the Environment Management Plan (EMP) All members conveyed his environment management practices, issue & suggestions Discussed about the various ways to improve existing practice to control the emission in terms of Air, Water and Noise. Discussed about the proper management of the canteen waste. Discussed about the cleaning of outside of the SEZ units. Discussed about the management of rain water & proper cleaning of the common storm water drainage system. Discussed about proper segregation & disposal of solid waste material. Discussed about to increase more green belt area inside plant premises of SEZ units <p>No grievance received for noise related issues, and it is observed that ambient noise level are well within the permissible standards.</p>
6	Surface water quality (Terrestrial and Marine)						
6.	In general,		As per the master plan	As per the master plan of APSEZ,	APSEZ	As and When	APSEZ has installed Common Effluent Treatment Plant (CETP) having 2.5 MLD capacities for treatment of

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1	release of untreated wastewater from industrial facilities would pose threat to water quality of streams, estuaries and marine water bodies.	Level -1	of APSEZ, 67 MLD of wastewater is expected to be generated from the fully developed project scenario, for which necessary permissions to set up decentralized CETPs of various capacities are already obtained. Presently a CETP capacity of 2.5 MLD is in place. Presently member units treat their effluents to	the existing CETP shall be augmented to 67 MLD in progressive manner based on the future demand. The facility should limit the marine discharge of treated industrial wastewater to 16 MLD as per the permits. Remaining treated wastewater shall be utilized for horticulture purpose.		Required	<p>partially treated effluent and sewage generated from industries within SEZ.</p> <p>Currently, CETP receives 669 KLD (Avg.) hydraulic load and considering the current development scenario, existing CETP is adequate to treat and handle the total effluent load coming from industries within SEZ.</p> <p>Out of 51 only 4 industries within SEZ are sending their partially treated industrial as well as domestic effluent to the CETP confirming CETP inlet norms for further treatment and final disposal. Other industries within SEZ have their own STPs / ETPs for treatment of wastewater generated from their industrial operation and discharging the treated water on land for horticulture purpose within their premises as per permission granted by SPCB.</p> <p>The capacities of CETP will be enhanced on modular basis as per future requirement.</p> <p>Presently avg. 2.03 MLD (from CETP, ETP & STPs) of treated water is being utilized on land for horticulture purpose within APSEZ premises during period Oct'21 to Mar'22 and no discharge is made to any other source.</p>

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			meet the CETP inlet norms and then send it to CETP. Treated wastewater from CETP meets the stipulated discharge norms for utilization for greenbelt development within the APSEZ areas.				
			Online wastewater quality monitoring systems are installed at CETP to ensure quality of treated effluent meets the requisite	Efforts shall be made to recycle complete treated wastewater for port operations and industrial operations of APSEZ in future based on a detailed techno-economic feasibility study.	APSEZ	Based on outcome Techno-feasibility Study	Online continuous effluent monitoring system installed at the discharge point of CETP to track any deviation from discharge norms. Presently entire quantity of treated water from CETP is used for gardening / horticulture purpose within APSEZ premises.

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			discharge norms. No wastewater from CETP is discharged into natural bodies as on date..																										
			Runoff during monsoon from coal storage yards is collected in sedimentation ponds (dump pond) to remove any residual dust particulates for further disposal into sea	Storm water runoff from the facility during the first rain shall be sampled and analyzed for the presence of heavy metals or other criteria pollutants to adopt corrective and preventive actions to protect the marine water quality. All red and hazard category industry within APSEZ shall adopt spill prevention and	APSEZ	Continual	<p>There are provision of drains around coal stack yard to carry to runoff water to dump ponds. This water is either used for dust suppression or after sedimentation (to remove residual dust), is allowed disposal to sea.</p> <p>Presently Marine monitoring is being carried out once in a month by NABL and MoEF&CC accredited agency namely M/s. Pollucon Laboratories Pvt. Ltd. Surat and Unistar Environment and Research Labs Pvt. Ltd., Vapi for APSEZ & APL both. The analysis reports of the same are being submitted to the concerned authorities on regular basis.</p> <p>The marine water quality monitoring summary for last six months (Oct'21 to Mar'22) is as per below.</p> <p>Locations: 14 Nos. (APSEZ – 9 + APL – 5) Frequency: Once in a Month / Half Yearly</p> <table border="1"> <thead> <tr> <th rowspan="2">TEST PARAMETERS</th> <th rowspan="2">UNIT</th> <th colspan="3">Cumulative Surface</th> <th colspan="3">Cumulative Bottom</th> </tr> <tr> <th>Min</th> <th>Max</th> <th>Average</th> <th>Min</th> <th>Max</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	TEST PARAMETERS	UNIT	Cumulative Surface			Cumulative Bottom			Min	Max	Average	Min	Max	Average								
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				control program and no effluents shall be discharged into storm water-drains.			<table border="1"> <tr> <td>pH</td> <td>--</td> <td>7.3</td> <td>8.26</td> <td>8.02</td> <td>7.5</td> <td>8.21</td> <td>8.03</td> </tr> <tr> <td>BOD</td> <td>mg/L</td> <td>2.1</td> <td>5.9</td> <td>4.09</td> <td>0</td> <td>5.8</td> <td>2.79</td> </tr> <tr> <td>TSS</td> <td>mg/L</td> <td>24</td> <td>144</td> <td>70.45</td> <td>30</td> <td>118</td> <td>64.34</td> </tr> <tr> <td>DO</td> <td>mg/L</td> <td>5.3</td> <td>6.7</td> <td>5.92</td> <td>4.9</td> <td>6.5</td> <td>5.61</td> </tr> <tr> <td>Salinity</td> <td>ppt</td> <td>34.1</td> <td>36.7</td> <td>35.75</td> <td>33.4</td> <td>37.3</td> <td>36.24</td> </tr> <tr> <td>TDS</td> <td>mg/L</td> <td>29104</td> <td>37604</td> <td>35921</td> <td>3188</td> <td>37992</td> <td>36488</td> </tr> <tr> <td>Temperature</td> <td>oC</td> <td>29</td> <td>30.2</td> <td>30</td> <td>29</td> <td>30.1</td> <td>30</td> </tr> </table> <p>Approx. INR 14.31 Lakhs is spent by APSEZ for environmental monitoring activities during the FY 2021-22, which also includes noise monitoring for overall APSEZ, Mundra.</p>	pH	--	7.3	8.26	8.02	7.5	8.21	8.03	BOD	mg/L	2.1	5.9	4.09	0	5.8	2.79	TSS	mg/L	24	144	70.45	30	118	64.34	DO	mg/L	5.3	6.7	5.92	4.9	6.5	5.61	Salinity	ppt	34.1	36.7	35.75	33.4	37.3	36.24	TDS	mg/L	29104	37604	35921	3188	37992	36488	Temperature	oC	29	30.2	30	29	30.1	30
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			Detailed marine hydrodynamic modelling studies revealed that the current and proposed dredged soil	Good dredging practices shall be adopted by APSEZ: (i).Improving the dredging accuracy (ii).Improving onboard automation and	APSEZ	Long Term	<p>No capital dredging has been done, since Apr 2015. Dredged material generated during maintenance dredging is being disposed at designated locations within deep sea as identified by NIO.</p> <p>Dredging Management plan is adopted for carrying out dredging and management of dredge material. Presently there are 3 nos. (2 Nos. Cutter suction + 1 No. Trailer suction) of dredgers are in operation for dredging.</p>																																																								

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			<p>disposal practices, sea water intake and outfall facilities and desalination plant outfall etc have shown insignificant impact on the marine eco-system. As part of the comprehensive environmental monitoring program, APSEZ has been adopting marine water and sediment quality monitoring on monthly</p>	<p>monitoring, (iii). Reduce spill and loss, (iv). evaluating the need for installing silt screens near mangrove areas during the dredging phase operations, (v). Environment friendly dredging activities can be undertaken in such a way that the overall turbidity levels near the mangrove and ecologically sensitive zones shall not exceed 100 NTU or 200 mg/l of TSS (10% lethal level of fish) Existing marine monitoring program shall be continued as per</p>			<p>Marine monitoring is being carried out once in a month by NABL and MoEF&CC accredited agency namely M/s. Pollucon Laboratories Pvt. Ltd. Surat and Unistar Environment and Research Labs Pvt. Ltd., Vapi. The analysis reports of the same are being submitted to the concerned authorities on regular basis. Summary of marine water for the last six months is as mentioned above.</p> <p>The same practice will be continued in future also as per direction by MoEF&CC as well as GPCB.</p> <p>Monitoring will be focused near ecological sensitive area in case of need to carryout capital dragging near such areas.</p>

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			basis.	the directions of MoEF&CC and GPCB.			
7	Groundwater quality and salinity ingress						
7.1	While Mundra block is enjoying safe ground water status as on date (based on the data published by CGWB), due to induced economic and population growth, use of ground water resources by the local people might increase in Mundra region. This	Level-2	APSEZ is not utilizing ground water for any type of use. APSEZ is meeting the current water demand through Narmada water supply scheme and 47 MLD captive desalination plant at site.	A dedicated desalination plant of capacity 4,50,000 m ³ /day (450 MLD) will be developed in progressive manner to meet the APSEZ requirements.	APSEZ	As and When Required	<p>Present source of water for various project activities is desalination plant of APSEZ and/or Narmada water through Gujarat Water Infrastructure Limited and same is sufficient to meet the present water demand.</p> <p>APSEZ does not draw any ground water.</p> <p>The desalination plant of additional capacities will be installed on modular basis considering future development and requirement.</p>

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	might increase the TDS and chloride levels in the ground water in future.						
7.2	Due to induced growth in the region, pressure on the available ground water source would increase and this could pose some threat to salinity ingress.	Level-2	Ground water is not drawn by APSEZ for its operations. Natural streams (seasonal rivers) passing through the APSEZ area will not be disturbed, the micro-watershed in the area will not be disturbed. Due to the above reasons, the	The Govt. of Gujarat, Narmada, Water Resources, Water Supply & Kalpsar Dept.,(WRD) ¹² has been implementing various salinity ingress prevention projects	District Administration*	Long Term	<p>APSEZ will co-operate and comply with the directions from concerned regulatory authorities.</p> <p>APSEZ does not draw any ground water for the fresh water requirement.</p> <p>However, Adani Foundation – CSR arm of Adani Group has carried out rainwater harvesting activities in the nearby villages for benefit of the locals.</p> <p>Water conservation Projects i.e. Roof Top Rain Water Harvesting, Desilting of Check dams, Bore Well Recharge and Pond deepening were taken up in past years, review and monitoring of all water harvesting structures had been taken up.</p> <p>To make connections between human actions and the level of biological diversity found within a habitat and/or ecosystem, this year Adani Foundation launch project “Sanrakshan” in coordination with GUIDE and Sahjeevan.</p> <p>Since, 10 years considerable Water Conservation Work carried out in Mundra Taluka. Due to satisfactory rain</p>

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			<p>possibility of salinity ingress due to APSEZ development is not envisaged. Mundra and Anjar blocks fall under fresh water to medium salinity zones. It can be observed that little variation was observed in the ground water salinity levels from year 2013 to 2016 across the Mundra and Anjar blocks. This aspect confirms that the overall</p>				<p>in current year 1.11 mtr ground water table increased as per increased in coastal belt of Mundra as per Government Figures.</p> <p>Our water conservation work is as below.</p> <ul style="list-style-type: none"> • Augmentation of 2 check dams (1 Check dam current year). • Ground recharge activities (pond deepening work for more than 56 ponds) individually and 26 ponds under Sujlam Suflam Jal Abhiyan were built leading to a significant increase in water table and higher returns to the farmers. • Pond deepening and bund strengthen of Rampar village pond increase water storage capacity • Roof Top Rain Water Harvesting 115 Nos. (50 Nos current FY 2021-22) which is having 10,000 litre storage which is sufficient for one year drinking water purpose for 5 people family. • Recharge Borewell 189 Nos (83 Nos current FY 2021-22) which is best ever option to. • Drip Irrigation 1158 Farmers (180 farmers are supported with 15% of amount of total cost for maximum 4.0 lac. in current FY 2021-22) • Bund construction on way of Nagmati River could save more than 575 MCFT water quantity which recharged in ground due to which borewell depth decreased by 50-100 Ft in Zarpara, Bhujpur and Navinal Vadi Vistar. • Luni Pond Bund Repairing Work is completed.

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			salinity ingress from the shore into the land due to existing APSEZ facilities and power plant outfalls are less significant.				<p>With the objective of to preserve the rainwater to reduce the impact of salinity and recharge the ground water (the main source of water) to facilitate the Agricultural activities as well as for drinking water.</p> <p>Narmada Water Resources, Water Supply & Kalpsar Dept., (WRD)1 has been implementing various salinity ingress prevention projects. Under Sardar Sarovar canal project, Govt. of Gujarat has proposed to implement about 8200 Km stretch of water canal and the project is at various stages of implementation. Under this project about 112,000 ha of land in about 180 villages will be benefitted with irrigation needs. This will significantly reduce the pressure on the ground water resources in the region.</p>										
				While the individual industries in the study area will continue to undertake ground water quality monitoring as per the environmental	All Concerned Stakeholders, District Administration and CGWB*	Continual Process	<p>APSEZ (9 Locations – half yearly) & Adani Power Ltd. (5 Locations – quarterly) is carrying out ground water sampling and reports of the same are being submitted to the regulatory authorities on regular basis.</p> <p>The summary of APSEZ ground water quality monitoring for last six months (Oct'21 to Mar'22) are as below.</p> <p>Nos. of Location: 09</p> <table border="1" data-bbox="1396 1230 2011 1282"> <thead> <tr> <th>Parameters</th> <th>Unit</th> <th>Min</th> <th>Max</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Parameters	Unit	Min	Max	Average					
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				<p>clearances issued for the respective projects, a regional level ground water conservation action committee can be formed under the guidance of state ground water board and district Administration.</p>			<table border="1"> <tr> <td>pH @ 25 ° C</td> <td>--</td> <td>7.37</td> <td>8.17</td> <td>7.78</td> </tr> <tr> <td>Salinity</td> <td>ppt</td> <td>0.95</td> <td>11.85</td> <td>3.95</td> </tr> <tr> <td>Oil & Grease</td> <td>mg/L</td> <td>ND*</td> <td>ND*</td> <td>ND*</td> </tr> <tr> <td>Hydrocarbon</td> <td>mg/L</td> <td>ND*</td> <td>ND*</td> <td>ND*</td> </tr> <tr> <td>Lead as Pb</td> <td>mg/L</td> <td>0.04</td> <td>0.08</td> <td>0.05</td> </tr> <tr> <td>Arsenic as As</td> <td>mg/L</td> <td>ND*</td> <td>ND*</td> <td>ND*</td> </tr> <tr> <td>Nickel as Ni</td> <td>mg/L</td> <td>0.07</td> <td>0.17</td> <td>0.10</td> </tr> <tr> <td>Total Chromium as Cr</td> <td>mg/L</td> <td>0.07</td> <td>0.09</td> <td>0.08</td> </tr> <tr> <td>Cadmium as Cd</td> <td>mg/L</td> <td>0.10</td> <td>0.10</td> <td>0.10</td> </tr> <tr> <td>Mercury as Hg</td> <td>mg/L</td> <td>ND*</td> <td>ND*</td> <td>ND*</td> </tr> <tr> <td>Zinc as Zn</td> <td>mg/L</td> <td>0.15</td> <td>0.39</td> <td>0.25</td> </tr> <tr> <td>Copper as Cu</td> <td>mg/L</td> <td>ND*</td> <td>ND*</td> <td>ND*</td> </tr> <tr> <td>Iron as Fe</td> <td>mg/L</td> <td>0.11</td> <td>1.12</td> <td>0.67</td> </tr> <tr> <td>Insecticides/Pesticides</td> <td>µg/L</td> <td>Absent</td> <td>Absent</td> <td>Absent</td> </tr> <tr> <td>Depth of Water Level from Ground Level</td> <td>meter</td> <td>1.80</td> <td>2.15</td> <td>1.99</td> </tr> </table> <p style="text-align: right;">* ND – Not Detectable</p> <p>Approx. INR 14.31 Lakhs is spent by APSEZ for environmental monitoring activities during the FY 2021-22, which also includes noise monitoring for overall APSEZ, Mundra.</p> <p>The freshwater requirement of all the industries within SEZ is being satisfied through APSEZ. All the industries are encouraged to monitor ground water quality as per the permissions granted by competent authorities.</p> <p>As mentioned above, presently, APSEZ has formed Internal Environment Monitoring Committee, involving</p>	pH @ 25 ° C	--	7.37	8.17	7.78	Salinity	ppt	0.95	11.85	3.95	Oil & Grease	mg/L	ND*	ND*	ND*	Hydrocarbon	mg/L	ND*	ND*	ND*	Lead as Pb	mg/L	0.04	0.08	0.05	Arsenic as As	mg/L	ND*	ND*	ND*	Nickel as Ni	mg/L	0.07	0.17	0.10	Total Chromium as Cr	mg/L	0.07	0.09	0.08	Cadmium as Cd	mg/L	0.10	0.10	0.10	Mercury as Hg	mg/L	ND*	ND*	ND*	Zinc as Zn	mg/L	0.15	0.39	0.25	Copper as Cu	mg/L	ND*	ND*	ND*	Iron as Fe	mg/L	0.11	1.12	0.67	Insecticides/Pesticides	µg/L	Absent	Absent	Absent	Depth of Water Level from Ground Level	meter	1.80	2.15	1.99
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							<p>Officials of APSEZ, Adani Power Limited and other member units, having role and responsibilities as defined above.</p> <p>APSEZ will co-operate and comply with the directions from concerned regulatory authorities for ground water management.</p>
8	Waste Management						
8.1	Solid waste will be generated from industrial activities of APSEZ and other permitted facilities in the study area including Mundra town. These wastes would contain recyclable material, construction debris,	Level-2	APSEZ has been adopting Zero waste Initiatives and the entire waste generated from existing operations is segregated and disposed to recycling vendors, thereby APSEZ has achieved zero landfill status as on date.	APSEZ will continue to adopt Zero Waste Initiative and wastes will be segregated at source and disposed to various recycling vendors, co-processing in cement plants. This initiative helps not only to reduce the waste to landfill significantly, but also to recycle the materials there by avoiding ecological impacts.	APSEZ	Continual Process	Presently APSEZ has implemented Zero waste Initiatives as per 5R (Reduce, Reuse, Recycle, Recover & Reprocess) principles of waste management. At present, APSEZ has developed material recovery facility for 6.0 TPD capacities. A well-established system for segregation of dry & wet waste is in place. All wet waste (Organic waste) is being segregated & utilized for compost manufacturing and/or biogas generation for cooking purpose. The compost is further used by in house horticulture team for greenbelt development. Whereas dry recyclable waste is being sorted in various categories. Presently manual sorting is being done for sorting of different types of solid waste. Segregated recyclable materials such as Paper, Plastic, Cardboard, PET Bottles, Glass etc. are then sent to respective recycling units, whereas remaining non-recyclable waste is bailed and sent to cement plants for Co-processing as RDF (Refused Derived Fuel). The same practice will be continued in future also. APSEZ has also been recognized for Zero Waste to Landfill certification from reputed organization.

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	organic waste, inert material and e-waste etc. In the absence of any organized source segregation programs and material recycling strategies and infrastructure facilities, these wastes will enter into environment and would pose long term health impacts.						<p>APSEZ, Mundra is certified for Zero Waste to Landfill management system (ZWTL MS 2020) by TUV Rheinland India Pvt. Ltd. (valid up to 31.05.2024). APSEZ, Mundra has also been certified as Single Use Plastic (SUP) Free Port by Confederation of Indian Industry (CII) (valid up to 25.05.2022). Details of the same were submitted as part of compliance report submission for the duration of Apr'21 to Sep'21.</p> <p>APSEZ will continue proper solid waste management in his operational area.</p>
8.2	Considering an average solid waste	Level-2	APSEZ has made a provision for central waste	The existing waste segregation and material recycling	APSEZ	Continual	

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	generation of 0.25 Kg/person/day, the estimated solid waste from facilities within APSEZ will be in the order of 100 TPD (36,500 TPA).		management facilities within the existing site based on the future needs. As part of the Zero Waste Initiatives, no landfill facilities will be installed at APSEZ.	facilities will be augmented to dispose safely the wastes generated from APSEZ areas. Solid Waste Management Program shall be adopted and implemented as per Municipal Solid Waste Management Rules 2016 and Construction Waste Management Rules 2016		Process	Industries located within the SEZ area are also complying with the waste management rules stipulated by statutory authorities and same is also being confirmed by APSEZ as well SPCB on regular basis.
8.3	About 35 TPD (13,000 TPA) of solid waste would be generated from the proposed industrial areas	Level-2	As per the MSW Rules 2016 all the industrial facilities and SEZs are required to adopt waste segregation facilities at	Solid Waste Management Program shall be adopted and implemented as per Municipal Solid Waste Management Rules 2016 and Construction Waste	All Industries	Continual Process	

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	located outside the APSEZ area.		the respective properties and non-recyclable waste shall be disposed to landfill sites.	Management Rules 2016			
9	Ecological aspects (terrestrial and marine)						
9.1	About 1576 ha of shrub forest land contiguous to APSEZ area is applied for land diversion for various developmental activities. This might	Level -1	It is noted that the designated forest land is free from any native vegetation and comprises of Prosopis juliflora. It is also noted that no endangered species are	APSEZ has approached concerned authorities for diversion of designated forest land. Suitable compensatory afforestation plan shall be adopted based on the recommendations and directions of the concerned authorities. Due to adoption of	APSEZ/State Forest Department*	Long Term	Stage – 1 forest Clearance for about 1576.81 Ha Forest land has been obtained. Presently APSEZ is in the process of compliance to the stage – 1 Forest Clearance conditions, for further submitting to Govt. authorities for issuance of Stage-2 Forest Clearance.

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	<p>have certain level of changes in the biodiversity in the study area.</p>		<p>present at the shrub forests that are applied for land diversion. It is also noted that no forest produce is reported from this designated forest land parcel due to lack of economic importance of plant species reported in the shrub forest. It is also noted that no tribal lands are located in the designated</p>	<p>compensatory afforestation program through a scientific manner, the overall ecological footprint in the district will be increased. Due to plantation of native tree species as part of greenbelt development, the overall biodiversity of the region will increase considerably when the project is fully developed.</p>			

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			forest land parcel. Hence there will not be any change in biodiversity due to the proposed diversion.				
9.2	Mangrove conservation areas are located adjacent to the APSEZ area. Accidental discharges of industrial effluents into the marine environment would pose certain ecological risk.	Level -1	No development activities will be undertaken within mangrove conservation areas. APSEZ has taken up large scale mangrove afforestation activities in an area of more than 2800 ha at various locations	Mangrove footprint and health status shall be monitored annually	APSEZ	Continual Process	<p>As per study conducted by NCSCM in 2017, mangrove cover in and around APSEZ, Mundra has increased from 2094 Ha to 2340 ha (as compared between 2011 to 2017). The analysis has shown an overall growth of 246 ha. The cost for said study was INR 3.15 Cr.</p> <p>Recently study was carried out in the year 2019 and based on that there is an increase of mangrove cover between March 2017 (Total 2340) and September 2019 with an extent of 256 Ha (Total 2596 Ha Area) which is about 10.94% rise in growth rate, also It reveals that the mangrove and the tidal system in the creeks remained undisturbed over this period.</p> <p>Hence, there is an overall growth of mangroves in creeks in and around APSEZ, Mundra is 502 Ha between 2011 and 2019.</p> <p>Analysis of data between categories indicated that there was an increase in dense mangroves along with</p>

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			<p>across the coast of Gujarat state in consultation with various organizations The Adani Foundation introduced 'Mangrove Nursery Development and Plantation' scheme in the area as an alternative income generating activity for the people of the region.</p>				<p>the conversion of scattered into sparse, that shows the growth of mangroves in a progressive direction.</p> <p>As a part of GCZMA recommendations and NCSCM mangrove conservation action plan, APSEZ has undertaken following activities.</p> <table border="1" data-bbox="1396 711 2011 1425"> <thead> <tr> <th data-bbox="1396 711 1453 841">Sr. No.</th> <th data-bbox="1453 711 1646 841">Recommendations</th> <th data-bbox="1646 711 2011 841">Compliance</th> </tr> </thead> <tbody> <tr> <td data-bbox="1396 841 1453 1425">1.</td> <td data-bbox="1453 841 1646 1425">Mangrove mapping and monitoring in and around APSEZ</td> <td data-bbox="1646 841 2011 1425"> <ul style="list-style-type: none"> APSEZ entrusted NCSCM, Chennai to carry out Monitoring of mangrove distribution in creeks in and around APSEZ and shoreline changes in Bocha island. As a part of this study, overall growth of mangroves in the creeks in and around APSEZ was assessed comparing Google earth images of 2017 & 2019 and it is observed that there was increase in mangrove cover between March 2017 and September 2019 to the extent of 256 Ha, which is about 10.7%. This suggests that the mangroves and the tidal system in the creeks remain undisturbed over this period. Analysis of data between categories indicated that </td> </tr> </tbody> </table>	Sr. No.	Recommendations	Compliance	1.	Mangrove mapping and monitoring in and around APSEZ	<ul style="list-style-type: none"> APSEZ entrusted NCSCM, Chennai to carry out Monitoring of mangrove distribution in creeks in and around APSEZ and shoreline changes in Bocha island. As a part of this study, overall growth of mangroves in the creeks in and around APSEZ was assessed comparing Google earth images of 2017 & 2019 and it is observed that there was increase in mangrove cover between March 2017 and September 2019 to the extent of 256 Ha, which is about 10.7%. This suggests that the mangroves and the tidal system in the creeks remain undisturbed over this period. Analysis of data between categories indicated that
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									<p>there was an increase in dense mangroves and also conversion of scattered to sparse which also shows that the growth of mangroves in a progressive direction.</p> <ul style="list-style-type: none"> Hence, there is an overall growth of mangroves in creeks in and around APSEZ, Mundra is 502 Ha between 2011 and 2019. The cost of the said study was INR 23.56 Lacs incurred by APSEZ.
							2.	Tidal observation in creeks in and around APSEZ	<ul style="list-style-type: none"> APSEZ carried out the tidal observations at locations similar to 2017 in Kotdi, Baradimata, Navinal, Bocha and Khari creeks under the guidance of NCSCM. The observed tidal ranges indicate that the creeks experience normal tidal ranges, adequate for the growth of mangroves. The cost of the said activity was INR 1.0 Lacs.
							3.	Removal of Algal and Prosopis growth from mangrove areas	<ul style="list-style-type: none"> Algal and Prosopis growth monitoring was done in and around mangrove area and algal encrustation was found in some of the mangrove areas, which has been removed manually.

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								<ul style="list-style-type: none"> Algal & Prosopis removal from Mangrove area for FY 2021-22- The cost of the said activity was INR 2.8 Lacs incurred by APSEZ. Please refer attached Annexure - 1 for Report of Algal removal work in mangrove area.
							4.	<p>Awareness of mangroves importance in surrounding communities</p> <ul style="list-style-type: none"> Adani Foundation – CSR Arm of Adani group has done awareness camps/activities created in the community regarding importance of mangroves. Adani Foundation provides Good Quality dry and green fodder to 24 Villages. Project is covering total 14116 Cattels / 3008 farmers and hence enhancing cattle productivity. Dry Fodder 895398 Kg Green –2425230 Kg. Adani Foundation has also provided 117.11 lacs kg Dry Fodder and 89.00 lacs kg Green fodder in 29 villages of Mundra and Anjar Block to support the resource dependent villagers, to avoid their dependency on mangroves. The expenditure

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							<p>March-22 association with M/s. GUIDE, Gujarat.</p> <p>Mangrove plantation done at Luni sea coast with fisher folk community during World Environment Day Celebration. Web talk show was organized on the occasion of "World Mangrove days On Multi species Mangrove bio diversity with Joint effort of GUIDE and Adani Foundation, Mundra. 8th June is celebrated as world ocean day. Adani foundation had celebrated the world ocean day by coastal cleaning activity at Juna Bandar, Luni Bandar and Bavadi Bandar.</p> <p>Mangroves nursery is developed in a Khari creek behind IOCL & 125000 Nos. of new saplings were planted in creek area by APSEZ.</p>
9.3	Outfall from the thermal power plants desalination and CETP would pose certain level of impact on the marine environment.	Level-1	A detailed marine hydro-dynamic and dispersion modelling of the study area indicates that the background temperature and salinity at mangrove conservation	All approved marine outfalls shall be monitored for salinity, temperature and other designated parameters as per consent to establish issued by GPCB. Existing marine environmental monitoring	APSEZ and Concerned Industry	Continual Process	<p>Presently marine monitoring is being carried out by the Adani power plant at the marine outfall locations and reports are being submitted to the concerned authorities on regular basis.</p> <p>APSEZ is carrying out Marine monitoring once in a month at 9 locations in deep sea by NABL and MoEF&CC accredited agency namely M/s. Pollucon Laboratories Pvt. Ltd. Surat and Unistar Environment and Research Labs Pvt. Ltd., Vapi. The analysis reports of the same are being submitted to the concerned authorities on regular basis.</p> <p>Adani power plant is also doing marine water quality at 5 locations (2 locations at outfall location) in deep sea by NABL and MoEF&CC accredited agency namely M/s.</p>

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			area will not increase from the prevailing background levels as the outfalls are located far away. APSEZ and respective power plants in the study area have been monitoring the marine water quality status on monthly basis for the stipulated environmental and ecological parameters.	program shall be continued.			<p>Unistar Environment & Research Labs Pvt. Ltd. The analysis reports of the same are being submitted to the concerned authorities on regular basis. The summary of marine water quality is shown above.</p> <p>The comparison of marine water results between CIA and current monitoring data are as below.</p> <table border="1"> <thead> <tr> <th rowspan="2">Parameter</th> <th rowspan="2">Unit</th> <th colspan="2">Max</th> <th colspan="2">Min</th> </tr> <tr> <th>CIA</th> <th>Present</th> <th>CIA</th> <th>Present</th> </tr> </thead> <tbody> <tr> <td>Temp.</td> <td>°C</td> <td>30.2</td> <td>30</td> <td>28</td> <td>29</td> </tr> <tr> <td>Salinity</td> <td>ppt</td> <td>41.8</td> <td>37.3</td> <td>34.9</td> <td>36.3</td> </tr> </tbody> </table> <p>As per above results, it can be seen that there is no major deviation in the concentration of parameters and thus indicates that impacts are insignificant.</p>	Parameter	Unit	Max		Min		CIA	Present	CIA	Present	Temp.	°C	30.2	30	28	29	Salinity	ppt	41.8	37.3	34.9	36.3
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9.4	Terrestrial Ecology:	Level-1	APSEZ has developed greenbelt in an area of	The compensatory afforestation	APSEZ	Continual Process	APSEZ has developed its own "Dept. of Horticulture" which is taking measures/ steps for terrestrial plantation/greenbelt development. APSEZ, Individual SEZ Industries and Adani Power Plant has developed																						

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	Study area doesn't have any notified national parks or ecological sanctuaries. Since the area falls under dry deciduous shrubs. Due to scanty rains in the area, the overall natural green-cover/vegetation in the area is very small.		550ha as against the committed area of 430ha. A dedicated nursery is set up to promote plantation. APSEZ have undertaken a plantation with about 9.6 Lakh fully grown trees.	area to be monitored annually to check the survival rate of the plantation.			<p>more than 700 Ha. area as greenbelt within the APSEZ area including SEZ industries & Adani Power Plant.</p> <p>Dedicated horticulture department is maintaining and monitoring the terrestrial green belt development on regular basis to check the survival rate of plantation.</p> <p>Total expenditures of the horticulture dept. of APSEZ during the FY 2021-22 within APSEZ is INR 921 lakhs.</p>
10	Socio-economic aspects						
10.1	Population growth in the Mundra region was reported to be in the	Level-1	Dedicated townships are developed within APSEZ area with necessary	The existing townships will be expanded to accommodate about 4lakh people when the	APSEZ	As and When Required	APSEZ has developed two townships (Shantivan and Samudra) accommodating 2057 households and associated infrastructure facilities. Accommodation is made available for all interested employees working within Adani group & SEZ industries. Out of which

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	<p>order of 85% during the past decade (2001-2011). Further expansion of the urban area could be possible due to induced economic growth in the region. Increase in population will have a additional need for public infrastructure in the region.</p>		<p>community infrastructure s such as hospital, school, recreational facilities, sewage treatment and waste collection facilities. Adani Foundation has been undertaking various CSR programs under the principal themes such as education, community health, sustainable livelihood and rural infrastructure. About Rs. 97 Cr has been spent on various CSR</p>	<p>project activity is fully developed.</p>			<p>97.4% Occupancies are accommodated within the townships and rest are available for employees working within APSEZ.</p> <p>At present 51 nos. of industries (processing & non-processing) are operating within the SEZ. Township facilities are also made by SEZ industries within Mundra town for their employees having basic infrastructure facilities and requirements. Most of the employees working in SEZ industries are residing in Mundra township having all basic requirements and associated facilities.</p> <p>The existing social infrastructure facilities are adequate to accommodate the people considering present APSEZ development. The existing townships with associated facilities will be expanded as per requirement. Other infrastructure facilities have been developed for people are as follows.</p> <ul style="list-style-type: none"> • Multi-Specialty Hospital • School • Commercial complex • Religious place <p>APSEZ is actively working with local community (including fishermen community) around the project area and provides required support for their livelihood and other concerns through the CSR arm – Adani Foundation in the main five persuasions is mentioned below.</p> <ul style="list-style-type: none"> • Community Health

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			<p>activities in the Mundra region since 2010. Similar community development programs (based on need based assessment) will be continued in future as well with allocation of appropriate budget.</p>				<ul style="list-style-type: none"> • Sustainability Livelihood – Fisher Folk • Education • Rural Infrastructures <p>Adani foundation has spent approx. INR 6470.23 lakhs from April – 2018 to March – 2022 for CSR activities which also includes cost of rural infrastructure projects.</p> <p>Major works carried out since April 2018 as a part of CSR activities are as below.</p> <ul style="list-style-type: none"> • Pond Deepening work at Vadala & Mota Bhadiya • Artificial recharge borewell in Borana, Mangara & Dhruh village. • Under Dignity of Drivers Project, Adani Foundation has constructed Resting Shed for Drivers entering in SEZ Premises. Total 50 beds are constructed, drinking water and sanitation plus recreational – TV Facilities. • Construction of 45 Toilet block and proper bathing place for labours. • RO Plant – Samaghogha, Siracha village & Vallabh Vidyalaya at Mundra • Basic sanitation facility (18 Nos) at Balvadi, medical centre and retiring places at labour settlements • Ground recharge activities (pond deepening work for more than 56 ponds) individually and 26 ponds under Sujlam Suflam Jal Abhiyan were built leading to a significant increase in water table and higher returns to the farmers. • Roof Top Rain Water Harvesting 115 Nos. (50 Nos current FY 2021-22) which is having 10,000 litre storage which

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							<p>is sufficient for one year drinking water purpose for 5 people family.</p> <ul style="list-style-type: none"> • Recharge Borewell 189 Nos (83 Nos current FY 2021-22) which is best ever option to. • Drip Irrigation 1158 Farmers (180 formers are supported with 15% of amount of total cost for maximum 4.0 lac. in current FY 2021-22) • Participatory Ground Water Management in ten villages with holistic approach for Kankavati Sandstone Aquifer Programme. • Bund construction on way of Nagmati River could save more than 575 MCFT water quantity which recharged in ground due to which bore well depth decreased by 50-100 Ft in Zarpara, Bhujpur and Navinal Vadi Vistar. • Development of Prisha Park at Mundra. • Pond Bund strengthening at Zarpara Village • Approach Road Restoration at all Fisher folk vasahat. • Garden Development at Primary School Rampar village • Shed Development at Shukhpurvah Mundra • Under Gram Utthan Project, Adani Foundation is supporting home biogas to farmers to Uthhan Villages phase wise. Current year supported 223 home biogas in Dhruh, Zarpara and Navinal Villages. • Adani Foundation at Mundra-Kachchh has initiated multi-species plantation of mangroves in Kachchh in association with GUIDE. During 2018-2019 (Phase-I) multi-species mangrove plantation was carried out in 10 ha, during Phase-II (2019-2020) it was 02 ha and during Phase III (2020-2021) it is 01 ha. During current FY 2021-22, 03 ha area coastal stretches have been planted with mangrove species. Total 16 Ha. multi-species mangrove plantation has been carried out till March-22 association with M/s. GUIDE, Gujarat.

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							<ul style="list-style-type: none"> Sea Weed Culture - A pilot cultivation facility (5 KL tanks in 6 nos) for the farming of different economically important seaweeds in the tanks on the onshore has been established and commenced the cultivation trials with red sea weeds Kappaphycus alvarezii, Gracilaria dura and green sea weed Ulva. The initial trials have given very promising results and harvested 6-7 times the seeded material in a 40-45 days cultivation period. 50 RRWHS structure have been completed 83 Bore-well recharging activity is completed. Development Approach road Prasala vadi vistar Gogan Pachim at Zarpara Earthen bund Repairing work at Pond, Luni. Pre-monsoon activity Approach repairing, Village Pond Lake strengthen, and river cleaning (babul cutting) work is ongoing in Various Villages Approach Road repairing at Various Fishermen Vasahat (ARC). <p>Similar community development programs (based on need based assessment) will be continued in future as well with allocation of appropriate budget.</p>
10.2	The overall sex ratio was found to reduce by 28% in the Mundra taluk (study area) during the period 2001 - 2011. This	Level-2	Adani foundation is taking up several girl child education programs as part of CSR	Suitable regional level awareness programs on the girl child protection and encouragement programs in line with state and national policies shall be adopted	APSEZ, Other development projects and District Administration*	Long Term	<p>Major works carried out since April 2018 as a part of CSR activities to create awareness about girl child protection are as below.</p> <ul style="list-style-type: none"> The Adani Foundation provided scholarship support to motivation and encouragement of fishermen boys and girls for higher education under this program. APSEZ provide 100% fees support to girls as a scholarship.

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	could be attributed to increase in influx of working men in the region due to rapid economic development. Similar trend might continue in future due to induced economic growth in the region.		activities to create awareness about girl child protection.	under Corporate Social Responsibility programs in association with district authorities.			<ul style="list-style-type: none"> • Uthhan Project promotes girl child education, Creating awareness through various Govt schemes i.e. Vahali Dikri Yojana, Sukanya Samridhhi Yojana etc. till date covered more than 1200 girl child to get benefit out of it. • Separate sanitation facilities for girl child in schools. • Suposhan Project focus on adolescent and Reproductive age women nutrition part. Till date covered more than 12500 women and 8700 adolescents under this Project and brought them to considerable status. • Beti Vadhavo Programme was organized in 32 Villages in the presence of Village Sarpanch and other leaders in year 2017-18. We explained people about the various topics i.e. importance of girl child, Sex Ratio, Gender Equality and laws regarding Child abortion. This initiative was well accepted by community and we have observed a visible change in their mindset. We have facilitated 560 daughters with Kit (Small Bed sheet, Mosquito net, Soap and Cream with nutritious food for mother) To create awareness about health, personal hygiene, child education and nutritional diet in fishermen community, various awareness programs have been organized. • During the year various activity like, Covid-19 awareness in village & Slum Area, Menstrual Hygiene Day, Breastfeeding Week, National Deworming Day, National Nutrition Month had been celebrated.

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							<ul style="list-style-type: none"> • Project Suposhan is initiated with the Motive Curb malnutrition amongst Children, Adolescent girls and Women in our CSR villages. <ul style="list-style-type: none"> ✓ 100 beneficiaries covered in Menstrual Hygiene Day - with slogan called "RED-ACHHA HAI" ✓ 204 beneficiaries covered in Breastfeeding Week ✓ 320 beneficiaries covered in National Deworming Day ✓ 20 villages covered in celebration of NATIONAL NUTRITION MONTH ✓ 42 FAMILY COUNSELLING ✓ 2059 Women participated in celebration of Women's Day week. • To reduce malnutrition and anemia amongst Children 95 % & adolescent girls and pregnant & lactating women by 70 % in three years • Reduction IMR and MMR • Support Awareness & Cover 100 % Vaccination taken by Child & women. • SuPoshan Thanksgiving program was organized. In this webinar DDO, CDPO Mundra and other dignitaries remained present and appreciated the efforts to overcome malnourishment in Mundra and Bitta. • The National girl child day was celebrated with ICDC Department with Vahli Dikri Yojna form filling, paediatric health camp and Baby health kit distribution at Mundra. Mrs. Ashaben-CDPO Mundra was remain present in this event. Total 61

S. No.	Identified environmental and social impacts for the fully developed scenario (year 2030)	Type of Impact & Magnitude	Environment management plans adopted or being adopted by APSEZ as per permits, clearances, applicable regulations and guidelines etc.	Additional Risk Mitigation Measures/ESMP	Responsible agency	Timeframe for implementation	Compliance
							<p>forms has received approval letter from GOG and 15 forms filled upon the same day.</p> <ul style="list-style-type: none"> Adani Foundation is working with 15 Self help group and supporting to develop entrepreneur skills to become self reliant, sourcing more than 350 women to absorb in various job –this will give them identity, confidence and right to speak in any decision for home, village and working area. <p>About INR 6470.23 lakhs has been spent on various CSR activities in the Mundra region since April 2018 to till Mar 2022 including cost of community health and education for woman and girl child.</p>
10.4	Due to economic growth leading to rapid urbanization, which prompts the need for healthcare facilities in the region. For an influx of 6 lakh people from APSEZ operations and	Level-2	Adani hospitals, Mundra is setup by Adani group near Samudra township with a goal to provide primary and secondary health care services to Adani group employees and the local populace of Mundra. The existing 100	APSEZ will explore other possibilities to augment the primary and secondary healthcare facilities in future depending on the growth scenario at APSEZ development.	APSEZ	Long Term	<p>Adani hospitals (Multi-specialty), Mundra is having 110 bed facility and same is setup by Adani group near Samudra township.</p> <p>Primary health center and community health center are in place within the Mundra taluka.</p> <p>Other than this Adani foundation is doing various activities as part of community health. The details of last year are as below.</p> <p>Adani foundation has spent approx. INR 6470.23 lakhs from April – 2018 to Mar – 2022 for CSR activities cost including cost of community health.</p> <ul style="list-style-type: none"> Mobile Health Care Units and Rural Clinics 12 Rural Clinics 09 villages of Mundra, 03 villages of Anjar & Mandvi block has benefited by rural clinic service.

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	additional 3 Lakh from induced growth by the year by 2030 (fully developed scenario), total hospitals facilities with about 540 beds would be required.		bed Adani hospital at Mundra has been catering the services ranging from wellness and preventative care.				<ul style="list-style-type: none"> • Support to 1409 vulnerable patients • 31 villages covered, with 94 types of general and lifesaving medicines through Mobile healthcare unit • 57420 patients direct & 193661 patient indirect benefited during FY 2021-22 • 344 patients are directly/indirectly benefitted by Dialysis support at various times with nominal charges at Adani Hospital. • 05 patient with critical & severe condition has been supported for dialysis various time with nominal charges • 1409 –Economically Challenged patients have been supported for operation, OPD, IPD, Medicines and lab-test. • For Preventive health care General and multispecialty camps Pediatric camp, General Health camps in 9 villages and Super specialist camp which benefitted more than 1100 patients of Mundra Taluka. • 154 Widows, Senior Citizens and Handicapped people linked with Government pension scheme • 34 senior Citizens linked up with Ayushman Yojana and 67 Senior Citizens were referred to GKGH Bhuj for chronic illness. <p>Other than this, Adani Foundation has also worked for fight against COVID – 19 pandemic situations for last two years.</p> <p>Present Hospital facilities are adequate to avail the medical treatment for Mundra region considering present development. Other Occupational Health centres, primary health centres and community health centres are also in place in Mundra to take care the people residing in Mundra. Adani group is also operating high quality health care services to the people of Kutch at G. K. General Hospital, Bhuj having</p>

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							<p>750 beds facilities on public private partnership (PPP) model, which is 60 km far from Mundra.</p> <p>APSEZ will explore other possibilities to augment the primary and secondary healthcare facilities in future depending on the future development at APSEZ.</p>
10.5	<p>Due to rapid economic development in the region, several employment opportunities can be generated to the local people.</p> <p>When the area is fully developed by the end of 2030, the working population of the Mundra taluk would increase from current level of 55,000 to as high as 4,00,000,</p>		<p>APSEZ has been giving preferences to people from Gujarat for providing employment opportunities based on eligibility and skills. In Mundra, special programmes have been conducted by Adani Foundation to enhance the employability of youth from fisherfolk communities. Based on the need assessment</p>	<p>APSEZ is committed to provide support for fishermen livelihood activities and has submitted a detailed 5 years plan to MoEF&CC with a total budget of Rs.13.5 Cr.</p>	APSEZ	Short Term	<p>Following support provided during this compliance period as a fisherfolk livelihood.</p> <ul style="list-style-type: none"> • 1031 families has benefitted by water supply at nine fisher folk vasahats under Machhimar Ajivika Uparjan Yojana. • Engage more than 500 fisher folk youth in Skill Development Training to provide consistent scope of income. • 11604 fisherfolk direct or indirect benefitted with Education, Mangrove, Water and Livelihood. • Average 75 KL of water was supplied to 676 households at 5 fisherman vasahat on a daily basis under Machhimar Shudhh Jal Yojana and other 4 fisherman vasahat has linkaged with Narmada water through GWIL and Mundra Gram Panachayat from which 355 households get benefitted. • 11 Fisher Youth were interviewed among that 5 have been selected. Our target is to support 60+ Fisherman in alternative livelihood till March 2022. • Facilitation of Pagadiya Welfare scheme & boat license sanction letter to 06 Fishermen. Till date 59 Form has been submitted to fisheries department, Bhuj for pagadiya and boat License.

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	which will be 45% of the total envisaged population in Mundra Taluk by the end of 2030.		results, several livelihood options have been introduced by the Adani Skill Development Centre, Mundra. In these centres, youth can join and get vocational training for a number of technical and non-technical skills. An industrial Training Institute is set up at APSEZ, Mundra, to enhance the skill levels of the local youth to maximum possible extent.				<ul style="list-style-type: none"> • During the Taukate cyclone fishermen family had been shifted to safe Places As well as support to disaster management team for advance preparation. • To promote Natural farming Adani Foundation has originated cow-based farming initiative with interconnected techniques which can increase farmer yield. • Survey and identification of farmers to adopt Natural farming-Total 150 Farmers were selected as criteria in first phase of the Project • 23 wormicompost unit have been set-up. Which is facilitated through Government with farmer Contribution. • 150 Farmers have started to preparing Jiva Mrut & Gaukrupa Amrutam Bio-fertilizer and using in agricrop. Series of Training is arranged by ATMA and Adani Foundation. • Four Farmers Groups is registered with ATMA–Agricultural technology management Agency–it will leverage Government schemes. • Adani Foundation has also provided 117.11 lacs kg Dry Fodder and 89.00 lacs kg Green fodder in 29 villages of Mundra and Anjar Block to support the resource dependent villagers, to avoid their dependency on mangroves. The expenditure for fodder supporting activities was approx. 206.11 Lacs during FY 2021-22. • Adani Foundation provides Good Quality dry and green fodder to 24 Villages. Project is covering total 14116 Cattels / 3008 farmers and hence

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							<p>enhancing cattle productivity. Dry Fodder 895398 Kg Green –2425230 Kg.</p> <ul style="list-style-type: none"> • Fodder Cultivation-To made fodder sustain villages -25 Acre Gauchar land of Siracha village is being cultivated for the same. • Current year for the dates Packaging and Marketing, KKPC Started to sell 10 Kg capacity packaging Box at Minimum Profit Margin At Rs.29/Boxes which resulted in turn over of Rs. 24 Lacs with Profit of 1 Lac. This initiative has supported more than 1800 farmers indirectly. • Dragon fruit farming is on going by Five farmers each farmer is doing in 2 Acre farm –Total 11000 plants. • Skill Development and Income Generation –Adani Foundation is working with 15 Self help group and supporting to develop entrepreneur skills to become self reliant, sourcing more than 350 women to absorb in various job. <p>APSEZ is carrying out various initiatives specific to the Fisherfolk community which includes:</p> <ul style="list-style-type: none"> • Vidya Deep Yojana • Vidya Sahay Yojana – Scholarship Support • Adani Vidya Mandir • Fisherman Approach in SEZ • Machhimar Arogya Yojana • Machhimar Kaushalya Vardhan Yojana • Machhimar Sadhan Sahay Yojana • Machhimar Awas Yojana

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							<ul style="list-style-type: none"> • Machhimar Shudhh Jal Yojana • Sughad Yojana • Machhimar Akshay kiran Yojana • Machhimar Suraksha Yojana • Machhimar Ajivika Uparjan Yojana • Bandar Svachhata Yojana <p>These initiatives are planned for the period 2016 – 2021 with a committed expense of INR 13.5 Cr as submitted earlier in detail in the report namely "Silent Transformation of Fisher folk at Mundra", .</p> <p>Till, Mar'22 approx. 11.53 Cr. INR, has already been spent in support for fishermen livelihood activities.</p>

Annexure – i

TEST REPORT

Report No.	URC /21/12/Water/APL-0001		
Name & Address of Customer	M/S. ADANI PORTS & SPECIAL ECONOMIC ZONE LTD. (WFDP-West Port) PLOT NO: - NAVINAL ISLAND, Village - MUNDRA, Tal. – Bhuj, DIST. - KUTCH - 370421.	Date of Report	18/12/2021
		Customer's Ref.	As Per W.O.
Sample Details	Pond Water	Location	Nr.ATT-2A
Sample Qty.	5 Lit.	Appearance	Colorless
Sampling Date	10/12/2021	Sample Received Date	11/12/2021
Test Started Date	11/12/2021	Test Completion Date	17/12/2021
Sampled By	UERL Lab	Sampling Method	UERL/CHM/SOP/116
UERL Lab ID. No.	21/12/Water/APL-0001		

TEST RESULTS:

Sr. No.	Parameters	Test Method Permissible	Unit of Measurement	Results
1.	Colour	IS 3025(Part 4)	Pt. Co. Scale	5.0
2.	Odour	IS 3025(Part 5)1983	--	Agreeable
3.	Total Suspended Solids	APHA 23 rd Ed.,2017,2540 –D	mg/L	28
4.	pH @ 25 °C	APHA 23 rd Ed.,2017,4500-H*B	--	7.39
5.	Temperature	IS 3025(Part 9)1984	°C	29.6
6.	Oil & Grease	IS 3025(Part39)1991, Amd. 2	mg/L	BDL(MDL:2.0)
7.	Total Residual Chlorine	IS 3025(Part 26)1986,	mg/L	BDL(MDL:0.1)
8.	Ammonical Nitrogen	IS 3025(Part 34)1988,	mg/L	2.12
9.	BOD (3 days at 27 °C)	IS 3025(Part 44)1993Amd.01	mg/L	5
10.	COD	IS 3025(Part 58)2006	mg/L	30.1
11.	Arsenic (as As)	APHA 23 rd Ed.,2017,3114-C	mg/L	BDL(MDL:0.01)
12.	Mercury (as Hg)	APHA 23 rd Ed.,2017, 3112-B	mg/L	BDL(MDL:0.001)
13.	Lead (as Pb)	IS 3025 (PART 47) 1994	mg/L	BDL(MDL:0.01)
14.	Cadmium (as Cd)	IS 3025(PART 41) 1992	mg/L	BDL(MDL:0.003)
15.	Hexavalent Chromium	APHA 23 rd Ed.,2017,3500CrB	mg/L	BDL(MDL:0.05)
16.	Total Chromium (as Cr)	IS 3025 (PART 52) 2003	mg/L	BDL(MDL:0.05)
17.	Copper (as Cu)	IS 3025 (PART 42) 1992	mg/L	BDL(MDL:0.05)
18.	Zinc (as Zn)	IS 3025(PART 49) 1994	mg/L	BDL(MDL:0.05)

TEST REPORT

Report No.	URC /21/12/APL-0001		
Name & Address of Customer	M/S. ADANI PORTS & SPECIAL ECONOMIC ZONE LTD. (WFDP-West Port) PLOT NO: - NAVINAL ISLAND, Village - MUNDRA, Tal. - Bhuj, DIST. - KUTCH - 370421.	Date of Report	18/12/2021
		Customer's Ref.	As Per W.O.
Sample Details	Pond Water	Location	Nr.ATT-2A
Sample Qty.	5 Lit.	Appearance	Colorless
Sampling Date	10/12/2021	Sample Received Date	11/12/2021
Test Started Date	11/12/2021	Test Completion Date	17/12/2021
Sampled By	UERL Lab	Sampling Method	UERL/CHM/SOP/116
UERL Lab ID. No.	21/12/APL-0001		

TEST RESULTS:

Sr. No.	Parameters	Test Method Permissible	Unit of Measurement	Results
19.	Selenium (as Se)	IS 3025(Part 56)2003	mg/L	BDL(MDL:0.01)
20.	Nickel (as Ni)	APHA 23 rd Ed.,2017,3111-B	mg/L	BDL(MDL:0.02)
21.	Cyanide (as CN)	IS 3025(Part 27)1986	mg/L	BDL(MDL:0.05)
22.	Fluoride (as F)	IS 3025(PART 60) 2008	mg/L	0.56
23.	Dissolved Phosphate (as P)	APHA 23 rd Ed.,2017,4500-P, D	mg/L	0.14
24.	Sulphide as S	APHA 23 rd Ed.,2017,4500 S ⁻² F	mg/L	BDL(MDL:0.05)
25.	Phenolic Compound	IS 3025(Part 43)1992, Amd.2	mg/L	BDL(MDL:0.01)
26.	Bio Assay test (%)	IS:6582-1971	%	90 % survival of fish after 96 hrs. in 100% effluent
27.	Manganese (as Mn)	APHA 23 rd Ed.,2017, 3500 Mn B	mg/L	BDL(MDL:0.1)
28.	Iron (as Fe)	IS 3025(PART 53) 2003	mg/L	0.113
29.	Vanadium (as V)	APHA 23rd Ed.2017-3500 - V	mg/L	N.D.
30.	Nitrate (as NO3-N)	APHA 23 rd Ed.,2017,4500 NO3-B	mg/L	0.14

Remarks: BDL= Below Detection Limit, MDL = Minimum Detection Limit

Opinion & Interpretation (If required):

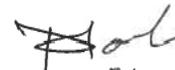
*****End of Report *****

Checked By



(Nilesh C. Patel)
(Sr. Chemist)

Authorized By



(Nitin B. Tandel)
(Technical Manager)

Page 2 of 2

URC/CHM/F-2/05

Note: This report is subject to terms and conditions mentioned overleaf.

TEST REPORT

Report No.	URC /21/12/Water/APL-0002		
Name & Address of Customer	M/S. ADANI PORTS & SPECIAL ECONOMIC ZONE LTD. (WFDP-West Port) PLOT NO: - NAVINAL ISLAND, Village - MUNDRA, Tal. – Bhuj, DIST. - KUTCH - 370421.	Date of Report	18/12/2021
		Customer's Ref.	As Per W.O.
Sample Details	Pond Water	Location	Nr.ATT-4
Sample Qty.	5 Lit.	Appearance	Colorless
Sampling Date	10/12/2021	Sample Received Date	11/12/2021
Test Started Date	11/12/2021	Test Completion Date	17/12/2021
Sampled By	UERL Lab	Sampling Method	UERL/CHM/SOP/116
UERL Lab ID. No.	21/12/Water/APL-0002		

TEST RESULTS:

Sr. No.	Parameters	Test Method Permissible	Unit of Measurement	Results
1.	Colour	IS 3025(Part 4)	Pt. Co. Scale	5.0
2.	Odour	IS 3025(Part 5)1983	--	Agreeable
3.	Total Suspended Solids	APHA 23 rd Ed.,2017,2540 –D	mg/L	24
4.	pH @ 25 °C	APHA 23 rd Ed.,2017,4500-H*B	--	7.53
5.	Temperature	IS 3025(Part 9)1984	°C	29.7
6.	Oil & Grease	IS 3025(Part39)1991, Amd. 2	mg/L	BDL(MDL:2.0)
7.	Total Residual Chlorine	IS 3025(Part 26)1986,	mg/L	BDL(MDL:0.1)
8.	Ammonical Nitrogen	IS 3025(Part 34)1988,	mg/L	2.18
9.	BOD (3 days at 27 °C)	IS 3025(Part 44)1993Amd.01	mg/L	5
10.	COD	IS 3025(Part 58)2006	mg/L	34.2
11.	Arsenic (as As)	APHA 23 rd Ed.,2017,3114-C	mg/L	BDL(MDL:0.01)
12.	Mercury (as Hg)	APHA 23 rd Ed.,2017, 3112-B	mg/L	BDL(MDL:0.001)
13.	Lead (as Pb)	IS 3025 (PART 47) 1994	mg/L	BDL(MDL:0.01)
14.	Cadmium (as Cd)	IS 3025(PART 41) 1992	mg/L	BDL(MDL:0.003)
15.	Hexavalent Chromium	APHA 23 rd Ed.,2017,3500CrB	mg/L	BDL(MDL:0.05)
16.	Total Chromium (as Cr)	IS 3025 (PART 52) 2003	mg/L	BDL(MDL:0.05)
17.	Copper (as Cu)	IS 3025 (PART 42) 1992	mg/L	BDL(MDL:0.05)
18.	Zinc (as Zn)	IS 3025(PART 49) 1994	mg/L	BDL(MDL:0.05)

TEST REPORT

Report No.	URC /21/12/APL-0002		
Name & Address of Customer	M/S. ADANI PORTS & SPECIAL ECONOMIC ZONE LTD. (WFDP-West Port) PLOT NO: - NAVINAL ISLAND, Village - MUNDRA, Tal. - Bhuj, DIST. - KUTCH - 370421.	Date of Report	18/12/2021
		Customer's Ref.	As Per W.O.
Sample Details	Pond Water	Location	Nr.ATT-4
Sample Qty.	5 Lit.	Appearance	Colorless
Sampling Date	10/12/2021	Sample Received Date	11/12/2021
Test Started Date	11/12/2021	Test Completion Date	17/12/2021
Sampled By	UERL Lab	Sampling Method	UERL/CHM/SOP/116
UERL Lab ID. No.	21/12/APL-0002		

TEST RESULTS:

Sr. No.	Parameters	Test Method Permissible	Unit of Measurement	Results
19.	Selenium (as Se)	IS 3025(Part 56)2003	mg/L	BDL(MDL:0.01)
20.	Nickel (as Ni)	APHA 23 rd Ed.,2017,3111-B	mg/L	BDL(MDL:0.02)
21.	Cyanide (as CN)	IS 3025(Part 27)1986	mg/L	BDL(MDL:0.05)
22.	Fluoride (as F)	IS 3025(PART 60) 2008	mg/L	0.49
23.	Dissolved Phosphate (as P)	APHA 23 rd Ed.,2017,4500-P, D	mg/L	0.16
24.	Sulphide as S	APHA 23 rd Ed.,2017,4500 S ⁻² F	mg/L	BDL(MDL:0.05)
25.	Phenolic Compound	IS 3025(Part 43)1992, Amd.2	mg/L	BDL(MDL:0.01)
26.	Bio Assay test (%)	IS:6582-1971	%	90 % survival of fish after 96 hrs. in 100% effluent
27.	Manganese (as Mn)	APHA 23 rd Ed.,2017, 3500 Mn B	mg/L	BDL(MDL:0.1)
28.	Iron (as Fe)	IS 3025(PART 53) 2003	mg/L	0.121
29.	Vanadium (as V)	APHA 23rd Ed.2017-3500 - V	mg/L	N.D.
30.	Nitrate (as NO ₃ -N)	APHA 23 rd Ed.,2017,4500 NO ₃ -B	mg/L	0.12

Remarks: BDL= Below Detection Limit, MDL = Minimum Detection Limit

Opinion & Interpretation (If required):

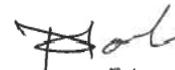
*****End of Report *****

Checked By



(Nilesh C. Patel)
(Sr. Chemist)

Authorized By



(Nitin B. Tandel)
(Technical Manager)

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URC/CHM/F-2/05

Note: This report is subject to terms and conditions mentioned overleaf.