

2019/10/19
कायालय, वन एवं जलवायु परिवर्तन मंत्रालय
Ministry of Environment, Forests & Climate Change
संजीव कल्याण (सि.प्र.) / BHC/AL-462019

To

Additional Principal Chief Conservator of Forests (C),
Ministry of Environment, Forest and Climate Change,
Regional Office (WZ), E-5, Kendriya
Paryavaran Bhawan, Arera Colony,
Link Road No. – 3, Bhopal – 462 016.
E-mail: rowz.bpl-mef@nic.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 : 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.

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 – 2019 to March – 2020 is being submitted through soft copy (e-mail communication).

Kindly consider above submission and acknowledge.

Thank you,

Yours Faithfully,

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



Avinash Rai
Chief Executive Officer
Mundra & Tuna Port

Encl: As above

Copy to:

- 1) The Director (IA Division), Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003
- 2) Zonal Officer, Regional Office, CPCB – Western Region, Parivesh Bhawan, Opp. VMC Ward Office No. 10, Subhanpura, Vadodara – 390 023
- 3) Member Secretary, GPCB – Head Office, Paryavaran Bhawan, Sector 10 A, Gandhi Nagar – 382 010
- 4) The Director, Forests & Environment Department, Block – 14, 8th floor, Sachivalaya, Gandhi Nagar – 382 010
- 5) Regional Officer, Regional Office GPCB (Kutch-East), Gandhidham, 370201



Environmental Clearance Compliance Report



Multi Product SEZ,
Mundra, Dist. Kutch, Gujarat

Adani Ports and SEZ Limited

For the period of
October-20 19 to March-20 20

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

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	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

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.



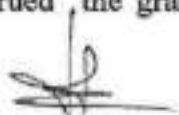
3. A suitable seawater intake point has been identified on the eastern end of the approved East Port Basin at Latitude 22°48'30.76"N; Longitude 69°46'34.06"E where a depth of 6 m below CD would be available after the port development. As per modelling study the combined discharge of 241MLD which includes 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 OM's 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.

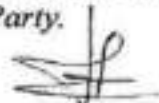
8. Further, Hon'ble Supreme Court video order dated 02.05.2014 in SLP 1526 of 2013 had ordered for stay of Ministry's letter dated 3.04.2014 addressed to Government of Gujarat to initiate legal action for the violation, also directed that the Ministry to complete the process of EC within eight weeks.

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 outcome 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 affluent 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 affluent 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 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.

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'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

Compliance Report of Environmental and CRZ Clearance

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
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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 31.03.2020
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 Pvt. Ltd. (MUPL) 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.

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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.

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
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List of Industrial Units within SEZ area

Sr. No.	Name of Unit	Nature of Business	Status
1	Skaps Industries (Unit – I & II)	Textile	In Operation
2	Skaps Industries (Unit – III)		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	Raa Overseas Pvt. Ltd.		Under Construction
8	M.D. Equipments		Under Construction
9	Thermax Ltd.	Engineering	In Operation
10	Oilfield Warehouse Services Pvt. Ltd.	Ware House	In Operation
11	Oilfield Warehouse Services LLP		Under Construction
12	Avesta Eng. Pvt. Ltd.	Engineering	Not in Operation
13	MD equipment		Not in Operation
14	Alstom Bharat Forge Power Ltd. & Kalyani Alstom Power Ltd.		Under Construction
15	Dorf Ketel Specialty Catalyst Pvt. Ltd.	Chemical	In Operation
16	Oriental Carbon and Chemicals Ltd.		In Operation
17	Gujarat CREDO Alumina Chemicals Pvt. Ltd.		In Operation
18	Aadi Oil Pvt. Ltd. (Mundra Oil)		In Operation
19	Garg Tubes Exports LLP		In Operation
20	Jasons Industries		Under Construction
21	Seabird Marine Services Pvt. Ltd.	CFS	In Operation
22	Honeycomb Logistics Pvt. Ltd.		In Operation
23	All Cargo Global Logistics Ltd.		In Operation
24	Mundhra CFS		In Operation
25	Saurashtra Containers Pvt. Ltd.		In Operation
26	Transworld Terminals Pvt. Ltd.		In Operation
27	Mundra International Container Terminal (DP World)		In Operation
28	Central Warehousing Corp. Ltd.		In Operation
29	Maruti Suzuki India Limited (PDI Yard)	Pre Delivery Inspection Yard	In Operation
30	Britannia Industries Limited	Food Products	In Operation
31	Mundra Solar Photo Voltaic Ltd.	Electronics Manufacturing Cluster	In Operation
32	Mundra Solar Technopark Pvt. Ltd.		In Operation
33	Vishakha Renewable Pvt Ltd		In Operation
34	Vishakha Solar Films Pvt Ltd		In Operation
35	Vishakha Metals Pvt Ltd		Under Construction
36	Empezar Logistics	Ware House	In Operation
37	Steinweige Sharaf		In Operation
38	Kerry Indev Logistic Pvt. Ltd.		In Operation
39	Fast Track CFS		In Operation
40	Adani Power (Mundra) Limited	Thermal Power Plant	In Operation
41	Samudra Township (including residential units, hospital, hotel, commercial complex, school etc.)	Social Infrastructure	In Operation
42	Mundra International Airport Pvt. Ltd.	Private Airstrip	In Operation
43	MPSEZ Utilities Pvt. Ltd.	Common Effluent Treatment Plant	In Operation

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
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 31.03.2020
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.	<p>Point noted and will be complied.</p> <p>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.</p>
ii.	Properly conserve the creeks, river and the mangroves area in the area.	<p>Complied.</p> <p>This reply covers condition no ii, iii, ix, x, xi, xii & xiii.</p> <p>Conservation of creeks and rivers:</p> <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. • From the APSEZ operations, there is no discharge of any sewage or effluent to the water streams. <p>Conservation of mangroves:</p>

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2020
		<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, presently, mangrove cover in and around APSEZ is 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 has been submitted to the concerned authorities i.e. MoEF&CC, New Delhi and GCZMA, Gandhinagar vide our letter dated 04.06.2018 and details of the same were submitted along with half yearly EC Compliance report for the period Oct'18 to Mar'19. • 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. Presentation on the findings of the report was made to GCZMA committee on 4th October 2019 and same has been approved vide MOM published by GCZMA. Inline towards the compliance of the action plan "Monitoring of mangrove cover in Jan/Mar, 2020 using latest satellite images and validation with field observations", Work has already been assigned to NCSCM, for amount of INR. 23,56,000/- vide PO no 4800050718, dtd. 31st December 2019 and same is under progress.
iii.	Ensure that mouths of all the creeks are kept open to ensure flushing of the creeks.	<p>Complied.</p> <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).

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2020
		<ul style="list-style-type: none"> • 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.
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 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 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	<p>Complied.</p> <p>NEERI has been appointed to carry out the inspection study up to the year 2020 at a cost of INR 12 Lacs.</p> <p>Compliance report of the period from Apr'19 to Sep'19 was reviewed by NEERI. Accordingly the study undertaken during the period Oct'19 to Mar'19 and concluded that all the conditions stipulated in EC has been complied and there is no any violation of any condition. Copy of the certificate is annexed as Annexure – 1.</p>

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2020												
	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.	<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><tr><th>Permission</th><th>Project</th><th>Ref. No. / Order No.</th><th>Valid till</th></tr><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></table> <p>Copy of CtO and CtE were submitted along with half yearly EC Compliance report for the Oct'18 to Mar'19 and there is no further change.</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
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											
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 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	<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> <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												

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2020
	examination and recommendation. GCZMA will submit its recommendations to MoEF for approval.	<p>and biological parameters</p> <ul style="list-style-type: none"> • 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 2340 ha. There is substantial growth in mangrove cover to the tune of 246 ha (comparison between 2011 and 2016-17) • 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>The study report is submitted to GCZMA (with a copy to MoEF&CC) for their examination and recommendation. NCSCM final report on comprehensive and integrated plan for preservation and conservation of mangroves and associated creeks in and around has been submitted to the concerned authorities i.e. MoEF&CC, New Delhi and GCZMA, Gandhinagar vide our letter dated 04.06.2018 and details of the same were submitted along with half yearly EC Compliance report for the period Apr'18 to Sep'18. Further request letter for necessary hearing has been submitted to GCZMA vide letter dated 4th Jan 2019. Cost of the study as per the NCSCM proposal is 315.5 Lakh. 90% of the payment against the proposal value is already paid to NCSCM.</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. Presentation on the findings of the report was made to GCZMA committee on 4th October 2019 and same has been approved vide MOM published by GCZMA. Inline towards the compliance of the action plan "Monitoring of mangrove cover in Jan/Mar, 2020 using latest satellite images and validation with field observations", Work has already been assigned to NCSCM, for amount of INR. 23,56,000 vide PO no 4800050718, dtd. 31st December 2019 and same is under progress.</p>
x.	PP shall demarcate the CRZ area on land with GPS coordinates in	<p>Being complied</p> <p>For demarcation of HTL and CRZ areas, NCSCM is under</p>

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2020
	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.	<p>process of finalizing CZMP for this area. Once the maps are finalized, 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. • 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>Presentation on the findings of the report was made to GCZMA committee on 4th October 2019 and same has been approved vide MOM published by GCZMA.</p> <p>Inline towards the compliance of the action plan "Monitoring of mangrove cover in Jan/Mar, 2020 using latest satellite images and validation with field observations", Work has already been assigned to NSCSM, for amount of INR. 23,56,000 vide PO no 4800050718, dtd. 31st December 2019 and same is under progress and further update in this regard will be submitted to all the concerned authorities as part of the six monthly compliance report. No development is carried out in the 'No Development Zone' (i.e. CRZ area of SEZ).</p>

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2020
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>Presentation on the findings of the report was made to GCZMA committee on 4th October 2019 and same has been approved vide MOM published by GCZMA.</p> <p>Inline towards the compliance of the action plan "Monitoring of mangrove cover in Jan/Mar, 2020 using latest satellite images and validation with field observations", Work has already been assigned to NSCSM, for amount of INR. 23,56,000/- vide PO no 4800050718, dtd. 31st December 2019 and same is under progress and further update in this regard will be submitted to all the concerned authorities as part of the six monthly compliance report. Based on the outcome and findings of this study, further action plans will be considered for implementation.</p>
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.	<p>Point noted and will be complied</p> <p>A separate budget has been allocated for implementation of action plan, Work has already been assigned to NSCSM, for amount INR. 23,56,000/- vide PO no 4800050718, dtd. 31st December 2019 and same is under progress and compliance report in this regard will be submitted to all the concerned authorities as part of the six monthly compliance report. Based on the outcome and findings of this study, further action plans will be considered for implementation.</p>
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	<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</p>

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2020
	condition and necessary clause shall be incorporated in the MoU while allotting the plot to the individual industries.	<p>continued in future as well and capacity enhancement of CETP will be carried out based on requirement.</p> <p>List of CETP member units are attached as Annexure – 2.</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.	PP shall not carry out any river course modification.	<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 passing through SEZ are maintained through proper path for area drainage.</p>
xvi.	The individual industrial units shall obtain prior EC under EIA Notification, 2006 as applicable.	<p>Complied.</p> <p>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 APL & Dorf Ketel falls under purview of EIA Notification 2006 and they have obtained their specific EC as applicable. During the compliance period of Oct'19 to March' 20, no new such industry has been established at SEZ which requires EC under EIA Notification, 2006. The condition is being followed on case to case basis as applicable.</p>
xvii.	Proponent shall identify 200 ha of land for mangrove plantation as per the condition laid by SEAC.	<p>Complied.</p> <p>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.</p> <p>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.</p>
xviii.	50 meter buffer from the existing mangrove area	Complied.

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2020
	should be provided for any developmental activity.	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.	<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. Green belt of 3 layer canopy will be developed as part of the development of SEZ.</p> <p>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.</p> <p>Width of the green belt varies from 2 m to 8 m and density varies from 2000 to 2500 trees per hectare at various locations. Total 119 hectares of land with approx. 2.55 Lacs trees is developed within SEZ area till date. So, far APSEZ has developed 467 Ha area as greenbelt with plantation 8.7 Lacs trees within the entire APSEZ area.</p> <p>Please refer Annexure – 3 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. during the FY 20 19-20 is INR 728 lakh.</p> <p>It may be noted that individual industrial units has 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 will be 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.

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2020																					
	<p>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>	<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"> <thead> <tr> <th>Sr. no.</th><th>Compliance period</th><th>Date of submission</th></tr> </thead> <tbody> <tr> <td>1</td><td>Oct'16 to Mar'17</td><td>30.05.2017</td></tr> <tr> <td>2</td><td>Apr'17 to Sep'17</td><td>01.12.2017</td></tr> <tr> <td>3</td><td>Oct'17 to Mar'18</td><td>29.05.2018</td></tr> <tr> <td>4</td><td>Apr'18 to Sep'18</td><td>30.11.2018</td></tr> <tr> <td>5</td><td>Oct'18 to Mar'19</td><td>31.05.2019</td></tr> <tr> <td>6</td><td>Apr'19 to Sep'19</td><td>28.11.2019</td></tr> </tbody> </table> <p>Summary of the compliance to the measures suggested in EMP are given in Annexure – 4.</p>	Sr. no.	Compliance period	Date of submission	1	Oct'16 to Mar'17	30.05.2017	2	Apr'17 to Sep'17	01.12.2017	3	Oct'17 to Mar'18	29.05.2018	4	Apr'18 to Sep'18	30.11.2018	5	Oct'18 to Mar'19	31.05.2019	6	Apr'19 to Sep'19	28.11.2019
Sr. no.	Compliance period	Date of submission																					
1	Oct'16 to Mar'17	30.05.2017																					
2	Apr'17 to Sep'17	01.12.2017																					
3	Oct'17 to Mar'18	29.05.2018																					
4	Apr'18 to Sep'18	30.11.2018																					
5	Oct'18 to Mar'19	31.05.2019																					
6	Apr'19 to Sep'19	28.11.2019																					
xxi.	<p>There shall be no disturbance to the sand dunes.</p> <p>The pipelines shall be laid using advanced method viz. Horizontal Directional Drilling (HDD) so as to avoid disturbance to the sand dunes/creeks/mangroves.</p>	<p>Complied.</p> <p>There is no sand dune in the SEZ area.</p> <p>Point noted.</p> <p>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.</p>																					
Part – B: General Conditions																							
	Construction Phase																						
i	<p>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</p>	<p>Not applicable at present.</p> <p>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.</p>																					

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2020																																			
	the project.																																				
ii	A first aid room will be provided in the project both during construction and operation of the project.	<p>Complied.</p> <p>APSEZ has established Occupational Health Center & First Aid facility, 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) located with SEZ area can be utilized.</p>																																			
iii	All the topsoil excavated during construction phase should be stored for use in horticulture/landscape development within the project site.	<p>Complied.</p> <p>Excavated topsoil, if any, will be used for the horticulture /landscape development within the project site.</p>																																			
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. Summary of the ground water as well as soil assessment for duration from Oct'19 to Mar'20 is mentioned below.</p> <p><u>Bore Hole Water Sampling:</u></p> <p>Sampling locations & frequency: 3 nos. (Half Yearly)</p> <table><tr><th>Sr. No.</th><th>Parameter</th><th>Unit</th><th>Max. Value</th><th>Min. Value</th></tr><tr><td>1</td><td>pH</td><td>--</td><td>8.1</td><td>7.6</td></tr><tr><td>2</td><td>Salinity</td><td>ppt</td><td>18.9</td><td>3.5</td></tr><tr><td>3</td><td>Oil & Grease</td><td>mg/L</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></tr><tr><td>5</td><td>Lead as Pb</td><td>mg/L</td><td>0.046</td><td>ND*</td></tr><tr><td>6</td><td>Arsenic as As</td><td>mg/L</td><td>ND*</td><td>ND*</td></tr></table>	Sr. No.	Parameter	Unit	Max. Value	Min. Value	1	pH	--	8.1	7.6	2	Salinity	ppt	18.9	3.5	3	Oil & Grease	mg/L	ND*	ND*	4	Hydrocarbon	mg/L	ND*	ND*	5	Lead as Pb	mg/L	0.046	ND*	6	Arsenic as As	mg/L	ND*	ND*
Sr. No.	Parameter	Unit	Max. Value	Min. Value																																	
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6	Arsenic as As	mg/L	ND*	ND*																																	

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2020				
		7	Nickel as Ni	mg/L	ND*	ND*
		8	Total Chromium as Cr	mg/L	0.072	0.036
		9	Cadmium as Cd	mg/L	ND*	ND*
		10	Mercury as Hg	mg/L	ND*	ND*
		11	Zinc as Zn	mg/L	0.39	0.068
		12	Copper as Cu	mg/L	ND*	ND*
		13	Iron as Fe	mg/L	0.39	0.098
		14	Insecticides/Pesticides	mg/L	Absent	Absent
		15	Depth of Water Level from Ground Level	meter	2.6	2.4
		Comparison of the present data with baseline data for the nearest locations for Soil.				
		Sr. No.	Parameter	Unit	Dhrub station	Zarpara village
		1	pH	--	7.6	8.1
		2	Lead as Pb	mg/L	ND*	ND*
		3	Nickel as Ni	mg/L	ND*	0.146
		4	Total Chromium as Cr	mg/L	0.036	0.039
		5	Iron as Fe	mg/L	0.39	0.258
		6	Insecticides/Pesticides	mg/L	Absent	ND*
		7	Depth of Water Level from GL	meter	2.6	1.7
		*ND = Not Detectable				
		Soil Sampling:				
		Sampling locations & frequency: 4 nos. (Half Yearly)				
		Sr. No.	Parameter	Unit	Max. Value	Min. Value
		1	pH	--	8.96	8.21
		2	Nitrogen as N	%	0.046	0.013
		3	Phosphorus as P	mg/kg	290	84
		4	Potassium as K	mg/kg	240	61
		5	Baron as B	mg/kg	2.3	1.26
		6	Calcium as Ca	mg/kg	646	406
		7	Magnesium as Mg	mg/kg	584	518
		8	Iron as Fe	%	0.6	0.3
		9	Moisture	%	11.7	9.45
		10	Organic Matter	%	0.23	0.12
		11	CEC	meq/100 gm	10.2	8.3
		12	TVC	CFU/gm	5.4 x 10 ⁴	3.1 x 10 ³
		Heavy Metal				
		13	Cadmium as Cd	mg/kg	ND*	ND*
		14	Antimony as Sb	mg/kg	ND*	ND*
		15	Arsenic as As	mg/kg	ND*	ND*
		16	Thorium as Th	mg/kg	ND*	ND*
		17	Lead as Pb	mg/kg	3.6	ND*
		18	Chromium (VI) as Cr	mg/kg	4.3	ND*
		19	Cobalt as Co	mg/kg	25.8	10.76
		20	Copper as Cu	mg/kg	79.18	10.18
		21	Nickel as Ni	mg/kg	26.35	11.71
		22	Manganese as Mn	mg/kg	787	234
		23	Vanadium as V	mg/kg	10.8	8.26
		*ND = Not Detected				
		Comparison of the present data with baseline data for the nearest locations for Soil.				
		Sr. No.	Parameter	Unit	Dhrub station	Zarpara village
		1	pH	--	8.96	6.45
		2	Nitrogen as N	%	0.036	1.38 gm/kg

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2020				
		3	Phosphorus as P	mg/kg	84	1230
		4	Potassium as K	mg/kg	89	62120
		5	Calcium as Ca	mg/kg	520	1500
		6	Magnesium as Mg	mg/kg	568	1580
		7	Iron as Fe	%	0.46	1.34
		8	Organic Matter	%	0.12	0.98
		9	CEC	meq/100 gm	9.5	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 – 5 for detailed analysis reports. Approx. INR 21.74 Lakh is spent for all environmental monitoring activities during the FY 2019-20.</p> <p>The environmental monitoring within Adani Ports & SEZ Limited has been stopped since 23rd March, 2020 considering COVID-19 Pandemic lockdown and the same has already been intimated to the regulatory authorities vide our e-mail dated 06.04.2020. Details of the same is attached as Annexure – 6.</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 Petrochem Industries, Bhavnagar. Oily rags are being disposed through co-processing at cement industries namely M/s. Ambuja Cement Ltd., Kodinar and/or M/s. Sanghi Industries Ltd., Kutch. 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</p>				

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2020
		<p>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>
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 is 4843 KVA. During the compliance period of Apr'19 to Sep'19, 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. Certificate showing Sulphur content in diesel was submitted along with half yearly EC compliance report for the period Apr'18 to Sep'18. 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. Copy of Certificate from CCE is attached as Annexure – 7.</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	<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, Horne, wheel, breaks, mirror, etc. are checked before allowing the vehicle to enter the site.</p>

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2020																																								
	emission standards and should operate only during non-peak hours.	<p>APSEZ has also established a licenced PUC station to monitor the compliance with applicable Motor Vehicle Act for vehicles. Details were submitted along with half yearly EC compliance report for the period Apr'18 to Sep'18.</p> <p>Majority of the vehicles bringing construction materials are operated during non-peak hours.</p>																																								
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. Summary of the same for duration from Oct'19 to Mar'20 is mentioned below.</p> <p>Air sampling locations & frequency: 8 nos. (twice a week) & Noise sampling locations & frequency: 5 nos. (once in a month)</p> <table><tr><th>Parameter</th><th>Unit</th><th>Max</th><th>Min</th><th>Perm. Limit^{\$}</th></tr><tr><td>PM₁₀</td><td>µg/m³</td><td>94.54</td><td>46.29</td><td>100</td></tr><tr><td>PM_{2.5}</td><td>µg/m³</td><td>53.48</td><td>17.65</td><td>60</td></tr><tr><td>SO₂</td><td>µg/m³</td><td>29.44</td><td>6.34</td><td>80</td></tr><tr><td>NO₂</td><td>µg/m³</td><td>45.54</td><td>13.50</td><td>80</td></tr><tr><th>Noise</th><th>Unit</th><th>Max</th><th>Min</th><th>Perm. Limit</th></tr><tr><td>Day Time</td><td>dB(A)</td><td>74.2</td><td>52.4</td><td>75</td></tr><tr><td>Night Time</td><td>dB(A)</td><td>69.5</td><td>48.3</td><td>70</td></tr></table> <p>^{\$} as per NAAQ standards, 2009 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 – 5 for detailed analysis reports and accreditation certificates. Approx. INR 21.74 Lakh is spent for all environmental monitoring activities during the FY 2019-20.</p>	Parameter	Unit	Max	Min	Perm. Limit ^{\$}	PM ₁₀	µg/m ³	94.54	46.29	100	PM _{2.5}	µg/m ³	53.48	17.65	60	SO ₂	µg/m ³	29.44	6.34	80	NO ₂	µg/m ³	45.54	13.50	80	Noise	Unit	Max	Min	Perm. Limit	Day Time	dB(A)	74.2	52.4	75	Night Time	dB(A)	69.5	48.3	70
Parameter	Unit	Max	Min	Perm. Limit ^{\$}																																						
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	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2020
		<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 • Development of greenbelt along the periphery of the storage yards/back up area • D.G. Sets having Acoustic enclosures • Regular maintenance of plant machineries and equipments
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>Part of fly ash generated from Adani Power Limited, Mundra is being utilized by Adani Group to manufacture paver blocks and the same paver blocks are used for development of back up area, footpath, colonies area, parking area, approach road etc.</p> <p>APSEZ has utilized 523 MT of fly ash to manufacture paver block during the period of Oct'19 to Mar'20. Details of methodology for manufacturing of paver blocks were submitted along with half yearly EC compliance report for the period Apr'18 to Sep'18.</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 construction should be reduced by use of pre-mixed concrete, curing agents and other referred best practices.	<p>Complied.</p> <p>Only RMC is used for construction activity.</p>
xvi	Permission to draw ground water shall be obtained from the competent Authority prior	<p>Complied.</p> <p>No ground water is used during construction & operation stage of the project. Current sources of water are Narmada</p>

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2020
	to construction /operation of the project.	water through GWIL and desalination plant of APSEZ Average, water consumption for entire APSEZ area is 4.1 MLD during the compliance period Oct'19 to Mar'20 .
xvii	Separation of grey and black water should be done by the use of dual plumbing line for separation of grey and black water.	<p>Not applicable</p> <p>As per the master planning all types of waste water generated are transferred through common conveying system for providing desired treatment at CETP. Treated waste water is utilized for gardening purpose within the premises of APSEZ / individual industries.</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 be continued in future also. As suggested by RO, Bhopal during the site visit, an environment monitoring committee is formed which will ensure strict compliance of the stipulated conditions by individual industries.</p>
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.	<p>Complied.</p> <p>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.</p>
xix	Use of glass may be 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.	<p>Complied</p> <p>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.</p>
xx	Roof should meet prescriptive requirements as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfill requirements.	<p>Complied</p> <p>Majority of the building envelopes (including roofs) are constructed with ECBC compliant building materials having appropriate thermal insulation.</p>
xxi	Opaque wall should meet	Complied

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2020
	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.	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 should be in place all through the construction phase, so as to avoid disturbance to the surroundings.	Complied. SEZ industries were visited to check measures taken for 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. 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. Details of the same were submitted along with last half yearly compliance report for the period Apr'19 to Sep'19.
xxiv	Under the provisions of Environment (Protection)	Point noted.

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2020
	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.	Wherever applicable, construction activities have started only after 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.	<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.	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.	<p>Complied.</p> <p>APSEZL has a well structured Environment Management Cell, staffed with qualified manpower for implementation of the Environment Management Plan at site. Site team report to General Manager (Environment) at Corporate, who heads the Environment Management Cell who directly reports to the top management.. Environment Management Cell organogram is attached as Annexure – 8.</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 2019-20 is to the tune of INR 1146 lakh. Out of which, Approx. INR 1084 lakh are spent during this year. Detailed breakup of the expenditures is attached as Annexure – 9.</p> <p>Please refer Point No. xxiii (General Condition: Construction Phase) for further details.</p>
iii.	Treated effluent emanating from STP shall be recycled / reused to	<p>Complied.</p> <p>APSEZ has total installed capacity of 5.6 MLD for treatment</p>

Status of the conditions stipulated in Environment and CRZ Clearance

Sr. No.	Conditions	Compliance Status as on 31.03.2020																																																									
	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>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><tr><th>Location</th><th>Capacity</th><th>Technology</th></tr><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>2.0 MLD</td><td>MBR</td></tr><tr><td>Adani Hospital STP</td><td>30.0 KLD</td><td>Aerobic Digestion</td></tr><tr><td>Liquid Terminal ETP</td><td>265 KLD</td><td>Aerobic Digestion</td></tr><tr><td>West Port STP</td><td>55.0 KLD</td><td>FAB</td></tr></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 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 are attached as Annexure – 2.</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>Assessment of treated sewage is being carried out by NABL accredited and MoEF&CC approved agency namely M/s. Pollucon Laboratories Pvt. Ltd. The summary of analysis results is mentioned below.</p> <p>Treated Water Analysis (Frequency Twice in a Month – 2 STPs)</p> <table><tr><th>Parameter</th><th>Unit</th><th>Max</th><th>Min</th><th>Perm. Limit^{\$}</th></tr><tr><td>pH</td><td>--</td><td>8.1</td><td>6.95</td><td>--</td></tr><tr><td>TSS</td><td>mg/L</td><td>28</td><td>12</td><td>100</td></tr><tr><td>BOD (3 Days @27 °C)</td><td>mg/L</td><td>19</td><td>8</td><td>30</td></tr><tr><td>Residual Chlorine</td><td>ppm</td><td>0.8</td><td>0.3</td><td>--</td></tr><tr><td>Fecal Coliform</td><td>MPN/ 100 ml</td><td>540</td><td>50</td><td>< 1000</td></tr></table> <p style="text-align: right;">^{\$} as per CC&A granted by GPCB</p> <p>Please refer Annexure – 5 for detailed analysis reports.</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	2.0 MLD	MBR	Adani Hospital STP	30.0 KLD	Aerobic Digestion	Liquid Terminal ETP	265 KLD	Aerobic Digestion	West Port STP	55.0 KLD	FAB	Parameter	Unit	Max	Min	Perm. Limit ^{\$}	pH	--	8.1	6.95	--	TSS	mg/L	28	12	100	BOD (3 Days @27 °C)	mg/L	19	8	30	Residual Chlorine	ppm	0.8	0.3	--	Fecal Coliform	MPN/ 100 ml	540	50	< 1000
Location	Capacity	Technology																																																									
CETP	2.5 MLD	Aerobic Digestion																																																									
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West Port STP	55.0 KLD	FAB																																																									
Parameter	Unit	Max	Min	Perm. Limit ^{\$}																																																							
pH	--	8.1	6.95	--																																																							
TSS	mg/L	28	12	100																																																							
BOD (3 Days @27 °C)	mg/L	19	8	30																																																							
Residual Chlorine	ppm	0.8	0.3	--																																																							
Fecal Coliform	MPN/ 100 ml	540	50	< 1000																																																							

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
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		<p>Approx. INR 21.74 Lakh is spent for all environmental monitoring activities during the period FY 2019-20.</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>
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.	<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>Municipal 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, Glass etc. are then sent to respective recycling units, whereas remaining non-recyclable waste is bailed and sent to cement plant (M/s. Sanghi Industries Ltd., Kutch and/or M/s. Ambuja Cement Ltd., Kodinar) for Co-processing as RDF (Refused Derived Fuel).</p> <p>Hazardous Waste:</p> <ul style="list-style-type: none"> • E – Waste & Used Batteries are being sold to GPCB registered recyclers namely M/s. e-Processing House and Sabnam Enterprise respectively. • Solid Hazardous Waste is being disposed through co-processing through common facility i.e. M/s. Saurashtra Enviro Projects Pvt. Ltd., Bhachau and/or cement industries of Sanghi Industries Ltd., Kutch and/or Ambuja Cement Ltd., Kodinar. Used/Waste Oil is being sold to GPCB authorized recyclers / re-processors namely M/s. Western India Petrochem Industry, Bhavnagar. • Solid hazardous waste i.e. Tank bottom sludge is being disposed through co-processing through common facility i.e. M/s. Saurashtra Enviro Projects Pvt. Ltd., Bhachau and/or cement industries of Ambuja Cement Ltd., Kodinar and/or

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		<p>being sold to authorized recycler namely M/s. Mundra Oil, Mundra.</p> <ul style="list-style-type: none"> 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 Petrochem Industry, Bhavnagar and water is sent to ETP for further treatment. However during the compliance period, there was no disposal of Slope Oil. <p>Details of permissions / agreements of hazardous waste authorized vendors were submitted along with half yearly EC Compliance Report for the period Apr'18 to Sep'18.</p> <p>The following table summarizes the waste management practice (from Oct'19 to Mar'20) for different types of wastes at APSEZ:</p> <table border="1"> <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>4.715</td><td rowspan="3">Co-processing at cement industries</td></tr> <tr> <td>Oily Cotton waste</td><td>71.585</td></tr> <tr> <td>ETP Sludge</td><td>Nil</td></tr> <tr> <td>Tank Bottom Sludge</td><td>72.07</td><td>Co-processing at cement industries and/or Sell to registered recycler</td></tr> <tr> <td>Used / Spent Oil</td><td>64.994</td><td rowspan="3">Sell to registered recycler</td></tr> <tr> <td>Discarded Containers</td><td>8.436</td></tr> <tr> <td>Battery Waste</td><td>8.39</td></tr> <tr> <td>Bio Medical Waste</td><td>2.966</td><td>To approved CBWTF Site</td></tr> <tr> <td colspan="3">Municipal Solid Waste</td></tr> <tr> <td>Recyclables</td><td>560.597</td><td>After recovery sent for recycling</td></tr> <tr> <td>Refuse Derived Fuel</td><td>177.1</td><td>Co-processing at Cement Industries</td></tr> <tr> <td>Wet Waste (Food waste + Organic waste)</td><td>447.255</td><td>Converted to Manure for Horticulture use / Biogas for cooking purpose</td></tr> </tbody> </table> <p>Please refer Point No. xxiii (General Condition: Construction Phase) for further details.</p>	Type of Waste	Quantity in MT	Disposal method	Hazardous Waste			Pig Waste	4.715	Co-processing at cement industries	Oily Cotton waste	71.585	ETP Sludge	Nil	Tank Bottom Sludge	72.07	Co-processing at cement industries and/or Sell to registered recycler	Used / Spent Oil	64.994	Sell to registered recycler	Discarded Containers	8.436	Battery Waste	8.39	Bio Medical Waste	2.966	To approved CBWTF Site	Municipal Solid Waste			Recyclables	560.597	After recovery sent for recycling	Refuse Derived Fuel	177.1	Co-processing at Cement Industries	Wet Waste (Food waste + Organic waste)	447.255	Converted to Manure for Horticulture use / Biogas for cooking purpose
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	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>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>Location</th><th>Capacity (KVA)</th><th>Stack height (m)</th></tr> </thead> <tbody> <tr><td>Sherkhariya gate</td><td>5</td><td>3</td></tr> <tr><td>Sherkhariya gate</td><td>5</td><td>3</td></tr> <tr><td>Airstip</td><td>140</td><td>4</td></tr> <tr><td>Airstip</td><td>125</td><td>4</td></tr> <tr><td>BAROI ROAD</td><td>5</td><td>3</td></tr> <tr><td>Airport road entry gate</td><td>5</td><td>3</td></tr> <tr><td>Addi salt</td><td>5</td><td>3</td></tr> <tr><td>Adani hospital</td><td>500</td><td>3.5</td></tr> <tr><td>GMB road</td><td>5</td><td>3</td></tr> <tr><td>East gate</td><td>30</td><td>4</td></tr> <tr><td>MITAP substation</td><td>62.5</td><td>4</td></tr> <tr><td>ROB</td><td>320</td><td>5</td></tr> <tr><td>Zharpara fishermen corridor</td><td>5</td><td>3</td></tr> <tr><td>Navinal fishermen corridor</td><td>5</td><td>3</td></tr> <tr><td>109 culvert</td><td>5</td><td>3</td></tr> <tr><td>Anupam Junction</td><td>5</td><td>3</td></tr> <tr><td>West gate</td><td>30</td><td>3</td></tr> <tr><td>MRSS</td><td>250</td><td>3</td></tr> <tr><td>Agripark</td><td>125</td><td>3</td></tr> <tr><td>Labour colony</td><td>100</td><td>3</td></tr> <tr><td>WTP</td><td>380</td><td>4</td></tr> <tr><td>Mundra guest house</td><td>15</td><td>3</td></tr> <tr><td>Shantivan colony</td><td>750</td><td>3</td></tr> <tr><td>Shantivan colony</td><td>250</td><td>3</td></tr> <tr><td>Shantivan colony</td><td>5</td><td>3</td></tr> <tr><td>STP plant shantivan</td><td>200</td><td>4</td></tr> <tr><td>Adani public school</td><td>82.5</td><td>3</td></tr> <tr><td>Wadhala farm house</td><td>30</td><td>3</td></tr> <tr><td>Adani house</td><td>750</td><td>4</td></tr> <tr><td>PUB Building</td><td>500</td><td>4</td></tr> <tr><td>PMC stores</td><td>82.5</td><td>3</td></tr> <tr><td>R&D yard</td><td>50</td><td>3</td></tr> <tr><td>Near DG house (Adani house)</td><td>5</td><td>2.5</td></tr> <tr><td>Near DG house (Adani house)</td><td>5</td><td>2.5</td></tr> <tr><td>Near DG house (Adani house)</td><td>5</td><td>2.5</td></tr> </tbody> </table>	Location	Capacity (KVA)	Stack height (m)	Sherkhariya gate	5	3	Sherkhariya gate	5	3	Airstip	140	4	Airstip	125	4	BAROI ROAD	5	3	Airport road entry gate	5	3	Addi salt	5	3	Adani hospital	500	3.5	GMB road	5	3	East gate	30	4	MITAP substation	62.5	4	ROB	320	5	Zharpara fishermen corridor	5	3	Navinal fishermen corridor	5	3	109 culvert	5	3	Anupam Junction	5	3	West gate	30	3	MRSS	250	3	Agripark	125	3	Labour colony	100	3	WTP	380	4	Mundra guest house	15	3	Shantivan colony	750	3	Shantivan colony	250	3	Shantivan colony	5	3	STP plant shantivan	200	4	Adani public school	82.5	3	Wadhala farm house	30	3	Adani house	750	4	PUB Building	500	4	PMC stores	82.5	3	R&D yard	50	3	Near DG house (Adani house)	5	2.5	Near DG house (Adani house)	5	2.5	Near DG house (Adani house)	5	2.5
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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.</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 run-off, as plan submitted should be implemented.	<p>Complied.</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>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.</p>

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		<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, APSEZ has carried out rainwater harvesting activities in the nearby villages for benefit of the locals. Following measures are taken for the same during the year 2011 – 13 and the same have benefited to the local farmers.</p> <ol style="list-style-type: none"> 1. Pond deepening activities at villages 2. 18 check dams were constructed under the 'Sardar Patel Sahbhagi Jalsanchay Yojna' <p>Total cost of these efforts was approx. INR 320 lakh.</p> <p><u>Sujlam Suflam project</u></p> <p>Water Conservation Work 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.</p> <ul style="list-style-type: none"> • A large number of water harvesting structure (18 Nos. of check dams in coordination with salinity department) and • Ground recharge activities (pond deepening work for more than 52 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 54 Nos. and Recharge Bore well 75 Nos. • Drip Irrigation 823 Farmers benefitted in coordination with Gujrat Green Revolution Company • Participatory Ground Water Management in ten villages with holistic approach for Kankavati Sandstone Aquifer Programme. <p>With the objective of to preserve the rain water 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>Under UTHHAN MODEL VILLAGE PROJECT, Salinity ingress issue is well taken with pond deepening, recharge bore well technique and roof top rain water harvesting. Total ground</p>

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		<p>water recharged due to this project 1878 ML.</p> <p>For Water conservation drive APSEZ having vision for next five years that</p> <ul style="list-style-type: none"> ✓ Drinking Water Sustainable Villages by Roof Top Rain Water Harvesting – at least 5 villages ✓ Agriculture water conservation by 100% Drip, Bore well Recharge ✓ Farm Bunding and Crop pattern ✓ Recycling Sewage water from STP ✓ Awareness for water conservation to community <p>Please refer Annexure – 10 for full details of CSR activities carried out by Adani Foundation in the Mundra region. Budget for CSR Activity for the FY 2019-20 is to the tune of INR 2043 lakh. Out of which, Approx. INR 1813 lakh are spent during this year FY 2019-20.</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.</p> <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. Details of the same were submitted along with EC Compliance Report for the period Apr'18 to Sep'18.</p>
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.	<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.	A report on the energy	Complied

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	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>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 Oct-2016. Report of the same is submitted to Chief Electrical officer, Gandhinagar. The said report was submitted to MoEF&CC, RO, Bhopal as part of the compliance report for the period Apr – Sept, 2017.</p> <p>Some of the recommendations of these reports have already been implemented as follows.</p> <ul style="list-style-type: none"> • Saving in PAC by overhauling with repairing damage fall ceiling and window curtain • Saving with Improving Power Factor • APFC Panel has already been installed and average PF maintained during last 2 months comes to 0.987 • The system voltage at load end is being maintained 230V and therefore there is no need to install AVC
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.	<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 • 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 7.8MW roof top solar plants within APSEZ and Township premises. APSEZ has also installed and commissioned 12 MW wind mill and whatever electricity generated is being supplied to grid. Details of the same were submitted along with last half yearly compliance report for the period Oct'18 to Mar'19.</p>

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		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.).
xiv.	Adequate measures should be taken to prevent odour problems from solid waste processing plant and STP.	Complied 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 and then it 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.
xv.	The buildings should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.	Complied. 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. It may be noted that the individual industrial units will also be encouraged for consideration of these design parameters.
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 – 4 .
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. Please refer following condition nos. for further details. • v, viii & xi of General Conditions – Construction Phase

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		<ul style="list-style-type: none"> • 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.	<p>Complied.</p> <p>APSEZ has installed & commissioned 7.8 MW roof top solar plants within APSEZ and Township premises. APSEZ has also installed and commissioned 12 MW wind mill and electricity generated from it is being supplied to grid.</p> <p>Please refer condition no. xiii of the General Conditions – Operation Phase for further details.</p>
xx.	Ozone depleting substance (Regulation & Control) Rules should be followed while designing the air conditioning system of the project.	<p>Complied.</p> <p>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.</p> <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	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>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, 07th June 2018, there was no major non-compliance observed. Inline to the compliance certification process of Environment</p>

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Sr. No.	Conditions	Compliance Status as on 31.03.2020
		Clearance condition of Waterfront Development Plan, RO, MoEF&CC Bhopal had visited the site on 27 th & 28 th 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, there was no major non-compliance observed.
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, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponent from the respective competent authorities.	Not Applicable at present. 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 condition by the individual industries.
16	These stipulations would be enforced among	Point noted and agreed.

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Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2020
	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.	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.
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	Point noted and agreed.

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Conditions	Compliance Status as on 31.03.2020															
	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.	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.	<p>Complied</p> <p>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.</p> <p>Clearance letter is also put up on the website of the Adani ports https://www.adaniports.com/ports-downloads</p>															
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.	<p>Complied.</p> <p>Compliance report of EC conditions is uploaded regularly. Last compliance report including results of monitoring data for the period of Apr'19 to Sep'19 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 26.11.2019. 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 26.11.2019 to all the concern authorities. Please refer below for the details regarding past six compliance submissions.</p>															
22	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including	<table border="1"> <thead> <tr> <th>Sr. no.</th><th>Compliance period</th><th>Date of submission</th></tr> </thead> <tbody> <tr> <td>1</td><td>Oct'16 to Mar'17</td><td>30.05.2017</td></tr> <tr> <td>2</td><td>Apr'17 to Sep'17</td><td>01.12.2017</td></tr> <tr> <td>3</td><td>Oct'17 to Mar'18</td><td>29.05.2018</td></tr> <tr> <td>4</td><td>Apr'18 to Sep'18</td><td>30.11.2018</td></tr> </tbody> </table>	Sr. no.	Compliance period	Date of submission	1	Oct'16 to Mar'17	30.05.2017	2	Apr'17 to Sep'17	01.12.2017	3	Oct'17 to Mar'18	29.05.2018	4	Apr'18 to Sep'18	30.11.2018
Sr. no.	Compliance period	Date of submission															
1	Oct'16 to Mar'17	30.05.2017															
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3	Oct'17 to Mar'18	29.05.2018															
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	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
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Sr. No.	Conditions	Compliance Status as on 31.03.2020			
	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.	5	Oct'18 to Mar'19	31.05.2019	
		6	Apr'19 to Sep'19	28.11.2019	
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 Offices of MoEF by e-mail.	<p>Complied.</p> <p>Environmental statement for each financial year is submitted to GPCB. The same for the FY ending 31.03.2019 in Form-V is submitted to GPCB vide our letter dated 26th August, 2019. Copy of the same is attached as Annexure – 11. Copy of the same is also available on our web site https://www.adaniports.com/ports-downloads.</p>			

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
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ANNEXURE A

Compliance Report of CRZ Recommendation

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
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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 waste water 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 from the desalination plant into sea will arise, construction 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.

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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.

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Condition	Compliance Status
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.	Complied After receipt of this order, so far APSEZ has not done any application to MoEF&CC for the proposed North port.
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 315.5 Lakh and 90% 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.
v	NCSCM will prepare the plan in consultation with NIOT, PP and GCZMA. In recognition of the fact that the existing legal provisions under the E(P) Act 1986 do not provide for any	<p>Details of above chronology were submitted along with last half yearly compliance report for the period Apr'19 to Sep'19.</p> <p>The site survey carried out by NCSCM includes:</p> <ol style="list-style-type: none"> 1. Bathymetry survey of creeks 2. Topography survey of intertidal areas 3. Mangrove survey (health and area

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Sr. No.	Condition	Compliance Status
	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>demarcation)</p> <ol style="list-style-type: none"> 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>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 2340 ha. There is substantial growth in mangrove cover to the tune of 246 ha (comparison between 2011 and 2016-17) 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>The NCSCM 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. Presentation on the findings of the report was made to GCZMA committee on 4th October 2019 and same has been approved vide MOM published by GCZMA.</p>

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Condition	Compliance Status
		<p>Inline towards the compliance of the action plan "Monitoring of mangrove cover in Jan/Mar, 2020 using latest satellite images and validation with field observations", Work has already been already been assigned to NSCSM, for amount of INR. 23,56,000 vide PO no 4800050718, dtd. 31st December 2019 and same is under progress and further update in this regard will be submitted to all the concerned authorities as part of the six monthly compliance report. Based on the outcome and findings of this study, further action plans will be considered for implementation.</p> <p>For demarcation of HTL and CRZ areas, NCSCM is under process of finalizing CZMP for this area. Once the maps are finalized, 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>
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>Regional Officer, MoEF&CC, Bhopal visited APSEZ on 21-22 December'16 for monitoring the implementation of environmental safeguards.</p> <p>APSEZ was also 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, 07th June 2018, there was no major non-compliance observed.</p> <p>Regional Office MoEF&CC, Bhopal , officer had visited the site on 3rd & 4th Sep, 2019 in 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. APSEZ had provided all requisite information and documents required by the Officer.</p> <p>Inline to the compliance certification process of</p>

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Condition	Compliance Status
		<p>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, there was no major non-compliance observed.</p> <p>It may also be noted that GPCB, Regional Office does regular site visit for various components. Last visit of Regional Office, GPCB was done on 16.03.2020 for MSEZ and the compliance of the same has been submitted vide our letter dated 27.04.2020. During the said visit, there was no non-compliance observed. The details of the same is attached as Annexure – 12.</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 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</p>

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Condition	Compliance Status
		<p>information related to the planned expenses to the tune of approx. 13.5 Cr. INR for various initiatives for the next five years (2016 – 2021) (Budget details provided in Page No. 68 of report). Copy of the same is already submitted to MoEF&CC vide our letter dated 10.09.2016.</p> <p>Till, March 2020 8.13, approx. Cr. INR has already been invested. Further, details regarding the expenditure incurred against the commitment are attached as Annexure – 13.</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 Childred 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

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Sr. No.	Condition	Compliance Status				
		<ul style="list-style-type: none">• Machhimar Awas Yojana 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.• 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 invertor 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 (including fishermen community) around the project area and provides required support for their livelihood and other concerns through the CSR arm – Adani Foundation. Brief information about activities in the main five persuasions is mentioned below.</p> <table><tr><th>Area</th><th>Activity</th></tr><tr><td>Community Health</td><td>Community Health – Mundra<ul style="list-style-type: none">• 11 Rural Clinic-8 from Mundra & 3 from Anjar block treated; 25142 patients.• 31 villages covered through Mobile healthcare unit 20399 patients benefited during the year.• The mobile health care unit cover 25 villages and 07 fishermen settlements. Around 90 types of general life saving medicines are available in these units.• During the year 2019-20, total 9860 transactions</td></tr></table>	Area	Activity	Community Health	Community Health – Mundra <ul style="list-style-type: none">• 11 Rural Clinic-8 from Mundra & 3 from Anjar block treated; 25142 patients.• 31 villages covered through Mobile healthcare unit 20399 patients benefited during the year.• The mobile health care unit cover 25 villages and 07 fishermen settlements. Around 90 types of general life saving medicines are available in these units.• During the year 2019-20, total 9860 transactions
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Sr. No.	Condition	Compliance Status
		<p>were done by 8672 card holders of 68 villages of Mundra Taluka. They received cash less medical services under the senior citizen project.</p> <ul style="list-style-type: none"> In the year of 2019-20, Total 3137 people had been benefitted by various kind of camp and needy and screened patients are treated in Adani Hospital. <p><u>Community Health – Bhuj</u></p> <ul style="list-style-type: none"> 5398 Patients taken Care and Coordination 609 Dead body referred by carry van 3557 Ayushman Gold Card facilitation through Enrollment camp and Mahiti Setu 549 support for Implants and Needy Patients 9896 People helped through Mahiti Setu for various government schemes 816 people benefitted in 6 health awareness camps Adani Foundation organized 52 General Health Camps and Speciality Camps in various interior villages of Kutch in coordination with GKGH which created magical impact and benefitted 4779 patients. Adani Foundation Bhuj Health team has also organized more than six awareness camps. Adani foundation, Adani Hospital and GAIMS have Jointly Celebrated "Arogya Saptah" 8th to 14th August & 20th to 26th January in Respect of Independence and Republic of our country. Celebration included multi-specialty camps, Workshops, truckers health check-up, surgical camp on foundation day and adolescent fair at different part of district. Collector.
	Sustainable Livelihood – Fisher folk	<ul style="list-style-type: none"> Average 117.5 KL of water was supplied to 1085 households at 9 fisherman vasahat on a daily basis under Machhimar Shudhh Jal Yojana. Adani Foundation constructed 4 Balwadis for kids between the age group of 2.5 years to 5 years at different settlements under Vidya Deep Yojana. 140 children are benefiting from this scheme. 28 Fisherman are engaged in various contract related jobs and 37 Fisherman are doing job after taken training from Adani Skill Development Center. Scholarship Support - Provide 100% fees support to girls and 80% fees support to boys as a scholarship. This year total 78 students are being facilitated by Adani foundation. Book Support - 49 Fisherman Students from Higher Secondary Standard (9 to 12) has been benefitted from various of Juna Bandar, Zarpara, Navinal, Bhadreshwar. Cycle Support - Fishermen who are at fishermen hamlets are migrated with whole family for 8 month fishing season. During that time to continue higher education of their children at Mundra, Adani foundation provide cycle support every year to 9th standard students This year cycle support has been given to 7 students 28 fishermen has been facilitated by fishing materials under Machhimar Ajivika Uparjan Yojana The Foundation provided fishermen with

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Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Condition	Compliance Status	
			employment equivalent to 6261 man-days . In addition to this, employment worth of 42048 man-days has been provided till date. The Foundation has also supported Pagadiya fishermen as painting laborers by providing them with employment and job in various field.
		Education	<ul style="list-style-type: none"> • Under Project UTTHAN 25 primary government schools of Mundra and Nakhrana Taluka of Kutch district have been adopted to take up various initiatives aimed at improving quality in these schools. 3417 children are benefiting from a meaningful education in these schools. • One teacher–One school + Sports teacher + IT teacher • 'IT on Wheel 'Van with 35 laptops and computer instructor make students more tech savvy and spreading the digital and technology knowledge amongst the younger generation. • Use of Reading Corner by students of Std. 3 to 8 of Utthan School Every Saturday Library activity with the Book issue were planned and executed in a meaningful manner. 7113 Book issued in academic year 2019-20. • With the intervene of our Sports teacher in all Utthan Schools successfully enrolled 500+ students in Khel Mahakumbh. • Utthan Sahayak +1222 students from High school & Higher secondary of 6 villages celebrate Fifth International Yoga Day. • Adani Vidya Mandir: provide “cost-free” education to meritorious students coming from challenging economic background, who have priceless treasures but have been under achievers due to situation. In year 2019-20 443 students are studying. • 568 institutes and 33,030 beneficiaries have made inspirational visit up to March 2020 under Project UDAAN.
		Rural Infrastructure	<p>WORK COMPLETED</p> <ul style="list-style-type: none"> • Adani foundation carries out the construction of prayer shade name “PRATHNA SHADHNA” at AVMB. • Painting & Branding Old Strcture at Old Bandar and Luni Bandar • Upgradation of Balwadi at Zarpa • Waiting place for Pgadiya at Navinal • Garden Development work • Road Side Beautification at Mundra. • S & F Benches In Various Location in Various Village • Construction of R.O. Plant Room at Primary School sadau Village • Construction of Shed at BRC Bhavan • Renovation Balwadi at Bavdi Banadar • Fixing of LED street light at Bhopawandh, Mundra & Bhorara) <p>SUJLAM SUFLAM JAL ABHIYAN</p>

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
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Sr. No.	Condition	Compliance Status
		<ul style="list-style-type: none"> • A large number of water harvesting structure (18 Nos. of check dams in coordination with salinity department) and • Ground recharge activities (pond deepening work for more than 52 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 54 Nos. and Recharge Bore well 75 Nos. • Drip Irrigation 823 Farmers benefitted in coordination with Gujrat Green Revolution Company • Participatory Ground Water Management in ten villages with holistic approach for Kankavati Sandstone Aquifer Programme.
		<p>Skill Development</p> <ul style="list-style-type: none"> • Adani Skill Development Centre (ASDC) is playing a pivotal role in implementing sustainable development in the state. The objective of this Centre is to impart different kinds of training to the students of 10th, 12th, college or ITI from surrounding areas. • During this year Total 2664 people trained in various trainings to enhance socio economic development. <p>In the year 2019-20, ASDC-Bhuj trained 1699 candidates.</p> <ul style="list-style-type: none"> • Soft skill training – 756 Nos. • Technical Training – 943 Nos. <p>In the year 2019-20, ASDC-Mundra trained 965 candidates.</p> <ul style="list-style-type: none"> • Soft skill training – 552 Nos. • Technical Training – 413 Nos.
		<p>Please refer Annexure – 10 for full details of CSR activities carried out by Adani Foundation in the Mundra region. Budget for CSR Activity for the FY 2019-20 is to the tune of INR 2043 lakh. Out of which, Approx. INR 1813 lakh are spent during this year FY 2019-20.</p>
viii	APSEZ will voluntarily return the grazing land, if any, in their possession.	<p>Point noted.</p> <p>All lands are acquired through proper procedure prescribed by State Government. However APSEZ has agreed for voluntarily giving 400 acres of land back to Zarpara village for the purpose of Gauchar. 400 acres of land has been identified in the presence and confirmation of Gram Panchayat. Necessary procedure has been initiated by APSEZ vide its letter dated 09th Aug 2012 with concerned revenue authority with respect to surrender of 400 acre gauchar land at village Zarpara. Same has been taken</p>

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Condition	Compliance Status
		up by revenue department for necessary procedure of transfer and is under process. Details of the same were submitted along with last half yearly compliance report for the period Apr'19 to Sep'19.
ix	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.	<p>Complied</p> <p>This reply covers direction no ix and x.</p> <ol style="list-style-type: none"> 1. APSEZ vide its letter dtd. 24th Feb 2014 has submitted draft ToR for preparation of CIA report to GCZMA for their approval. 2. GCZMA vide its letter dtd. 19th 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. Cholanmandalam MS Risk Services Ltd. to carry out the studies, vide SO dtd 10th 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 4th Jan 2019. <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. 90% of the payment has already been made.</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
x.	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.	

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Condition	Compliance Status
		<p>reports and clearances issued to APSEZ.</p> <ul style="list-style-type: none"> • 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> <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</p>

	Adani Ports and Special Economic Zone Limited, Mundra.	From : Oct'19 To : Mar'20
Status of the conditions stipulated in Environment and CRZ Clearance		

Sr. No.	Condition	Compliance Status
		<p>the boundary limits of APSEZ.</p> <p>The final CIA study report was submitted to GCZMA and MoEF&CC for their consideration vide our letter dated 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>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 – 14.</p>

Annexure – 1

डॉ. एम. सुरेश कुमार / Dr. M. Suresh Kumar
प्रमुख वैज्ञानिक तथा प्रमुख/Chief Scientist & Head
पर्यावरणीय प्रभाव एवं संधारणीय प्रभाग
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भारत सरकार

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अनुसंधान
संस्थान
नेहरू मार्ग
नागपुर 440 020
(भारत)

CSIR-National
Environmental
Engineering
Research
Institute
Nehru Marg
Nagpur-440 020
INDIA

EISD/Adani-audit/2020

April 23, 2020

To,

Head-Environment,

M/s. Adani Ports and Special Economic Zone Limited,
Adani House, P.O. Box No.1,
Mundra, Kutch - 370421.

Sub: Status of SEZ Environment Clearance Compliances

- Ref: 1. SEZ Environment Clearance bearing MoEF letter No. 10-138/2008-1 A.III, dated
15th July, 2014 (Specific Condition No. vii)
2. SO No. 4800027105, dated: 02.08.2017

With reference to above stated subject and references, work has been awarded to us for studies through environment clearance compliance audit at Multi Product SEZ of M/s. Adani Ports & SEZ Limited, Mundra with reference to EC Condition No. (vii).

Accordingly, the study undertaken during the period October-2019 to March-2020 concluded that all the conditions stipulated in environment clearance has been complied and there is no violation of any condition.

The compliance report (April - September, 2019) was reviewed by us and found adequate. It was further assessed from the monitoring reports submitted to us as part of the compliance report that all the environmental norms meet the applicable standards. The existing practices shall be continued in future as well to ensure meeting with the applicable norms.

With regards,

(M. Suresh Kumar)

Annexure – 2

Annexure – 2

List of CETP Member Units

Sr. No.	Name of the Member Unit (Industrial Effluent)	Booked Qty. KLD
1	M/s. Dorf Ketel Speciality Catalyst Pvt. Ltd.	85
2	M/s. Ahlstrom Fiber composites India Pvt. Ltd.	15

Sr. No.	Name of the Member Unit (Domestic Sewage)
1	M/s. Skaps Industries India (Pvt.) Ltd.
2	M/s. Skaps Industries India (Pvt.) Ltd. (Unit II)
3	M/s. Mundra SEZ Integtaed Textile Apprel Park Ltd. (MITAP) – Common Facility
4	Mundra Village

Annexure – 3

Details of Greenbelt Development at APSEZ, Mundra

LOCATION	Total Green Zone Detail Till Up to March - 20 20				
	Area (In Ha.)	Trees (Nos.)	Palm (Nos.)	Shrubs (SQM)	Lawn (SQM)
SV COLONY	66.40	29592	7072	67187.00	92019.00
PORT & NON SEZ	81.38	146692	19220	75061.78	61982.38
SEZ	116.60	227120	20489	220583.60	28162.03
MITAP	2.48	8168	33	3340.00	4036.00
WEST PORT	94.35	206772	63331	24112.00	22854.15
AGRI PARK	8.94	17244	1332	5400.00	2121.44
SOUTH PORT	14.45	27530	3470	3882.00	3327.26
Samudra Township	56.03	53922	11834	20908.89	47520.07
Productive Farming (Vadala Farm)	23.79	27976	--	--	--
TOTAL (APSEZL)	464.40	745016	126781.00	420475.27	262022.33
	Total Saplings	871797			

Details of Mangrove Afforestation done by APSEZ

Sl. no.	Location	Area (ha)	Duration	Species	Implementation agency
1	Mundra Port	24.0	-	Avicennia marina	Dr. Maity, Mangrove consultant of India
2	Mundra Port	25.0	-	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)	298.0	2011 - 2013	Avicennia marina	-
6	Jangi Village (Bhachau, Kutch)	50.0	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)	255.0	2014-15 & 2016-17	Avicennia marina & Bio diversity	GUIDE, Bhuj
9	Dandi Village (Navsari)	800.0	2006 - 2011	Avicennia marina, Rhizophora mucronata, Ceriops tagal	SAVE, Ahmedabad
10	Talaza Village (Bhavnagar)	50.0	2011-12	Avicennia marina	SAVE, Ahmedabad
11	Narmada Village (Bhavnagar)	250.0	2014 - 2015	Avicennia marina	SAVE, Ahmedabad
12	Malpur Village (Bharuch)	200.0	2012-14	Avicennia marina	SAVE, Ahmedabad
13	Kantiyajal Village (Bharuch)	50.0	2014-15	Avicennia marina	SAVE, Ahmedabad
14	Devla Village (Bharuch)	150.0	210-16	Avicennia marina	SAVE, Ahmedabad
15	Village Tala Talav (Khambhat, Anand)	100.0	2015 - 2016	Avicennia marina	SAVE, Ahmedabad
16	Village Tala Talav (Khambhat, Anand)	38.0	2015 - 2016	Avicennia marina	GEC, Gandhinagar
17	Aliya Bet, Village Katpor (Hansot, Bharuch)	62.0	2017-18	Avicennia marina & Rhizophora spp.	GEC, Gandhinagar
Total Mangrove Plantation:		2889.90 Ha			

Annexure – 4

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 Pozzallano Cement / (ii) use of Portland Slag Cement / (iii) use fly ash as admixture in construction	Part of fly ash generated from Adani Power Limited, Mundra is being utilized by Adani Group to manufacture paver blocks and the same paver blocks are used for development of back up area, footpath, colonies area, parking area, approach road etc. Please refer Condition No. xi 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	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)

Sr. No.	Suggested Measures	Compliance Status
	shall be such as to minimize friction losses.	for energy efficient electrical fittings. Few of the buildings in MSTPL are designed as green building.
9	Wherever possible, natural light shall 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.</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 – 5



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Cleaner Production / Waste Minimization Facilitator

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"HALF YEARLY ENVIRONMENTAL MONITORING REPORT"

FOR



**ADANI PORTS AND SPECIAL ECONOMIC ZONE LIMITED
TAL: MUNDRA, KUTCH, MUNDRA – 370 421**

**MONITORING PERIOD:
OCTOBER 2019 TO MARCH 2020**

PREPARED BY:



POLLUCON LABORATORIES PVT.LTD.

**PLOT NO.5/6 "POLLUCON HOUSE", OPP. BALAJI INDUSTRIAL SOCIETY,
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ISO 9001:2015

ISO 14001:2015

OHSAS 18001:2007

**POLLUCON****LABORATORIES PVT. LTD.**Environmental Auditors, Consultants & Analysts
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RESULT OF AMBIENT AIR QUALITY MONITORING

WTP- NEAR CETP					
Sr. No.	Date of Sampling	Particulate Matter (PM ₁₀) µg/m ³	Particulate Matter (PM _{2.5}) µg/m ³	Sulphur Dioxide (SO ₂) µg/m ³	Oxides of Nitrogen (NO ₂) µg/m ³
1	02/10/2019	78.54	39.40	18.72	33.23
2	07/10/2019	73.76	30.42	23.70	40.23
3	09/10/2019	87.50	36.57	11.24	30.57
4	14/10/2019	65.36	29.38	14.53	38.26
5	16/10/2019	76.28	44.26	22.31	28.44
6	21/10/2019	68.37	37.57	24.69	39.52
7	23/10/2019	88.62	42.47	16.57	36.55
8	30/10/2019	79.61	38.44	19.51	31.54
9	31/10/2019	90.23	46.67	21.59	41.26
10	04/11/2019	72.35	32.53	24.22	30.25
11	06/11/2019	82.51	43.52	15.65	35.51
12	11/11/2019	78.68	35.69	22.57	45.54
13	13/11/2019	84.38	47.52	26.35	42.39
14	18/11/2019	73.6	39.65	18.48	39.57
15	20/11/2019	90.24	52.6	23.33	36.54
16	25/11/2019	85.32	32.49	21.56	33.57
17	27/11/2019	94.54	49.27	17.76	40.22
18	02/12/2019	70.55	38.23	20.38	33.43
19	04/12/2019	68.62	27.41	27.67	41.59
20	09/12/2019	82.61	37.28	17.58	30.56
21	11/12/2019	94.28	53.44	19.51	34.57
22	16/12/2019	82.44	45.32	24.53	28.6
23	18/12/2019	92.34	49.23	26.45	31.52
24	23/12/2019	74.56	42.44	25.62	39.57
25	25/12/2019	80.25	46.56	29.44	35.51
26	30/12/2019	71.51	34.28	23.48	40.53
27	01/01/2020	73.59	36.53	21.55	36.56
28	06/01/2020	66.85	30.24	25.50	33.45
29	08/01/2020	92.60	53.48	23.34	42.31
30	13/01/2020	81.27	47.48	20.51	39.52

Continue ...

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)



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WTP- NEAR CETP					
Sr.No.	Date of Sampling	Particulate Matter (PM10) µg/m ³	Particulate Matter (PM2.5) µg/m ³	Sulphur Dioxide (SO ₂) µg/m ³	Oxides of Nitrogen (NO ₂) µg/m ³
31	15/01/2020	70.64	43.65	18.21	29.56
32	20/01/2020	84.20	48.23	16.24	30.26
33	22/01/2020	77.20	38.57	27.60	34.51
34	27/01/2020	93.23	52.31	14.23	28.63
35	29/01/2020	74.65	35.44	24.59	37.29
36	03/02/2020	84.30	41.36	17.52	34.23
37	05/02/2020	64.24	37.24	19.41	37.57
38	10/02/2020	79.37	44.57	20.35	30.21
39	12/02/2020	89.36	50.23	22.34	33.51
40	17/02/2020	77.53	34.53	15.42	26.32
41	19/02/2020	62.57	26.36	24.66	29.41
42	24/02/2020	85.33	46.27	13.55	27.55
43	26/02/2020	75.66	41.53	21.56	35.68
44	02/03/2020	79.55	46.52	18.23	29.42
45	04/03/2020	88.23	49.56	21.66	35.37
46	09/03/2020	66.51	38.57	25.43	27.24
47	11/03/2020	82.67	43.32	20.55	37.56
48	16/03/2020	78.24	35.65	26.39	40.24
49	18/03/2020	86.52	50.27	22.83	43.53
TEST METHOD		IS:5182(Part 23):Gravimetric CPCB - Method (Vol.I,May-2011)	Gravimetric- CPCB - Method (Vol.I,May-2011)	IS:5182(Part II):Improved West and Gaeke	IS:5182(Part VI):Modified Jacob &Hochheiser (NaOH-NaAsO ₂)

*Below detection limit

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

**POLLUCON****LABORATORIES PVT. LTD.**Environmental Auditors, Consultants & Analysts.
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RESULT OF AMBIENT AIR QUALITY MONITORING

AIR STRIP								
Sr. No	Date of Sampling	Particulate Matter (PM10) $\mu\text{g}/\text{m}^3$	Particulate Matter (PM 2.5) $\mu\text{g}/\text{m}^3$	Sulphur Dioxide (SO₂) $\mu\text{g}/\text{m}^3$	Oxides of Nitrogen (NO₂) $\mu\text{g}/\text{m}^3$	Carbon Monoxide as CO mg/m^3	Hydrocarbon as CH₄ mg/m^3	Benzene as C₆H₆ $\mu\text{g}/\text{m}^3$
1	02/10/2019	62.64	35.39	14.25	28.66	0.14	BDL*	BDL*
2	07/10/2019	49.39	27.63	11.37	20.44	0.22	BDL*	BDL*
3	09/10/2019	67.45	40.20	9.51	15.62	0.11	BDL*	BDL*
4	14/10/2019	60.42	34.29	19.55	24.30	0.32	BDL*	BDL*
5	16/10/2019	57.53	22.38	12.45	23.55	0.24	BDL*	BDL*
6	21/10/2019	72.45	36.27	6.34	19.61	0.37	BDL*	BDL*
7	23/10/2019	48.32	18.69	13.25	21.23	0.48	BDL*	BDL*
8	30/10/2019	66.46	29.70	7.79	25.33	0.27	BDL*	BDL*
9	31/10/2019	83.69	26.59	16.58	29.22	0.41	BDL*	BDL*
10	04/11/2019	66.34	36.29	13.84	23.42	0.34	BDL*	BDL*
11	06/11/2019	75.68	39.38	9.57	26.7	0.4	BDL*	BDL*
12	11/11/2019	52.3	30.44	17.53	31.5	0.24	BDL*	BDL*
13	13/11/2019	79.62	42.64	12.61	22.46	0.15	BDL*	BDL*
14	18/11/2019	58.44	32.45	7.16	19.65	0.18	BDL*	BDL*
15	20/11/2019	71.65	44.22	16.18	32.44	0.23	BDL*	BDL*
16	25/11/2019	68.58	31.53	10.55	28.64	0.3	BDL*	BDL*
17	27/11/2019	53.79	24.51	15.64	24.58	0.52	BDL*	BDL*
18	02/12/2019	54.51	27.69	7.91	17.59	0.23	BDL*	BDL*
19	04/12/2019	77.52	38.54	15.66	21.5	0.16	BDL*	BDL*
20	09/12/2019	69.49	34.62	10.23	24.54	0.32	BDL*	BDL*
21	11/12/2019	70.68	31.57	17.36	31.55	0.57	BDL*	BDL*
22	16/12/2019	88.22	42.51	11.23	23.38	0.26	BDL*	BDL*
23	18/12/2019	65.32	36.5	18.55	26.54	0.38	BDL*	BDL*
24	23/12/2019	58.48	20.25	21.3	22.55	0.44	BDL*	BDL*
25	25/12/2019	71.56	37.54	13.61	19.22	0.19	BDL*	BDL*
26	30/12/2019	52.65	25.47	8.53	15.65	0.48	BDL*	BDL*
27	01/01/2020	57.55	25.31	6.81	28.6	0.42	BDL*	BDL*
28	06/01/2020	74.23	40.26	13.57	20.31	0.54	BDL*	BDL*
29	08/01/2020	84.27	42.59	16.60	29.38	0.25	BDL*	BDL*
30	13/01/2020	79.45	45.31	10.49	19.49	0.49	BDL*	BDL*

Continue ...

H. T. Shah**Lab Manager****Dr. Arun Bajpai****Lab Manager (Q)**



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AIR STRIP								
Sr. No	Date of Sampling	Particulate Matter (PM10) $\mu\text{g}/\text{m}^3$	Particulate Matter (PM 2.5) $\mu\text{g}/\text{m}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{m}^3$	Oxides of Nitrogen (NO ₂) $\mu\text{g}/\text{m}^3$	Carbon Monoxide as CO mg/m^3	Hydrocarbon as CH ₄ mg/m^3	Benzene as C ₆ H ₆ $\mu\text{g}/\text{m}^3$
31	15/01/2020	52.62	30.19	7.47	15.68	0.18	BDL*	BDL*
32	20/01/2020	64.33	38.46	9.65	18.67	0.64	BDL*	BDL*
33	22/01/2020	70.29	35.29	11.49	23.36	0.22	BDL*	BDL*
34	27/01/2020	66.26	29.44	8.63	21.58	0.30	BDL*	BDL*
35	29/01/2020	59.60	26.39	19.28	25.34	0.36	BDL*	BDL*
36	03/02/2020	62.36	22.38	8.65	17.19	0.53	BDL*	BDL*
37	05/02/2020	70.22	34.58	14.22	26.29	0.34	BDL*	BDL*
38	10/02/2020	58.66	20.59	9.64	20.22	0.41	BDL*	BDL*
39	12/02/2020	68.65	36.25	15.63	23.47	0.22	BDL*	BDL*
40	17/02/2020	55.33	28.48	6.54	16.28	0.48	BDL*	BDL*
41	19/02/2020	69.33	32.4	19.6	24.68	0.31	BDL*	BDL*
42	24/02/2020	78.59	37.67	7.53	13.54	0.15	BDL*	BDL*
43	26/02/2020	65.65	39.46	16.31	22.61	0.4	BDL*	BDL*
44	02/03/2020	73.52	38.67	15.64	18.66	0.49	BDL*	BDL*
45	04/03/2020	66.27	22.34	10.31	22.69	0.26	BDL*	BDL*
46	09/03/2020	55.32	36.37	14.32	30.21	0.39	BDL*	BDL*
47	11/03/2020	67.55	41.26	6.6	25.46	0.46	BDL*	BDL*
48	16/03/2020	57.62	30.32	11.55	27.88	0.22	BDL*	BDL*
49	18/03/2020	65.33	37.33	16.21	23.61	0.25	BDL*	BDL*
	TEST METHOD	IS:5182(Part 23):Gravimetric CPCB - Method (Vol.I,May-2011)	Gravimetric-CPCB - Method (Vol.I,May-2011)	IS:5182(Part II):Improved West and Gaeke	IS:5182(Part VI):Modified Jacob &Hochheiser (NaOH-NaAsO ₂)	NDIR Digital Gas Analyzer	SOP: HC: GC/GCMS/Gas analyzer	IS 5182 (Part XI):2006/CPCB Method

*Below detection limit

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

**POLLUCON****LABORATORIES PVT. LTD.**Environmental Auditors, Consultants & Analysts.
Cleaner Production / Waste Minimization Facilitator

Recognised by MoEF, New Delhi Under Sec. 12 of Environmental (Protection) Act-1986

RESULTS OF AMBIENT AIR QUALITY MONITORING

SAMUDRA TOWNSHIP STP					
Sr. No.	Date of Sampling	Particulate Matter (PM₁₀) µg/m³	Particulate Matter (PM_{2.5}) µg/m³	Sulphur Dioxide (SO₂) µg/m³	Oxides of Nitrogen (NO₂) µg/m³
1	02/10/2019	52.69	18.42	12.49	16.51
2	07/10/2019	77.31	40.24	15.60	25.34
3	09/10/2019	82.13	45.21	14.54	22.54
4	14/10/2019	55.69	26.52	9.35	34.56
5	16/10/2019	49.69	23.54	6.59	20.40
6	21/10/2019	64.41	28.55	8.65	31.26
7	23/10/2019	79.25	35.68	10.68	18.61
8	30/10/2019	61.92	31.62	15.37	28.57
9	31/10/2019	72.75	25.48	18.46	32.90
10	04/11/2019	58.68	27.59	22.29	26.54
11	06/11/2019	66.72	30.59	10.25	29.69
12	11/11/2019	72.67	42.58	20.20	35.66
13	13/11/2019	60.33	33.42	15.63	27.62
14	18/11/2019	53.40	25.47	9.71	32.55
15	20/11/2019	83.41	48.82	13.88	17.59
16	25/11/2019	63.75	28.34	19.50	30.45
17	27/11/2019	81.62	38.29	21.65	34.53
18	02/12/2019	59.60	24.26	10.51	27.21
19	04/12/2019	60.23	21.52	25.53	33.55
20	09/12/2019	71.52	27.64	11.69	23.48
21	11/12/2019	82.42	43.54	24.31	28.59
22	16/12/2019	66.32	29.59	22.51	24.57
23	18/12/2019	76.64	42.7	16.26	19.4
24	23/12/2019	67.5	38.5	23.61	31.51
25	25/12/2019	53.47	28.34	18.37	22.52
26	30/12/2019	78.55	39.41	21.56	35.55
27	01/01/2020	77.47	42.49	19.61	31.69
28	06/01/2020	61.62	26.35	22.27	29.32
29	08/01/2020	74.64	38.62	14.61	26.32
30	13/01/2020	66.31	34.59	18.50	33.87

Continue..**H. T. Shah****Lab Manager****Dr. Arun Bajpai****Lab Manager (Q)**



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SAMUDRA TOWNSHIP STP					
Sr. No.	Date of Sampling	Particulate Matter (PM ₁₀) µg/m ³	Particulate Matter (PM _{2.5}) µg/m ³	Sulphur Dioxide (SO ₂) µg/m ³	Oxides of Nitrogen (NO ₂) µg/m ³
31	15/01/2020	57.54	25.47	9.45	18.50
32	20/01/2020	68.39	32.46	11.57	22.36
33	22/01/2020	55.35	28.39	16.55	19.46
34	27/01/2020	79.31	44.53	17.55	25.47
35	29/01/2020	65.34	30.47	20.37	30.42
36	03/02/2020	78.65	26.33	11.80	24.49
37	05/02/2020	58.33	31.67	8.54	16.36
38	10/02/2020	63.26	24.28	17.57	25.46
39	12/02/2020	55.3	28.33	19.19	29.43
40	17/02/2020	70.22	18.32	10.32	21.59
41	19/02/2020	51.56	22.24	13.55	30.55
42	24/02/2020	62.37	25.33	16.21	22.23
43	26/02/2020	53.26	19.24	12.37	18.4
44	02/03/2020	69.57	28.76	7.55	20.71
45	04/03/2020	74.33	37.5	15.33	31.55
46	09/03/2020	50.21	23.64	21.54	35.71
47	11/03/2020	60.53	29.26	11.54	29.63
48	16/03/2020	71.55	38.54	22.65	36.53
49	18/03/2020	80.24	44.24	18.53	30.6
	TEST METHOD	IS:5182(Part 23):Gravimetric CPCB - Method (Vol.I, May-2011)	Gravimetric- CPCB - Method (Vol.I, May-2011)	IS:5182(Part II):Improved West and Gaeke	IS:5182(Part VI):Modified Jacob &Hochheiser (NaOH-NaAsO ₂)

*Below detection limit

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

**POLLUCON****LABORATORIES PVT. LTD.**Environmental Auditors, Consultants & Analysts.
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RESULTS OF AMBIENT AIR QUALITY MONITORING

SAMUDRA TOWNSHIP CUSTOMER CARE					
Sr.No.	Date of Sampling	Particulate Matter (PM₁₀) µg/m³	Particulate Matter (PM_{2.5}) µg/m³	Sulphur Dioxide (SO₂) µg/m³	Oxides of Nitrogen (NO₂) µg/m³
1	02/10/2019	46.29	21.52	9.49	24.52
2	07/10/2019	64.51	35.24	17.52	29.50
3	09/10/2019	70.32	27.72	7.64	20.43
4	14/10/2019	47.31	20.57	11.55	30.23
5	16/10/2019	63.84	36.44	8.33	17.55
6	21/10/2019	56.42	22.73	16.22	28.39
7	23/10/2019	65.43	38.52	12.42	25.36
8	30/10/2019	55.79	26.64	10.44	18.69
9	31/10/2019	77.60	37.69	14.56	36.71
10	04/11/2019	50.60	19.49	16.54	19.55
11	06/11/2019	61.33	24.33	12.34	32.58
12	11/11/2019	55.66	28.25	15.34	40.24
13	13/11/2019	49.52	23.62	19.50	33.45
14	18/11/2019	68.21	22.62	14.35	29.52
15	20/11/2019	76.25	29.46	10.31	26.39
16	25/11/2019	58.46	26.45	8.65	20.39
17	27/11/2019	71.65	41.56	13.55	27.62
18	02/12/2019	63.61	33.42	15.69	20.49
19	04/12/2019	48.69	19.4	18.25	24.26
20	09/12/2019	58.84	24.24	14.55	27.66
21	11/12/2019	78.52	35.47	23.48	37.56
22	16/12/2019	61.24	20.57	19.56	30.44
23	18/12/2019	71.46	26.33	11.53	22.67
24	23/12/2019	50.23	23.49	13.57	34.5
25	25/12/2019	62.34	20.36	20.31	29.58
26	30/12/2019	57.58	30.21	17.58	26.59
27	01/01/2020	64.5	32.3	16.27	22.47
28	06/01/2020	52.59	24.53	19.58	25.47
29	08/01/2020	69.38	28.41	9.59	15.69
30	13/01/2020	58.45	25.33	14.49	28.51

Continue...

H. T. Shah**Lab Manager****Dr. Arun Bajpai****Lab Manager (Q)**

**POLLUCON****LABORATORIES PVT. LTD.**Environmental Auditors, Consultants & Analysts.
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SAMUDRA TOWNSHIP CUSTOMER CARE					
Sr.No.	Date of Sampling	Particulate Matter (PM ₁₀) µg/m ³	Particulate Matter (PM _{2.5}) µg/m ³	Sulphur Dioxide (SO ₂) µg/m ³	Oxides of Nitrogen (NO ₂) µg/m ³
31	15/01/2020	63.48	34.59	12.57	20.31
32	20/01/2020	59.41	27.29	17.61	26.37
33	22/01/2020	65.37	20.86	15.27	29.51
34	27/01/2020	72.43	38.26	11.70	32.46
35	29/01/2020	55.32	22.45	22.32	19.54
36	03/02/2020	72.52	35.67	10.21	29.59
37	05/02/2020	53.63	22.64	12.49	23.41
38	10/02/2020	68.37	27.39	15.23	16.57
39	12/02/2020	75.32	38.25	17.47	26.7
40	17/02/2020	65.35	24.31	7.99	17.59
41	19/02/2020	57.32	29.43	20.33	27.24
42	24/02/2020	69.46	32.46	9.46	24.21
43	26/02/2020	59.32	26.22	19.55	31.28
44	02/03/2020	63.58	25.33	10.26	23.36
45	04/03/2020	82.65	30.5	19.55	27.26
46	09/03/2020	60.28	33.46	16.51	22.73
47	11/03/2020	71.21	26.33	14.5	34.29
48	16/03/2020	65.52	17.65	15.33	24.55
49	18/03/2020	73.56	29.46	12.67	20.35
	TEST METHOD	IS:5182(Part 23):Gravimetric CPCB - Method (Vol.I,May-2011)	Gravimetric- CPCB - Method (Vol.I,May-2011)	IS:5182(Part II):Improved West and Gaeke	IS:5182(Part VI):Modified Jacob &Hochheiser (NaOH-NaAsO ₂)

*Below detection limit

H. T. Shah**Lab Manager****Dr. Arun Bajpai****Lab Manager (Q)**



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RESULT OF AMBIENT AIR QUALITY MONITORING

ADANI HOUSE								
Sr. No.	Date of Sampling	Particulate Matter (PM10) $\mu\text{g}/\text{m}^3$	Particulate Matter (PM 2.5) $\mu\text{g}/\text{m}^3$	Sulphur Dioxide (SO2) $\mu\text{g}/\text{m}^3$	Oxides of Nitrogen (NO2) $\mu\text{g}/\text{m}^3$	Carbon Monoxide as CO mg/m^3	Hydrocarbon as CH4 mg/m^3	Benzene as C6H6 $\mu\text{g}/\text{m}^3$
1	02/10/2019	70.65	51.38	16.51	30.48	0.48	BDL*	BDL*
2	07/10/2019	51.32	18.68	13.59	17.51	0.45	BDL*	BDL*
3	09/10/2019	62.61	24.52	15.37	27.52	0.52	BDL*	BDL*
4	14/10/2019	58.72	30.28	10.69	21.54	0.27	BDL*	BDL*
5	16/10/2019	71.38	32.43	17.40	33.42	0.40	BDL*	BDL*
6	21/10/2019	67.70	26.42	7.65	26.37	0.22	BDL*	BDL*
7	23/10/2019	74.41	37.65	19.34	32.46	0.34	BDL*	BDL*
8	30/10/2019	59.47	33.48	8.61	24.60	0.39	BDL*	BDL*
9	31/10/2019	68.58	23.68	11.23	31.55	0.37	BDL*	BDL*
10	04/11/2019	60.78	33.61	19.22	37.54	0.32	BDL*	BDL*
11	06/11/2019	71.22	29.95	11.27	23.58	0.23	BDL*	BDL*
12	11/11/2019	54.61	25.66	13.39	32.47	0.49	BDL*	BDL*
13	13/11/2019	75.36	31.57	16.27	20.22	0.61	BDL*	BDL*
14	18/11/2019	86.32	35.44	8.59	16.65	0.37	BDL*	BDL*
15	20/11/2019	65.61	30.24	18.43	34.3	0.58	BDL*	BDL*
16	25/11/2019	70.67	34.57	9.6	26.5	0.42	BDL*	BDL*
17	27/11/2019	82.6	40.23	20.54	36.35	0.71	BDL*	BDL*
18	02/12/2019	81.66	42.61	21.29	38.32	0.63	BDL*	BDL*
19	04/12/2019	78.2	39.61	19.44	22.4	0.71	BDL*	BDL*
20	09/12/2019	68.46	29.32	12.69	28.43	0.57	BDL*	BDL*
21	11/12/2019	77.36	34.57	7.87	24.37	0.8	BDL*	BDL*
22	16/12/2019	64.51	26.41	15.69	35.45	0.54	BDL*	BDL*
23	18/12/2019	55.78	32.53	22.57	41.51	0.37	BDL*	BDL*
24	23/12/2019	62.47	28.49	14.52	23.54	0.25	BDL*	BDL*
25	25/12/2019	83.41	38.48	9.64	18.62	0.41	BDL*	BDL*
26	30/12/2019	70.69	31.57	11.52	30.45	0.5	BDL*	BDL*
27	02/10/2019	70.65	51.38	16.51	30.48	0.48	BDL*	BDL*
28	01/01/2020	58.22	35.61	20.22	35.67	0.41	BDL*	BDL*
29	06/01/2020	60.54	38.53	10.66	31.69	0.57	BDL*	BDL*
30	08/01/2020	77.53	45.32	18.48	33.51	0.71	BDL*	BDL*

Continue ...

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

**POLLUCON****LABORATORIES PVT. LTD.**Environmental Auditors, Consultants & Analysts.
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ADANI HOUSE								
Sr. No.	Date of Sampling	Particulate Matter (PM10) $\mu\text{g}/\text{m}^3$	Particulate Matter (PM 2.5) $\mu\text{g}/\text{m}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{m}^3$	Oxides of Nitrogen (NO ₂) $\mu\text{g}/\text{m}^3$	Carbon Monoxide as CO mg/m^3	Hydrocarbon as CH ₄ mg/m^3	Benzene as C ₆ H ₆ $\mu\text{g}/\text{m}^3$
31	13/01/2020	61.55	27.66	13.58	20.55	0.27	BDL*	BDL*
32	15/01/2020	53.46	31.53	16.63	19.60	0.81	BDL*	BDL*
33	20/01/2020	72.61	34.53	7.61	23.42	0.88	BDL*	BDL*
34	22/01/2020	69.35	37.49	9.58	15.30	0.46	BDL*	BDL*
35	27/01/2020	56.40	28.53	15.65	30.36	0.60	BDL*	BDL*
36	29/01/2020	64.20	32.53	12.41	21.55	0.64	BDL*	BDL*
37	03/02/2020	57.64	25.41	15.67	25.3	0.33	BDL*	BDL*
38	05/02/2020	71.68	24.53	18.22	30.39	0.48	BDL*	BDL*
39	10/02/2020	64.31	30.28	8.68	15.62	0.24	BDL*	BDL*
40	12/02/2020	56.27	26.41	10.36	18.32	0.61	BDL*	BDL*
41	17/02/2020	61.57	33.57	14.16	23.41	0.4	BDL*	BDL*
42	19/02/2020	58.48	35.36	11.61	31.6	0.55	BDL*	BDL*
43	24/02/2020	70.27	31.53	6.86	20.43	0.71	BDL*	BDL*
44	26/02/2020	52.65	22.57	9.49	28.36	0.42	BDL*	BDL*
45	02/03/2020	70.22	32.2	21.22	26.44	0.47	BDL*	BDL*
46	04/03/2020	57.63	26.82	8.64	17.47	0.39	BDL*	BDL*
47	09/03/2020	77	35.69	19.32	38.32	0.56	BDL*	BDL*
48	11/03/2020	54.24	24.16	17.48	31.64	0.5	BDL*	BDL*
49	16/03/2020	66.18	31.53	12.67	35.63	0.34	BDL*	BDL*
50	18/03/2020	59.37	27.57	10.3	28.73	0.62	BDL*	BDL*
	TEST METHOD	IS:5182(Part 23):Gravimetric CPCB - Method (Vol.I,May-2011)	Gravimetric-CPCB - Method (Vol.I,May-2011)	IS:5182(Part II):Improved West and Gaeke	IS:5182(Part VI):Modified Jacob &Hochheiser (NaOH-NaAsO ₂)	NDIR Digital Gas Analyzer	SOP: HC: GC/GCMS/Gas analyzer	IS 5182 (Part XI):2006/CPCB Method

*Below detection limit

H. T. Shah**Lab Manager****Dr. Arun Bajpai****Lab Manager (Q)**

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RESULTS OF NOISE LEVEL MONITORING**Result of Noise level monitoring [Day Time]**

SR. NO.	Name of Location	WTP- NEAR CETP					
		Result [dB(A) Leq]					
	Sampling Date & Time	04/10/2019	01/11/2019	09/12/2019	02/01/2020	26/02/2020	11/03/2020
1	6:00-7:00	67.3	63.2	65.2	63.2	65.3	65.2
2	7:00-8:00	62.1	67.3	68.8	64.8	68.5	68.3
3	8:00-9:00	69.4	69.4	63.2	65.5	62.3	63.4
4	9:00-10:00	71.3	72.2	62.1	69.6	60.3	66.8
5	10:00-11:00	67.7	66.5	66.8	68.9	63.1	69.4
6	11:00-12:00	65.3	64.3	68.5	66.9	64.8	65.3
7	12:00-13:00	63.8	67.4	66.3	64.8	68.4	61.2
8	13:00-14:00	69.4	68.4	63.2	62.1	65.8	64.2
9	14:00-15:00	63.2	64.2	70.3	60.3	69.5	63.6
10	15:00-16:00	69.5	66.8	69.3	65.3	70.9	68.3
11	16:00-17:00	65.1	68.3	54.2	62.5	67.5	63.2
12	17:00-18:00	63.3	70.8	62.3	68.7	69.4	67.4
13	18:00-19:00	69.7	64.2	65.4	65.3	63.9	69.9
14	19:00-20:00	67.4	63.1	64.8	63.5	66.5	65.3
15	20:00-21:00	64.4	65	67.4	67.8	62.8	62.1
16	21:00-22:00	63.1	65.8	65.3	66.9	60.2	65.9
Day Time Limit*		75 dB(A) Leq					

Result of Noise level monitoring [Night Time]

	Name of Location	WTP- NEAR CETP					
		Result [dB(A) Leq]					
	Sampling Date & Time	04/10/2019	01/11/2019	09/12/2019	02/01/2020	26/02/2020	11/03/2020
1	22:00-23:00	69.5	65.3	60.4	63.4	64.3	67.3
2	23:00-00:00	65.2	60.2	52.1	62.7	67.9	64.3
3	00:00-01:00	62.3	63.1	57.1	68.4	60.3	62.3
4	01:00-02:00	62.8	59.3	53.4	61.4	62.7	66.3
5	02:00-03:00	68.4	63.2	60.4	60.8	65.1	67.3
6	03:00-04:00	65.9	62.1	62.4	65.3	67.4	62.2
7	04:00-05:00	60.2	60.3	61.4	62.4	62.1	60.3
8	05:00-06:00	63.2	61.5	67.4	62.4	60.3	62.2
Night Time Limit*		70 dB(A) Leq					

H. T. Shah

Lab Manager



Dr. ArunBajpai

Lab Manager (Q)

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RESULTS OF NOISE LEVEL MONITORING**Result of Noise level monitoring [Day Time]**

SR. NO.	Name of Location	AIR STRIP					
		Result [dB(A) Leq]					
	Sampling Date & Time	23/10/2019	15/11/2019	25/12/2019	13/01/2020	27/02/2020	--
1	6:00-7:00	52.4	54.6	57.3	54.2	56.3	--
2	7:00-8:00	57.5	59.7	60.2	59.4	61.3	--
3	8:00-9:00	60.4	62.4	62.1	60.3	65.8	--
4	9:00-10:00	68.5	60.4	65.4	63.4	62.1	--
5	10:00-11:00	61.3	67.4	62.1	65.3	60.4	--
6	11:00-12:00	64.4	66.3	68.2	69.5	66.4	--
7	12:00-13:00	66.4	63.6	66.3	63.3	68.3	--
8	13:00-14:00	68.4	60.4	62.4	61.6	65.3	--
9	14:00-15:00	63.1	64.1	66.9	62.9	63.8	--
10	15:00-16:00	60.3	61.4	65.5	60.2	68	--
11	16:00-17:00	65.3	65.2	62.1	62.3	64.2	--
12	17:00-18:00	63.1	66.6	61.2	65.3	60.2	--
13	18:00-19:00	67.4	62.3	63.2	61.2	58.3	--
14	19:00-20:00	63.3	62.8	60.3	63.5	62.5	--
15	20:00-21:00	62.2	60.5	64.3	65.4	60.9	--
16	21:00-22:00	65.2	66.7	67.4	63.3	57.9	--
Day Time Limit*		75 dB(A) Leq					

Result of Noise level monitoring [Night Time]

SR. NO.	Name of Location	AIR STRIP					
		Result [dB(A) Leq]					
	Sampling Date & Time	23/10/2019	15/11/2019	25/12/2019	13/01/2020	27/02/2020	--
1	22:00-23:00	64.2	62.3	60.3	53.4	59.8	--
2	23:00-00:00	60.2	59.4	60.5	56.1	64.3	--
3	00:00-01:00	53.2	60.3	57.3	49.8	56.3	--
4	01:00-02:00	50.3	52.1	52.6	52.7	62.1	--
5	02:00-03:00	48.3	58.3	54.7	57.4	56.3	--
6	03:00-04:00	53.7	55.2	50.4	60.4	53.4	--
7	04:00-05:00	58.1	54.9	59.4	60.8	56.8	--
8	05:00-06:00	55.2	60.3	62.5	61.8	60.4	--
Night Time Limit*		70 dB(A) Leq					

H. T. Shah**Lab Manager****Dr. Arun Bajpai****Lab Manager (Q)**

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Result of Noise level monitoring [Day Time]

SR. NO.	Name of Location	SAMUNDRA TOWNSHIP STP					
		Result [Leq dB(A)]					
	Sampling Date & Time	11/10/2019	18/11/2019	13/12/2019	03/01/2020	02/02/2020	16/03/2020
1	6:00-7:00	66.4	57.3	65.3	58.3	63.2	67.3
2	7:00-8:00	69.2	64.2	70.3	60.4	60.3	68.3
3	8:00-9:00	64.2	62.5	69.3	63.2	65.3	65.2
4	9:00-10:00	71.4	69.4	71.3	62.7	63.1	61.2
5	10:00-11:00	64.2	64.2	66.3	67.4	68.5	66.2
6	11:00-12:00	63.1	69.8	63.2	69.5	66.3	68.4
7	12:00-13:00	69.4	65.3	62.1	64.4	62.4	70.3
8	13:00-14:00	66.1	68.2	68.8	62.4	68.4	69.4
9	14:00-15:00	68.2	62.1	66.3	68.4	62.5	65.3
10	15:00-16:00	62.7	68.5	64.3	64.2	69.6	63.2
11	16:00-17:00	67.8	65.3	63.4	66.8	66.3	66.7
12	17:00-18:00	69.4	64.9	65.5	68.3	63.2	69.4
13	18:00-19:00	66.3	70.4	67.3	65.3	67.4	70.3
14	19:00-20:00	62.5	67.4	63.2	63.4	64.2	68.4
15	20:00-21:00	66.1	61.3	62.3	67.7	60.4	65.1
16	21:00-22:00	68.3	63.2	65.3	64.1	63.6	62.2
Day Time Limit*		75 Leq dB(A)					

Result of Noise level monitoring [Night Time]

SR. NO.	Name of Location	SAMUNDRA TOWNSHIP STP					
		Result [Leq dB(A)]					
	Sampling Date & Time	11/10/2019	04/11/2019	13/12/2019	03/01/2020	02/02/2020	16/03/2020
1	22:00-23:00	64.3	67.3	56.1	62.4	67.1	62.2
2	23:00-00:00	68.4	63.2	62.9	58.2	64.3	60.3
3	00:00-01:00	66.3	66.2	52.1	62.5	60.3	65.2
4	01:00-02:00	62.1	62.8	51.8	62.3	60.6	61.3
5	02:00-03:00	67.3	61.6	58.4	65.2	57.3	60.2
6	03:00-04:00	63.1	64.2	53.1	61.2	61.3	63.1
7	04:00-05:00	61.2	62.7	52.8	63.8	62.5	61.4
8	05:00-06:00	64.3	66.6	56.8	60.9	60.7	64.3
Night Time Limit*		70 Leq dB(A)					

H. T. Shah

Lab Manager



Dr. ArunBajpai

Lab Manager (Q)

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Result of Noise level monitoring [Day Time]

SR. NO.	Name of Location	SAMUNDRA TOWNSHIP CUSTOMER CARE					
		Result [Leq dB(A)]					
	Sampling Date & Time	07/10/2019	04/11/2019	08/12/2019	24/01/2020	20/02/2020	06/03/2020
1	6:00-7:00	55.3	60.7	60.3	56.2	57.4	63.2
2	7:00-8:00	63.2	67.4	65.2	59.4	63.9	67.3
3	8:00-9:00	68.3	65.2	67.6	64.2	67.4	69.3
4	9:00-10:00	66.9	62.1	69.4	60.3	64.2	65.3
5	10:00-11:00	69.4	63.8	65.3	62.5	62.4	67.5
6	11:00-12:00	62.1	68.9	70.3	65.3	68.5	69.5
7	12:00-13:00	65.4	65.4	67.6	63.4	66.3	67.9
8	13:00-14:00	68.4	69.6	65.3	67.4	63.1	64.2
9	14:00-15:00	63.2	67.5	62.4	64.2	61.7	62.1
10	15:00-16:00	61.7	72.5	68.8	62.1	63.2	60.3
11	16:00-17:00	60.3	67.4	71.3	64.3	65.5	65.3
12	17:00-18:00	67.4	66.6	67.3	54.2	60.6	63.8
13	18:00-19:00	63.2	60.3	64.2	62.1	64.6	68.4
14	19:00-20:00	62.6	63.9	65.3	65.7	63.2	65.5
15	20:00-21:00	65.5	67.3	63.1	63.2	66.3	63.2
16	21:00-22:00	61.3	62.4	61.5	64.8	62.8	66.4
Day Time Limit*		75 Leq dB(A)					

Result of Noise level monitoring [Night Time]

SR. NO.	Name of Location	SAMUNDRA TOWNSHIP CUSTOMER CARE					
		Result [Leq dB(A)]					
	Sampling Date & Time	07/10/2019	06/11/2019	08/12/2019	24/01/2020	20/02/2020	06/03/2020
1	22:00-23:00	68.4	65.3	67.3	58.4	64.2	64.2
2	23:00-00:00	65.5	67.3	64.2	60.4	60.2	60.3
3	00:00-01:00	60.3	60.2	60.4	59.6	56.3	63.2
4	01:00-02:00	55.3	57.3	62.4	63.4	60.3	58.3
5	02:00-03:00	59.3	53.1	61.3	61.4	54.3	55.3
6	03:00-04:00	56.3	55.7	60.3	63.2	50.3	60.3
7	04:00-05:00	51.3	62.1	60.1	61.7	57.3	57.4
8	05:00-06:00	58.5	65.3	62.6	60.3	63.2	58.3
Night Time Limit*		70 Leq dB(A)					

H. T. Shah

Lab Manager



Dr. ArunBajpai

Lab Manager (Q)

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Result of Noise level monitoring [Day Time]

SR. NO.	Name of Location	ADANI HOUSE					
		Result [Leq dB(A)]					
	Sampling Date & Time	02/10/2019	22/11/2019	02/12/2019	22/01/2020	05/02/2020	04/03/2020
1	6:00-7:00	64.2	64.2	65.3	66.3	65.3	64.8
2	7:00-8:00	68.4	67.9	64.8	68.3	67.8	67.4
3	8:00-9:00	74.2	70.3	68.2	69.2	62.1	70.2
4	9:00-10:00	67.3	64.1	70.2	65.2	68.3	68.2
5	10:00-11:00	70.2	66.8	69.5	63.6	65.3	65.2
6	11:00-12:00	71.3	69.4	67.3	66.2	68.3	62.3
7	12:00-13:00	65.3	71.3	63.2	61.3	67.6	67.4
8	13:00-14:00	68.2	65.3	66.7	67.4	70.4	63.2
9	14:00-15:00	63.1	63.8	67.2	64.6	65.3	61.3
10	15:00-16:00	61.4	68.5	71.2	70.3	64.1	67.3
11	16:00-17:00	64.2	68.8	69.2	65.3	62.9	69.4
12	17:00-18:00	68.4	64.3	64.2	63.5	66.3	72.2
13	18:00-19:00	68.1	63.2	62.4	68.3	64.2	67.3
14	19:00-20:00	66.4	62.7	65.3	70.2	67.4	65.3
15	20:00-21:00	69.8	65.5	68.3	67.5	64.3	63.1
16	21:00-22:00	63.2	67.5	64.2	66.9	65.7	65.3
Day Time Limit*		75 Leq dB(A)					

Result of Noise level monitoring [Night Time]

SR. NO.	Name of Location	ADANI HOUSE					
		Result [Leq dB(A)]					
	Sampling Date & Time	02/10/2019	22/11/2019	02/12/2019	22/01/2020	05/02/2020	04/03/2020
1	22:00-23:00	69.4	67.4	65.3	66.2	68.3	67.4
2	23:00-00:00	64.2	64.3	68.3	63.4	65.3	64.2
3	00:00-01:00	62.1	65.4	63.9	63.2	67.2	60.3
4	01:00-02:00	60.4	64.1	68.5	62.2	60.3	65.3
5	02:00-03:00	65.5	61.6	64.3	65.3	62.6	66.1
6	03:00-04:00	68.5	66.9	62.1	60.3	58.4	63.2
7	04:00-05:00	67.4	64.7	64.3	58.3	60.3	61.5
8	05:00-06:00	63.2	65.1	62.6	60.2	63.1	64.3
Night Time Limit*		70Leq dB(A)					

H. T. Shah

Lab Manager



Dr. ArunBajpai

Lab Manager (Q)

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RESULTS OF STP WATER OUTLET

SR. NO	TEST PARAMETERS	Unit	ADANI HOUSESTP OUTLET							
			October-19		November-19		December-19		GPCB Permissible Limit	TEST METHOD
			05/10/2019	14/10/2019	05/11/2019	20/11/2019	06/12/2019	16/12/2019		
1	pH	--	7.30	7.38	7.41	7.56	7.10	7.54	--	IS3025(P11)83Re.02
2	Total Suspended Solids	mg/L	21	15	19	18	15	13	30	IS3025(P17)84Re.02
3	BOD (3 days @ 270 C)	mg/L	14	19	16	17	14	19	20	IS 3025 (P44)1993Re.03Edition2.1
4	Residual Chlorine	mg/L	0.6	0.6	0.6	0.8	0.8	0.6	Min 0.5	APHA(22ndEdi)4500 Cl
5	Fecal Coliform	MPN/100 ml	350	220	540	280	430	350	< 1000	APHA (22ndEdi) 9221 C&E

SR. NO	TEST PARAMETERS	Unit	ADANI HOUSESTP OUTLET							
			January-20		February-20		March-20		GPCB Permissible Limit	TEST METHOD
			03/01/2020	17/01/2020	04/02/2020	17/02/2020	03/03/2020	18/03/2020		
1	pH	--	7.35	7.02	7.48	7.69	8.10	7.92	--	IS3025(P11)83Re.02
2	Total Suspended Solids	mg/L	26	19	22	15	28	25	30	IS3025(P17)84Re.02
3	BOD (3 days @ 270 C)	mg/L	17	15	19	14	14	17	20	IS 3025 (P44)1993Re.03Edition2.1
4	Residual Chlorine	mg/L	0.8	0.5	0.6	0.6	0.8	0.8	Min 0.5	APHA(22ndEdi)4500 Cl
5	Fecal Coliform	MPN/100 ml	540	430	350	540	240	50	< 1000	APHA (22ndEdi) 9221 C&E

H. T. Shah

Lab Manager



Dr. ArunBajpai

Lab Manager (Q)

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RESULTS OF STP WATER OUTLET

SR. NO	TEST PARAMETERS	Unit	AMSIPL SAMUNDRA TOWNSHIP STP OUTLET							
			October-19		November-19		December-19		GPCB Permissible Limit	TEST METHOD
			03/10/2019	14/10/2019	05/11/2019	20/11/2019	05/12/2019	16/12/2019		
1	pH	--	7.30	7.52	7.17	7.61	7.21	7.69	--	IS3025(P11)83Re.02
2	Total Suspended Solids	mg/L	20	19	23	16	23	19	30	IS3025(P17)84Re.02
3	BOD (3 days @ 270 C)	mg/L	12	15	15	18	15	11	20	IS 3025 (P44)1993Re.03Edition 2.1
4	Residual Chlorine	mg/L	0.6	0.5	0.6	0.6	0.4	0.8	Min 0.5	APHA(22ndEdi)4500 Cl
5	Fecal Coliform	MPN/100 ml	280	170	220	210	240	130	< 1000	APHA (22ndEdi) 9221 C&E

SR. NO	TEST PARAMETERS	Unit	AMSIPL SAMUNDRA TOWNSHIP STP OUTLET							
			January-20		February-20		March-20		GPCB Permissible Limit	TEST METHOD
			03/01/2020	17/01/2020	04/02/2020	17/02/2020	03/03/2020	18/03/2020		
1	pH	--	8.07	6.95	7.49	7.99	7.79	7.70	--	IS3025(P11)83Re.02
2	Total Suspended Solids	mg/L	20	23	17	12	23	25	30	IS3025(P17)84Re.02
3	BOD (3 days @ 270 C)	mg/L	13	8.0	12	15	18	16	20	IS 3025 (P44)1993Re.03Edition 2.1
4	Residual Chlorine	mg/L	0.3	0.6	0.8	0.6	0.6	0.7	Min 0.5	APHA(22ndEdi)4500 Cl
5	Fecal Coliform	MPN/100 ml	350	140	150	120	140	110	< 1000	APHA (22ndEdi) 9221 C&E

H. T. Shah

Lab Manager



Dr. ArunBajpai

Lab Manager (Q)

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RESULT OF CETP OUTLET

SR. NO.	TEST PARAMETERS	UNIT	CETP OUTLET							GPCB Permissible Limit CETP OUTLET	TEST METHOD
			Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Feb-20	March-20		
1	pH	--	7.65	7.55	7.67	7.79	7.75	7.83	8.01	6 to 9	IS3025(P11)8 3Re.02
2	Temperature	°C	31.8	31.4	31.3	31	29.2	29.9	31.1	Shall Not exceed more than 5 °C above ambient water temperature	IS3025(P9)84 Re.02
3	Colour	Co-pt	30	20	30	25	40	30	40	100	IS3025(P4)83 Re.02
4	Total Suspended Solids	mg/L	38	24	33	20	29	37	28	100	IS3025(P17)8 4Re.02
5	Oil & Grease	mg/L	Not Detect ed	Not Detect ed	Not Detect ed	Not Detect ed	Not Detect ed	Not Detect ed	Not Detect ed	10	APHA(22 nd Edi) 5520D
6	Phenolic Compound	mg/L	Not Detect ed	Not Detect ed	Not Detect ed	Not Detect ed	Not Detect ed	Not Detect ed	Not Detect ed	1	IS3025(P43)9 2Re.03
7	Fluorides	mg/L	0.28	0.25	0.38	0.55	0.60	0.48	0.55	2	APHA(22 nd Edi) 4500 F D SPANDS
8	Iron	mg/L	0.088	0.076	0.098	0.065	0.048	0.033	0.025	3	AAS APHA(22 nd Edi) 3111 B
9	Zinc as Zn	mg/L	0.12	0.15	0.11	0.096	0.19	0.18	0.12	15	AAS APHA(22 nd Edi) 3111 B
10	Trivalent Chromium	mg/L	0.18	0.23	0.16	0.11	0.075	0.23	0.16	2	AAS APHA(22 nd Edi) 3111 B
11	Sulphide as S	mg/L	0.88	0.6	0.8	0.5	0.24	0.6	0.4	2	APHA(22 nd Edi) 4500-S
12	Ammonical Nitrogen as NH ₃	mg/L	22.4	20	20	16	12	18	21	50	IS3025(P34)8 8Cla.2.3
13	BOD (3 Days @ 27°C)	mg/L	38	29	56	44	32	44	40	100	IS 3025 (P44)1993Re. 03Edition2.1
14	COD	mg/L	172	136	202	150	164	209	186	250	APHA(22 nd Edi) 5520-D Open Reflux
15	Chloride as Cl	mg/L	458	490	712	699	690	713	701	1000	IS3025(P32)8 8Re.99
16	Sulphate as SO ₄	mg/L	82	93	119	94	78	110	129	1000	APHA(22 nd Edi) 4500 SO ₄ E
17	Total Dissolved Solids	mg/L	1288	1316	1904	1544	1900	1982	1964	2100	IS3025(P16)8 4Re.02
18	Total Residual Chlorine	mg/L	0.8	0.6	0.8	Not Detect ed	Not Detect ed	Not Detect ed	Not Detect ed	1	APHA(22 nd Edi) 4500 Cl
19	Copper as Cu	mg/L	Not Detect ed	Not Detect ed	Not Detect ed	Not Detect ed	Not Detect ed	Not Detect ed	Not Detect ed	3	AAS APHA(22 nd Edi) 3111 B

*Below Detection Limit

H. T. Shah

Lab Manager



Dr. ArunBajpai

Lab Manager (Q)



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RESULTS OF BORE HOLE WATER

SR. NO	TEST PARAMETERS	UNIT	RESULTS			TEST METHOD
			OPP. DRUB RAILWAY STATION	NEAR PUB BUILDING	NEAR CETP MAIN GATE	
			06/12/2019	06/12/2019	06/12/2019	
1	pH	--	7.6	7.61	8.1	IS3025(P11)83Re.02
2	Salinity	ppt	18.9	7.9	3.5	APHA 2520B
3	Oil & Grease	mg/L	Not Detected	Not Detected	Not Detected	APHA(22ndEdi)5520D
4	Hydrocarbon	mg/L	Not Detected	Not Detected	Not Detected	GC/GC-MS
5	Lead as Pb	mg/L	Not Detected	0.037	0.046	AAS APHA(22ndEdi)3111 B
6	Arsenic as As	mg/L	Not Detected	Not Detected	Not Detected	AAS APHA 3114 B
7	Nickel as Ni	mg/L	Not Detected	Not Detected	Not Detected	AAS APHA(22ndEdi)3111 B
8	Total Chromium as Cr	mg/L	0.036	0.072	0.037	AAS 3111B
9	Cadmium as Cd	mg/L	Not Detected	Not Detected	Not Detected	AAS APHA(22ndEdi)3111 B
10	Mercury as Hg	mg/L	Not Detected	Not Detected	Not Detected	AAS APHA- 3112 B
11	Zinc as Zn	mg/L	0.39	0.089	0.068	AAS APHA(22ndEdi)3111 B
12	Copper as Cu	mg/L	Not Detected	Not Detected	Not Detected	AAS APHA(22ndEdi)3111 B
13	Iron as Fe	mg/L	0.39	0.098	0.15	AAS APHA(22ndEdi)3111 B
14	Insecticides/Pesticides	mg/L	Absent	Absent	Absent	GC/GC-MS
15	Depth of Water Level from Ground Level	meter	2.6	2.4	2.50	--

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

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RESULTS OF D.G. STACK MONITORING

			23/11/2019	14/12/2019		
SR. NO.	TEST PARAMETERS	Unit	WTP-CETP	Adani Hospital	GPCB Limit	Test Method
			D.G. Set (380 KVA)	D.G. Set (500 KVA)		
1	Particulate Matter	mg/Nm ³	17.81	20.17	150	IS:11255 (Part-I):1985
2	Sulphur Dioxide	ppm	5.50	4.63	100	IS:11255 (Part-II):1985
3	Oxide of Nitrogen	ppm	29.47	35.74	50	IS:11255 (Part-VII):2005
4	Carbon Monoxide	mg/m ³	9.08	17.17	Not Specified	Digital Gas Analyzer
5	Hydro Carbon NMHC	ppm	Not Detected	Not Detected	Not Specified	Gas Chromatography

*DG sets are used as standby, so stack monitoring is done on quarterly basis. Results on 15 % O₂ Correction when Oxygen is greater than 15 %

			15/03/2020		
SR. NO.	TEST PARAMETERS	Unit	Adani House	GPCB Limit	Test Method
			D.G. Set (750 KVA)		
1	Particulate Matter	g/kw-hr	0.0326	0.3	IS:11255 (Part-1) : 1985
2	Oxide of Nitrogen	g/kw-hr	0.0970	9.2	IS: 11255 (Part-7) : 2005
3	Hydro Carbon NMHC	g/kw-hr	Not Detected	1.3	Gas Chromatography
4	Carbon Monoxide	g/kw-hr	0.0235	3.5	Digital Gas Analyzer
5	Sulphur Dioxide	Kg/hr	0.015	1.8	IS:11255 (Part-2):1985

*DG sets are used as standby, so stack monitoring is done on quarterly basis. Results on 15 % O₂ Correction when Oxygen is greater than 15 %**H. T. Shah****Lab Manager****Dr. Arun Bajpai****Lab Manager (Q)**



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Minimum Detection Limit [MDL]

Water parameter(mg/L)		
Sr. No.	Test parameter	MDL
1	pH	2
2	Temperature	2
3	Colour	2
4	Total Suspended Solids	2
5	Oil & Grease	2
6	Phenolic Compound	0.005
7	Fluorides	0.05
8	Iron	0.01
9	Zinc as Zn	0.05
10	Trivalent Chromium	0.05
11	Sulphide as S	0.1
12	Ammonical Nitrogen as NH ₃	0.2
13	BOD (3 Days @ 27 °C)	1
14	COD	5
15	Chloride as Cl	1
16	Sulphate as SO ₄	1
17	Total Dissolved Solids	10
18	Total Residual Chlorine	0.2
19	Copper as Cu	0.01

Borehole Water Parameters			
SR. NO.	TEST PARAMETERS	UNIT	MDL
1	pH	--	2
2	Salinity	mg/L	0.5
3	Oil & Grease	mg/L	2
4	Hydrocarbon	mg/L	0.01
5	Lead as Pb	mg/L	0.01
6	Arsenic as As	mg/L	0.001
7	Nickel as Ni	mg/L	0.02
8	Total Chromium as Cr	mg/L	0.025
9	Cadmium as Cd	mg/L	0.002
10	Mercury as Hg	mg/L	0.005
11	Zinc as Zn	mg/L	0.06
12	Copper as Cu	mg/L	0.01
13	Iron as Fe	mg/L	0.1
14	Insecticides/Pesticides	mg/L	0.1

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)



POLLUCON LABORATORIES PVT. LTD.

Environmental Auditors, Consultants & Analysts.
Cleaner Production / Waste Minimization Facilitator

Recognised by MoEF, New Delhi Under Sec. 12 of Environmental (Protection) Act-1986

Ambient Air Parameters		
Sr. No.	Test Parameter	MDL
1	Particulate Matter (PM ₁₀) (µg/m ³)	10
2	Particulate Matter (PM 2.5) (µg/m ³)	10
3	Sulphur Dioxide (SO ₂) (µg/m ³)	5
4	Oxides of Nitrogen (µg/m ³)	5
5	Hydrogen Sulphide as H ₂ S (µg/m ³)	6

STP Water parameter(mg/L)		
Sr. No.	Test parameter	MDL
1	pH	2
2	Total Suspended Solids (mg/L)	2
3	BOD (3 days @ 270 C) (mg/L)	1
4	Residual Chlorine (mg/L)	0.2
5	Fecal Coliform (MPN INDEX/100 mL)	1.8

Stack parameter		
Sr.No.	Test parameter	MDL
1	Particulate Matter (mg/Nm ³)	10
2	Sulphur Dioxide (ppm)	1.52
3	Oxides of Nitrogen (ppm)	2.65
4	Carbon Monoxide (mg/Nm ³)	0.1
5	Haydro Carbon NMHC(ppm)	1.0

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

"HALF YEARLY ENVIRONMENTAL MONITORING REPORT"

FOR



**BORE HOLE WATER
ADANI PORTS AND SPECIAL ECONOMIC ZONE LIMITED
TAL: MUNDRA, KUTCH, MUNDRA – 370 421**

**MONITORING PERIOD:
OCTOBER 2019 TO MARCH 2020**

PREPARED BY:



POLLUCON LABORATORIES PVT.LTD.

**PLOT NO.5/6 "POLLUCON HOUSE", OPP. BALAJI INDUSTRIAL SOCIETY,
OLD SHANTINATH SILK MILL LANE, NEAR GAYTRI FARSAN MART,
NAVJIVAN CIRCLE, UDHANA MAGDALLA ROAD, SURAT-395007.
PHONE/FAX – (+91 261) 2455 751, 2601 106, 2601 224.
E-mail: pollucon@gmail.com Web: www.polluconlab.com**

TC - 5945

ISO 9001:2015

ISO 14001:2015

OHSAS 18001:2007

RESULTS OF BORE HOLE WATER

SR. NO	TEST PARAMETERS	UNIT	RESULTS			TEST METHOD
			OPP. DRUB RAILWAY STATION	NEAR PUB BUILDING	NEAR CETP MAIN GATE	
	Sampling Date		06/12/2019	06/12/2019	06/12/2019	
1	pH	--	7.6	7.61	8.1	IS3025(P11)83Re.02
2	Salinity	ppt	18.9	7.9	3.5	APHA 2520B
3	Oil & Grease	mg/L	Not Detected	Not Detected	Not Detected	APHA(22ndEdi)5520D
4	Hydrocarbon	mg/L	Not Detected	Not Detected	Not Detected	GC/GC-MS
5	Lead as Pb	mg/L	Not Detected	0.037	0.046	AAS APHA(22ndEdi)3111 B
6	Arsenic as As	mg/L	Not Detected	Not Detected	Not Detected	AAS APHA 3114 B
7	Nickel as Ni	mg/L	Not Detected	Not Detected	Not Detected	AAS APHA(22ndEdi)3111 B
8	Total Chromium as Cr	mg/L	0.036	0.072	0.037	AAS 3111B
9	Cadmium as Cd	mg/L	Not Detected	Not Detected	Not Detected	AAS APHA(22ndEdi)3111 B
10	Mercury as Hg	mg/L	Not Detected	Not Detected	Not Detected	AAS APHA- 3112 B
11	Zinc as Zn	mg/L	0.39	0.089	0.068	AAS APHA(22ndEdi)3111 B
12	Copper as Cu	mg/L	Not Detected	Not Detected	Not Detected	AAS APHA(22ndEdi)3111 B
13	Iron as Fe	mg/L	0.39	0.098	0.15	AAS APHA(22ndEdi)3111 B
14	Insecticides/Pesticides	mg/L	Absent	Absent	Absent	GC/GC-MS
15	Depth of Water Level from Ground Level	meter	2.6	2.4	2.50	--

*BDL: Below Detection Limit



H. T. Shah

Lab Manager




Dr. Arun Bajpai

Lab Manager (Q)

Borehole Water Parameters			
SR. NO.	TEST PARAMETERS	UNIT	MDL
1	pH	--	2
2	Salinity	mg/L	0.5
3	Oil & Grease	mg/L	2
4	Hydrocarbon	mg/L	0.01
5	Lead as Pb	mg/L	0.01
6	Arsenic as As	mg/L	0.001
7	Nickel as Ni	mg/L	0.02
8	Total Chromium as Cr	mg/L	0.025
9	Cadmium as Cd	mg/L	0.002
10	Mercury as Hg	mg/L	0.005
11	Zinc as Zn	mg/L	0.06
12	Copper as Cu	mg/L	0.01
13	Iron as Fe	mg/L	0.1
14	Insecticides/Pesticides	mg/L	0.1



H. T. Shah

Lab Manager




Dr. Arun Bajpai

Lab Manager (Q)

"HALF YEARLY ENVIRONMENTAL MONITORING REPORT"

FOR



**ADANI MUNDRA SEZ INFRASTRUCTURE PVT. LTD.
TAL: MUNDRA, KUTCH, MUNDRA – 370 421**

**MONITORING PERIOD:
APRIL 2019 TO SEPTEMBER 2019**

PREPARED BY:



POLLUCON LABORATORIES PVT.LTD.

**PLOT NO.5/6 "POLLUCON HOUSE", OPP. BALAJI INDUSTRIAL SOCIETY,
OLD SHANTINATH SILK MILL LANE, NEAR GAYTRI FARSAN MART,
NAVJIVAN CIRCLE, UDHANA MAGDALLA ROAD, SURAT-395007.
PHONE/FAX – (+91 261) 2455 751, 2601 106, 2601 224.
E-mail: pollucon@gmail.com Web: www.polluconlab.com**

TC - 5945

ISO 9001:2015

ISO 14001:2015

OHSAS 18001:2007

**POLLUCON**

LABORATORIES PVT. LTD.

Environmental Auditors, Consultants & Analysts
Cleaner Production / Waste Minimization Facilitator

Recognised by MoEF, New Delhi Under Sec. 12 of Environmental (Protection) Act-1986

RESULTS OF SOIL

SR. NO.	TEST PARAMETERS	UNIT	RESULT			
			07/12/2019			
			Pub Building	Dhrub	Near Flyover Bridge	CETP
1	pH	--	8.84	8.96	8.34	8.21
2	Nitrogen as N	%	0.026	0.036	0.046	0.013
3	Phosphorus as P	mg/kg	164	84	156	290
4	Potassium as K	mg/kg	240	89	61	84
5	Baron as B	mg/kg	1.76	1.68	1.26	2.3
6	Calcium as Ca	mg/kg	410	520	406	646
7	Magnesium as Mg	mg/kg	584	568	518	580
8	Iron as Fe	%	0.3	0.46	0.6	0.42
9	Moisture	%	10.26	10.23	9.45	11.7
10	Organic Matter	%	0.14	0.12	0.23	0.12
11	CEC	meq/100 gm	9.2	9.5	10.2	8.3
12	TVC	CFU/gm	5.4 x 10 ⁴	3.1 x 10 ³	6.4 x 10 ³	4.7 x 10 ⁴
A	Heavy Metals					
13	Cadmium as Cd	mg/kg	Not Detected	Not Detected	Not Detected	Not Detected
14	Thorium as Th	mg/kg	Not Detected	Not Detected	Not Detected	Not Detected
15	Antimony as Sb	mg/kg	Not Detected	Not Detected	Not Detected	Not Detected
16	Arsenic as As	mg/kg	Not Detected	Not Detected	Not Detected	Not Detected
17	Lead as Pb	mg/kg	Not Detected	Not Detected	Not Detected	3.6
18	Chromium (VI) as Cr	mg/kg	Not Detected	Not Detected	2.3	4.3
19	Cobalt as Co	mg/kg	10.76	12.9	16.26	25.8
20	Copper as Cu	mg/kg	19.34	10.18	52.32	79.18
21	Nickel as Ni	mg/kg	11.71	26.35	23.15	13.8
22	Manganese as Mn	mg/kg	271	370	234	787
23	Vanadium as V	mg/kg	9.46	10.4	10.8	8.26

Not Detected [Minimum Detection Limit for Solid Waste/Soil sample prepared as per USEPA method 3050 B: Cadmium as Cd: 1.0 mg/kg, Thorium as Th: 0.1 mg/kg, Antimony as Sb: 1.0 mg/kg, Arsenic as As: 1.0 mg/kg, Lead as Pb: 1.0 mg/kg, Chromium (VI) as Cr: 0.1 mg/kg, Cobalt as Co: 1.0 mg/kg]

H. T. Shah**Lab Manager****Dr. Arun Bajpai****Lab Manager (Q)**

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 - 2019

Name of Location : Village - Siracha

ID No. : URA/ID/A-19/10/001

Sr. No.	Sampling Date	Concentration in Ambient Air (µg /m ³)					
		PM ₁₀ µg/M ³	PM _{2.5} µg/M ³	Sulphur Dioxide (SO ₂)µg/M ³	Nitrogen Dioxide (NO ₂)µg/M ³	Ozone (O ₃)µg/M ³	Mercury (Hg) µg/M ³
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	01/10/2019	67.7	27.2	17.6	26.7		--
2.	04/10/2019	70.9	28.8	12.5	21.5		--
3.	08/10/2019	62.6	24.0	13.3	20.3		--
4.	11/10/2019	53.4	22.0	11.5	13.6		--
5.	15/10/2019	61.7	18.3	20.7	22.5	16.8	BDL
6.	18/10/2019	60.1	20.7	8.6	22.4		--
7.	21/10/2019	67.3	21.9	18.5	18.7		--
8.	23/10/2019	68.6	22.9	19.4	24.6		--
Average		64.0	23.2	15.3	21.3		

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)

(7-2-1)

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 2019

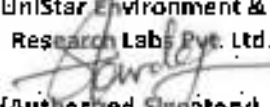
Name of Location : Village - Kancagara

ID No. : URA/ID/A-19/10/002

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.	01/10/2019	63.1	25.6	12.5	20.3		--
2.	04/10/2019	65.0	21.5	19.2	24.1		--
3.	08/10/2019	60.9	20.3	14.3	19.6		--
4.	11/10/2019	71.7	24.8	15.7	13.5		--
5.	15/10/2019	60.2	26.5	17.3	23.7	18.9	BDL
6.	18/10/2019	55.9	22.0	20.3	16.7		--
7.	21/10/2019	56.0	21.3	10.6	22.6		--
8.	23/10/2019	62.0	31.8	17.2	28.4		--
Average		61.9	24.2	15.9	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 5), 2006, Hg: AAS by VGA Method -3112 B APHA 22 Edition & Hg: 2 ppb O₃: IS - 5182 (Part 9) 2000 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 : September - 2019

Name of Location : Village - Wandh

ID No. : URA/ID/A-19/09/003

Sr. No.	Sampling Date	Concentration in Ambient Air (µg /m ³)					
		PM ₁₀ µg/M ³	PM _{2.5} µg/M ³	Sulphur Dioxide (SO ₂)µg/M ³	Nitrogen Dioxide (NO ₂)µg/M ³	Ozone (O ₃)µg/M ³	Mercury (Hg) µg/M ³
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	01/10/2019	72.2	34.3	15.4	17.6		--
2.	04/10/2019	64.5	27.2	15.3	19.3		--
3.	08/10/2019	62.1	21.3	11.9	26.3		--
4.	11/10/2019	72.4	37.6	13.5	21.5		--
5.	14/10/2019	68.2	26.7	23.1	24.3	21.1	BDL
6.	18/10/2019	70.5	29.4	17.3	26.2		--
7.	21/10/2019	73.1	30.4	15.8	23.5		--
8.	23/10/2019	63.5	25.1	20.6	21.6		--
Average		68.3	28.3	16.6	22.5		--

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 R APHA 22 Edison & Hg: 2 ppb O₃: IS - 5182 (Part 9) 2009 Ozone QD limit: 5 $\mu\text{g}/\text{m}^3$

UniStar Environment &
 Research Labs Pvt. Ltd.

(Authorized Signatory)

ISO 14001:2015 Recognized Environmental
 Laboratory under the ISO 14001:2015

 ISO 9001:2015 Recognized QA
 Organization under the ISO 9001:2015

 GPCB (Gujarat Pollution Control Board)
 Approved Laboratory (Schedule II)

 ISO 14001:2015
 Certified Company

 ISO 9001:2015
 Certified Company

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 : November 2019

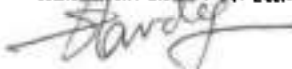
Name of Location : Village Siracha

ID No. : URA/10/A-19/11/001

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.	05/11/2019	62.0	25.7	11.8	17.3		--
2.	08/11/2019	61.5	21.7	16.7	24.6		--
3.	13/11/2019	59.7	20.6	15.2	21.8		--
4.	15/11/2019	68.7	25.7	13.5	20.3		--
5.	18/11/2019	61.4	33.4	17.5	22.9	9.3	BDL
6.	22/11/2019	64.7	23.4	19.1	25.4		
7.	26/11/2019	72.1	32.1	23.5	23.7		
8.	29/11/2019	68.6	25.8	15.8	20.7		--
Average		64.8	26.2	16.6	22.1		--

Analysis Method Reference: SPM - IS: 5182 (Part 1), 1999, PM₁₀ - IS: 5182 (Part 2), 2006, PM_{2.5} - Guideline by CPCB (Vol-1), SO₂ - IS: 5182 (Part 2), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGM Method - 3112 B APFA 22 - dison & 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 & Sracha,
Tal. Mundra, Dist. Kutch
GUJARAT - 370 435.

Month of Monitoring : November - 2019

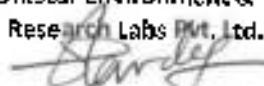
Name of Location : Village - Kandagara

ID No. : URA/TO/A-19/11/002

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.	05/11/2019	70.0	29.1	18.2	27.3		--
2.	08/11/2019	78.2	23.6	23.4	22.7		--
3.	13/11/2019	63.6	26.5	14.5	18.2		--
4.	15/11/2019	63.5	26.3	20.3	26.3		--
5.	19/11/2019	73.2	35.7	14.2	21.1	13.7	DDL
6.	22/11/2019	63.1	32.1	8.6	20.5		
7.	26/11/2019	58.4	29.7	16.4	24.8		
8.	29/11/2019	60.9	22.3	13.9	22.8		-
Average		66.4	28.0	16.2	23.0		--

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 5), 2006, Hg: AAS by VGA Method -B11.2 B APHA 72 Edison & Hg: 2 ppb O₃: IS - 5182 (Part 9) 2009 Ozone HMI 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 - 370 415.

Month of Monitoring : November - 2019

Name of Location : Village - Wandh

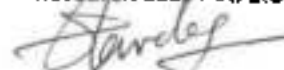
ID No. : URA/ID/A-19/11/003

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 (3WA for 24 hrs.)		100	60	80	80	100	N.A.
1.	05/11/2019	73.2	36.5	21.4	25.7		--
2.	08/11/2019	68.2	27.3	23.6	22.7		--
3.	13/11/2019	76.4	34.6	14.8	22.4		
4.	15/11/2019	62.3	28.9	18.2	26.5		--
5.	19/11/2019	69.9	29.1	14.4	22.9	27.8	BDL
6.	22/11/2019	72.4	39.5	23.5	24.7		--
7.	25/11/2019	65.2	26.6	17.6	19.4		--
8.	29/11/2019	78.4	40.5	19.3	23.2		--
Average		70.8	32.9	19.1	23.4		--

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)

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 : December - 2019

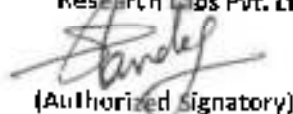
Name of Location : Village - Siracha

ID No. : URA/ID/A-19/12/001

Sr. No.	Sampling Date	Concentration in Ambient Air ($\mu\text{g}/\text{m}^3$)					
		PM ₁₀ $\mu\text{g}/\text{M}^3$	PM ₂₅ $\mu\text{g}/\text{M}^3$	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.	02/12/2019	70.3	35.7	13.8	17.3		--
2.	06/12/2019	66.9	23.8	19.5	23.2		--
3.	10/12/2019	62.7	25.5	18.2	27.8		--
4.	14/12/2019	64.0	23.2	7.6	15.1		--
5.	17/12/2019	54.9	23.5	14.5	25.3	15.6	BDL
6.	19/12/2019	72.3	27.3	18.3	19.5		--
7.	24/12/2019	65.4	26.3	15.1	27.5		--
8.	27/12/2019	63.3	21.5	13.4	22.2		--
Average		65.0	25.8	15.1	22.2		--

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: AA5 by VGA Method - 3112 B-A-211A 22 Ed'son & Hg: 2 $\mu\text{g}/\text{m}^3$ O₃ - IS: 5182 (Part 9) 2006 Ozone 3DL limit: 5 $\mu\text{g}/\text{m}^3$

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Monthly Average Report
Ambient Air Quality Monitoring

Name and Address of Client : M/s. Adani Power (Mundra) Ltd.
Village: Kundu & Sirachs,
Tal. Mundra, Dist.: Kutch,
GUJARAT - 370 135.

Month of Monitoring : December - 2019

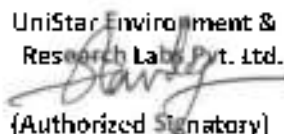
Name of Location : Village - Kandagara

ID No. : URA/10/A-19/12/002

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.	02/12/2019	60.9	27.8	18.2	27.3		--
2.	06/12/2019	57.1	29.3	16.8	28.3		--
3.	10/12/2019	77.0	30.8	18.3	24.1		--
4.	13/12/2019	68.6	21.2	24.5	17.7		--
5.	17/12/2019	58.7	23.3	11.6	23.6	15.2	BUL
6.	19/12/2019	67.9	30.5	21.7	21.4		--
7.	24/12/2019	70.9	32.0	9.3	24.8		--
8.	27/12/2019	69.6	30.2	15.4	20.7		--
Average		66.0	28.1	17.0	23.5		--

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

Analysis Method Reference: SPM - IS: 5132 (Part 4), 1999, PM₁₀ - IS: 5182 (Part 23), 2006, PM_{2.5} - Guidelines by CPCB (Vol.-1), SO₂ - IS: 5182 (Part 2), 2006, NO₂ - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method - IS: 112 B A 7 HA 22 Edison & Hg: 2 ppb O₃: IS - 5132 (Part 5) 2009 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

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Monthly Average Report Ambient Air Quality Monitoring

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

Month of Monitoring : December - 2019

Name of Location : Village - Wardh

ID No. : URA/ID/A-19/12/003

Sr. No.	Sampling Date	Concentration in Ambient Air (µg / m ³)					
		PM ₁₀ µg/m ³	PM _{2.5} µg/m ³	Sulphur Dioxide (SO ₂) µg/m ³	Nitrogen Dioxide (NO ₂) µg/m ³	Ozone (O ₃) µg/m ³	Mercury (Hg) µg/m ³
GPCR Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	02/12/2019	78.1	34.2	20.4	22.7		--
2.	06/12/2019	73.3	32.7	20.6	28.3		--
3.	10/12/2019	68.5	39.2	18.2	25.1		--
4.	13/12/2019	60.1	29.6	23.5	17.4		--
5.	17/12/2019	65.9	33.3	12.1	27.9	22.5	BDL
6.	19/12/2019	76.2	36.5	20.8	22.7		
7.	24/12/2019	74.9	31.6	22.4	26.5		--
8.	27/12/2019	73.2	32.7	16.3	20.2		
Average		71.3	33.9	19.3	23.9		--

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 BFL limit: 5 $\mu\text{g}/\text{m}^3$

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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 : January - 2020

Name of Location : Village - Siracha

ID No. : URA/ID/A-20/01/001

Sr. No.	Sampling Date	Concentration in Ambient Air (µg /m ³)					
		PM ₁₀ µg/M ³	PM _{2.5} µg/M ³	Sulphur Dioxide (SO ₂)µg/M ³	Nitrogen Dioxide (NO ₂)µg/M ³	Ozone (O ₃)µg/M ³	Mercury (Hg) µg/M ³
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	03/01/2020	70.5	24.0	17.3	25.7		--
2.	07/01/2020	59.5	23.1	11.2	19.3	11.3	BDL
3.	10/01/2020	62.1	20.8	15.5	18.3		--
4.	15/01/2020	64.6	23.3	18.3	28.1		--
5.	17/01/2020	75.8	19.9	12.4	23.4		--
6.	21/01/2020	70.6	26.8	17.0	19.6		--
7.	24/01/2020	60.9	23.0	13.3	24.7		--
8.	28/01/2020	64.5	27.6	17.4	22.1		--
Average		67.2	23.6	14.8	22.7		--

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 DDL limit: 5 $\mu\text{g}/\text{m}^3$

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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 : January - 2020

Name of Location : Village - Wandh

ID No. : URA/ID/A-20/01/003

Sr. No.	Sampling Date	Concentration in Ambient Air (µg /m ³)					
		PM ₁₀ µg/M ³	PM _{2.5} µg/M ³	Sulphur Dioxide (SO ₂)µg/M ³	Nitrogen Dioxide (NO ₂)µg/M ³	Ozone (O ₃)µg/M ³	Mercury (Hg) µg/M ³
GPCB Permissible Limit (TWA for 24 hrs.)		100	50	80	80	100	N.A.
1.	03/01/2020	76.4	30.6	17.3	29.8		--
2.	07/01/2020	64.7	31.3	16.2	25.0	18.7	BDL
3.	10/01/2020	61.2	26.6	21.6	23.4		--
4.	15/01/2020	69.5	27.2	20.4	21.2		--
5.	17/01/2020	72.8	31.0	18.2	31.6		--
6.	21/01/2020	72.2	33.3	22.8	28.7		--
7.	24/01/2020	76.5	34.4	21.3	24.2		--
8.	28/01/2020	80.1	39.0	17.5	20.4		--
Average		71.7	31.7	19.4	25.5		--

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 $\mu\text{g}/\text{m}^3$

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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 : February - 2020

Name of Location : Village - Siracha

ID No. : URA/ID/A-20/02/001

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	50	80	80	100	N.A.
1.	04/02/2020	68.4	30.7	19.4	22.8		--
2.	07/02/2020	79.8	25.7	20.1	26.7		--
3.	11/02/2020	76.1	26.5	17.5	21.5	15.8	BDL
4.	14/02/2020	61.9	32.5	21.7	24.7		--
5.	18/02/2020	63.1	40.3	18.5	22.2		--
6.	21/02/2020	59.4	22.5	22.7	25.8		--
7.	25/02/2020	72.6	30.0	11.3	22.7		--
8.	28/02/2020	66.4	21.6	12.4	20.1		--
Average		68.5	28.6	18.0	23.3		--

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 7), 2001, NO_x - IS: 5182 (Part 6), 2006, Hg: AAS by VGA Method - IS: 12838:2006
Edison & Hg: 2 ppb O₃: IS - 5182 (Part 5) 2009 Ozone BD. limit: 5 $\mu\text{g}/\text{m}^3$

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ISO 9001:2015, ISO 14001:2015, ISO 45001:2018
 Accredited by Bureau of Verification and Calibration

 ISO 15189:2013
 Certified by NABL

 CMAA (Central Pollution Control Board)
 Accredited (ISO 15189:2013)

 ISO 9001:2015
 Certified Company

 ISO 14001:2015
 Certified Company

Monthly Average Report

Ambient Air Quality Monitoring

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

Month of Monitoring : February - 2020

Name of Location : Village - Kandagara

ID No. : URA/ID/A-20/02/002

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.	04/02/2020	60.8	26.8	15.4	20.1		
2.	07/02/2020	59.7	22.8	17.2	22.6		
3.	11/02/2020	73.1	39.4	20.6	24.1	18.6	BDI
4.	14/02/2020	52.9	30.5	21.7	25.7		--
5.	18/02/2020	79.2	35.8	16.2	21.3		--
6.	21/02/2020	76.9	30.6	18.6	20.9		--
7.	25/02/2020	73.0	27.6	14.7	21.9		--
8.	28/02/2020	80.4	34.0	17.3	22.3		--
Average		70.8	30.9	17.7	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 2.1), 2006, PM_{2.5}- Guidelines by CPCB (Vol-1), SO₂- IS: 5182 (Part 2), 2001, NO_x- IS: 5182 (Part 6), 2008, Hg: AAS by VGA Method 3112 B APHA 22 Edison & Hg: 2 pub O₃: S- 5182 (Part 9) 2009 Ozone KOL limit: 5 $\mu\text{g}/\text{m}^3$

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Monthly Average Report Ambient Air Quality Monitoring

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

Month of Monitoring : February - 2020

Name of Location : Village - Wandh

ID No. : URA/ID/A-20/02/003

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 (IWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	04/02/2020	74.0	34.0	23.7	25.9		--
2.	07/02/2020	79.7	26.9	22.3	24.7		--
3.	11/02/2020	69.0	27.3	19.1	22.2	22.8	BDL
4.	14/02/2020	64.0	23.1	20.7	23.7		--
5.	18/02/2020	83.5	40.9	18.6	21.9		--
6.	21/02/2020	76.8	37.4	18.5	24.5		--
7.	25/02/2020	70.3	32.7	15.6	23.9		--
8.	28/02/2020	73.6	32.0	13.8	18.2		--
Average		73.9	33.0	19.0	23.1		--

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

Analysis Method Reference: SPM - IS: 5182 (Part 1), 1999, PM₁₀ - IS: 5182 (Part 2), 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 - BAP-A-22 Enkon & Hg: 2 ppb O₃ - IS - 5182 (Part 9), 2005 Ozone BDL limit: 5 $\mu\text{g}/\text{m}^3$

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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 : March - 2020

Name of Location : Village - Siracha

ID No. : URA/10/A-20/03/001

Sr. No.	Sampling Date	Concentration in Ambient Air (µg / m ³)					
		PM ₁₀ µg/M ³	PM _{2.5} µg/M ³	Sulphur Dioxide (SO ₂) _{µg/M³}	Nitrogen Dioxide (NO ₂) _{µg/M³}	Ozone (O ₃) _{µg/M³}	Mercury (Hg) µg/M ³
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	03/03/2020	71.2	24.2	19.3	22.3		--
2.	04/03/2020	76.4	25.4	17.7	20.5		--
3.	10/03/2020	59.6	29.2	20.8	23.6	19.4	B/DI
4.	13/03/2020	60.8	23.1	19.5	20.2		--
5.	17/03/2020	69.1	35.0	14.9	17.7		--
6.	20/03/2020	77.1	38.8	20.9	16.4		--
Average		69.0	29.3	18.0	20.1		--

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

Analysis Method Reference: SPM - IS: 5182 (Part 4), 1990, 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/MAS by VGA Method -3112 B APHA 22 Edison&Hg: 2 ppbO₃: IS - 5182 (Part 9) 2019Ozone BDI limit: 5 $\mu\text{g}/\text{m}^3$

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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 : March - 2020

Name of Location : Village - Kandagara

ID No. : **URA/ID/A-20/03/002**

Sr. No.	Sampling Date	Concentration in Ambient Air (µg / m³)					
		PM ₁₀ µg/M³	PM _{2.5} µg/M³	Sulphur Dioxide (SO ₂) _{µg/M³}	Nitrogen Dioxide (NO ₂) _{µg/M³}	Ozone (O ₃) _{µg/M³}	Mercury (Hg) _{µg/M³}
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	03/03/2020	67.3	24.6	23.1	25.7		--
2.	07/03/2020	74.4	39.2	20.5	14.2		--
3.	10/03/2020	79.3	34.2	13.7	28.5	22.7	BDL
4.	13/03/2020	69.9	26.2	18.3	24.3		--
5.	17/03/2020	75.0	21.7	15.4	19.8		--
6.	20/03/2020	67.8	28.3	20.1	25.4		--
Average		72.3	29.0	18.5	23.0		--

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, NO₂- IS: 5182 (Part 6), 2006, Hg/MS 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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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 : March - 2020

Name of Location : Village - Wandh

ID No. : URA/ID/A-20/03/003

Sr. No.	Sampling Date	Concentration in Ambient Air (µg /m³)					
		PM ₁₀ µg/M³	PM _{2.5} µg/M³	Sulphur Dioxide [SO ₂]µg/M³	Nitrogen Dioxide [NO ₂]µg/M³	Ozone (O ₃)µg/M³	Mercury (Hg) µg/M³
GPCB Permissible Limit (TWA for 24 hrs.)		100	60	80	80	100	N.A.
1.	03/03/2020	76.8	38.1	12.8	20.6		--
2.	07/03/2020	72.7	34.4	21.6	15.3		--
3.	10/03/2020	68.5	32.1	20.2	23.7	27.3	BDL
4.	13/03/2020	81.1	42.0	19.5	28.2		--
5.	17/03/2020	76.4	40.8	22.4	24.5		--
6.	20/03/2020	66.1	29.6	15.7	22.7		--
Average		73.6	36.2	18.7	22.5		--

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 $\mu\text{g}/\text{m}^3$

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MoEF&CC (GOI) Recognized Environmental Laboratory under the EPA-1986(12.01.2015 to 11.01.2020)

QC/NABET Accredited BIA Consultant Organization

GPCB Recognized Environmental Auditor (Schedule-II)

OHSA18001:2007 Certified Company

ISO 9001:2015 Certified Company

TEST REPORT (AMBIENT AIR MONITORING)

ULR - TC775319000017145F			
Test Report No.:	URA/19/10/A-069	Report Issue Date:	26/10/2019
Service Request form No.:	URA/SRF/10/048	Service Request Date	21/10/2019
Sample ID No.:	URA/ID/A-19/10/069	Field Data Sheet No.:	URA/FDS/A-19/10/069
Name & Add. of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling :	21/10/2019	Date of Testing	23/10/2019
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 1 (Nr. ETP)		

Details of Master Instrument Used for Monitoring

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/24	Respirable Dust Sampler	2345-DTB-2012,1039-DTC-2012	02/08/2019	01/08/2020
UERL/AIR/FPS/30	Fine Particulate Sampler	132-DTL-2012	02/08/2019	01/08/2020

General Sampling / Monitoring Observation as per CPCB Guideline

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.24
3.	Volume of Air Sampled for PM ₁₀	m ³	1786
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

Environmental Conditions during testing : Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	73	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	24	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	17.2	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	12.6	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	BDL	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Note: BDL = Below Detection Limit.

Sampling Done By:

A. Patel
(Chemist) / (Supervisor)
(A-1)

Page No.: 1 of 1

Tested By:

(Signature)
(Chemist) / (Sr. Chemist)
(A-2/B)

Authorized By:

(Signature)
(Manager - Operations)
(CRM)

UERL/AIR/F-05/03

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TEST REPORT
(AMBIENT AIR MONITORING)

ULR - TC775319000017147F			
Test Report No.:	URA/19/10/A-071	Report Issue Date:	26/10/2019
Service Request form No.:	URA/SRF/10/048	Service Request Date	21/10/2019
Sample ID No.:	URA/ID/A-19/10/071	Field Data Sheet No.:	URA/FDS/A-19/10/071
Name & Add. of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling :	21/10/2019	Date of Testing	23/10/2019
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 2 (Nr. Ware House)		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/26	Respirable Dust Sampler	1745-DTA-2013, 1139-DTA-2013	02/08/2019	01/08/2020
UERL/AIR/FPS/42	Fine Particulate Sampler	125-DTD-2013	03/08/2019	02/08/2020

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.28
3.	Volume of Air Sampled for PM ₁₀	m ³	1843
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

➤ **Environmental Conditions during testing:** Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

➤ **Test Parameter Results**

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	58	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	18	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	14.2	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	17.4	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	BDL	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Note: BDL = Below Detection Limit.

Sampling Done By:

Aceel
(Chemist) / (Supervisor)
(A.C.T.)

Page No.: 1 of 1

Tested By:

[Signature]
(Chemist) / (Sr. Chemist)
(~.D.P.)

Authorized By:

[Signature]
(Manager - Operations)
(AM)

UERL/AIR/F-05/03

TEST REPORT (AMBIENT AIR MONITORING)

ULR - TC775319000017146F			
Test Report No.:	URA/19/10/A-070	Report Issue Date:	26/10/2019
Service Request form No.:	URA/SRF/10/048	Service Request Date	21/10/2019
Sample ID No.:	URA/ID/A-19/10/070	Field Data Sheet No.:	URA/FDS/A-19/10/070
Name & Add. of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling :	21/10/2019	Date of Testing	23/10/2019
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 3 (Nr. Main Gate / RMU)		

Details of Master Instrument Used for Monitoring

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/25	Respirable Dust Sampler	1744-DTA-2013, 1127-DTJ-2012	02/08/2019	01/08/2020
UERL/AIR/FPS/41	Fine Particulate Sampler	137-DTD-2013	03/08/2019	02/08/2020

General Sampling / Monitoring Observation as per CPCB Guideline

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.25
3.	Volume of Air Sampled for PM ₁₀	m ³	1800
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

➤ Environmental Conditions during testing : Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter, (PM ₁₀)	µg/m ³	68	100	IS - 5182, Part - 23
2.	Particulate Matter, (PM _{2.5})	µg/m ³	23	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	20.1	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	25.7	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	BDL	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Note: BDL = Below Detection Limit.

Sampling Done By:

Aceel
 (Chemist) / (Supervisor)
 (A.C.T.)

Tested By:

[Signature]
 (Chemist) / (Sr. Chemist)
 (A.C.P.)

Authorized By:

[Signature]
 (Manager - Operations)
 (A.M.)

Page No.: 1 of 1

UERL/AIR/F-05/03

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TEST REPORT (AMBIENT AIR MONITORING)

ULR - TC775319000018933F			
Test Report No.:	URA/19/11/A-063	Report Issue Date:	03/12/2019
Service Request form No.:	URA/SRF/11/048	Service Request Date	27/11/2019
Sample ID No.:	URA/ID/A-19/11/063	Field Data Sheet No.:	URA/FDS/A-19/11/063
Name & Add. of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling :	27/11/2019	Date of Testing	29/11/2019
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 1 (Nr. ETP)		

> Details of Master Instrument Used for Monitoring

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/24	Respirable Dust Sampler	2345-DTB-2012,1039-DTC-2012	02/08/2019	01/08/2020
UERL/AIR/FPS/30	Fine Particulate Sampler	132-DTL-2012	02/08/2019	01/08/2020

> General Sampling / Monitoring Observation as per CPCB Guideline

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.28
3.	Volume of Air Sampled for PM ₁₀	m ³	1843
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

> Environmental Conditions during testing : Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

> Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	77	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	26	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	14.8	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	21.3	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	BDL	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Note: BDL = Below Detection Limit.

Sampling Done By:

Acaul
(Chemist) / (Supervisor)
(a n i)

Tested By:

(Signature)
(Chemist) / (Sr. Chemist)
(~.D.R.)

Authorized By:

(Signature)
(Manager - Operations)
(27-11-19)

Page No.: 1 of 1

UERL/AIR/F-05/03

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Extended Work Office : G.I.D.C., Dahej-II, Bharuch, Gujarat.

CIN:U71900GJ2012PTC001160

TEST REPORT
(AMBIENT AIR MONITORING)

ULR - TC775319000018934F			
Test Report No.:	URA/19/11/A-064	Report Issue Date:	03/12/2019
Service Request form No.:	URA/SRF/11/048	Service Request Date	27/11/2019
Sample ID No.:	URA/ID/A-19/11/064	Field Data Sheet No.:	URA/FDS/A-19/11/064
Name & Add. of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling :	27/11/2019	Date of Testing	29/11/2019
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 3 (Nr. Main Gate / RMU)		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/25	Respirable Dust Sampler	1744-DTA-2013, 1127-DTJ-2012	02/08/2019	01/08/2020
UERL/AIR/FPS/41	Fine Particulate Sampler	137-DTD-2013	03/08/2019	02/08/2020

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.20
3.	Volume of Air Sampled for PM ₁₀	m ³	1728
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

➤ **Environmental Conditions during testing** : Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

➤ **Test Parameter Results**

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	71	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	25	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	17.3	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	23.5	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	BDL	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Note: BDL = Below Detection Limit.

Sampling Done By:

(Signature)
(Chemist) / (Supervisor)
(A-11)

Tested By:

(Signature)
(Chemist) / (Sr. Chemist)
(A-01)

Authorized By:

(Signature)
(Manager - Operations)
(A-07)

Page No.: 1 of 1

UERL/AIR/F-05/03

TEST REPORT
(AMBIENT AIR MONITORING)

ULR - TC775319000018935F			
Test Report No.:	URA/19/11/A-065	Report Issue Date:	03/12/2019
Service Request form No.:	URA/SRF/11/048	Service Request Date	27/11/2019
Sample ID No.:	URA/ID/A-19/11/065	Field Data Sheet No.:	URA/FDS/A-19/11/065
Name & Add. of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling :	27/11/2019	Date of Testing	29/11/2019
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 2 (Nr. Ware House)		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/26	Respirable Dust Sampler	1745-DTA-2013,1139-DTA-2013	02/08/2019	01/08/2020
UERL/AIR/FPS/42	Fine Particulate Sampler	125-DTD-2013	03/08/2019	02/08/2020

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.24
3.	Volume of Air Sampled for PM ₁₀	m ³	1786
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

➤ **Environmental Conditions during testing** : Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

➤ **Test Parameter Results**

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	65	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	21	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	10.6	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	15.2	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	BDL	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Note: BDL = Below Detection Limit.

Sampling Done By:

(Signature)
(Chemist) / (Supervisor)
(A-21)

Tested By:

(Signature)
(Chemist) / (Sr. Chemist)
(A-21)

Authorized By:

(Signature)
(Manager - Operations)
(A-21)

Page No.: 1 of 1

UERL/AIR/F-05/03

TEST REPORT
(AMBIENT AIR MONITORING)

ULR - TC775320000000162F			
Test Report No.:	URA/19/12/A-062	Report Issue Date:	04/01/2020
Service Request form No.:	URA/SRF/12/047	Service Request Date	30/12/2019
Sample ID No.:	URA/ID/A-19/12/062	Field Data Sheet No.:	URA/FDS/A-19/12/062
Name & Add. of Customer	M/s. Dorf Ketal Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling :	30/12/2019	Date of Testing	01/01/2020
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 1 (Nr. ETP)		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/24	Respirable Dust Sampler	2345-DTB-2012, 1039-DTC-2012	02/08/2019	01/08/2020
UERL/AIR/FPS/30	Fine Particulate Sampler	132-DTL-2012	02/08/2019	01/08/2020

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.22
3.	Volume of Air Sampled for PM ₁₀	m ³	1756
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

➤ **Environmental Conditions during testing** : Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

➤ **Test Parameter Results**

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	80	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	29	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	16.2	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	25.7	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	BDL	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Note: BDL = Below Detection Limit.

Sampling Done By:

Arvind
(Chemist) / (Supervisor)
(A-1)

Tested By:

Arvind
(Chemist) / (Sr. Chemist)
(A-1)

Authorized By:

Arvind
(Manager - Operations)
(A-1)

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UERL/AIR/F-05/03

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TEST REPORT
(AMBIENT AIR MONITORING)

ULR - TC775320000000164F			
Test Report No.:	URA/19/12/A-064	Report Issue Date:	04/01/2020
Service Request form No.:	URA/SRF/12/047	Service Request Date	30/12/2019
Sample ID No.:	URA/ID/A-19/12/064	Field Data Sheet No.:	URA/FDS/A-19/12/064
Name & Add. of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling :	30/12/2019	Date of Testing	01/01/2020
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 2 (Nr. Ware House)		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/26	Respirable Dust Sampler	1745-DTA-2013,1139-DTA-2013	02/08/2019	01/08/2020
UERL/AIR/FPS/42	Fine Particulate Sampler	125-DTD-2013	03/08/2019	02/08/2020

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.28
3.	Volume of Air Sampled for PM ₁₀	m ³	1843
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

➤ **Environmental Conditions during testing** :Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

➤ **Test Parameter Results**

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	69	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	24	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	13.7	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	18.5	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	BDL	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Note: BDL = Below Detection Limit.

Sampling Done By:

Acierl
(Chemist) / (Supervisor)
(A-1)

Page No.: 1 of 1

Tested By:

[Signature]
(Chemist) / (Sr. Chemist)
(N.D.P)

Authorized By:

[Signature]
(Manager Operations)
(D-17)

UERL/AIR/F-05/03

TEST REPORT
(AMBIENT AIR MONITORING)

ULR - TC775320000000163F			
Test Report No.:	URA/19/12/A-063	Report Issue Date:	04/01/2020
Service Request form No.:	URA/SRF/12/047	Service Request Date	30/12/2019
Sample ID No.:	URA/ID/A-19/12/063	Field Data Sheet No.:	URA/FDS/A-19/12/063
Name & Add. of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling :	30/12/2019	Date of Testing	01/01/2020
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 3 (Nr. Main Gate / RMU)		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/25	Respirable Dust Sampler	1744-DTA-2013,1127-DTJ-2012	02/08/2019	01/08/2020
UERL/AIR/FPS/41	Fine Particulate Sampler	137-DTD-2013	03/08/2019	02/08/2020

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.25
3.	Volume of Air Sampled for PM ₁₀	m ³	1800
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

➤ **Environmental Conditions during testing :** Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

➤ **Test Parameter Results**

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	78	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	27	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	19.5	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	25.1	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	BDL	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Note: BDL = Below Detection Limit.

Sampling Done By:

A. Patel
(Chemist) / (Supervisor)
(A.P.)

Page No.: 1 of 1

Tested By:

(Signature)
(Chemist) / (Sr. Chemist)
(N.D.P.)

Authorized By:

(Signature)
(Manager - Operations)
(P.D.P.)

UERL/AIR/F-05/03

TEST REPORT
(AMBIENT AIR MONITORING)

ULR - TC775320000001613F			
Test Report No.:	URA/20/01/A-077	Report Issue Date:	30/02/2020
Service Request form No.:	URA/SRF/01/056	Service Request Date	27/01/2020
Sample ID No.:	URA/ID/A-20/01/077	Field Data Sheet No.:	URA/FDS/A-20/01/077
Name & Add. of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling :	27/01/2020	Date of Testing	29/01/2020
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 1 (Nr. ETP)		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/24	Respirable Dust Sampler	2345-DTB-2012,1039-DTC-2012	02/08/2019	01/08/2020
UERL/AIR/FPS/30	Fine Particulate Sampler	132-DTL-2012	02/08/2019	01/08/2020

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.27
3.	Volume of Air Sampled for PM ₁₀	m ³	1828
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

➤ **Environmental Conditions during testing:** Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

➤ **Test Parameter Results**

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	86	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	32	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	19.7	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	28.4	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	BDL	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Note: BDL = Below Detection Limit.

Sampling Done By:

Acid
(Chemist) / (Supervisor)
(A. N. I.)

Page No.: 1 of 1

Tested By:

Acid
(Chemist) / (Sr. Chemist)
(N. D. A.)

Authorized By:

Acid
(Manager - Operations)
(7-5-1)

UERL/AIR/F-05/03

TEST REPORT
(AMBIENT AIR MONITORING)

ULR - TC775320000001614F			
Test Report No.:	URA/20/01/A-078	Report Issue Date:	03/02/2020
Service Request form No.:	URA/SRF/01/056	Service Request Date	27/01/2020
Sample ID No.:	URA/ID/A-20/01/078	Field Data Sheet No.:	URA/FDS/A-20/01/078
Name & Add. of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling :	27/01/2020	Date of Testing	29/01/2020
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 3 (Nr. Main Gate / RMU)		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/25	Respirable Dust Sampler	1744-DTA-2013, 1127-DTJ-2012	02/08/2019	01/08/2020
UERL/AIR/FPS/41	Fine Particulate Sampler	137-DTD-2013	03/08/2019	02/08/2020

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.29
3.	Volume of Air Sampled for PM ₁₀	m ³	1857
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

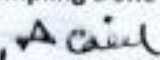
➤ **Environmental Conditions during testing:** Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

➤ **Test Parameter Results**

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	89	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	30	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	23.5	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	30.2	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	BDL	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

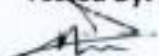
Note: BDL = Below Detection Limit.

Sampling Done By:

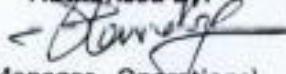

(Chemist) / (Supervisor)
(A A I)

Page No.: 1 of 1

Tested By:


(Chemist) / (Sr. Chemist)
(A A I)

Authorized By:


(Manager - Operations)
(A A I)

UERL/AIR/F-05/03

MoEF&CC (GOI) Recognized Environmental Laboratory under the EPA-1986 (12.01.2020 to 24.05.2020)

GCI-NABET Accredited EIA Consultant Organization

GPCB Recognized Environmental Auditor (Schedule-II)

OHSAS18001:2007 Certified Company

ISO 9001:2015 Certified Company

TEST REPORT (AMBIENT AIR MONITORING)

ULR - TC775320000001615F			
Test Report No.:	URA/20/01/A-079	Report Issue Date:	03/02/2020
Service Request form No.:	URA/SRF/01/056	Service Request Date	27/01/2020
Sample ID No.:	URA/ID/A-20/01/079	Field Data Sheet No.:	URA/FDS/A-20/01/079
Name & Add. of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling :	27/01/2020	Date of Testing	29/01/2020
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 2 (Nr. Ware House)		

➤ Details of Master Instrument Used for Monitoring

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/26	Respirable Dust Sampler	1745-DTA-2013, 1139-DTA-2013	02/08/2019	01/08/2020
UERL/AIR/FPS/42	Fine Particulate Sampler	125-DTD-2013	03/08/2019	02/08/2020

➤ General Sampling / Monitoring Observation as per CPCB Guideline

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.25
3.	Volume of Air Sampled for PM ₁₀	m ³	1800
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

➤ **Environmental Conditions during testing:** Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

➤ Test Parameter Results

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	76	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	27	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	16.5	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	22.4	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	BDL	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Note: BDL = Below Detection Limit.

Sampling Done By:

(Signature)
 (Chemist) / (Supervisor)
 (A-11)

Tested By:

(Signature)
 (Chemist) / (Sr. Chemist)
 (N-12 P.)

Authorized By:

(Signature)
 (Manager - Operations)
 (D-57)

Page No.: 1 of 1

UERL/AIR/F-05/03

Regd. Office : 215, Royal Arcade, Near G.I.D.C. Office, Char Rasta, Vapi-396 195, Gujarat, India.

Extended Work Office : G.I.D.C., Dahej-II, Bharuch, Gujarat.

CIN:U73100GJ2007PTC051463

TEST REPORT
(AMBIENT AIR MONITORING)

ULR - TC775320000002900F			
Test Report No.:	URA/20/02/A-058	Report Issue Date:	02/03/2020
Service Request form No.:	URA/SRF/02/044	Service Request Date	24/02/2020
Sample ID No.:	URA/ID/A-20/02/058	Field Data Sheet No.:	URA/FDS/A-20/02/058
Name & Add. of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling :	24/02/2020	Date of Testing	26/02/2020
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 1 (Nr. ETP)		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UERL/AIR/RDS/24	Respirable Dust Sampler	2345-DTB-2012,1039-DTC-2012	02/08/2019	01/08/2020
UERL/AIR/FPS/30	Fine Particulate Sampler	132-DTL-2012	02/08/2019	01/08/2020

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.28
3.	Volume of Air Sampled for PM ₁₀	m ³	1843
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

➤ **Environmental Conditions during testing:** Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

➤ **Test Parameter Results**

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	81	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	29	60	UERL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	18.2	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	26.4	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	BDL	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UERL/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Note: BDL = Below Detection Limit.

Sampling Done By:

Arvind
(Chemist) / (Supervisor)
(A-1)

Page No.: 1 of 1

Tested By:

Arvind
(Chemist) / (Sr. Chemist)
(~28)

Authorized By:

Harsh
(Manager - Operations)
(357)

UERL/AIR/F-05/03

TEST REPORT
(AMBIENT AIR MONITORING)

ULR - TC77532000002902F			
Test Report No.:	URA/20/02/A-060	Report Issue Date:	02/03/2020
Service Request form No.:	URA/SRF/02/044	Service Request Date	24/02/2020
Sample ID No.:	URA/ID/A-20/02/060	Field Data Sheet No.:	URA/FDS/A-20/02/060
Name & Add. of Customer	M/s. Dorf Ketel Chemicals India Pvt. Ltd. Plot No. 2, Block - F, Sector 12N, Adani Port and Sez, Dist: Kutch, Gujarat - 370421, INDIA		
Dates of Sampling :	24/02/2020	Date of Testing	26/02/2020
Sampling Procedure:	CPCB Guideline		
Location of Sampling / Monitoring:	A - 2 (Nr. Ware House)		

➤ **Details of Master Instrument Used for Monitoring**

Instrument Id No.	Instrument Name	Serial Number	Cali. Date	Next Cali. Date
UURL/AIR/RDS/26	Respirable Dust Sampler	1745-DTA-2013,1139-DTA-2013	02/08/2019	01/08/2020
UURL/AIR/FPS/42	Fine Particulate Sampler	125-DTD-2013	03/08/2019	02/08/2020

➤ **General Sampling / Monitoring Observation as per CPCB Guideline**

Sr. No.	Description	Unit of measurement	Observation
1.	Monitoring Duration	h	24
2.	Flow Rate of PM ₁₀	m ³ /min	1.26
3.	Volume of Air Sampled for PM ₁₀	m ³	1814
4.	Volume of Air Sampled for PM _{2.5}	m ³	24.04
5.	Flow Rate for Gas	L/min	0.2
6.	Volume of Air Sample for Gas	L	288

➤ **Environmental Conditions during testing** : Temp.: 25 ± 5 °C, Relative Humidity: 40 to 50%

➤ **Test Parameter Results**

DISCIPLINE - CHEMICAL TESTING			NAME OF GROUP - ATMOSPHERIC POLLUTION		
Sr. No.	Test Parameter	Unit	Result	Permissible Limit (As per NAAQMS)	Test Method
1.	Particulate Matter. (PM ₁₀)	µg/m ³	73	100	IS - 5182, Part - 23
2.	Particulate Matter. (PM _{2.5})	µg/m ³	28	60	UURL/AIR/SOP/11
3.	Sulphur Dioxide	µg/m ³	15.3	80	IS - 5182, Part - 2
4.	Nitrogen Dioxide	µg/m ³	24.2	80	IS - 5182, Part - 6
5.	Carbon Monoxide	µg/m ³	BDL	2.0	IS - 5182, Part - 10
6.	Ozone	µg/m ³	BDL	100	IS - 5182, Part - 9
7.	Ammonia	µg/m ³	BDL	400	UURL/AIR/SOP/05
8.	Lead	µg/m ³	BDL	1.0	IS - 5182, Part - 22
9.	Nickel	ng/m ³	BDL	20	IS - 5182, Part - 22
10.	Arsenic	ng/m ³	BDL	6.0	IS - 5182, Part - 22
11.	Benzene	µg/m ³	BDL	5.0	IS - 5182, Part - 11
12.	Benzo pyrene	ng/m ³	BDL	1.0	IS - 5182, Part - 12

Note: BDL = Below Detection Limit.

Sampling Done By:

Tested By:

Authorized By:

(Signature)
(Chemist) / (Supervisor)
(AAT)

(Signature)
(Chemist) / (Sr. Chemist)
(~20)

(Signature)
(Manager - Operations)
(J.S.)
UURL/AIR/F-05/03

Page No.: 1 of 1

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Royal

Environment Auditing & Consultancy Service

300/004, Shivvihar-7, D.P. Ex. Aulahi, Sardar Road, RAIPUR - 492 002
Ph. +91 201 2950955 Email : royalenviro@gmail.com www.royalenviro.com

Ref No.: 556/10/2019-20

Date: 31/12/2019

REPORT OF AMBIENT AIR QUALITY MONITORING

Name of Company: Ahlstrom Munksa Fibrecomposites India Pvt. Ltd.

Address: Mundra SEZ Integrated Textile & Apparel Park,

(MITAP), Plot No. - 07

Survey No. -141, Mundra,

Kutch/Gujarat

Test Method: As per IS Standards - 5102, 2/4/3

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	---	19/10/2019	19/10/2019
03.	Time of sampling	Hr.	11.00	11.15
04.	Duration of sampling	Irs.	24.00	24.00
05.	Dominant Wind Direction (From)	---	WNW	WNW
06.	Average Wind Speed	KTMHr.	7.9	7.5
07.	Average flow rate during sampling	m ³ /minute	1.1	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	42	39
11.	Permissible Limits of PM ₁₀	µg/m ³	100	100
12.	Measured Concentration of PM ₁₀	µg/m ³	75	66
13.	Permissible Limits of SO ₂	µg/m ³	80	80
14.	Measured Concentration of SO ₂	µg/m ³	11.6	12.1
15.	Permissible Limits of NO ₂	µg/m ³	80	80
16.	Measured Concentration of NO ₂	µg/m ³	13.3	22.3

Instrument Used: Fortech make AAS-217 BL, Cassius Sampler AAS 100, PM 2.5 Sampler AAS 127

Calibration Done on: 03/05/2019



Signature
Analyst



Environment Auditing & Consultancy Service

300-904, Shivalik-7, D/S Dr. Adalal, Gandhi Road, RAJKOT - 360 002.

Ph. +91 291 2380585 E-mail: royaleenvironment@live.com, admin@royalconsultancy.com

Date: 01/01/2020

Ref No: 301/01/2020-21

REPORT OF AMBIENT AIR QUALITY MONITORING

Name of Company: Ahtaram Munksjio Fiberscomposites India Pvt. Ltd.

Address: Mundra SEZ Integrated Textile & Apparel Park,

(W.TAP), Plot No. - 07

Survey No. -141, Mundra,

Kutch-370421

Test Method: As per IS Standards - 5102, 2046

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	---	22/01/2020	22/01/2020
03.	Time of sampling	Hr.	10.45	11.00
04.	Duration of sampling	Hrs.	24.00	24.00
05.	Dominant Wind Direction (From)		NE	NE
06.	Average Wind Speed	Km/Hr.	7.2	7.8
07.	Average flow rate during sampling	m ³ /minute	1.2	1.2
08.	Average flow rate for Gas sampling	Meter	0.2	0.2
09.	Permissible Limits of PM ₁₀	µg/m ³	60	60
10.	Measured Concentration of PM ₁₀	µg/m ³	39	36
11.	Permissible Limits of PM _{2.5}	µg/m ³	100	100
12.	Measured Concentration of PM _{2.5}	µg/m ³	72	64
13.	Permissible Limits of SO ₂	µg/m ³	80	80
14.	Measured Concentration of SO ₂	µg/m ³	12.0	11.8
15.	Permissible Limits of NO ₂	µg/m ³	80	80
16.	Measured Concentration of NO ₂	µg/m ³	20.3	21.2

Instruments Used: Fotech make AAS - 217 SL, Gasous Sample: AAS 109, PM 2.5 Sampler AAS 127

Calibration Done on: 08/05/2019



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Earth Envirotech

ANALYTICAL & ENVIRONMENTAL ENGINEERING LABORATORY
An NABL Accredited Laboratory, GPCB Approved Environmental Auditors,

EARTH ENVIROTECH

7 & 15, Ground Floor, Madhav Palace,
Plot No. 55, Sector-8, Opp. D-Mart Mall,
Gandhidham, Dist.: Kutch - 370201, Gujarat, INDIA
Phone: 02836-237150, Cell: 09724734757
E-Mail: earthenvirotech@gmail.com,
Web: www.earthenvirotech.com

Report No: - EE/LAB/EMR/2020/02/001

Date: 07/02/2020

ANALYSIS REPORT

Client Details		Sample Details	
Name	M/s. Terram Geosynthetics Pvt. Ltd.	Sample Code	EE/0120/TGPL/AA1
Address	Plot No.: 5, Block - B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch,	Location	Near Admin Building
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	31/01/2020
Analysis Starts on	02/02/2020	Sampling Method	IS 5182: Part - 5: 2014
Analysis Completion On	05/02/2020	Sample Received Date	01/02/2020

AMBIENT AIR MONITORING RESULTS

Sr. No.	Parameters	Unit	Results	National Ambient Air Quality Standards (NAAQS)	Reference Method
			Near Admin Building		
1.	Particulate Matter PM_{10}	$\mu g/m^3$	79.5	100	IS 5182 Part 23 : 2017
2.	Particulate Matter $PM_{2.5}$	$\mu g/m^3$	34.26	60	CPCB manual Volume I
3.	Sulphur Dioxide (SO_2)	$\mu g/m^3$	23.5	80	IS 5182 Part 2 : 2017
4.	Nitrogen Dioxide (NO_2)	$\mu g/m^3$	26.8	80	IS 5182 Part 6 : 2017

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.

IAS-ANZ



ISO 9001: 2015



ISO 14001: 2004



OHSAS 18001:2007



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EARTH ENVIROTECH

7 & 15, Ground Floor, Madhav Palace,
Plot No. 55, Sector-8, Opp. D-Mart Mall,
Gandhidham, Dist.: Kutch -370201, Gujarat, INDIA
Phone: 02836-237150, Cell: 09724734757
E-Mail: earthenvirotech@gmail.com,
Web: www.earthenvirotech.com

Report No: - EE/LAB/EMR/2019/12/001

Date: 03/12/2019

ANALYSIS REPORT (For the Month of November- 2019)

Client Details		Sample Details	
Name	M/s. Terram Geosynthetics Pvt. Ltd.	Sample Code	EE/1119/TGPL/AA1
Address	Plot No.: 5, Block - B, Sector-12 S, Adani Port & SEZ, Tal: Mundra, Dist: Kutch,	Location	Near Admin Building
		Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	27/11/2019
Analysis Starts on	28/11/2019	Sampling Method	IS 5182: Part - 5: 2014
Analysis Completion On	02/12/2019	Sample Received Date	28/11/2019

AMBIENT AIR MONITORING RESULTS

Sr. No.	Parameters	Unit	Results	National Ambient Air Quality Standards (NAAQS)	Reference Method
			Near Admin Building		
1.	Particulate Matter PM_{10}	$\mu g/m^3$	77.65	100	IS 5182 Part 23 : 2017
2.	Particulate Matter $PM_{2.5}$	$\mu g/m^3$	32.54	60	CPCB manual Volume I
3.	Sulphur Dioxide (SO_2)	$\mu g/m^3$	24.6	80	IS 5182 Part 2 : 2017
4.	Nitrogen Dioxide (NO_2)	$\mu g/m^3$	25.13	80	IS 5182 Part 6 : 2017

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.



Earth Envirotech

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EARTH ENVIROTECH

7 & 15, Ground Floor, Madhav Palace.

Plot No. 55, Sector-8, Opp. D-Mart Mall,

Gandhidham, Dist.: Kutch -370201, Gujarat, INDIA

Phone: 02836-237150, Cell: 09724734757

E-Mail: earthenvirotech@gmail.com.

Web: www.earthenvirotech.com

Report No: - EE/LAB/EMR/2020/02/007

Date: 07/02/2020

ANALYSIS REPORT

Client Details		Sample Details	
Name	Britannia Industries Ltd.	Sample Code	EE/0120/BIL/AA1
Address	Survey No. 169/p,	Location	Near Security Gate
	Adani Port & Special Economic Zone, Ta. Mundra, Dist. Kutch	Quantity	N/A
Sampling Done By	Earth Envirotech Team	Date of Sampling	30/01/2020
Analysis Starts on	31/01/2020	Sampling Method	IS 5182: Part - 5: 2014
Analysis Completion On	04/02/2020	Sample Received Date	31/01/2020

AMBIENT AIR MONITORING RESULTS

Sr. No.	Parameters	Unit	Results	National Ambient Air Quality Standards (NAAQS)	Reference Method
1.	Particulate Matter PM ₁₀	µg/m ³	80.6	100	IS 5182 Part 23 : 2017
2.	Particulate Matter PM _{2.5}	µg/m ³	32.4	60	CPCB manual Volume I
3.	Sulphur Dioxide (SO ₂)	µg/m ³	19.8	80	IS 5182 Part 2 : 2017
4.	Nitrogen Dioxide (NO ₂)	µg/m ³	26.9	80	IS 5182 Part 6 : 2017

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 for 15 Days from the date of sampling.

Ref No.: AMD/A/187/01/2019-2020

Date :31/01/2020

TEST REPORT OF AMBIENT AIR QUALITY MONITORING

F/OPN/06
Issue No:01
Page 1 of 1

Name of Company: Skaps Industries India Pvt. Ltd.
(Mundra SEZ Unit - 2),
Plot No. 10, Road No. 12 F, Sector - 12 S,
Mundra Integrated Textile & Apparel Park
Mundra, Dist.: Kutch.

Date of Sampling	: 24/01/2020	Sampling Conducted by	: Ajay Borad
Sample ID	: A-187	Sampling Method	: As per IS
Time of Sampling	: 13.41	Location of Identification	: Near Assembly point - 2
Wind Direction (From)	: Northeast	Wind Speed in km/h	: 2 to 22
Ambient temperature in °C	: 31	Humidity in %	: 50
Average Flow Rate for Gaseous Sampling in LPM	: 0.5	Duration of Sampling in min.	: 1440
Date of Sample Receipt at Laboratory	: 25/01/2020	Condition of Sample	: OK
Analysis Started on	: 25/01/2020	Analysis Concluded on	: 31/01/2020

TEST RESULTS

Parameters	Test Method	* Test Results	Unit	GPCB Limit
• Particulate Matter - 10 (PM ₁₀)	IS 5182 (Part - 23) : 2006	60.89	µg/m ³	100
• Particulate Matter - 2.5 (PM _{2.5})	Manufacturer's Method	20.68	µg/m ³	60
• Sulphur Dioxide (SO ₂)	IS 5182 (Part - 2) : 2001	13.12	µg/m ³	80
• Oxide of Nitrogen (NO _x)	IS 5182 (Part - 6) : 2006	14.82	µg/m ³	80

A.P.R.
Tested By : *A.P.R.*



Kardhika
Reviewed & Approved By :

Ref No.: AMD/A/182/01/2019-2020

Date :31/01/2020

TEST REPORT OF AMBIENT AIR QUALITY MONITORING

F/OPN/06
Issue No:01
Page 1 of 1

Name of Company: Skaps Industries India Pvt. Ltd.
(Mundra SEZ Unit - 2),
Plot No. 10, Road No. 12 F, Sector - 12 S,
Mundra Integrated Textile & Apparel Park
Mundra, Dist.: Kutch.

Date of Sampling	: 21/01/2020	Sampling Conducted by	: Ajay Borad
Sample ID	: A-182	Sampling Method	: As per IS
Time of Sampling	: 14.28	Location of Identification	: Near Admin. Building
Wind Direction (From)	: Northeast	Wind Speed in km/h	: 2 to 22
Ambient temperature in °C	: 31	Humidity in %	: 52
Average Flow Rate for Gaseous Sampling in LPM	: 0.5	Duration of Sampling in min.	: 1440
Date of Sample Receipt at Laboratory	: 25/01/2020	Condition of Sample	: OK
Analysis Started on	: 25/01/2020	Analysis Concluded on	: 31/01/2020

TEST RESULTS

Parameters	Test Method	* Test Results	Unit	GPCB Limit
• Particulate Matter – 10 (PM ₁₀)	IS 5182 (Part – 23) : 2006	61.42	µg/m ³	100
• Particulate Matter – 2.5 (PM _{2.5})	Manufacturer's Method	23.12	µg/m ³	60
• Sulphur Dioxide (SO ₂)	IS 5182 (Part – 2) : 2001	13.48	µg/m ³	80
• Oxide of Nitrogen (NO _x)	IS 5182 (Part – 6) : 2006	15.64	µg/m ³	80

Tested By:

Reviewed & Approved By :

Ref No.: AMD/A/183/01/2019-2020

Date :31/01/2020

TEST REPORT OF AMBIENT AIR QUALITY MONITORING

F/OPN/06
Issue No:01
Page 1 of 1

Name of Company: Skaps Industries India Pvt. Ltd.
(Mundra SEZ Unit - 2),
Plot No. 10, Road No. 12 F, Sector - 12 S,
Mundra Integrated Textile & Apparel Park
Mundra, Dist.: Kutch.

Date of Sampling	: 22/01/2020	Sampling Conducted by	: Ajay Borad
Sample ID	: A-183	Sampling Method	: As per IS
Time of Sampling	: 10.45	Location of Identification	: Near Laboratory
Wind Direction (From)	: Northeast	Wind Speed in km/h	: 2 to 24
Ambient temperature in °C	: 28	Humidity in %	: 52
Average Flow Rate for Gaseous Sampling in LPM	: 0.5	Duration of Sampling in min.	: 1440
Date of Sample Receipt at Laboratory	: 25/01/2020	Condition of Sample	: OK
Analysis Started on	: 25/01/2020	Analysis Concluded on	: 31/01/2020

TEST RESULTS

Parameters	Test Method	* Test Results	Unit	GPCB Limit
• Particulate Matter – 10 (PM ₁₀)	IS 5182 (Part – 23) : 2006	62.11	µg/m ³	100
• Particulate Matter – 2.5 (PM _{2.5})	Manufacturer's Method	21.28	µg/m ³	60
• Sulphur Dioxide (SO ₂)	IS 5182 (Part – 2) : 2001	13.11	µg/m ³	80
• Oxide of Nitrogen (NO _x)	IS 5182 (Part – 6) : 2006	15.24	µg/m ³	80



A.P.R.
Tested By:

Leardika
Reviewed & Approved By:

Ref No.: AMD/A/184/01/2019-2020

Date :31/01/2020

TEST REPORT OF AMBIENT AIR QUALITY MONITORING

F/OPN/06
Issue No:01
Page 1 of 1

Name of Company: Skaps Industries India Pvt. Ltd.
(Mundra SEZ Unit - 2),
Plot No. 10, Road No. 12 F, Sector - 12 S,
Mundra Integrated Textile & Apparel Park
Mundra, Dist.: Kutch.

Date of Sampling	: 22/01/2020	Sampling Conducted by	: Ajay Borad
Sample ID	: A-184	Sampling Method	: As per IS
Time of Sampling	: 11.22	Location of Identification	: Near Nonwoven Operating Panel
Wind Direction (From)	: Northeast	Wind Speed in km/h	: 2 to 24
Ambient temperature in °C	: 28	Humidity in %	: 50
Average Flow Rate for Gaseous Sampling in LPM	: 0.5	Duration of Sampling in min.	: 1440
Date of Sample Receipt at Laboratory	: 25/01/2020	Condition of Sample	: OK
Analysis Started on	: 25/01/2020	Analysis Concluded on	: 31/01/2020

TEST RESULTS

Parameters	Test Method	* Test Results	Unit	GPCB Limit
• Particulate Matter – 10 (PM ₁₀)	IS 5182 (Part – 23) : 2006	62.21	µg/m ³	100
• Particulate Matter – 2.5 (PM _{2.5})	Manufacturer's Method	19.98	µg/m ³	60
• Sulphur Dioxide (SO ₂)	IS 5182 (Part – 2) : 2001	13.25	µg/m ³	80
• Oxide of Nitrogen (NO _x)	IS 5182 (Part – 6) : 2006	14.28	µg/m ³	80



A.P.R.
Tested By :

Kardilcu
Reviewed & Approved By :

Ref No.: AMD/A/185/01/2019-2020

Date :31/01/2020

TEST REPORT OF AMBIENT AIR QUALITY MONITORING

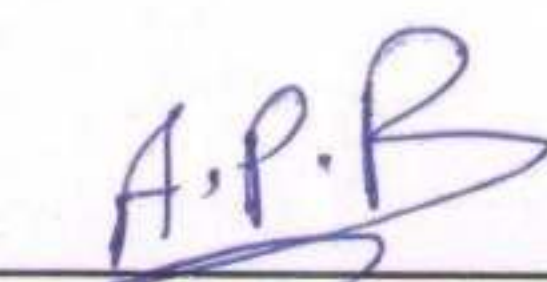
F/OPN/06
Issue No:01
Page 1 of 1

Name of Company: Skaps Industries India Pvt. Ltd.
(Mundra SEZ Unit - 2),
Plot No. 10, Road No. 12 F, Sector - 12 S,
Mundra Integrated Textile & Apparel Park
Mundra, Dist.: Kutch.

Date of Sampling	: 22/01/2020	Sampling Conducted by	: Ajay Borad
Sample ID	: A-185	Sampling Method	: As per IS
Time of Sampling	: 12.25	Location of Identification	: Near Silo
Wind Direction (From)	: Northeast	Wind Speed in km/h	: 2 to 24
Ambient temperature in °C	: 30	Humidity in %	: 46
Average Flow Rate for Gaseous Sampling in LPM	: 0.5	Duration of Sampling in min.	: 1440
Date of Sample Receipt at Laboratory	: 25/01/2020	Condition of Sample	: OK
Analysis Started on	: 25/01/2020	Analysis Concluded on	: 31/01/2020

TEST RESULTS

Parameters	Test Method	* Test Results	Unit	GPCB Limit
• Particulate Matter – 10 (PM ₁₀)	IS 5182 (Part – 23) : 2006	62.8	µg/m ³	100
• Particulate Matter – 2.5 (PM _{2.5})	Manufacturer's Method	21.28	µg/m ³	60
• Sulphur Dioxide (SO ₂)	IS 5182 (Part – 2) : 2001	13.24	µg/m ³	80
• Oxide of Nitrogen (NO _x)	IS 5182 (Part – 6) : 2006	15.11	µg/m ³	80


Tested By:





Reviewed & Approved By :

Ref No.: AMD/A/181/01/2019-2020

Date :31/01/2020

TEST REPORT OF AMBIENT AIR QUALITY MONITORING

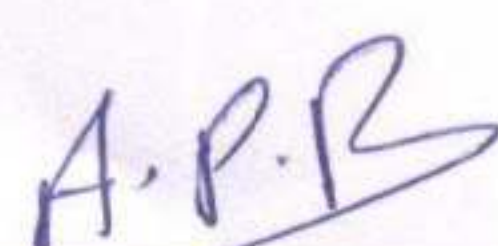
F/OPN/06
Issue No:01
Page 1 of 1

Name of Company: Skaps Industries India Pvt. Ltd.
(Mundra SEZ Unit - 2),
Plot No. 10, Road No. 12 F, Sector - 12 S,
Mundra Integrated Textile & Apparel Park
Mundra, Dist.: Kutch.

Date of Sampling	: 21/01/2020	Sampling Conducted by	: Ajay Borad
Sample ID	: A-181	Sampling Method	: As per IS
Time of Sampling	: 13.11	Location of Identification	: Near Fiber Line Operating Panel
Wind Direction (From)	: Northeast	Wind Speed in km/h	: 2 to 22
Ambient temperature in °C	: 31	Humidity in %	: 48
Average Flow Rate for Gaseous Sampling in LPM	: 0.5	Duration of Sampling in min.	: 1440
Date of Sample Receipt at Laboratory	: 25/01/2020	Condition of Sample	: OK
Analysis Started on	: 25/01/2020	Analysis Concluded on	: 31/01/2020

TEST RESULTS

Parameters	Test Method	* Test Results	Unit	GPCB Limit
• Particulate Matter – 10 (PM ₁₀)	IS 5182 (Part – 23) : 2006	62.8	µg/m ³	100
• Particulate Matter – 2.5 (PM _{2.5})	Manufacturer's Method	21.12	µg/m ³	60
• Sulphur Dioxide (SO ₂)	IS 5182 (Part – 2) : 2001	13.98	µg/m ³	80
• Oxide of Nitrogen (NO _x)	IS 5182 (Part – 6) : 2006	15.12	µg/m ³	80


Tested By:




Reviewed & Approved By :

Ref No.: AMD/A/186/01/2019-2020

Date :31/01/2020

TEST REPORT OF AMBIENT AIR QUALITY MONITORING

F/OPN/06
Issue No:01
Page 1 of 1

Name of Company: Skaps Industries India Pvt. Ltd.
(Mundra SEZ Unit - 2),
Plot No. 10, Road No. 12 F, Sector - 12 S,
Mundra Integrated Textile & Apparel Park
Mundra, Dist.: Kutch.

Date of Sampling	: 24/01/2020	Sampling Conducted by	: Ajay Borad
Sample ID	: A-186	Sampling Method	: As per IS
Time of Sampling	: 13.10	Location of Identification	: Near Assembly Point - 1
Wind Direction (From)	: Northeast	Wind Speed in km/h	: 2 to 22
Ambient temperature in °C	: 31	Humidity in %	: 52
Average Flow Rate for Gaseous Sampling in LPM	: 0.5	Duration of Sampling in min.	: 1440
Date of Sample Receipt at Laboratory	: 25/01/2020	Condition of Sample	: OK
Analysis Started on	: 25/01/2020	Analysis Concluded on	: 31/01/2020

TEST RESULTS

Parameters	Test Method	* Test Results	Unit	GPCB Limit
• Particulate Matter - 10 (PM ₁₀)	IS 5182 (Part - 23) : 2006	63.5	µg/m ³	100
• Particulate Matter - 2.5 (PM _{2.5})	Manufacturer's Method	20.4	µg/m ³	60
• Sulphur Dioxide (SO ₂)	IS 5182 (Part - 2) : 2001	13.08	µg/m ³	80
• Oxide of Nitrogen (NO _x)	IS 5182 (Part - 6) : 2006	14.98	µg/m ³	80

Tested By :

Reviewed & Approved By :

Registered Office: 201-202-203-204, Sterling Apartments, Jawahar Road, Rajkot-360001 (0281-2226399)

Annexure – 6

Chiragsing Rajput

From: Chiragsing Rajput
Sent: Monday, April 6, 2020 6:14 PM
To: 'ro-gpcb-kute@gujarat.gov.in'; rowz.bpl-mef@nic.in; mefcc.ia3@gmail.com; monitoring-ec@nic.in; 'ms-gpcb@gujarat.gov.in'
Cc: Shalin Shah; Azharuddin Kazi; Vivek Gundraniya; Kripa Shah; Mahendra Kumar Ghritlahre (Mahendra.Ghritlahare@adani.com); Ashvin Kumar Patni; Dhanesh Tank
Subject: Intimation Letter_Stoppage of Environment Monitoring due to COVID-19_APSEZ, Mundra
Attachments: Letter_Stoppage of Envionmental Monitoring due to COVID-19.pdf

Dear Sr,

Please find attached intimation letter w.r.t. stoppage of environmental monitoring within Adani Ports & SEZ Limited, Mundra, Kutch (Gujarat) since 23rd March, 2020 considering COVID-19 Pandemic lockdown.

So kindly consider this submission and oblige.

Thanks & Regards,
Chiragsing Rajput
Environment Cell | Adani Ports & Special Economic Zone Ltd.
Mob +91 9687678443 | Ext: 52132 | chiragsing.rajput@adani.com | www.adani.com
Adani House, 1st Floor, P.O. Box 1, Mundra 370 421, Gujarat, India.



APSEZL/ EnvCell/ 2020-21/ 001

Date: 06.04.2020

To,

Regional Officer,

Regional Office – East Kutch

Gujarat Pollution Control Board,

Gandhidham – 370201.

Subject: Intimation for stoppage of environmental monitoring within APSEZ, Mundra (Kutch, Gujarat) during COVID – 19 Pandemic lockdown.

Ref.: Regulatory Permission obtained by APSEZ, Mundra (Kutch, Gujarat) as per attached **Annexure – 1.**

Dear Sir,

With reference to above stated subject, we would like intimate you that, in compliance to various regulatory permissions granted by MoEF&CC/ SEIAA as well as SPCB for various project, M/s. Adani Ports and SEZ Limited, Mundra (Kutch, Gujarat) has been regularly carrying out post environment clearance, monitoring (environmental attributes viz. Air, Water, Noise, Soil, Marine etc.) through NABL accredited / MoEF recognized laboratory and same is being reported/ submitted to regulatory body periodically.

However, considering the current scenario of COVID – 19 Pandemic lockdown, we were forced to stop the Environmental Monitoring from 23rd March, 2020 and same shall be restarted after completion of this lockdown period and/or when the condition is normalized (as directed by district administration/ State/ Central Govt.). The date of restart of Environment Monitoring, shall be communicated to your good office.

Kindly consider our above submission and oblige.

Thanks & Regards

For, Adani Ports and Special Economic Zone Limited



Shalin Shah

(Head – Environment)

CC To:

1. Member Secretary, GPCB – Head Office, Paryavaran Bhavan, Sector 10 A, Gandhi Nagar – 382 010
2. APCCF, Regional Office (WZ), MoEF&CC, Regional Office (WZ), E-5, Kendriya Paryavaran Bhawan, Arera Colony, Link Road No. – 3, Bhopal – 462 016
3. The Director (IA Division), Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003

Adani Ports and Special Economic Zone Ltd
Adani House,
PO Box No. 1
Mundra, Kutch 370 421
Gujarat, India

Tel +91 2838 25 5000
Fax +91 2838 25 51110
info@adani.com
www.adani.com

ANNEXURE – 1

REGULATORY PERMISSIONS

Sr. No.	Permission for	Ref. No. & Dated
Environmental / CRZ clearance from MoEF&CC/ SEIAA		
1.	Handling facility of General Cargo / LPG / Chemicals and their storage terminal	F. No. J-16011/13/95-IA.III, 25 th August, 1995
2.	Port expansion project including dry/break bulk cargo container terminal, railway link and related ancillary and back-up facilities	F. No. J-16011/40/99-IA.III, 20 th September, 2000
3.	Single Point Mooring (SPM), Crude Oil Terminal (COT) and connecting pipes	F. No. J-16011/30/2003-IA-III, 21 st July, 2004
4.	Development of Multipurpose berth (Terminal- 2)	F. No. 11-84/2006- IA.III, 5 th February, 2007
5.	Water Front Development Project	F. No. 10-47/2008- IA.III, 12 th & 19 th January, 2009, 7 th October, 2015
6.	Township and area development project	Letter No. SEIAA/GUJ/EC/8(b)/44 /2010, 20 th February, 2010
7.	Establishment of Common Effluent Treatment Plant (CETP) of 17 MLD	Letter no. SEIAA/GUJ/EC/7(h)/43/2010, 20 th February, 2010
8.	Multi Product SEZ, Desalination, Sea Water Intake, Outfall Facility and Pipeline	F. No. 10-138/2008-IA.III, 15 th July, 2014
Consent to Operate from SPCB		
1.	Mundra Port Terminal (PCB ID: 17739) for handling, storage and distribution of Dry, Liquid and Containerized Cargo	Order No. AWH-83561, Dated 09.02.2017
2.	WFDP – West Port (PCB ID: 35427) for Dry cargo handling	Order No. AWH-79241, Dated 28.07.2016
3.	SPM and Pipeline for Crude Oil Terminal (PCB ID: 37436)	Order No. WH-86980, Dated 30.08.2017
4.	Multi Product SEZ (PCB ID: 31463)	Order No. AWH-88998, Dated 23.11.2017
5.	MUPL – CETP (PCB ID: 10605) for 2.5 MLD Capacity	Order No. AWH-79311, Dated 29.07.2016
6.	AMSIPL (PCB ID: 10602) for township and area development	Order No. AWH-89533, Dated 05.12.2017
7.	APSEZ, Residential colony (PCB ID: 17738) for STPs (350 + 250 KLD) & RO Plant (10 KLPH)	Order No. AWH-81075, Dated 12.09.2016
8.	MLPTPL (PCB ID: 53331) for handling, storage and distribution of LPG	Order No. AWH-103906, Dated 09.11.2019

Annexure – 7



भारत सरकार / Government of India

वाणिज्य और उद्योग मंत्रालय / Ministry of Commerce & Industry

पेट्रोलियम तथा विस्फोटक सुरक्षा संगठन (पैसो) / Petroleum & Explosives Safety Organisation (PESO)
PESO's ONLINE LICENSING SYSTEMईमेल / E-mail : explosives@explosives.gov.in

दूरभाष / Phone/Fax No : 0712 -2510248, Fax-2510577

दिनांक / Dated : 24/11/2018

संख्या/No : P/WC/GJ/14/4671(P291058)

सेवा में / To,

M/s. ADANI PORTS AND SPECIAL ECONOMIC ZONE LTD.,
ADANI HOUSE,
P.O.BOX NO.1, MUNDRA,,
Village Dhrub,
Mundra,
Taluka: Mundra,
District: KUTCH,
State: Gujarat
PIN: 370421

विषय / Sub :

Existing Petroleum Class A,B Consumer Pump at Plot No, ADANI PORT AND SPECIAL ECONOMIC ZONE, NAVINAL ISLAND PAIKI, VILLAGE DHRUB,, TAL MUNDRA, VILLAGE DHRUB, KUTCH, Taluka: MUNDRA, District: KUTCH, State: Gujarat, PIN: 999999 - Licence No. P/WC/GJ/14/4671 (P291058) - Reg Online Renewal of Licence.

महोदय / Sir(s),

Please refer to your online renewal application filed in the PESO's online Licensing System on 24/11/2018. The license No. P/WC/GJ/14/4671(P291058) granted under Petroleum Rules, 2002 has been renewed up to 31/12/2021 and PESO's records have been updated accordingly.

The validity of the subject license can be verified by entering Dockey through the Public Domain link available on PESO's website : <http://peso.gov.in>. You are advised to keep this communication attached with your subject original/latest amended license issued by this organisation.

For further renewal, please submit application online on or before the date on which the subject license expires.

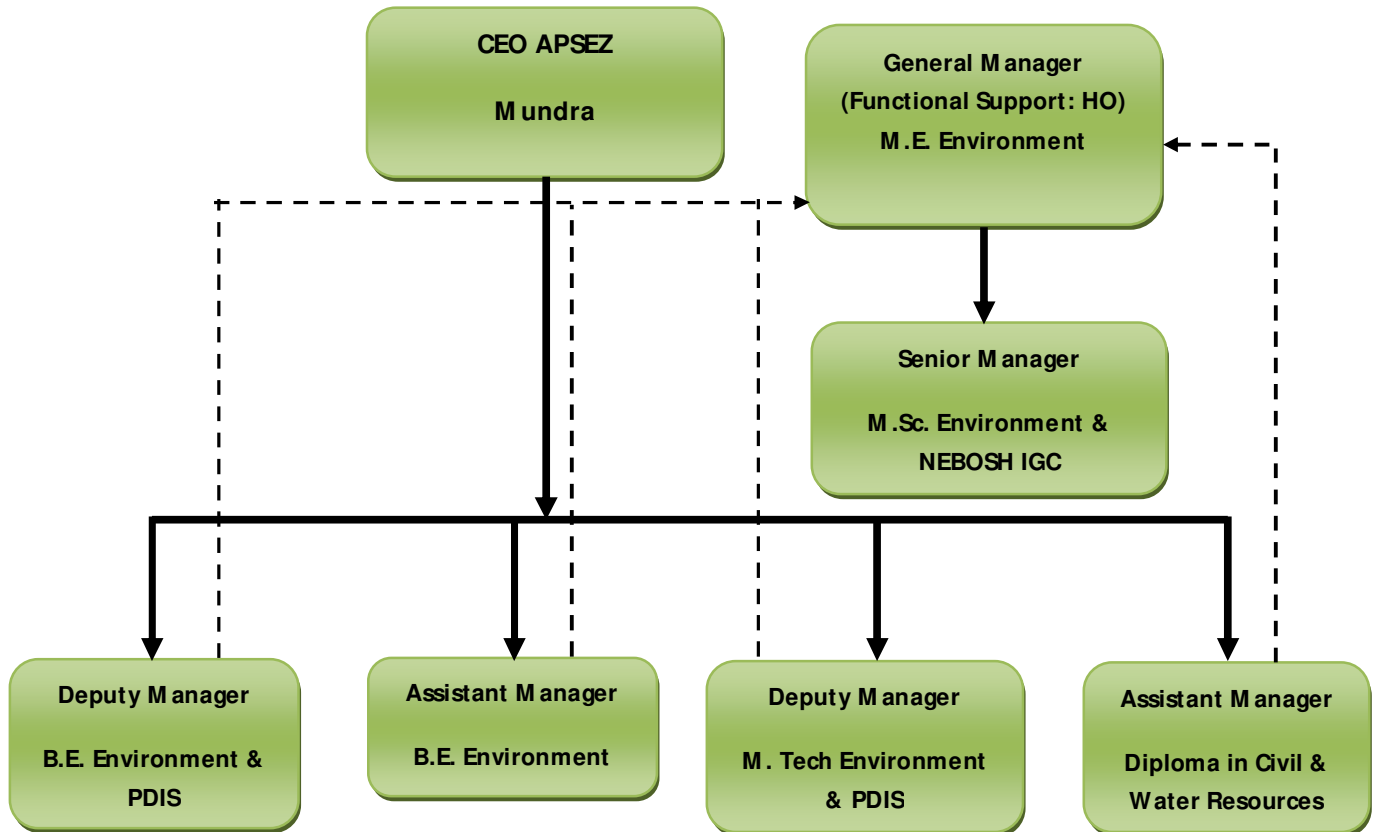
This is a system generated online letter which does not require signature and reply to this letter is not warranted.

PESO's ONLINE LICENSING SYSTEM

(अधिक जानकारी जैसे आवेदन का स्थिति, शुल्क तथा अन्य विवरण के लिए कृपया हमारा वेबसाइट <http://peso.gov.in> देखें।)
(For more information regarding status, fees and other details please visit our website <http://peso.gov.in>)

Annexure – 8

Organogram of Environment Management Cell, APSEZ, Mundra



Annexure – 9

Cost of Environmental Protection Measures

Sr. No.	Activity	Cost incurred (INR in Lacs)			Budgeted Cost (INR in Lacs)
		20 17 – 18	20 18 – 19	20 19 – 20	20 19 – 20
1.	Environmental Study / Audit and Consultancy	9.0	6.7	0.33	6.0
2.	Legal & Statutory Expenses	5.07	4.42	0.84	3.0
3.	Environmental Monitoring Services	27.02	20.36	21.74	24.0
4.	Hazardous / Non Hazardous Waste Management & Disposal	65.62	95.72	108.43	120.57
5.	Environment Days Celebration and Advertisement / Business development	2.85	0.28	1.5	10.0
6.	Treatment and Disposal of Bio-Medical Waste	1.13	1.21	1.62	1.56
7.	Mangrove Plantation, Monitoring & Conservation	60.0	47.0	Nil	Nil
8.	Other Horticulture Expenses	547.0	579.32	734.18	727.80
9.	O&M of Sewage Treatment Plant and Effluent Treatment Plant (including STP, ETP of Port & SEZ & Common Effluent Treatment Plant)	70.02	144.29	110.18	128.52
10.	Expenditure of Environment Dept. (Apart from above head)	102.15	109.28	105.13	124.38
Total		889.86	1008.58	1083.95	1145.83

Annexure–10

Sustainable Growth

With Goodness



Adani Foundation

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

Our Journey

The year 2019-20 has passed off with motivation through recognition by Ministry of Corporate Affairs and courage to work for the commitment given to the community. It is necessary that sustained growth is achieved at rural level along with the industrial development. This can be made possible by involving more and more people in the rural development programme.

Since beginning, The Adani Foundation Mundra is committed to the cause of the deprived and underprivileged. It has been working relentlessly across 6 Talukas, covering 92 villages, to uplift the lives of more than 60,000 families with a multi-faceted approach.

This year conceded with more streamline projects of Education i.e. Utthan – to enhance primary education of 17 schools of Mundra and 8 Schools of Nakhatrana, milestone achievement in Fisherman Livelihood project, Launched Gram Utthan in seven villages of Mundra , considerable impact created by Mangroves Biodiversity projects and new era defined in agriculture projects i.e. Home biogas and Dragon Fruit Cultivation

Adani Hospital Mundra is come out as a true blessings for the community due to reframed rate structure with more than 90% discount. Current year G K General Hospital recognized by Government for best implementation of Ayushman Yojana and for the best health service provider as well. Two Health Weeks were Celebrated to increase outreach of GKGH.

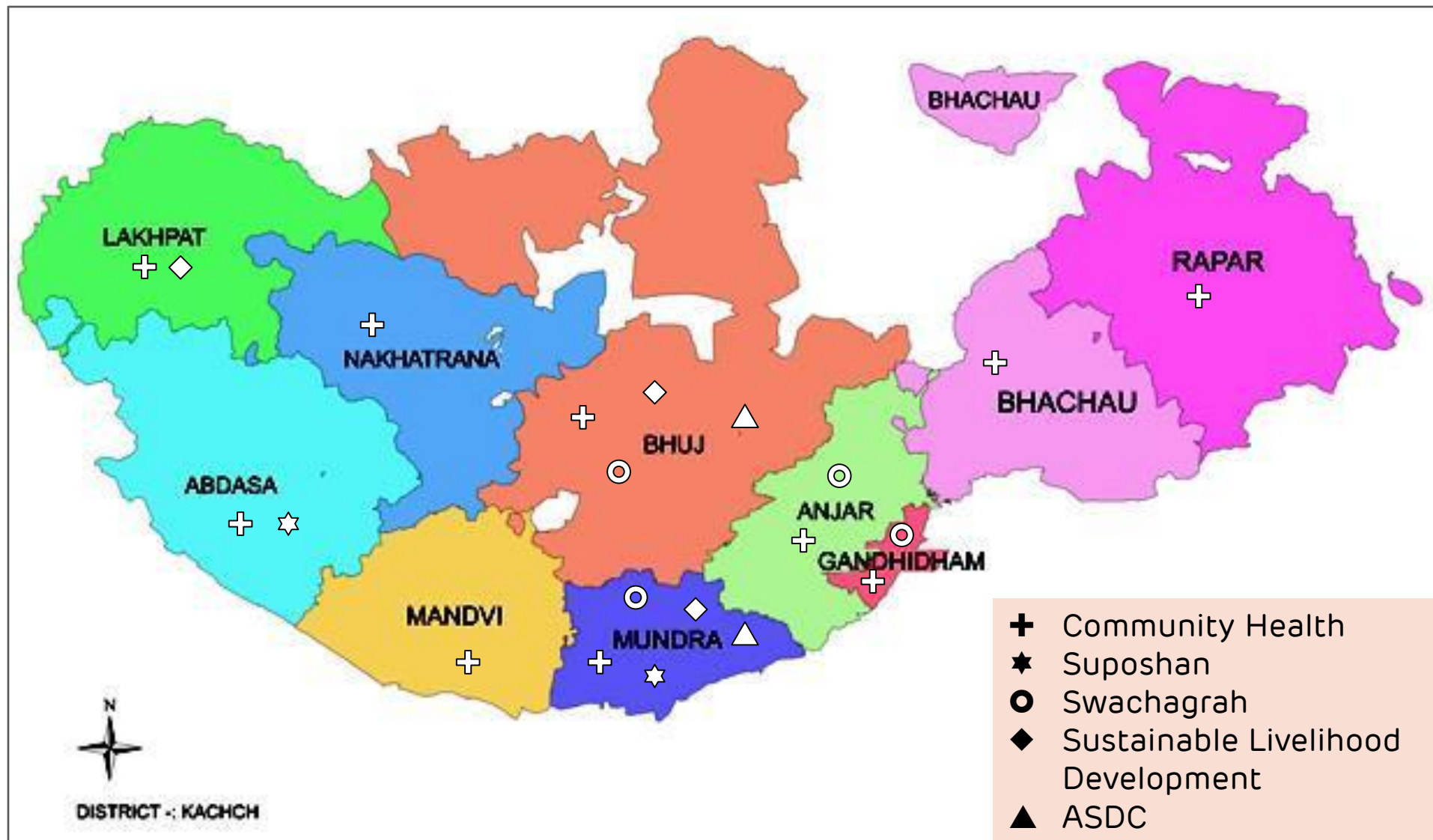
Namda Artisan Karim mansoori was awarded with "Best State Artisan Award" by CM, Gujrat. Live exhibition of different mangroves spices in District Level Krishi Mela by Adani Foundation. " Speaker of Kutchh" organized to motivate and identify youth speaker at District Level.

The people of Kutch have generously supported the activities carried out by the Adani Group or else this wouldn't have been possible. Their determination, understanding and commitment have strengthened the development even more.

Thanks to Mr. Rakshit Shah – Executive Director APSEZ and Mr. Avinash Rai – CEO APSEZ for being mentor of the team Always !

Our Achievement would not be possible without the ultimate support by Mr. P N Roy Chaudhry, Executive Director - AF and generous faith and passionate support by Dr. (Mrs.) Priti G Adani, Chairperson– Adani Foundation

Our Presence in Kutch



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Education



🏠 3417 Students	: 25 Schools Utthan
🏠 502 Students	: Khel Mahakumbh
🏠 3100 Enrollment Kit	: 118 Schools
🏠 997 Students	: Dignity of Workforce
🏠 3110 Mothers	: Mother's meet touch
🏠 33030 Students	: Udaan Project
🏠 443 Students	: Adani Vidya Mandir
🏠 552 Teachers	: Guruvandana- I,II



The future of India depends upon the quality of education imparted to our children in primary schools. Primary education is the basic foundation on which a nation builds its future.

In this context with an aim to enhance the quality of primary education in Kutch district, Adani foundation adopted 25 government school located at Mundra and Nakhtrana Taluka under the project 'UTTHAN' a drive of quality education.



Large-scale efforts have been made by the government and non-government sectors, especially in rural government primary schools, but coverage and quality of education are still not satisfactory. Adani Foundation leveraging their experience, to intervene in Government Schools. These interventions will aim to enhance the quality of primary education in Government schools. Under Project UTTHAN 25 primary government schools of Mundra and Nakhtrana Taluka of Kutch district have been adopted to take up various initiatives aimed at improving quality in these schools. 3417 children are benefiting from a meaningful education in these schools.

Academic

Co -curricular

Extra curricular



Academic

- One teacher – One school + Sports teacher + IT teacher
- 'IT on Wheel' Van with 35 laptops and computer instructor make students more tech savvy and spreading the digital and technology knowledge amongst the younger generation
- To achieve academic excellence of Priya Vidyarthi, Utthan Shikshak implies various alternative method to make their classroom more friendly and interesting.
- English is to be taught to the students from the early classes so that they will be equipped with ample resources during their further studies.
- Training cum Induction Program on various topic like teaching methodology of progressive learner, assessment pattern of slow learner, multiple intelligence etc.





Library activities

Use of Reading Corner by students
of Std. 3 to 8 of Utthan School
Every Saturday Library activity with
the Book issue were planned and
executed in a meaningful manner

7113 Book issued in academic
year 2019-20



Book mark
exchange program

Through book mark exchange
program Received

32 Partner schools from
11 different
countries



Other Activities



Sports

Sports are a crucial part of a student's growth and development. Through participation in sports and games, a student gains various skills, experience and confidence. With the intervene of our Sports teacher in all Utthan Schools successfully enrolled 500+ students in Khel Mahakumbh

All 17 Utthan school has received FIT INDIA certificate from Government of Gujrat.

36 Students (24 girls, 12 boys) reached on District level in Khelmakakumbh

500+ students enrolled in Khel Mahakumbh



Achievements

Utthan Sahayaks with the help of customize

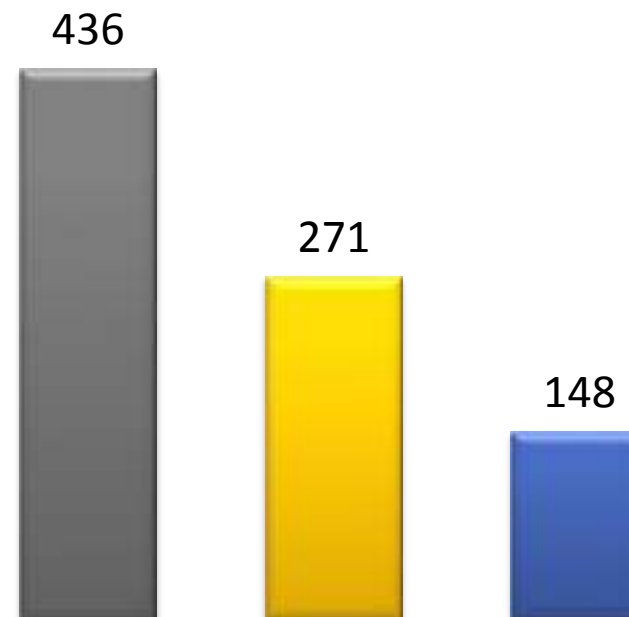
table meet huge success to achieve the main objective of the program

The No's of priya vidhyarthi in 2019 was 271 which is reduced to 148 in 2020

Third party assessment by KSKV University Department of Master of Social Work

Smart Classroom:

Gradually Reduction in no's of Priya Vidhyarthi



■ No. of Priya Vidyarthi as per the result of Gunotsav - 2017

■ No. of Priya Vidyarthi as per the report of Impact Assessment 2019

■ No. of Priya Vidyarthi as per the Internal assessment 2020

One of the major element of project Utthan is to convert traditional teaching method into technological based learning After the installation of Software classroom become more Interactive and Interesting – Stated in the Impact Assessment report done by KSKV University



Extra - Curricular

- Utthan Sahayak + 1222 students from High school & Higher secondary of 6 villages celebrate Fifth International Yoga Day
- On International Plastic Bag Free Day, Awareness were spread through Effective speech, Soft board decoration, Video and Newspaper clipping in all Utthan school.
- Celebration of Gurupurnima in all Utthan Schools during morning special.
- 363 students from 17 schools got an opportunity to visit Adani West port. Main port , Willmar, power & power through project Udaan.
- Tree plantation in all the Utthan School. Adani Foundation align with the circular passed by the Government of Gujarat "Ek baal Ek Jhhad" distributed 100 trees in each school. Students not only planted the trees in fact they adopt each tree with giving their own names.



Adani foundation has make out four major criteria for peripheral Development work amongst them “EDUCATION PROGRAMME” is the one of the major area where we work on following objectives.



Render support to gap understanding school Environment.

Efforts for 100% enrollment and retention of eligible children in Govt. primary school.

To fill the gap- understanding the importance and urgency of requirement though material or infrastructure support.

Sr. No.	Activities	Beneficiaries
1	Mothers Meeting	3110
2	Chintan Shibir	1155
3	Praveshotsav	3100
4	Celebrations	3295
5	Other Activities	734
Total		11394

Adani foundation is supporting for improving quality of education To motivate children for schooling as well as inspire peers with create conducive Environment by various activities like Mothers Meeting, Chintan Shibir etc.

Adani Vidya Mandir Bhadreshwar

In Bhadreshwar, Mundra, the Adani Vidyamandir has completely revolutionized the education scenario. Only the children of families with an income of less than 1.5 lakh are admitted to this school. Along with quality education, the school also focuses on providing nutritious food, uniforms and other services to the children for free.

In year 2019-20 Total strength of students are 443 in Adani Vidya Mandir



Adani Vidya Mandir Bhadreswar

Annual Day Celebration



Annual Day was celebrated in Adani Vidya Mandir on 13th December 2019 on theme "Mera Bharat Mahan". Chief Guest of the Event was Wing Commander BSF and Mr. Rakshit Shah Executive Director, APSEZ was the chief guest of the Event. All the students participated with great Enthusiasm and Zeal.



AVMB STD - 10 SECOND BATCH RESULT

Year 2019-2020

SR NO	GRADE	STUDENTS
1	Above 80 %	1
2	Above 70 %	3
3	Above 60 %	5
4	Above 50 %	9
5	Above 40 %	7
6	Fail	2
TOTAL		27

AVMB Std.-10 Second Batch Result 2018-19

Adani Vidya Mandir Bhadreshwar achievement in Gujrat Board Standard 10th Examination Result 92% (25 students have passed the examination out of 27). Adani Foundation will take all responsibility of further study of students with respect to their interest.



Project Udaan

With a vision to familiarize, educate and inspire the future generations, Adani Foundation organizes Education Exposure visits to Mundra for High schools and educational institutes in Various parts of Gujrat.

568 institutes and 33,030 beneficiaries have made inspirational visit up to March 2020

Objective of the program:

The main objective of the project is to encourage and motivate young school students to develop their entrepreneurial skills. The main idea behind this project goes back a long way when Mr. Gautam Adani himself had a life changing experience. Young Mr. Adani had the chance to go and visit Kandla port, Gujarat. Looking at the expanse, the large scale activities being carried out at the port he got extremely inspired and encouraged. From that day onwards he nurtured his entrepreneurial skills only to later become the proud owner of one of the most successful ports in the world. Mr. Adani believes that if that one visit could have such an impact on his life, it could similarly do wonders for hundreds of other young minds if given a chance to dream big.



Other activities



Follow up Mechanism:

There is a structured feedback mechanism for the project where the visiting students along with their teachers send back a feedback form to the organization sharing their experience and inputs to

better the overall program. Entering in its 10th year, there are

concentrated efforts in the organization to conduct a full-fledged impact

study of the program to measure its short term and long terms effects.

Community Health Mundra



Project	Total OPD & IPD
Senior citizen	9860
Medical Supports	2129
Dialysis Supports	6
Medical Mobile van	20399
Rural Clinic	25142
Ayushman Bharat yojna	364
General Health camp	3137
Utthan Health camp	837
Brest & Cervical Cancer Camp	370
Forthnight health celebration	712
Total	62956

"ॐ सर्वे भवन्तु सुखिनः सर्वे ऽन्तु निरामयाः" is the Arogya Mantra of India – Adani Foundation Mundra is always following this mantra in case of health and well being of the community. Health is the basic need for development of community. Adani Foundation understands this fact and its committed to improve health care facilities in every corner of region.



Rural Clinic & Mobile healthcare unit

To solve the health issue in interior villages and to cover the marginalized as well as poor people Mobile Van and rural clinic service is being executed by Adani Foundation. The mobile health care unit cover 25 villages and 07 fishermen settlements. Around 90 types of general life saving medicines are available in these units. It has turned out to be a boon for women and children as the service is availed at their door - step. The Adani Foundation operates Rural Dispensaries in 7 villages of Mundra block, 03 villages of Anjar block and 1 clinics in Mandvi Block. Mobile dispensary and rural clinics provide health services with token charge of 10/- rupees per patient daily by a doctor and a volunteer.



11 Rural Clinic

8 from mundra 3 from Anjar block treated ;

25142 patients.

31 villages covered through Mobile healthcare unit
20399 patients benefited during the year



Health Cards to Senior Citizens

In the Fourth part of life is there is need special care for health and warmth hence Adani foundation has started senior citizen project in Mundra Block since 9 years.

The project is being implemented in three phase wise with key point of Blue and green card according to beneficiaries criteria.

The amount strategy per phase wise – Three year is as below

- ❑ **First phase** **75000 INR**
- ❑ **Second phase** **50000 INR**
- ❑ **Third Phase** **30000 INR**

During the year 2019-20, total 9860 transactions were done by 8672 card holders of 68 villages of Mundra Taluka. They received cash less medical services under this project.

The third phase of this scheme was started in last year. The limit for the beneficiary was set to 30000/- within a period of 3 years. the senior citizens get emergency medical care at Adani Hospital, Mundra and refer to GKGH, Hospital ,Bhuj in Emergency.

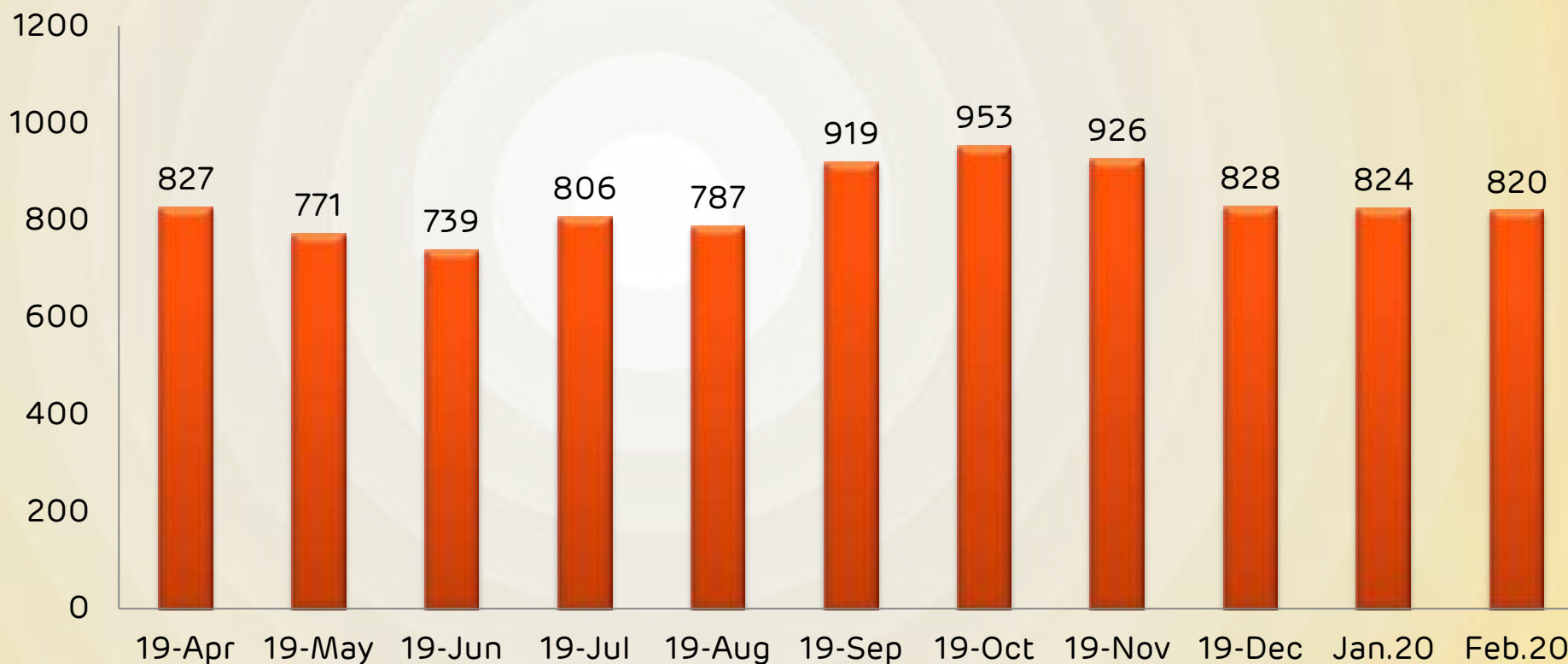


Sr.Citizen Project – Total village wise Card transection for April-19 to March-20

Sr.Citizen status Year-2011 to 2020

Number of Villages	Total Cards	Total Survey	Pending Renew Cards	EXP	Green cards	Blue Cards	BPL Cards	APL Cards	No Resnig Cards	RSBY Cards	MA Cards
68	8672	7056	901	715	6289	767	2493	4516	47	77	222

Month	OPD
19-Apr	827
19-May	771
19-Jun	739
19-Jul	806
19-Aug	787
19-Sep	919
19-Oct	953
19-Nov	926
19-Dec	828
Jan.20	824
Feb.20	820
Mar 20	660
Total	9860





General health camps, Pediatric Camp, breast and cervical cancer screening camp and surgical health camps was organized at frequently to meet the specific requirements of the community and in disease outbreak season.

In the year of 2020-2021 Total 3137 people had been benefitted by various kind of camp and needy and screened patients are treated in **Adani Hospital**.

As well as linkages and facilitated them with government health Yojna like Ayushman Bharat, RSBY, Maa Amrutam and Maa Vatsalya yojna ,Bal sakha yojna.

Health camp			
Sr. no.	Place	Villages Name	Total Patients
1	Ganesh Mandir Mela_ Health Camp	Luni	40
2	Hajipir Mela provide Medicine	Hajipir mela	100
3	Salimbhai Labour colony Health camp	Dhrub	71
4	Shri Ram Katha Nandi Sarovar Ahinsadham	Pragpar	491
5	Aslambhai Labour colony health camp	Dhrub	175
6	Tatwamsi Keraliyan Samaj	Mundra	64
7	Labour Colony Health camp - AWL	Dhrub	154
8	Labour Colony Health camp - AWL	Dhrub	117
9	Khoja Jamat khana Mundra	Mundra	125
10	Multi Speciality Camp Ramvadi Gundala	Gundala	105
11	Health camp at Uras Darga Sarif Luni	Luni	824
12	Labour Colony Health camp - AWL	Dhrub	161
13	Pra.School Sukhpar Vaas _mundra	Mundra	108
14	Samaj vadi Sukhpar vaas - Mundra	Mundra	160
15	Luni Samuha Sadi	Luni	290
16	Labour Colony Health camp - AWL	Dhrub	152
Total...			3137

Medical support



While Health emergency create its takes limitless rupees to recover it and it is not possible to economically poor though Adani Foundation provides primary health care and financial assistance for ailments such as kidney related problems, paralysis, cancerous and tumor surgeries, neurological and heart problems, blood pressure, diabetes etc.

Medical Support had been given to 2129 benefitted from Mundra, Mandavi and Anjar Block at adani hospital, Mundra where as In the Critical cases after stable them we refer them to GKGH, BHUJ for further treatment.

Dialysis support



As the kutchh is arid region and higher saline Drinking water in Mundra, there is urinary stone and kidney failure case is more prominent in Block. A dialysis support project to providing dialysis treatment to help the extremely needy patients to live a healthy life.

Total 6 Patients are being supported for regular dialysis (twice in a week) during this year.

Community Health Bhuj



- **5398 Patients taken Care and Coordination**
- **52 Health Camps 4779 beneficiaries**
- **609 Dead body referred by carry van**
- **3557 Ayushman Gold Card facilitation through Enrollment camp and Mahiti Setu**
- **549 support for Implants and Needy Patients**
- **9896 People helped through Mahiti Setu for various government schemes**
- **816 people benefitted in 6 health awareness camps**



Gujarat Adani Institute of Medical Science (GAIMS) - Bhuj

Gujarat Adani Institute of Medical Science is the first Medical College of Kutch region. It started in partnership with Adani Group and Government of Gujarat in the year 2009. This college was affiliated by the Medical Council of India in the year 2014 for the MBBS with 150 seats per year. Gujarat Adani Institute of Medical Science is affiliated with the first digital university "Krantiguru Shyamji Krishna Verma Kutch University". In GAIMS, currently 750 students are studying. The GAIMS Medical College is situated in the heart of Bhuj city on a large plot of 27 acres.



Adani Foundation - Bhuj

- Adani Foundation Team has initiated coordination with GKGH hospital since 2014 and established a reception area for the smooth patient coordination and preparation for the social networking program.
- Adani Foundation organized **52 General Health Camps and Speciality Camps** in various interior villages of Kutch in coordination with GKGH which created magical impact and benefitted **4779 patients**. Adani Foundation Bhuj Health team has also organized more than six awareness camps.
- 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 609 dead bodies privileged till now to different locations in Kutch.



Patent Care and coordination



Sr. No.	Month	Total Patient Special Care in OPD and IPD level
1	April to June	1350
2	July to September	1474
3	October to December	1419
4	January to March	1155

In the financial year 2019-20 G K General Hospital Adani Foundation team has coordinated with 5398 patients for proper IPD care from admission stage to up to discharge level.

Mahiti Setu

Mahiti Setu has created trust and easy access to various government schemes – outreach will increase with time and awareness. 9686 people helped through Mahiti setu for various govt scheme

Sr. No.	Month	Total Beneficiaries
1	April to June	2249
2	July to September	1993
3	October to December	1951
4	January to March	3493





Arogya Saptah

Adani foundation, Adani Hospital and GAIMS have Jointly Celebrated "Arogya Saptah" 8th to 14th August & 20th to 26th January in Respect of Independence and Republic of our country. Celebration included multi specialty camps, Workshops, truckers health check up, surgical camp on foundation day and adolescent fair at different part of district. Collector, **7th to 14th August 2019**

Day	Date	Event Name	Details about the event	Beneficiaries
1	07/08/2019	Health check up at Orphan age, Bhuj	Orphan children's of Yatimkhana ahlesunat primary schools 101 students health checked and referred 24 students for further treatment	101
2	08/08/2019	Blood Donation Camp, Nakhatrana	Blood donation of 16,500 MI was taken from blood donation camp at Nakhatrana.	55
3	09/08/2019	Pregnant Women health check up, Madhapar	ANC mothers HB and health checked by gynaecologist and advised for care and diet during the pregnancy	50
4	10/08/2019	Surgical Mega Camp, Khavda	Mega Surgical Health camp held in Khavda region 223 patient had been treated and more than 35 patients referred for further treatment	223
5	11/08/2019	General Health Camp, Palara Jail	Due to constant complaints about the health of the examiners of the Palara Jail, the camp was organized in the Palara jail and there were an 35 patients referred to gkgh of skin patient.	139
6	12/08/2019	Ayushman Health Card Enrolment, Gorevali	Aushyman bharat golden card enrolment camp was held at Gorevali PHC there was 39 family covered under the the skim and 52 card was given to beneficiary.	52
7	13/08/2019	Awareness on women health, mukt jivan college, Bhuj	Woman awareness for hostel girl of Muktjivan Swamibapa mahila collage was held 250 Student got aware about Menstrual, HIV, Breast and cervical cancer.	250
8	14/08/2019	Blood Donor Appreciation	More than 50 and 100 times blood donor was appreciated with certificate by Adani foundation and GAIMS.	36

Arogya Saptah

Objective of the program was to avail health benefits at GKGH and also at Adani Hospital Mundra and Approximately 1539 people were direct beneficiaries of the program.

20th – 26th January 2020

Day	Date	Event Name		Beneficiaries
1	20/01/2020	Eye diagnosis camp- Khavda	Due to the dry climate eye diseases such as Cataract etc. are more prevalent in Kachchh area. Thus we held speciality camp of eye and 9 operative patient referred to GKGH	42
2	21/01/2020	Woman Health and awareness and HB camp	Adolescent girl, woman HB awareness and check up camp was held at Mota reha village, 3 girls of higher haemoglobin was awarded as Miss Haemoglobin	86
3	22/01/2020	Health check-up camp ugedi	3 rd event of Health week 4 was held as Health check-up at Ugedi village of Nakhtrana Taluka. 115 Patient was taken benefits of the camp.	115
4	23/01/2020	Subhaschandra boss Jaynti celebration	Speech and Drawing Competition Held at 'PATVADI NAKA' Primary School on the occasion of the birth anniversary of Freedom Fighter Subhash Chandra Bose	150
5	24/01/2020	Ayushyman Bharat camp-Bhadreshwar	Golden card of central Government's PM-JAY scheme enrolled at Bhadreshwar PHC 32 family and 45 beneficiary taken benefits of this camp.	45
6	25/01/2020	World leprosy day celebration	Organized an awareness program to celebrate World Leprosy Day 160 PCA and Nursing staff got advice about leprosy	160
7	26/01/2020	Appreciation to housekeeping staff	PCA and Security staff who has done excellent work for Public Health was appreciated by adani foundation as part of 4 th Health week on the occasion of Republic Day celebrations	35

Sustainable Livelihood Development

In the villages at Mundra Taluka, several communities are economically side-lined and weaker that 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.



Fisherman Amenities work



- 🏠 939 Students : Education Support
- 🏠 137 Students : Adani Vidya Mandir *
- 🏠 28 Fisherman : Alternate livelihood
- 🏠 11 Fisherwomen : Linkages for schemes
- 🏠 1295 Fisherman : Community Engagement
- 🏠 4340 Members : Potable water provision
- 🏠 6261 Mandays : Mangroves Plantation *
- 🏠 12 Members : Sea Weed Culture
- 🏠 6970 Direct Beneficiaries

28 Fisherman are engaged in various contract related jobs and 37 Fisherman are doing job after taken training from Adani Skill Development Center.



To strengthen the standard of pri-primary education, Adani Foundation has constructed 4 BALWADI at different fishermen helmet Which focuses on the development of basic age-appropriate learning concepts, discipline, regularity, awareness of health & hygiene, cleanliness and also provides nutritious food. 140 children are benefiting from this scheme

Balwadi		
Sr.	Village & Bandar	children
1	Juna Bandar	45
2	Luni Bandar	25
3	Bavdi Bandar	40
4	Zarapra	30
	Total	140

Learning with Joy

Adani foundation came to know that fishermen children are being suffered to continue their study due to migration of their family at different Vasahat so foundation has started vehicle support for transportation from different Bandar to village total 120 students were benefitted.





Scholarship Support

The Adani Foundation provided scholarship support to motivation and encouragement of fishermen boys and girls for higher education under this program we provide 100% fees support to girls and 80% fees support to boys as a scholarship. this year total 78 students are being facilitated by Adani foundation.



Book support:

49 Fisherman Students from Higher Secondary Standard (9 to 12) has been benefitted from various of Juna Bandar, Zarpara, Navinal, Bhadreswar.



Cycle support:

Fishermen who are at fishermen hamlets are migrated with whole family for 8 month fishing season. During that time to continue higher education of their children at Mundra, Adani foundation provide cycle support every year to 9th standard students. This year cycle support has been given to 7 students.

Awareness Program



To create awareness about health, personal hygiene, child education and nutritional diet in fishermen community, various awareness programs have been organized.

Facilitation of Government's fishermen welfare scheme "Sarkar Apne Dwar" program organize. More than 150 Beneficiaries participated in this events.



Machhimar Ajivika Uparjan Yojana

Providing fishing materials support like fishing nets, ropes, buoys, anchor, etc. according to fishermen need. Before these Fishermen had to buy this borrowed materials from traders which were very expensive for them

28 fishermen has been facilitated by fishing materials

Potable Water to Fisher Folk at vasahat-2019-20

Sr.	Vasahat	family	Requirement Per day	Remarks
1	Luni Bandar	116	15000	9 Month
2	Bavdi Bandar	88	15000	9 Month
3	Kutdi Bandar	140	15000	Provide by Adani Solar
4	Virabandar	58	10000	Provide by Tuna port
5	Randh Bandar	350	25000	9 Month
6	Ghavarvaro Banadar	58	7500	Provide by Tuna port
7	Junabandar	134	30000	Connection with Mundra Gram Panchayat
8	Zarapra Vasahat	72		12 Months
9	Chhachh vadi Zarapra	69		12 Months
	Total	1085	117500	



Machhimar Shudhh Jal Yojana

Pure water play important role for good health hence reduce water scarcity and ultimately reduce load over women , potable water was provided to the fishermen communities at different vasahat through water tanker **A total of 1,17,500 litres of water per day was supplied to 1085 households from different settlements on a daily basis..**



Cricket Tournament

Adani Foundation, Mundra organized Cricket Tournament, **"Adani Premiere League"** among fishermen community to promote healthy sportsmanship ,and harmonically transparent community relationship among fisher folk of Mundra ,Anjar and Mandvi Taluka.

Total 65 Teams were participated from 13 villages i.e 750 Fisherman youth from various Villages Zarpara, Navinal, Shekhadia, Modhava, Salaya, Mundra, Tragadi, Luni, Gundiyali, Bhadreshwar ,Vandi (Tuna),layja and kathada with great enthusiasm.

Ramotsav Programme

To Development of physical and mental Development of youth Ramotsav week Program has been organized at various Vasahat. (i.e. Junabandar, Luni, Zarapara, Bavdi Bandar and Navinal & Vira Bandar)

This year Total 545 children of 1st to 10th standerds were participated.



Environment Sustainability

The Environment Impact Assessment (EIA) Notification, 2006, issued under the Environment (Protection) Act, 1986, as amended from time to time, prescribes the process for granting prior environment clearance (EC) in respect of certain development projects/activities listed out in the Schedule to the Notification.

Sustainable development has many important facets/components like social, economic, environmental, etc. these components are closely interrelated and mutually reinforcing. 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, this year we launch project "Sanrakshan" in coordination with GUIDE. MOU has been signed with Dr. Thivakaran – GUIDE for conservation of five species of mangroves.



Bio diversity Project

Bio diversity Project has been Continue with three species Rhizophora Mucronata ,Ceripos Tagal, Ceriops Decandra with good growth at Luni Bandar.

The mangrove biodiversity enrichment project in and around Adani ports special economic zone limited (APSEZL) aims to introduce select true mangrove species on a pilot scale in suitable coastal belts and assess their survival. Because this project is the first of its kind, the expected survival rate is between 20-30%.



The project is currently in its initial stages of establishing nurseries and sowing seeds of several different species brought in from multiple locations in and outside of Gujarat state. These nurseries have been developed in tidal flats near the village of Luni, Kutchh, Gujarat.

The mangrove seeds/propagules for the establishment of the nursery were brought in from various locations in India, namely, Machilipatnam (Andhra Pradesh), Pondicherry (Tamil Nadu), Parangipettai (Pichavaram Mangroves, Tamil Nadu), Kandla (Gujarat) and Jamnagar (Gujarat).

In most of these locations, there is adequate fresh water supply available due to high/substantial rainfall and/or presence of major rivers (also important river confluences and deltas that give rise to a thriving estuarine environment). Consequently, the mangrove species that successfully grow in those regions are adapted to a low-salinity environment (where salinity is approximately 20 ppt) against that of 37-44 ppt prevailing in Kutchh coastal waters. Furthermore, the species selected to establish the biodiversity enrichment project also belong to this group of mangrove species. This subsequently creates a challenge for the team heading this project because the Kachchh region does not provide adequate salinity ranges for survival of most of these species. In fact, it provides an extremely harsh saline environment (salinity can range up to as high as 44 ppt during summer).

Considering the above-mentioned scenario, the site selection criteria, need for species of high salinity tolerance and studying their natural occurrence in Kutchh becomes critical in ensuring a substantial survival rate of the mangrove species selected to potentially successfully establish a diverse and resilient mangrove community in the Kutchh region.

Furthermore, a highly diverse set of mangrove species will ensure resilience in the face of changing climate and could probably provide as a thriving gene pool and seed bank in the future for the Kutchh region.

Book Launch : Multi- species Mangroves Biodiversity Park by Chairperson, Adani Foundation



SUJLAM SUFLAM JAL ABHIYAN

Global Problem-Local Solution

Water Conservation Work 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.

- A large number of water harvesting structure (18 Nos. of check dams in coordination with salinity department) and
- Ground recharge activities (pond deepening work for more than 52 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 54 Nos. and Recharge Bore well 75 Nos.
- Drip Irrigation 823 Farmers benefitted in coordination with Gujrat Green Revolution Company
- Participatory Ground Water Management in ten villages with holistic approach for Kankavati Sandstone Aquifer Programme

Water Harvesting Structures



Dhrub- pond deepening work – work completed



Zarpara – Roof Top Rain Water Harvesting

For Water conservation drive we are having vision for next five years that

- Drinking Water Sustainable Villages by Roof Top Rain Water Harvesting – at least 5 villages
- Agriculture water conservation by 100% Drip, Bore well Recharge
- Farm Bunding and Crop pattern
- Recycling Sewage water from STP
- Awareness for water conservation to community

Machhimar Ajivika Uparjan Yojana

The 'Ajivika Uparjan Yojana' was implemented to promote and support alternative livelihoods among the Fisher folk communities during the non-fishing months. The Foundation introduced 'Mangrove Nursery Development and Plantation' in the area as an alternate income generating activity for the people of the region. Both men and women received training on Mangrove plantation, moss cleaning, etc. as per requirements. The Foundation provided them with employment equivalent to 6261 man-days. In addition to this, employment worth of 42048 man-days has been provided till date. The Foundation has also supported Pagadiya fishermen as painting laborers by providing them with employment and job in various field.



Sea Weed Project

The cultivation of seaweed have significant potential for the sequestration of carbon dioxide (CO₂) and will very fulfill in mitigating the climate change. Seaweeds are macrophysics algae, a primitive type of plants lacking true roots, stems and leaves. They provides valuable source of raw material for industries like health food, medicines, pharmaceuticals, textiles, fertilizers, animal feed etc.

As per study of government of Gujarat, Seaweed culture can be best developed along the coast lines of Amreli and Kutchh districts in Gujarat. Juna bandar has good potential for seaweed farming as it has Calm and less wind action. We started this project as Pilot base at Junabadar with 50Kg Quantity. though there was good growth but due to cyclone it was damaged at present it 600Kg.





PROJECT "DRIP IRRIGATION"

- **Basis of Requirements of Drip Irrigation**

The main source of livelihood being agriculture, the cultivators tend to use more and more underground water for irrigation. Underground waters have gone very highly saline. The use of such water for irrigation has made the soil also saline and the crop yields have dwindled.

- **Process of Drip Support**

Farmer have to applied in the prescribed form of Adani foundation with photograph. Inspection and verification will be by AF representative.

Ration card, work order of G.G.R.C, 7/12 certificate and all bills must be attached.

Farmer will be informed by telephonic to have form query.

Primary information about farmer land will be received by telephone.

Farm visit within 10 days of after received of application and verified the installation of system as per map and material as per bill will be checked and get farmer feed back.

Verification report submitted to account office.

Payment within 20 days if all document is complete through net banking.

Farmer economic study after our support. – Follow up

- **We have covered 164 farmers and 755 acre drip irrigation area last year. Curret year We have covered 131 farmers and 667 acre drip irrigation which is remarkable for water conservation.**

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.

Under Gram Utthan Project, Adani Foundation is supporting home biogas to farmers to Uthhan Villages phase wise. Current year supported 95 home biogas in Dhrub, Zarpara and Navinal Villages.

- 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 cigrates.



Objective of the Project :

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.

Earlier we had proceeded for capacity 2 cum but after visit and series of meetings with farmer group – we need to take up plant capacity 6 cum

Participation by Community :

For acceptance of this new biogas - We did awareness programmes, given information about usages of home biogas to farmers. Demonstration and training for smooth operation and also maintenance. Community has given 10 percent participation means 3000 INR per Home biogas.

SLD Agriculture Initiatives

- The organization has carried out remarkable activities in the agricultural and animal husbandry sectors. We have initiated Programme for Awareness of Farmers in collaboration with KVK. The outreach is approximate 200 farmers of seven villages under Gram Uthhan.
- The purpose of this project is to initiate village wise integrated agricultural & allied development for sustaining agriculture and socio economic situation of farming community of Mundra block.



Fodder Cultivation

After periodic discussions with Village Development Committee, Gram Panchayat and Gau Seva Samiti of Siracha – Adani Foundation had coordinated for Village Gauchar Development. Total 85 Acre Gauchar Land was approved by GP for Development by decision taken in Gram sabha . Among them 22 Acre land Has been Sowed with Sorghum and Remaining land would be Grow with Wild Grass

Siracha

22 Acre – 88000Kg Sorghum

63 Acre- 63000Kg Wild Grass

Total 85 Acre= 151000KG

Bhadreshwar @ 7 Acre= 28000Kg

Kukadsar @ 15 Acre= 60000Kg

Implementation Process includes

- Meeting with Village Development Committee
- Meeting with SDM for Gauchar Land Details





Tissue Culture : Date Palm

Brief Description

Make availability of 4000 tissue cultured plants of Barahi varieties to the farmers of project area. For this, we have selected best offshoots of Barahi plants from Well known Laboratory in coordination with farmers groups, Vice Chancellor (Anand Krishi University), Dr Murlidharan (Scientist, Date Research Center) and Krishi Vigyan Kendra Mundra.

The selected tissues from laboratory will take 3 years period for development and fruit. Hence, whole program is coordinating farmers participation basis having four party i.e. Tissue culture laboratory, Adani Foundation, KVK and farmers committee of project area. Major functions of all parties are as under;

TC Lab: Develop TC plantlets of Yellow varieties

Adani foundation: Financial support

KVK : Technical support to the program

Farmers committee: Provide their support for selection of Tissue plants & contribution in distribution & provide 50% cost of plants.

Objective:

To provide tissue culture plants of local elite varieties of Datepalm to the farmers of project area at affordable price.

Expected Outcome

We have registered Farmer's Producer Company first (Kutchh Kalptaru Farmer's Producer Company) in which 140 farmers are registered members of project area. Adani Foundation will support for 25 plants/farmers phase wise. In first phase during Financial Year 2019-20 we will provide support to 70 Farmers.

Financial Outcome

If we will assume 100 kg production of fresh fruits of Datepalm of best varieties per plant. Then total production is 4 lakh Kg. and price Rs. 80 / Kg. Then total gross income will be generated Rs. 3.20 crore. Consultant Fees will be Rs. 60,000 including FPO Registration Charges

Strategy: For 4000 Date tissue plant in 2 phase (per plant cost 3300 INR)

Farmers : 70 Farmers will be supported 25 Plants (1750 Plants in current year)

(50 percent contribution from Farmers (they will get 35% from Government in a form of subsidy after plantation.)

Tissue Culture : Date Palm



Women Empowerment Projects



- In Kutch, the situation of women is miserable. Women are totally dependent on male members of family for their needs. Consumption of liquor is one of the main culprits in Kutch. Due to this evil prevalent among men many women are suffering.
- Considering this situation, We have started our training program with two major women's group of Villages near Adani Power and Adani Ports. Both the groups of women (**123 women in total**) successfully completed their training for preparing washing powder, phenyl, liquid for cleaning utensils and hand wash etc.
- We have selected 10 women groups having 123 members total, as per their ability for different work i.e. accounting, banking, leadership, marketing, administration etc.
- As a further step to bring sustainability, we thought to start a shop "Saheli Mahila Gruh Udyog" at Shantivan Colony.

Women Empowerment Projects

Step towards socio economic development

No	Name	Members	Work	Avg Income
1	Sonal Saheli Group	11	Washing Powder and Phynayle making	3000
2	Tejasvi Saheli Group	10	Stitching Unit / Bag Making	5000
3	Pragpar Saheli Group	29	Handicraft Suf, Pakko and Jat	7500
4	Shradhha Saheli Group	11	Dry and Fresh Nasta Making Unit	3200
5	Meghdhanush Saheli Group	10	Mud Mirror Work	6000
6	Umang Saheli Group	11	Soft Toys and Dori work	1400
7	Asha Saheli Group	10	Sanitary Pad Making Unit	2500
8	Anjali Saheli Group	10	Paper Bag and Paper Cup Making Unit	-
9	Vishwas Saheli Group	10	Dry Nasta – Chiki, Potato Waffer, Papad	2200
10	Radhe Saheli Group	11	Non Women Bags	1150
		123		

Women Empowerment Projects

Step towards socio economic development

Apart from Self help Group, Adani Foundation is motivating and supporting Rural women for appearing SSC/HSC board exams, completing graduations and joining course under Skill Development Center or RSETI.

Also coordinating for Bank Sakhi, Bima Sakhi, Gram Rakshak Dal and Private Companies for full time job. For the same we coordinate with district administration, DRDA and HR Department of Private Company. This Coordination became very fruitful in case of Britannia Company. We have coordinated with approximately 300 women for appearing for interview and filling forms for Britannia. As on date 271 women are doing job in Britannia and getting Rs. 9700 plus PF per Month.

No	Name	Members	Work	Avg Income
1	Bank Sakhi Yojana	9	By State Government – agent work	3000
2	Gram Rakshak Dal	7	Secured job by Government	6000
3	Laundry work at Samudra Township	2	Commercial Complex Samudra	2500
4	Britannia Company	270	By Capacity Building and confidence building	9800
5	Bima Sakhi Yojana	6	By State Government	3000
6	Aggarbatti making Unit	2	Widow Women	1700
		296		



7 women of village
Sadau, Mangra and
Baroi Selected in Gram
Rakshak Dal by our
Coordination

Women Empowerment

Adani Foundation Mundra has received Order of supplying 10,000 sanitary pad per Month to Seven Public Health Centers of Mundra Taluka and 9 KGBV hostels at Kutchh District.



Feminism isn't about making women strong. Women are already strong. It's about changing the way the world perceives that strength.

Right now 8 Females are working for the same. In second phase after starting one more unit our capacity will increase approx. 700 pad per day – which will enhance income of them up to 4000 per month.



8 Females



1.50 lac

Women Empowerment

An initiative under the Sustainable Livelihoods Development Program to encourage women, take control of their own lives and increase their confidence whether they are single, married or widowed.



Total Sale more than Rs.4.50 Lacs and women are getting approximately Rs.8500 per month.

14 Women of Pragpar village are traditionally doing Suf Embroidery. We are on the verge of completion to development of Sahkari Mandali. After getting formal structure we could be able to sale products online with GST.



Community Infrastructure Development



Community infrastructure primarily refers to small scale basic structures, technical facilities and systems built at the community level that are critical for sustenance of lives and livelihoods of the population living in a community. Adani foundation has designed, planned and built a infrastructure community health, agriculture and living standards, all initiatives were fulfilled according to the needs of people of community.

Adani Foundation supports for infrastructure development on request basis. Adani foundation carries out the construction of prayer shade name "PRATHNA SHADHNA" at AVMB.



Construction of Prayer Shed at AVMB



Painting & Branding Old Strcture at Old Bandar and Luni Bandar



Upgradation of Balwadi at Zarpara



Waiting place for Pgadiya at Navinal



Garden Development work



Road Side Beautification at Mundra.



S & F Benches In Various Location in Various Village



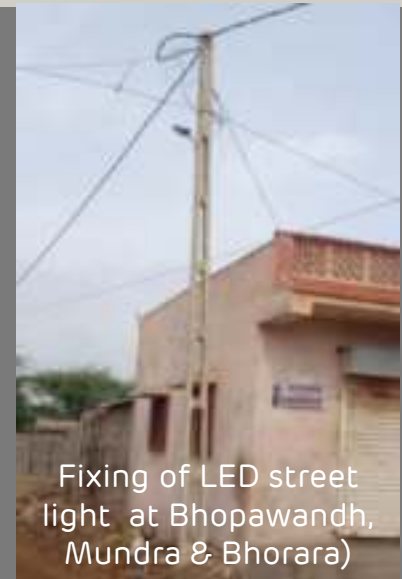
Construction of R.O. Plant Room at Primary School sadau Village



Construction of Shed at BRC Bhavan



Renovation Balwadi at Bavdi Banadar



Fixing of LED street light at Bhopawandh, Mundra & Bhorara)

Adani Skill Development Centre (ASDC) is playing a pivotal role in implementing sustainable development in the state.

Several miscellaneous industries exist in Kutch district. Adani Skill Development Centre has started a center in Mundra block so that the needs of these industries are fulfilled, the local youth is enrolled in various training / skill courses and the distance between the both is minimized.

The objective of this Centre is to impart different kinds of training to the students of 10th, 12th, college or ITI from surrounding areas. Thus, various employment-oriented trainings are organized to optimize the skills, art and knowledge through proper guidance and direction.

During this year Total 2664 people trained in various trainings to enhance socio economic development.

Out of which more than 60% people are getting employment or Self Employment and average income up to Rs. 5200 per month. Digital literacy training is very helpful in coordinating with today's Digital world....

Adani Skill Development Centre



Adani Skill Development Centre Kutchh



Digital
Literacy
1119



Unarmed
Security
Guard
60



General
Duty
Assistant
188



Beauty
Therapist
465



Self
Employee
Tailor
262



JOC
60



Tally with
GST
34



RTG
24



MS Office &
Excel Training
26



Hand
Embroidery
197



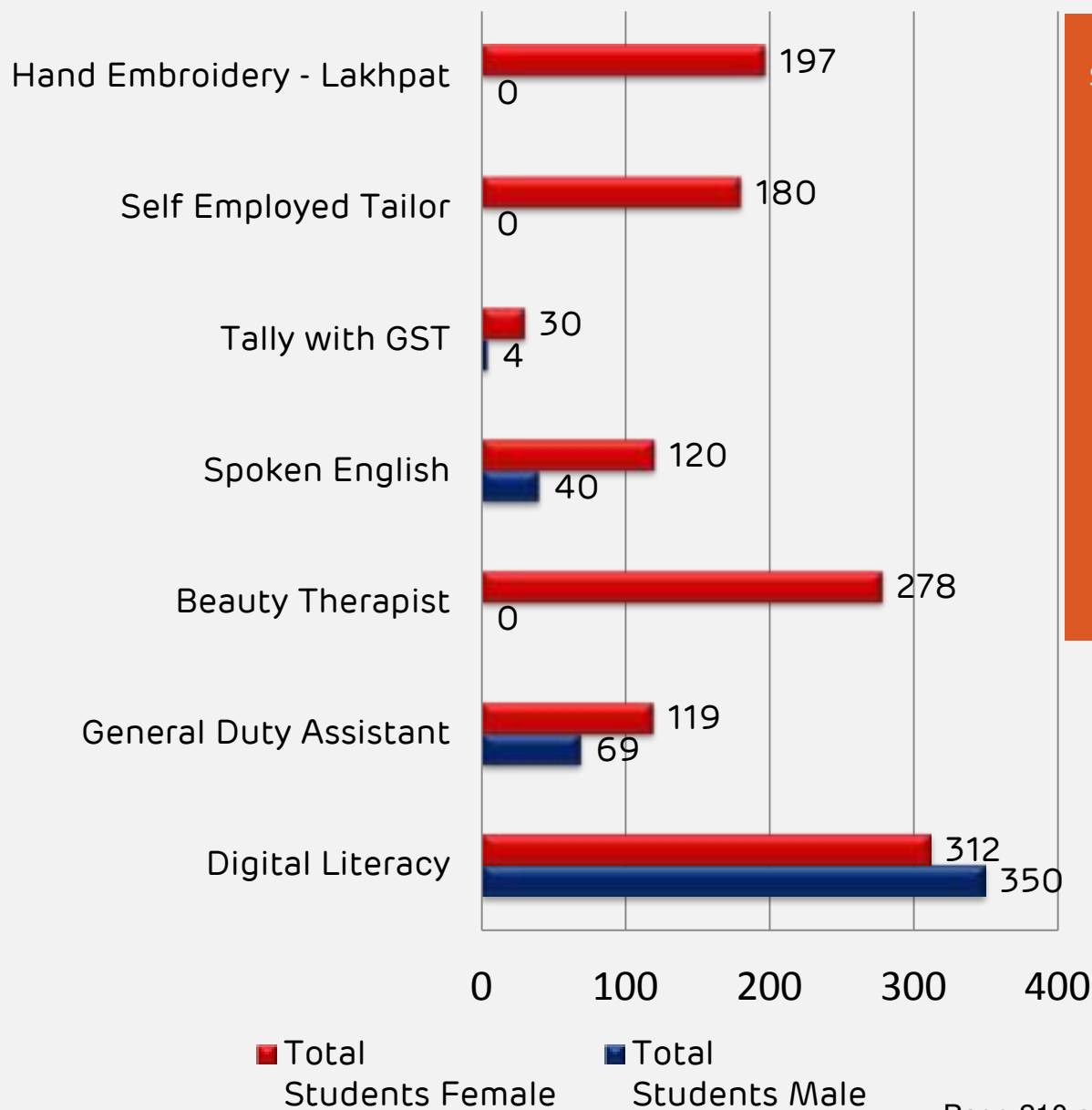
Spoken
English
229

Achievement : 2664

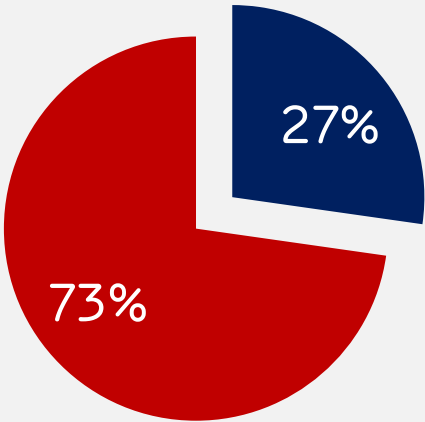
Total Batches: 126



In the year 2019-20,ASDC-Bhuj trained 1699 candidates.



Sr. No.	Name of Trade	Total Students	
		Male	Female
1	Digital Literacy	350	312
2	General Duty Assistant	69	119
3	Beauty Therapist	0	278
4	Spoken English	40	120
5	Tally with GST	4	30
6	Self Employed Tailor	0	180
7	Hand Embroidery - Lakhpat	0	197
Total	(1699)	463	1236

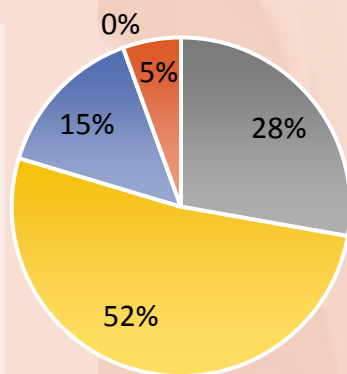


Adani Skill Development Centre - Bhuj

- Certificate Oriented Training Program: On Successful completion of the course and completion of Assessment organized by the Centre.
- The training methodology ensures a balance between theoretical concept delivery and emphasis on application of concepts through latest training pedagogical processes.

Placement F.Y. 2019-'20

- Digital Literacy
- General Duty Assistant
- Beauty Therapist
- Spoken English
- Tally with GST



ADANI SKILL DEVELOPMENT CENTRE - BHUJ						
Quarter & Training wise Candidate Detail F.Y.: 2019-20						
Sr. No.	Name of Trade	Q-1_Total	Q-2_Total	Q-3_Total	Q-4_Total	Total
1	Digital Literacy	278	163	138	83	662
2	General Duty Assistant	60	0	68	60	188
3	Beauty Therapist	38	0	0	240	278
4	Spoken English	144	16	0	0	160
5	Tally with GST	12	22	0	0	34
6	SET	0	0	0	180	180
7	HE	0	0	0	197	197
Total		532	201	206	760	1699

- 52% students got the job in PMKVY GDA training.
- 28% students got job in Digital Literacy Course.
- 8 women self employed in Beauty Therapist Course.

Special Training for Widows

MOU signed between Govt. of Gujarat and Adani Skill Development Centre with an aim to provide quality skill training to widow women to become self-reliant and generate their livelihood.

Total 25 widow women has enrolled for GDA course training.



Special Training for Divyang

Digital Literacy, Beauty And Wellness And Spoken English Training for Physically Challenged Students under Social Welfare Justice Department at Navchetan Andhjan Mandal, Bhuj.

The trainings conducted by Adani Skill Development Centre, Bhuj for Differently Abled Students - Madhapar. Navchetan Andhjan Mandal has dedicated Computer Lab which consists of 15 computers with NVDA software to facilitate disabled students to learn efficiently.

124 students trained for Digital Literacy, Beauty And Wellness And Spoken English Training.

(Digital Literacy = 62, Spoken English= 40, Beauty & wellness= 22)

5 of them placed during the year.



Adani Skill Development Centre – Bhuj

One more feather added in cap of ASDC Bhuj Centre is PMKVY GDA Training Project Saksham – Adani Skill Development Centre completed Four PMKVY GDA Batches in Bhuj received with Four Star Rating in PMKVY certification.

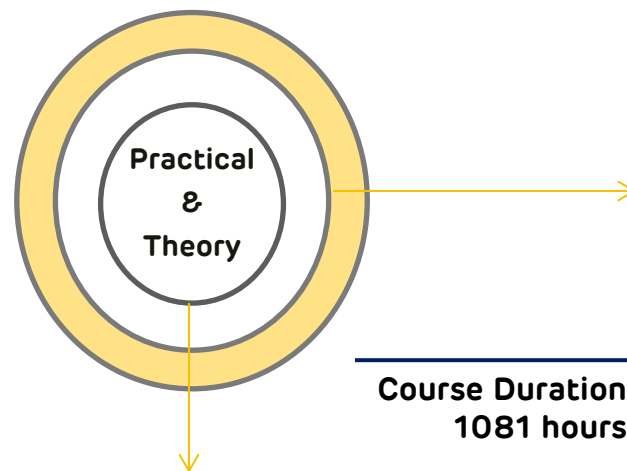
Total 120 Candidates trained till the date (F.Y. 2018-20).

In a year 2019-'20, 28 out of 60 (52%) candidates got the job in various medical departments. 55 candidates passed out of 60 people of PMKVY General Duty Assistant training.

ASDC Bhuj first ever Centre to implement successfully DDU GKY Project for GDA Training.

Total Hours	Domain (GDA)	Non-Domain (Soft-skill)	Non-Domain (IT)	Non-Domain (English)
1081	780	38	150	113

DDU-GKY is placement linked skill development initiative by ministry of rural development, government of India (MoRD).



**Course Duration
1081 hours**



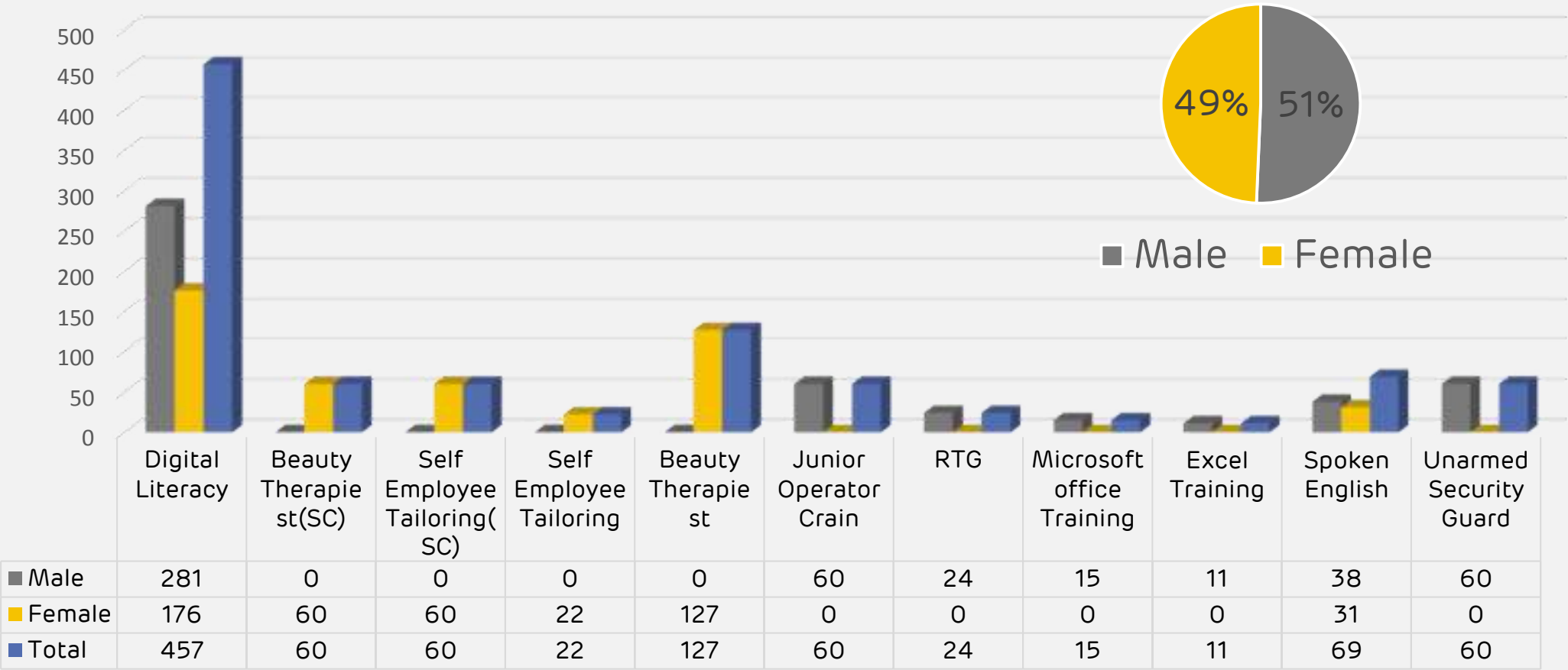
Total 60 Students have to attended 8 hours class per day.



In the year 2019-20,ASDC-Mundra trained 965 candidates.

Training Chart 2019-20

Gender Ratio



Adani Skill Development Centre – Mundra



RPL recognizes the value of learning acquired in a formal setting and provides a government certificate for an individual's skill.

Candidates received an accidental insurance coverage for three years at free of cost.

Certified 27 assessors, 19 Trainers and 08 Assessors.

Started first loader-unloader job role in Port.

Total Candidates registration 2500



- 42 candidates cleared PMKVY Junior Operator Crane exam out of 43.
- 21 candidates working in various companies with 8000-15000 PM.
- 26 students got jobs in various companies.
- More than 30 women working as self-employed.
- Mobilization activities for SC batches in various villages and colleges.



Adani Skill Development Centre - Mundra

SC Project

Skill Development trainings to various weaker sections of Community

To deliver and promote employability

In collaboration with Department of social justice & empowerment, Gujarat



More than 100 trainees benefited under Self employed tailor training course at Mundra.

More than 300 candidates have been trained in various courses.

Swachhagraha



Adani Foundation has launched project "Swachhagraha" Swachhata ka Satyagraha in the year 2015, to support the 'Swachh Bharat Abhiyan'. Falling in line with our Honorable Prime Minister's call for a Clean India, we launched this mass movement towards making our Nation litter free.

On 9th October 2019 the Project handed over to all institute with a gentle promise to keep swachhagraha flame lighting. In this ceremony with the blessings of Shilin Adani mam Best Swachhagraha Schools awarded by District Education Officer, Kutchh

Swachhagraha at Kutchh

4 City / town

266 Schools

266 Prerak trained

5000+ Dal members



Swachhagraha Outreach



Swachhagraha
Wall



Toilet
Etiquettes



Large Scale
community events

Safai
Ke Sitare



Personal
Hygiene



Suposhan

The objective of the Project is to reduce occurrence of malnutrition and anemia.

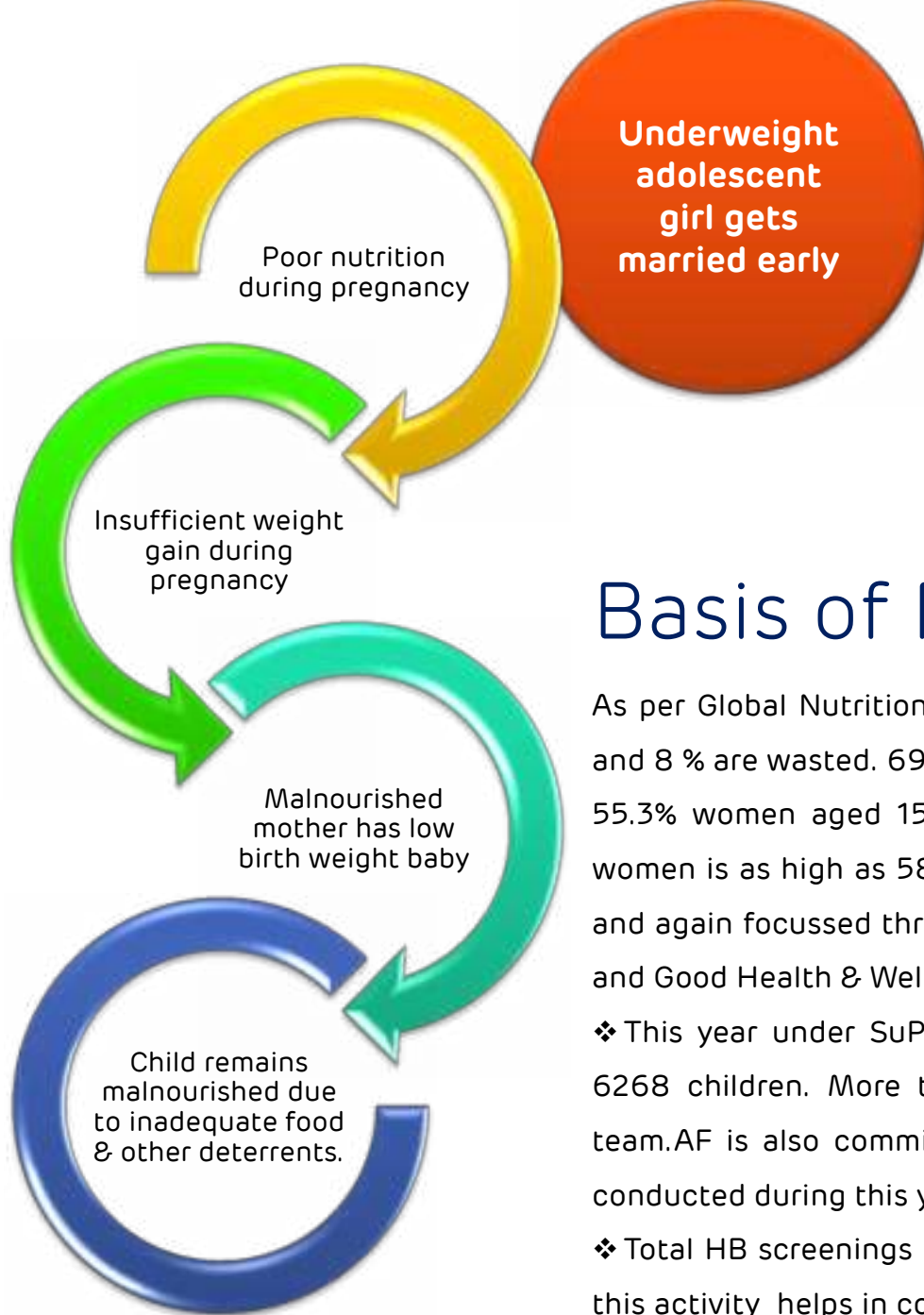
create awareness about malnutrition and anemia and related factors amongst all stakeholders and role they may play in curbing the issue.

To successful implementation of the project, "Sangini – Village Health Volunteer" plays major role in the Project.





Suposhan



Basis of Requirement

As per Global Nutrition Report released recently, Children below five years- 23 % Stunted and 8 % are wasted. 69.5 % children 6-59 months old, 55.8% adolescent girls aged 15-18 years, 55.3% women aged 15-49 years have Anaemia. Moreover anaemia prevalence in pregnant women is as high as 58.7 %) Curbing Malnutrition was part of Millennium Development Goals and again focussed through second and third Sustainable Development Goals on Zero hunger and Good Health & Wellbeing respectively.

❖ This year under SuPoshan project AF has conducted anthropometry study of more than 6268 children. More than 98 children became free of malnutrition due to efforts of AF team. AF is also committed to spread awareness in this regard. More than 2023 FGD were conducted during this year.

❖ Total HB screenings of RPA woman- 6598no and adolescent girls -10645no was this year. this activity helps in controlling anaemia in women and indirectly malnutrition.

Community Engagement and other Activities 19-20		
Sr No	Activity	Progress
1	Total Sangini	25
2	Total Village	45
3	Total Anganwadi Cover	72
4	Total Families	9178
5	Total Children	5736
6	Total Adolescent Girl	5067
7	Total Women (RPA)	9762
8	Focus Group Discussion	2023
9	Family Counselling	431
10	Village level Events	117
11	No of SAM children referred to CMTC	75
12	No of SAM children provided with Energy Dense Food (Only New children)	112
13	No of total HB & BMI screening - Women in reproductive age	6598
14	No of total HB & BMI screening - Adolescent girls	10645
15	Stunting Category (Changing)	18
16	Wasting Category (Changing)	25
17	Underweight Category (Changing)	55
18	Adolescent Girls with Anaemia (10-19 yr.) (Changing)	249
19	Women with Anaemia in reproductive age (14-50 yr.) (Changing)	272
22	Women in RPA provided with IFA Tablets	201
23	Adolescent girls provided with IFA Tablets	102
20	Sangini Meeting	17
21	Sangini Training	5
22	Total Anthropometric screening	6268



Implementation Strategy

Base line data was provided for Mundra Taluka in initial phase of Project.

- Total Number Aanganwadis in the selected area
- Information on Sub- canters / Primary Health Centres/ Community Health centres/ Referral Hospitals
- Availability of Healthy worker- male & female both, ANMs, LHVs, Doctors, specialists such as Gynaecologist, Paediatricians, Pharmacist, Dietician Lab. Technician, Nursing Staff etc. at above centres (Number & names with contact details)
- Selected areas' Birth rate, Death rate, Infant Mortality Rate, Mother Mortality Rate, Sex ratio, Child Sex ratio against district, state and national average
- Total number of beneficiaries and against that enrolled beneficiaries at Anganwadi/ICDS: 0-6 year children, Adolescent girls, pregnant women and lactating mothers
- Identified malnourished and anaemic children/ adolescent girls and women (numbers, DOB & name as well as current level of malnutrition & anaemia with dates- Base Line data)
- Current Inputs provided through the Government machineries
- Other services available through CBOs, NGOs etc.- Details of inputs and contact details of those organizations
- Understanding & Listing of area specific cultural and behavioural barriers



Expected Outputs

Community Health vertical at each location would focus on project on "Curbing Malnutrition amongst Children, Adolescent girls and Women "with combined approach of community management of Malnutrition and Anaemia and necessary medical treatment components.

- Each child and especially malnourished will be mapped with growth chart
- Regular inputs of RUTF treatment when necessary.
- FDGs with mothers and adolescent girls.
- Village meeting one in a month at every village
- Health camp every month
- Awareness campaigns.

Expected Outcomes

To reduce the occurrence of malnutrition amongst Children by 95 % in three years

- To reduce malnutrition and anaemia amongst adolescent girls and pregnant & lactating women by 70% in three years
- To create awareness about the issue of malnutrition and anaemia and related factors amongst all stakeholders and role they may play in curbing the issue
- To create a pool of resources to be utilised for combating the issue of Malnutrition and Anaemia
- To support efforts in reducing IMR and MMR

Project Swavlamban

Project Swavlamban Launched with blessings of differently abled people of MUNDRA TALUKA.

Our objective is

- To increase awareness about Government schemes for Divyang people, widows and senior citizens and coordinate them with Social Welfare Department, GoG
- After getting income generation equipment support - Proper training provision to make them self-reliant in true sense!!
- Adani Foundation is playing the role of 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. Uoto date 1094 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.

No	Type	Beneficiaries	Financial benefit
1	Palak Mata Pita	6 x 3000	18,000
2	Widow	74 x 1250	92,500
3	Senior Citizen	79 x 750	59,250
	Total	533	1,69,750



Project Swavlamban

Government and Adani Foundation both have supported Total 1094 Beneficiaries of Amount Rs. 15,44,100.00

Govt. shemes	Mundra Taluka	Rate	Total Amount
Artificially foots	14	15000	210000
Artificially Hand	1	5000	5000
Blind satick	7	200	1400
Bycycle	9	4500	40500
Crutches	4	200	800
Hand cart	4	5000	20000
Hearing Aid	13	3000	39000
M.R kit	20	500	10000
music	1	500	500
Pension	4		0
RTE Admission	1		0
Sewing Machine	30	5000	150000
Tricycle	33	6500	214500
Walker	3	1000	3000
walking satick	12	200	2400
Wheelchair	26	4000	104000
Bus pass	392		0
Medical certi	401		0
Total	975		801100

AF Support	Mundra Taluka	Rate	Total Amount
wheelchair	30	4000	120000
Cabin	5	15000	75000
Fridge	1	18000	18000
Fruit Shop	2	8000	16000
Grocery Shop Item	4	5000	20000
Hand Cart	2	9000	18000
Harmonium	1	10000	10000
Rikshaw	1	80000	80000
Sewing Machine	16	5500	88000
Tricycle	25	6800	170000
Wheelchair	32	4000	128000
Total	119		743000



CSR Tuna

Adani Kandla Bulk Terminal Pvt. Ltd. is joint venture of Adani Ports and SEZ Limited as well as Kandla Port. We are going to implement drainage pipeline for Tuna and Wandi with participation of Kandla Port in current year. Survey is done and work will be started soon..

Adani
Kandla
Bulk
Terminal
Pvt. Ltd.

CSR Tuna

- In Rampar and Tuna Village We are providing Fodder in summer season. Also guiding farmers for modern farming techniques for Organic Farming and sustainable Agriculture
- Praveshotsav Kit is distributed in 8 schools covering 180 Students in Tuna and Surrounding seven villages.. Our efforts were appreciated by community.
- Adani Foundation is bridging the gap between Government Schemes and Beneficiaries. This year we could able to support 5 widows and 4 differently abled to avail benefits of Government. Tree Plantation and 4 health camp was organized in Tuna and Rampar Village.



CSR Nakhtrana



Adani Green
Energy
Limited
(Nakhtrana)

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). Foundation, in cooperation with respective Block Agriculture Departments during the PRAs, regularly conducts various training programmes for the farmers. They have been introduced to various innovative and cost-saving practices in farm cultivation.





Community Health - In Coordination with GKGH 2 Specialty Camp, Eye Camp and 3 General Health Camp was organized. Total beneficiaries is 572.

Adani Foundation has initiated **Project Utthan** – at 8 Schools at Nakhatrana by signing MOU with District Education Department. Frame work of the Utthan Project is as per Utthan Mundra.

Project Svavlamban – Started Svavlamban Center at Nakhatrana Town to make widow and Divyang Women Sustainable though Stitching work. We have supported 5 stitching machine and material for fund rotation.

In Community Infrastructure Development work we have taken up work of Road Levelling and Culvert Construction at Gadani Village. Main reason to initiate the project is - During Monsoon Period difficult to use road for farmers and School Going Children of Vadi Vistar and Due to water logging excess water enters into farms which affect development of crop. Approximately 80 farmers and 70 School going children will be beneficiaries of the Project.

The work will be resulted into Construction of Pipe Culvert and Road Levelling work at Vadi Vistar at Gadani Village with Outcome to Easy Approach for Farmers and Students of Vadi Vistar School during monsoon Period.



CSR Lakhpat

Adani
Cementation
Private Limited
(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, Cement Plant of rated production capacity of 10MMTPA Clinker and 3MMTPA of OPC/ PPC/ PSC/ COMPOSITE CEMENT in three phases, and a berthing jetty of 15MMTPA traffic capacity in phase wise manner in Taluka Lakhpat of District Kutch (Gujarat).

Project Public hearing held in month of May 2019. For Smooth Execution of the Project we have done Participatory Rural Appraisal and Village Development Committee formation at three nearest villages (Koriyani, Kapurashi and Mundhvay) of our upcoming cement plant.

Linkages with Govt. Scheme

Wheelchair support – 2

Tri cycle support - 3

Divyang Form – 2

Education Support

Music Kit – 4

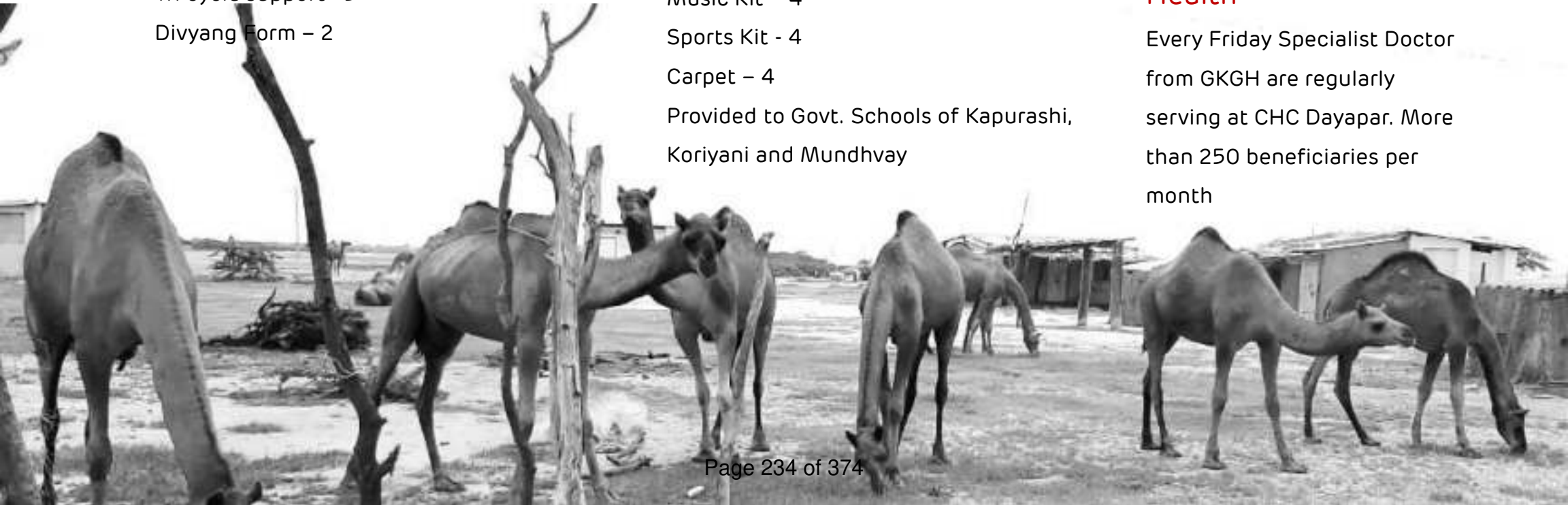
Sports Kit - 4

Carpet – 4

Provided to Govt. Schools of Kapurashi, Koriyani and Mundhvay

Health

Every Friday Specialist Doctor from GKGH are regularly serving at CHC Dayapar. More than 250 beneficiaries per month



Fodder Cultivation

Most of the population of Lakhpat Depends upon Livestock for their livelihood. Fodder is the prime requirement of them. Adani Foundation had distributed Jovar seeds after considerable rain to 260 Farmers to motivate them for sustainable Livestock development.

The Problem

- ❑ Scanty rainfall
- ❑ Deficit of fodder availability
- ❑ Fodder only available on high rates.



299 acres
under fodder
cultivation



Expected Yield:
747.5
tonnes

The Solution

- Encourage farmers
- ❑ To grow grass as fodder
 - ❑ To cultivate jovar as fodder harvest
 - ❑ Village level grassland development



World Disable Day celebration

Celebrated World Disability Day - Swavlamban center opened at Dayapar for disable and widow women.

Support 10 tricycles and 2 wheelchairs and 9 artificial limps to disables.

Adani Solar Energy Private Limited (Bitta)

CSR Bitta

Under Adani Solar Limited – 40 MW Solar Panel Power Unit is Situated at Bitta Village in Abdasa Taluka. We are providing Fodder Support and Health Camp Facilities at Bitta. Our Suposhan Project is running successfully at Bitta..

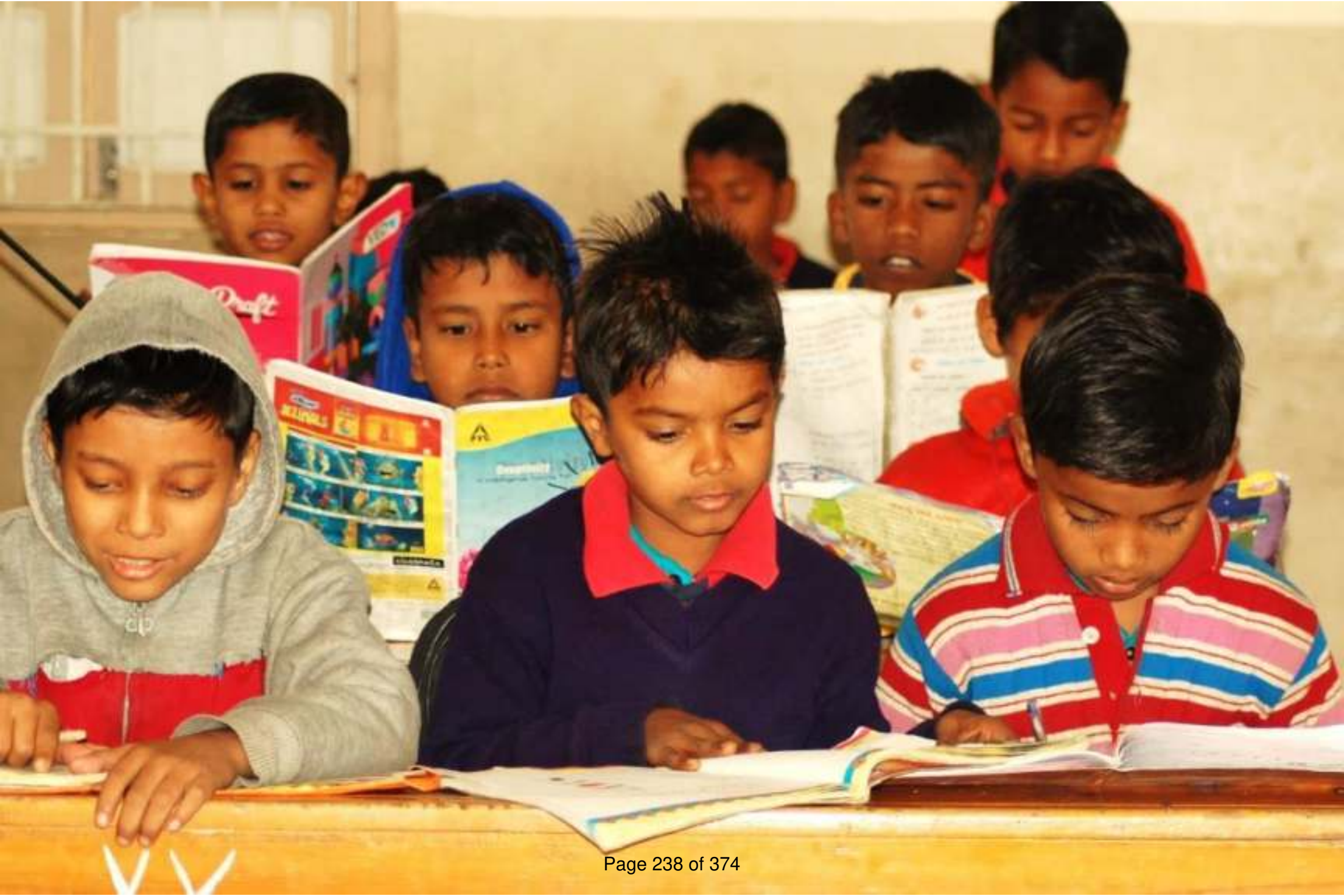
Adani Foundation has taken Eco Friendly initiative for whole village. Village street lights, School and GP is provided Solar Panel to save electricity. The unit was conceptualized and implemented by Solar Team.

As Abdasa is water scared region and very less rain in past years , as per humble request of villagers Adani Foundation has provided 1,13,750 Kg Fodder to Bitta, Dhrufi and Moti Dhrufi village.

Under "Sujlam Suflam Jal Abhiyan" Two Pond Deepening was carried out and got appreciation letter from District Magistrate.

Praveshotsav Kit is distributed in 8 schools covering 47 Students in Bitta and Surrounding seven villages.. Our efforts were appreciated by community.





Employee Volunteering Program



704 children in the school are from families of migrant labourers working in various industries in and around Mundra. Children from migrant labourer families in addition to resource constraints at home also bear the disadvantage of unfamiliarity with local language and culture inhibiting participation in school.

Current year 997 students have been adopted – which is matter of proud. To make employees connected with children Vallabh Vidyalaya regularly send progress report twice in a year. Process of cheque handing over ceremony is delayed due to corona virus issues.

Employee Volunteering Program



International Yoga Day Celebrated at Shantivan Colony ground where 2100 students have participated from different Government School.

More than 500 Employees participated and HR Department has coordinated whole event. Chief Guest of the Event was Mr. Sunil Singhi Chairman, Labour welfare board, GOG

We distributed 250 hooks to employees residing at Shantivan colony. Hook is the thin rod of steel. In this hook all will collect plastic bags. After three months we will collect all bags and give to Suzlon for recycle will made PVC Horse Pipe. I.e **"Waste to Best"**. Employee's family members became determined for not using Plastic bags.

For motivation purpose facilitation of employee was done by Mrs. Vinita Rai (President, Ladies Group –Shantivan Colony)



Employee Volunteering Program



Periodic Support to Old age home at Gundala where total 105 Senior citizens are living.

Till Date 36 Adani Employee have celebrated Birthdays or any memorable day with senior citizen by sponsoring and servicing for lunch/dinner facility

Dignity of workforce day was organized jointly of APSEZ (Adani ports n SEZ Limited), AWL(Adani Wilmar Limited), MSPVL (Mundra Solar Pvt Limited) Adani Hospital and Adani foundation at labour colony with medical camp and handing over of sanitation. more than 32 employees have volunteered in this event.

1. Total OPD by Medical camp at Labour colony- 760 (5 Camps)

2. Joy of Giving Week Cloth Distribution to 800 workers

In this event Mr. Sharad Sharna Head- AWL with staff, Bhaktbandhu DGM HR and Admin staff (APSEZ), Mr. Ganesh Sharma Head HR, President - Kutch Labour Union and Adani foundation team remained.





Our Change Makers

"I have a Disability yes that's true, but all that really means is I may have to take a slightly different path than you."

We always complain to God, for life, for appearance, and for so many others. But today I am talking about Rubina, a young girl from Deshalpar village. Rubina has a unique personality, who, despite being unable to speak or listen, always she faces these physical shortcomings with a smile.

somehow Rubina found about Adani skill development beauty therapist course and she decided to join this course. when she joined the there was question in everyone's mind, is she enabled to do this course, how she will manage, how will learn, ask questions, listen etc. but she proved wrong to everyone. like miracle happens, she completed her training very smoothly. not just completed but she was very active and enthusiastic during training.

today she has started her mahendi studio, the amount of earning is not so much high, but the satisfaction is up to sky.

At the end she smiled and said

"Don't compare your struggles to anyone else's. Don't get discouraged by the success of others. Make your own path and never give up"



Suf Handicraft : Conserving “VIRASAT” of Decades

Parvati Ben's earliest memory of stitching delicate handicrafts is from when she was as little as 5-years-old. Since then, she has followed this art with an immense dedication that shows through her intricate and precise handiwork.

Parvati is a resident of Pragpar-2 village. She lives in a house with 5 other people and is the sole breadwinner. Even so, Parvati is a humble, loving and welcoming individual.

Parvati Ben had been practising her intricate Suf handicraft all along, making scarves, table cloths, garments and more for her fellow villagers and the occasional visitors. Her artwork had consistently been worth more than what she sold it for- her only desire being that her art finds an expression, a space in the world, however small it may be.

One day, Adani Foundation discovered this diligent, rigorous woman. Parvati Ben now works on projects brought to her by Adani Foundation and is hence able to sustain her entire family on her own. She has risen to be an aspirational figure, looked upon as a role model by her fellow village women. Parvati Ben is playing a major role in now setting up a federation for the village women across Mundra district to practise their handicraft work and earn a livelihood.

But more than all the titles and positions, what Parvati Ben deems sacred is the sheer recognition of her art. All she ever wanted was to be known as an artist and now she is the voice of this very own art, inspiring dozens of women like her to become independent.



Our Change Makers



When Miracle happened !!

One mentally disabled boy named Gyan was residing in one small village Bihar. During makarsankranti festival Ganga Snan he was going with his family. By mistake he entered in different train n reached to Bhuj.

As for any Train coming in western India Bhuj is last station and that's why many mentally disabled people found out in Bhuj.

27 years old Gyan was alone in Bhuj - he used to beg and eat, too tough life !!

After passing two months anyhow, One day due to small accident he was brought to Adani GKGH. During treatment, one smart para medical staff found out mobile number in tattoo drawn on his hand.

Staff members of GKGH called on this number and ask his family to come Bhuj.

Finally Gyan meet his family n back to his home.



Our Change Makers

Healthy Children Become Happy Children

Under the initiative of Balwadi at Vasahat (doorstep Early age Education for less Fisher folk), special awareness camps are organized for kids in school in order to imbibe health seeking behavior in the next generation. Various awareness activities based on healthy living are taught to them such as hand-washing steps and healthy eating habits so that they actively participate in adopting methods for personal hygiene in their daily routine.

Yamina is one of the student of Balwadi. She is five years old. Earlier she used to come to Balwadi without taking bath or hair combing. But after regular awareness camps for mother and students now she is coming well dressed and clean – due to maintaining personnel hygiene she remains healthy too..





Our Change Makers

Every Dark Cloud has Silver Lining

Ms. Ramila Maheswari belongs to village Dhrub. Her father's occupation is farming. She has completed graduation and was searching job but lacking in computer operation skill.

Ramila says one of my friends suggested me to join digital literacy training at Adani Skill Development Centre, Mundra. I visited the center with my friend and joined class. I sincerely attended all classes of the course and learnt basics of computer operation viz; Typing, Paint, MS Office (word, Excel, power point), shortcut Keys and using internet for web browsing like; Gmail, Paytm, amazon, net banking etc.

She is saying with smiling on face that

"Today, I am working with firm "YASH ENTERPRISE" in Nana Kapaya, Mundra as a customer care executive and earning Rs. 7000 per month. I am really thankful to Adani Skill development Center to make 'SAKSHAM'.





Our Change Makers

Pathways towards bright future !!

Kripalsinh Jadeja comes from Hatadi, Mundra with a family of 5 people, four elder brothers and parents. His father is a farmer and mother help him in farming. The brother is working as truck driver. The economic condition of the family was very poor.

Kripalsinh has completed 12th and was searching job. The team of ASDC Mundra had mobilized in the area where he stays and through which he got to know that Adani Skill Development Centre (ASDC) is providing training for checker-cum- RTG crane operator and this was his dream job.

He performed well during the training and understood how this training would help him to grow in future in the field he desires. He was regular to the classes and always eager to know the process well and he performed well during all the activities.

Kripalsinh says he gained back his confidence after starting the training and was motivated by the trainer to participate in all activities and grab any opportunity where he can showcase his skills.

He says that he got more support by getting additional training of soft skills, public speaking, professional manners and facing interviews with confidence.

While undergoing the ASDC training Kripalsinh never imagined that this additional knowledge and skill up gradation would bring him a bright future.



Our Change Makers

My Emotional Support

Adani Foundations' Senior Citizen Health Card is like a cure to our emotional, physical and psychological problem; in the times when we are completely lonely and handicap at age."....Says both of them while weeping.

Every human being has specific periods of the life wherein the childhood is for fun and the adulthood is spent for the family; remains old age to take care of health Adani Foundation is holded hands of the senior citizens of Mundra Rajendrasinh and his wife stay alone. Their son and daughters stay separately. They earn their living by grazing cattle. he is having severe arthritis and respiratory disorder. The source of income is very meager and that to dependent on rain. He had to borrow money from family friends or at times take on interest for taking basic treatment. His wife Shantaba also has blood sugar and hence she also requires medical assistance at times. The couple took Adani Foundations' Senior Citizen Health Card in 2015 by which they are able to save good amount, which was their medical expense every month.



Our Change Makers

Can any other relationship be as beautiful?"

When you grow old, loneliness is sometimes more painful than physical sickness. During routine visits of Dr Deven Goswami – Medical Officer of Rural clinic in Siracha the community as a health volunteer, he met Parma Ba (grandmother in Gujrati) who initially appeared as an introvert. She lives in Siracha Village. According to her neighbors, she confined herself within the four walls after her husband's demise. Despite living with her children, she is often seen sitting alone in the corridor of her house, as the family members are apparently busy with their own lives. Financially strained, she refrained from visiting a doctor due to fear of their exorbitant fee.

Dr. Deven was determined to not only get her to Rural Clinic, but also cultivate a health seeking behavior in her. He would keep on standing outside her house till the time she didn't agree to listen to his request. Do you know something? Ba is his best friend today. They not only share our secrets with each other, but also counsel each other as a mother and a son. Can any other relationship be as beautiful?"





Our Change Makers

Good Human Beings are Gods Incarnate

While many people talk about water crisis and drought in Kutchh, Rambhai Gadhavi of Zarpara has practically found and tried a solution to it and that is water conservation. Born into a poor farmer's family, he faced water problems in childhood and used to wake up at wee hours to fetch water, which inspired him to find ways of water conservation. Under Guidance and Support of Adani Foundation He practiced non-irrigation agricultural methods as solutions to water crisis which causes drought, thereby leading to Indian farmer suicides every year.

He did Bore well recharge and Farm Bunding to increase capacity of ground water through rain and to prevent run off. Not only that, he gave guidance to other farmers to accept water conservation practices.

Rambhai and his wife Veerbai's enthusiasm is remarkable in micro irrigation, fodder cultivation and Recharge activities. They are real change makers of "Sustainable Agriculture Projects" of Adani Foundation





Our Change Makers

Every drop that matters!

Kutchh district is a dry temperate zone and rainfall is negligible. Water requirement is met through the reservoirs in which the water decreases during summer months when crop is standing in the field. Whatever irrigation was provided resulted in soil erosion leading to loss of huge quantity of soil every year thereby increasing the farmer's problem in producing good quality crop. Therefore, usage of water and land is to be done sensibly by the farmer. Muljibhai The farmer of Navinal Village attended awareness programme of micro irrigation and organic farming organized by the Adani Foundation and showed interest in adopting the same. He was given every suitable help in subsidy and was persuaded into adopting drip irrigation for field crops.

Not only this, with support of DRDA and Adani Foundation he had adopted Bio gas which is utilized for cooking and organic fertilizer as well.

With the help of drip system, the Muljibhai was able to diversify towards different Horticulture crops like Pomegranate, Jamfal, chikoo etc. in addition to traditionally grown crops like Cotton and Caster. As a result, he is able to get 40-45% higher yield as compared to flood irrigated crops. Diversification has helped in improving returns from the same area.



Our Change Makers

Reenaben is making patients smile with compassionate care

Reena Amal has literally put his wise words into practice. An ambitious and determined girl, she was pursuing B.A. when tragedy struck. Her husband died of a heart attack leaving her widowed at the age of 24 with two young boys to raise. Unable to get support from her in-laws, she had to move back into her parents' home. In spite of being unsure about the future, her love for her children gives her new hope every single day. Her desire to provide them with a good education and a stable life fuels her to aspire for more. So, she joined ASDC's General Duty Assistant course and hasn't looked back since then.

Reena proved to be a dedicated student throughout the course. She impressed her trainers with her zeal to learn. She soon completed the course and became a successful patient care assistant. Currently, she is working at the G.K. General Hospital and earning salary of Rs. 9900/- pm in the OPD under the guidance of a dietician. She is learning how to prepare diet charts according to the needs of various patients. She is most grateful to ASDC in Bhuj for giving her this opportunity to become self-reliant and care for her children. Reena has truly risen above tragedies and obstacles in life by immersing herself in a life of serving and caring for others!



Our Change Makers

Dilipbhai says “ Digital Literacy training has given a boost in my life.”

“Change occurs at every turn of the page of life.”

I am providing outsourcing services of Administration in G.K General Hospital, Bhuj. I am 40 plus and I have observed the IT wave and Artificial Intelligence has proved as boon in healthcare industry. Young colleagues at work are using their IT skills to make ease at work but growing Digitalization also brought many challenges for middle aged people like me. I enquired about Digital literacy course to many places but couldn't found the quality training centre. In Adani Skill Development Centre, I have not only improved my Ms office and typing skills but also found effective and time saving techsavy solutions for day to day time consuming activities. Dilip Joshi





Our Change Makers

Adani helped me to live with dignity !

Bhadreshwar is a well known village due to Suradas family, the generous donor Jagdusha and Jain temple Vasai Tirth ! Here we want to introduce a couple of this village who are blind ! Yes, Khetshi Chande and his wife Manglaben who live in this village with their daughter Trupti. His only source of income was the government pension. Once when Khetshibhai was with Karshanbhai from Adani at Mundra bus station, he sung few lines describing his own life. "Nach nachavya che ghana ne, aaj hu khud nachi rahyo chu, didha nathi pan devdavya chhe daan ghana ne, aaj khud yaachi rahyo chu; prabhu tari aa lilaa, jem tu ramade em rami rahyo chu !" which means once he was helping others and today he is asking others for help.

When Karshanbhai visited his home, he came to know that once upon a time Khetshibhai was having a small shop but due to less sell he stopped it. At this moment instantly Karshanbhai proposed Khetshibhai that he should start once again his shop and for that Adani would support him. This proposal made Khetshibhai very happy but than he asked if he could get any help from someone who could support him to buy grocery worth 10 thousand. Karshanbhai told him that he would put it in "Self reliance program" by Adani foundation for sure. After few days on the birthday of honorable Mr. Gautambhai Adani, there was a celebration at the school in Bhadreshwar on 24th May, 2018. In this celebration Khetshibhai was handed over a grocery kit which he was in need by Panktiben from Adani foundation in presence of Sarpanch and citizens.

Today Khetshibhai is running his shop at Maheshwarivas of Bhadreshwar village with all dignity ! He is happily earning around 2000 per month and is able to send his daughter to Adani vidhya mandir where she is studying in 7th ! This happy family is always blessing Adani foundation for helping needy people !



Our Change Makers

Pathways towards self Dependency!!

Tunda is a small village of Mundra block. Gorighar Goswami is pujari of Lord Shiva temple and he lives with his wife Anitaaben, three children and his mother. Gorighar was doing need based works in various companies for earning purpose and with that income he was fulfilling his family needs ! Ones when Gorighar was returning from other village an accident occurred with him and he died on the spot. When this news came to his family, it was unbelievable to them. Adani foundation respects all the invitation from the village but whenever there is any incident of sad demise, Adani foundation is there for sure to consulate. A staff member of Adani foundation went to their home and gave consolation to Anitaaben and promised her to help her .

In the next visit Devalben recognize the economical condition of the family as after him no one earning member was there in the family

We always believe that if something is there in your luck, no one can take it away from you. Life teaches us that you will get whatever is there in your luck but not without your own efforts ! Anitaaben is a person who was ready for every efforts to help her family ! This keen interest of this woman was noted by Adani foundation ! Anitaaben was allotted a stitching machine in presence of CSR head of Adani Panktiben and Sarpanch of village Abdremanbhai Kumbhar.

As she was having knowledge of stitching, this stitching machine gave her a lift and she started her work with more force ! Today Anitaaben is well known for her traditional cloths stitching and she is getting more and more orders from her village ! When she came to know that TATA power company is in need of lots of cloth bags, she grabbed the opportunity which helped her to earn good amount ! Today she is earning around 8 to 9 thousand which is enough to run her family very well ! She said, "Due to Adani foundation I have started not only earning very well but it has changed my life thoroughly ! On behalf of all women like me I would like to thank Adani Foundation !



World Environment Day



555+ Tree plantation in
Bhuj, Mundra & Nakhtrana
Taluka on world
Environment day

9000+ cum Augmentation
and deepening work of
check dam in Mandvi &
Lakhpata Taluka

World Environment Day was celebrated in Five Talukas by different activities related to conservation of Environment. These Events were organized in coordination with DDO, TDO, SDM and Village Leaders of all Five Talukas. The activities Tree Plantation, Check dam Augmentation work, Inauguration work of Godhatal Dam Deepening work. 11000+ Tree plantation during year in Bhuj, Mundra, Nakhtrana, Anjar, Lakhpata, and Mandvi Taluka



International Coastal Clean up Day



Mundra Adani foundation MUNDRA has celebrated swachhagraha related International Coastal Clean up Day celebrated with Coast Guard" with theme swachhagraha.. School students, Coast Guard staff and Adani foundation staff had cleaned Mandvi beach and give a message of swachhagraha.. At the end information given about swachhagraha project

Teachers day celebration in coordination with District Education Office and District Development Office with Adani Foundation - District Level Best teacher Award on this auspicious day.

13 teachers is selected after screening by DEO Office and tofay award will be given in presence of DEO, DPEO and Vasan bhai Ahir Minister Gujarat .

Teacher's Day : Guru Vandana





Rethinking about future of plastics

National conference on current status n Rethinking about future of plastics was organized at GUIDE – Adani Foundation was partner of the Event.

We have presented our efforts for changing mindset for No plastic awareness campaign..

Plus We also shared mangroves biodiversity project with GUIDE and given book to all present dignitaries



International Volunteer Day (IVD)

International Volunteer Day (IVD) on 5 December was designated by the United Nations in 1985 as an international observance day to celebrate the power and potential of volunteerism.

It is an opportunity for volunteers, and volunteer organisations, to raise awareness of, and gain understanding for, the contribution they make to their communities. On 3rd July – Occasion of "International No plastic Day" - AF Team has distributed 250 hooks to employees residing at Shantivan colony.

Hook is the thin rod of steel. In this hook all have collected plastic bag wrapper i.e. Waffer, Biscuit, milk etc @ 8.5 Kg. This Plastic will be given for recycle for making Hose Pipe. I.e "Waste to Best". Employee's family members became determined for not using Plastic bags.

Today On 5th December – We have felicitated the five volunteers who collected highest quantity of plastic bags. Chief Guest of the Event was Ms. Vinita Rai (Head, SVC Ladies Club) and Mr. Avinash Rai (CEO, APSEZ).

Respected Ganesh Sharma Sir (VP – HR, APSEZ) and Respected Patiyal Sir (Head –Admin, APSEZ) had nicely coordinated for the Event.

This will be regular and sustainable event for AF.



Divine Feelings Towards Mata no Madh

People used to go by foot to Mata no madh in Navaratri. Total 8 camps at different locations is inaugurated today in way towards Mata no Madh by Adani Foundation Bhuj and GKGH Hospital.

Total 34537 Patients were benefitted in this Camp

Mata no Madh is a village in Lakhpat Taluka of Kutch district, Gujarat, India. The village lies surrounded by hills on both banks of a small stream and has a temple dedicated to Ashapura Mata. She is considered patron deity of Kutch. The village is located about 105 km from Bhuj, the headquarters of Kutch district.



"Ayushman Bharat – Celebrating First Birthday !!"

On the first birth anniversary of "AYUSHMAN ENROLMENT CARD" Adani Foundation Bhuj and Mundra had successfully completed 11 Ayushman card enrollment camps in a single Day.





Skill Development Training Program for Schedule Cast Beneficiaries

We could able to fulfil target of training 1440 SC beneficiaries from Eight Talukas from Kutchh for different courses.

Mr Vinod Chavda (MP, Kutchh and Morabi) Mrs Lata Solanki (Pramukh, Nagar Palika,Bhuj) Mr Rohit (District Social Justice and Empowerment), Mr Jatin Trivedi (Head, ASDC)and Mr solanki (Chairman, social justice commitee Kutchh) we're present.

courses

1. Hand embroidery
2. Self employed stitching
3. Mobile Repairing
4. Beauty parlor
5. Crane operator





completed 10 years of
udaan

Education Minister Mr. Bhupendrasinh Chudasama visited Udaan Project and Utthan Project of Adani Foundation. He Appreciated Udaan Project which is truly inspirational and impactful Project. He got information through power point presentation about Utthan Project – Enhancing Primary Education of Government School. He motivated and appreciated joint effort of AF Team and District Primary Education office



Events



Adani Foundation have arranged a program **“Celebrating The Health Of Women”** at Mundra. The motive was awareness in women about their health and issues. Around 250 women were participated in this event. Doctors were gave information about women health, periods cycle, breast cancer etc. Doctor discussed about breast cancer, its symptoms, precautions, does and don'ts etc., and advised women to go for regular check up after forties. At the end of program health kit distributed to women.



Republic Day Celebration at ASDC Centre

Bhuj Adani Skill Development Centre witnessed the celebration of the Republic Day on the 25th January, 2020.

Students, Staff and Faculty members filled with a feeling of patriotism and dedication gathered in front of the Guest & Director-Adani Foundation, Vasant Gadhavi. In his speech, the director highlighted the importance of the Constitution and its unique features in the preamble of the constitution. He also gave an insight on the various accomplishments achieved by Centre and motivated the crowd for bringing more laurels for the Centre through their accomplishments.



Events

International disability day



Celebration of international disability day - Adani foundations Lakhpat celebrated three different programmes in coordination with District social welfare department and Lokseva trust.

1. Seva setu programme in which information and form fill up for various Govt schemes for Divyang I.e. bus pass, sadhan sahay and pension
2. Sadhan sahay - If beneficiary can not fulfill Govt criteria then of disability percentage or age bar - Adani foundation has supported beneficiaries.
3. Opening of swavlamban center in coordination of merchant association - widow women will stitch non woven bags and merchant association will purchase regularly and mamlatdar saheb will monitor the system.

Events



Mr. Karim Mansoori – Namda Artist was felicitated at National Artisan Expo Rajkot by Mr. Vijay Rupani along with 13 other artisans from all over Gujarat. the motive of felicitation was, their work towards community and their efforts for revising their art. Karim Mansoori was the only artisan of this art called “NAMDA” in Gujarat state. he was also part of this six-day National Artisan expo, for one week.

Awards and Accolades



With a great pleasure to share that APSEZ - CSR received such a big recognition as a honourable mention in western recognition under category Challenging circumstances under first National corporate social responsibility 2019.

Chief guest of the ceremony was our President Honble. Ramnath kovind. Ceremony was presided over by smt Nirmala sitaraman - Minister Finance and Guest of honour was Mr Anurag sinh Thakur Minsitry of state for finance and corporate affairs ..

Award received by Respected Dr Malay Mahadeviya and accompanied by Mr Rakshit shah and Mr Avinash Rai.

Awards and Accolades

Apex India CSR Innovation Award 2019



Adani Foundation Mundra received "**Gold Award**" under Apex India CSR Innovation Award 2019 Today at Goa.

Chief Guest of the event was Shri Prasad (Union Minister Goa,GOI) and Guest of Honour Mr Suri (Former Governor Goa).

From Adani Foundation Mundra - Mr Vijay Gosai (Coordinator SLD Projects) and Mr. Karsan Gadhvi (Sr PO SLD Projects) received the Award.

Awards and Accolades

QCFI Best Case Study (State Award)2019



It was an honour for our Mundra team to be presented with the Diamond Category award at the State Case Study Presentation Competition by Quality Circle Forum, for their 'Mangroves afforestation and alternate livelihood' case study. We hope to continue our efforts to #empower people and preserve the #environment for the betterment of all

Awards and Accolades

QCFI Best Case Study (National Award)2019



It was an honour for our Mundra team to be presented with the 'Far Excellence' category award at the National Case Study Presentation Competition by Quality Circle Forum, for their 'Mangroves afforestation and alternate livelihood' case study. We hope to continue our efforts to #empower people and preserve the #environment for the betterment of all.

Awards and Accolades



Sharing with Proud that Adani Foundation got felicitation from Mr Vijay Rupani Honrable Cheif Minister Gujarat for

1. Water Conservation works
 2. More than 7000 Tree Plantation in Mundra, Anjar, Lakhpatt and Mandvi Taluka
- Felicitatation of 3 CSR from Kutchh district for remarkable scarcity related work.

From Adani Foundation - Mr Karsanbhai Gadhvi received Award.



Awards and Accolades



Quality education is all about providing students with the resources & opportunities that open a new window to the outside world. At our Adani Vidya Mandir schools, we're dedicatedly working to facilitate our children and make them future-ready. It's an immensely proud moment for us as Adani Vidya Mandir schools Bhadreswar was recognised at the Samagra Shiksha Empowering India 2020 Awards, by Ministry of Human Resource Development, Government of India, for empowering children with education, ensuring a Brighter Tomorrow for India's future generations. The awards were presented by Dr.Ramesh Pokhriyal Nishank.



Ms. Pankti Shah was invited as a guest of honour for Mission Eco Next "Eco Eureka Training" by ministry of science and technology - Government of India at KSKV Bhuj.

Initiatives of Adani Foundation for Biodiversity and water conservation was shared on this platform.

Mr. Mavajibhai Baraiya was invited as a guest of honor for "Creating Sustainable Farming Villages" by Krushi Research and Development Association by Vagad Visa Oswal Samaj. Initiatives of Adani Foundation for Fodder Sustainability and water conservation was shared by him.



मुख्य अतिथि
श्री राम नाथ कोविन्द
माननीय राष्ट्रपति, भारत गणराज्य

AWARDS

Chief Guest
Shri Ram Nath Kovind
Hon'ble President of India

अध्यक्ष
श्रीमती निर्मला सीतारमण
माननीय वित्त एवं वाणिज्य मंत्री, भारत गणराज्य

विशेष अतिथि
श्री अनुराग सिंह ठाकुर
विशेष सचिव, वाणिज्य एवं उद्योग मंत्रालय, भारत गणराज्य

Presided over by
Smt Nirmala Sitharaman
Hon'ble Minister of Finance and Corporate Affairs

Guest of Honour
Shri Anurag Singh Thakur
Hon'ble Secretary to Government and Corporate Affairs

29 अक्टूबर 2019, विज्ञान भवन, नई दिल्ली

29 October 2019, Vigyan Bhawan, New Delhi

IICA
Indian Institute of
Corporate Affairs
Institute for Sustainable Development



Awards and Accolades



Adani Foundation Parivar

No	Core Area	Beneficiaries	Remarks
1	Education	7514	Uthhan, Praveshotsav, Labour School Support
2	Adani Vidya Mandir	443	School Students
3	UDAAN	33030	568 Institutes Visited
4	Adani Skill Dev. Center	2664	Mundra and Bhuj
5	Community health Mundra	62956	MHCU, Medical Camps, Senior Citizen
6	Community health Bhuj	25604	Health Camps, Mahiti Setu, patient care
7	SLD Fisherman	6970	Water, Education, Mangroves etc.
8	SLD Agriculture	2907	Drip Irrigation, Bio gas, tissue
9	SLD Women Empowerment	419	Saheli mahila gruh udyog – 12 SHG
10	Community Infra. Development	94206	Pond deepening, AKBTPL, Labours work
11	Suposhan Mundra	20565	Adolescent, Children and RPA
12	Nakhatrana	610	Community Health, Biodiversity and CID
13	Tuna	445	Cattle Owner, Praveshotsav, Svavlamban
14	Lakhpatt	765	Cattle owner for fodder, Divyang and School Support
Total Beneficiaries		259098	

Financial Overview

Adani Foundation -Mundra				
Executive Summary-Budget Utilization 2019-20				
F.Y. 2019-20 (Rs. In Lacs)				
Sr. No.	Budget Line Item	Budget 2019-20	Budget Utilization	% of utilization
A.	Admin Expense	71.50	64.47	90.17%
B.	Education	57.75	55.46	96.04%
C.	Community Health	220.66	244.89	110.98%
D.	Sustainable Livelihood Development	487.80	451.41	92.54%
E.	Rural Infrastructure Development	321.53	249.36	77.56%
Total AF CSR Budget :		1159.24	1065.60	91.92%
F.	Utthan - Education	108.93	81.21	74.55%
G.	Model Village	197.26	173.65	88.03%
Total Project Utthan Budget		306.19	254.86	83.24%
H.	Adani Vidya Mandir - Bhadreswar	204.35	184.93	90.50%
Total AVMB Budget		204.35	184.93	90.50%
I.	Project Udaan_Mundra	373.14	307.69	82.46%
Total Project Udaan Budget		373.14	307.69	82.46%
Grand Total :		2042.92	1813.08	88.75%



भारत सरकार
Government of India
कारपोरेट कार्य मंत्रालय
Ministry of Corporate Affairs

राष्ट्रीय कारपोरेट सामाजिक दायित्व (सीएसआर) पुरस्कार 2019
National Corporate Social Responsibility (CSR) Awards 2019

प्रमाण पत्र
Certificate of

सम्माननीय उल्लेख
Honourable Mention

चुनौतीपूर्ण परिस्थितियों में सीएसआर
CSR in Challenging Circumstances

(पश्चिम क्षेत्र)
(West India)

“अडानी पोर्ट्स एंड स्पेशल इकोनॉमिक ज़ोन लिमिटेड”
“Adani Ports and Special Economic Zone Limited”

नई दिल्ली / New Delhi
दिनांक / Date: 29-10-2019

सचिव / Secretary
कारपोरेट कार्य मंत्रालय
Ministry of Corporate Affairs

Annexure–1 1

Office copy

adani

PCB ID: 31463

Ref No. APSEZL/EnvCell/2019-20/31

26th Aug 2019

To:

Member Secretary
Gujarat Pollution Control Board
Paryavaran Bhavan,
Sector-10-A, Gandhinagar-382010

Dear Sir,

Sub: Environmental Statement for the financial year ending 31st March, 2019 for Adani Ports and SEZ Limited (Multi Product SEZ).

Ref: PCB ID:- 31463, CC&A Order No. AWH - 88998, Valid till 21.08.2022

With reference to the above mentioned subject and reference, please find enclosed Environmental Statement in Form V prescribed under Rule 14 of the Environment (Protection) Rules 1986, for M/s Adani Ports and SEZ Limited (Multi Product SEZ), Village & Taluka: Mundra, Dist. Kutch - 370421 for the financial year ending 31st March 2019.

Thank you,

Yours faithfully,

For Adani Ports and Special Economic Zone Limited

S. S. Sarda

Authorized Signatory

Encl: As above.

Copy to:

1. The Regional Officer, Gujarat Pollution Control Board, Gandhidham.

K
30/8/19
Gujarat Pollution Control Board
Sector No. 10 A,
Gandhinagar - 382 010.

office copy

adani™

PCB ID: 31463

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Thank you,

Yours faithfully,
For Adani Ports and Special Economic Zone Limited



Authorized Signatory

Encl: As above.

Copy to:

1. The Regional Officer, Gujarat Pollution Control Board, Gandhidham.

30-8-19
RECEIVED
Gujarat Pollution Control Board
Regional Office
Kutch (East)

FORM V
(See Rule 14)

Environmental Statement for the Financial Year ending 31st March 2019

PART – A

- | | | | |
|-------|--|---|---|
| (i) | Name and address of the Owner/
Occupier of the Industry Operation
or Process | : | Mr. Avinash Rai
CEO – Mundra & Tuna Port
Adani Ports and SEZ Limited
4 th Floor, Adani House,
Mundra, Kutch – 370421.
Ph No. (02838) 255000 |
| | | | |
| (ii) | Industry Category
Primary (STC Code)
Secondary (STC Code) | : | Red-Large
NA
NA |
| | | | |
| (iii) | Production Capacity | : | Multi Product SEZ for 8481.27 Hacters Area:
(Phase-I) |
| | | | |
| (iv) | Year of Establishment | : | 2012 |
| | | | |
| (v) | Date of last Environment
Statement submitted | : | 11/05/2018 |

Environment Statement for 2018-19 for M/s Adani Ports and SEZ Limited (Multi Product SEZ)

(PCB ID: 31463)

PART – B

Water and Raw Material Consumption

(i) Water Consumption

Water Consumption Cu. Mtr./Day	Average
Process	Nil
Cooling (Gardening / Horticulture)	77.11 m ³ /Day
Domestic	76.76 m ³ /Day

Name of Products	Process Water Consumption per unit of Product Output	
	During the previous financial year (2016-17)	During the current financial year (2017-18)
Multi Product SEZ	Nil	Nil

* Unit does not go under any manufacturing process. The unit involve for developing common infrastructure facilities like port user buildings, rail network, road network, airstrip, electric network, etc. within Multi Product SEZ. Individual member industries developed within SEZ area has been already been granted their individual Consent to Establish and Consent to Operate.

(ii) Raw Material Consumption

Name of Raw Material*	Name of Products	Consumption of Raw Material per Unit of output	
		During the previous financial year (2016-17)	During the current financial year (2017-18)
Multi Product SEZ	--	--	--

* Unit does not go under any manufacturing process. Hence there is no any raw material consumption.

Environment Statement for 2018-19 for M/s Adani Ports and SEZ Limited
(Multi Product SEZ)

(PCB ID: 31463)

PART – C

Pollutants discharged to Environment/Unit of Output
(Parameters as specified in consent issued)

Pollutants	Quantity of pollutants discharged (Mass/day)	Concentrations of pollutants in discharges (mass/volume)	Percentage of variation from prescribed standards with reasons
(a) Water	<ul style="list-style-type: none">Total 22414 KL of domestic sewage was treated in to STP having 150 KLD capacity during April 2018 – March 2019. Treated water from STP was utilized for horticulture / greenbelt purpose within premises.Analysis reports of treated water are enclosed as Annexure – 2.		
(b) Air	<ul style="list-style-type: none">DG sets having capacities 750 & 500 KVA is provided as a standby power source and used during power failure. Analysis reports of stack monitoring are enclosed as Annexure – 2.The ambient air quality monitoring is being done regularly (twice a week) through NABL and MoEF&CC recognized laboratory namely M/s. Pollucon Laboratories, Surat.Analysis reports of ambient air quality monitoring are enclosed as Annexure – 2.		
Particulate Matter (mg/Nm ³)			
Sulphur Dioxide (PPM)			
Nitrogen Oxide (PPM)			

Unit does not go under any manufacturing process.

Details of Effluent inlet and treated water outlet quantity for the year 2017-18 are enclosed as **Annexure – 1.**

Environment Statement for 2018-19 for M/s Adani Ports and SEZ Limited
(Multi Product SEZ)

(PCB ID: 31463)

PART – D

Hazardous Wastes

(As specified under Hazardous Wastes Management and Handling Rules 1989)

Hazardous Wastes	Total Quantity (Kg)	
	During the previous financial year (2017-18)	During the current financial year (2018-19)
(a) From Process	Nil	Nil
(b) From Pollution Control facilities	Nil	Nil

***Note: Quantity shown in Annexure – 3 is waste (hazardous as well as non-hazardous) generated as well as disposed from entire Adani Ports and SEZ Limited.**

PART – E

Solid Waste

Solid Waste	Total Quantity Generated (MT/Annum)	
	During the previous financial year (2016-17)	During the current financial year (2017-18)
(a) From Process (Ash)	Nil	Nil
(b) From Pollution Control facilities	-	-
(C-1) Quantity recycled or reutilized within the unit	931.6 MT (Food waste converted in to manure and utilized for horticulture purpose)	1066 MT (Food waste converted in to manure and utilized for horticulture purpose)
(C-2) Sold	4356 MT	3615 MT
(C-3) Disposed	61.5 MT (RDF –sent for co-processing)	286.9 (RDF –sent for co-processing)

Note: Above Quantity shown is waste generated as well as disposed from entire Adani Ports & SEZ Limited and West Port.

Environment Statement for 2018-19 for M/s Adani Ports and SEZ Limited **(Multi Product SEZ)**

(PCB ID: 31463)

PART - F

Please specify the characterization (in terms of Composition and quantum) of Hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes:

- Zero Waste Initiatives Concept - No waste to landfill or Incineration
- Installed large scale bio gas plant at Central Kitchen location. This plant is sufficient to manage the food Waste generated from APSEZ area i.e. 700 Kg per day.
- Plastic Free APSEZ Drive covers 38 locations which demonstrate commitment towards elimination of single use plastic
- Plastic mix Bitumen road made at 3 locations
- "Zero Waste Port" initiative - No waste is being sent to landfill or incineration facility @ Adani Ports & SEZ , rather being managed through 5 R principal of waste Management. APSEZ has eminent material recovery facility (MRF), having appropriate facility to proper segregate & recover the materials as per set process. Mixed Waste is being segregated via specialized mix waste segregation machine in two forms –Bio and Non bio without manual segregation, where risk to health hazards is minimized. Further waste is segregated in to 16 streams at MRF, which is sent to different end users following 5 R principal. To manage all operation of MRF, APSEZ developed local vendor though his past learnings and employed local women staff mainly to segregate waste.
- Wet Waste being managed through Organic Waste Composting Facility and Biogas generation.
- Road from Plastic Waste: Shredded plastic is being used in making road with bitumen-plastic combination, details are given below:
- Chemical Zone (Part of SEZ area), total road length is 200 mtr., HPCL Gate CFS area, total road length is 300 mtr. Concor approach road, total road length is 110 mtr.
- Best out of Waste Project (Waste Sculpture): APSEZ utilised his 7 tons of waste material (Metal scrap, conveyor belt, used tyres etc.) as resource & created 06 nos. of different sculptures.
- Dry waste and e-waste collection drive is being organized every month within townships to collect municipal solid waste as well as e-waste from households.
- Plastic free APSEZ Drive:
 - APSEZ pasted stickers spreading awareness among their zone as plastic are prohibited now.
 - Awareness sessions organized among department and contract workers.
 - Made shop keepers and canteen owners to stop providing plastic carry bags to carry the material.
 - Confirms to stop usage of plastic cups to serve tea and water pouches within the premises of APSEZ.
 - Regular supervision by Team Members at Port Canteens and Shops townships for verification of prohibition of plastic.
 - Defined 3 Levels to achieve plastic free APSEZ..
- Hazardous waste is being disposed by either co-processing or sent to govt. approved recyclers.
- Sludge generated from STP is being utilized as manure for horticulture purpose.

Environment Statement for 2018-19 for M/s Adani Ports and SEZ Limited **(Multi Product SEZ)**

(PCB ID: 31463)

PART – G

Impact of the pollution abatement measures taken on conservation of natural resources and on the cost of production.

Energy Savings

- Installed 3.37 MW roof top solar generating plant at various locations and 12 MW wind generating plant in SEZ in Mundra which is generating nearly 5.52 and 42.15 million units annually respectively as utilization of renewable source of energy for captive use which reduce the emission of CO₂ by nearly 38900 metric tons.
- The conventional lights have been replaced with LED lights in SEZ area which has reduced the connected load of 321 KW. The replacement of lights will be reduced the consumption of energy by 1.29 million units per annum which reduce the emission of CO₂ by nearly 1051 metric tons.
- Replacement of Diesel operated Reach Stacker with Electricity operated RMGCs for Rail Operation
- Use of Regenerative (Reverse Power Generation) Crane at Container Terminal E- RTG Technology for cranes
- Switching over from Conventional lighting (HPSV) to Energy Efficient LED lighting
- Installation of Motion Sensor (Occu switch) & AC Temp. Control in Port Office Buildings
- AC Temp. Control in Port Office Buildings at Port office Buildings7
- Tug Speed Reduction Program
- Switched off the supply of Boom back reach 4 nos 1000W

Water Conservation:

- There are 8222 nos of water aerator have been installed in Residence Area and various offices.
- There are 140 nos of water less urinal have been replaced in various offices.
- Modifications with 45 nos of flush tank have been added in water system of toilet area in Port User Buildings.
- Installed Water Free Urinal - 140 Nos. & . Water Spray Nozzles - 8222 Nos.
- Use of Sea Water for Hydro testing instead of Fresh Water.
- Optimization of water during testing of Fixed Fire Fighting system
- Recollection of water provided for hydro testing through water
- Treated Water utilization
- Following safeguard measures are taken for abatement of dust and noise emissions
 - ✓ Regular sprinkling on road and other open area
 - ✓ Regular cleaning of roads
 - ✓ D.G. Set having acoustic enclosures
 - ✓ Adequate greenbelt and plantation area

PART – H

Additional measures /investment/ proposal for environmental protection including abatement of pollution, prevention of pollution.

Environment Statement for 2018-19 for M/s Adani Ports and SEZ Limited **(Multi Product SEZ)**

(PCB ID: 31463)

- Treated water from STP is used for gardening and horticulture activity within APSEZ premises to conserve the fresh water consumption.
- Unit has formed dedicated Horticulture department & developing green belt within port premises.
- More than 400 ha. area is developed as greenbelt with plantation of more than 8.0 Lacs trees within the entire APSEZ area.
- Following safeguard measures are taken for abatement of dust and noise emissions
 - ✓ Regular sprinkling on road and other open area
 - ✓ Regular cleaning of roads
 - ✓ Development of greenbelt along the periphery of the storage yards/back up area
 - ✓ D.G. Sets having acoustic enclosures

PART – I

Any other particulars for improving the quality of environment:

- Dedicated Horticulture department for Green Zone and landscaping development.
- Monitoring of environmental parameters such as Air, Noise, and wastewater quality being done regular basis through MoEF & NABL recognized laboratory (Pollucon Laboratories, Surat).
- Budget for environmental management measures (including horticulture) for the FY 2017-18 was to the tune of INR 957 lakh out of which INR 890 lakh was spent. Environment protection expenditure spent during the year 2017-18 is enclosed as **Annexure – 3**.
- APSEZ is driving paperless office and plastic free drive to eliminate the use of papers and plastic materials to the extent possible within ports, SEZ and residential townships.

Date : 26-08-2019



(Signature of a person carrying out an industry, operation or process)

Name : **Sumit Paliwal**

Designation : **Sr. Manager (Environment Cell – HOD)**

Address : **Adani House, P.O. Box No. 1, Adani Ports & SEZ Ltd.,
Village & Taluka: Mundra, Kutch – 370421.**

Environment Statement for 2018-19 for M/s Adani Ports and SEZ Limited
(Multi Product SEZ)

(PCB ID: 31463)

ANNEXURE – 1

Water details

Month	Water Consumption		Treated Water
	Industrial, KL	Domestic, KL	Treated Sewage, KL
Apr-18	3951	2719	2175
May-18	7290	2856	2285
Jun-18	7179	3098	2478
Jul-18	699	2713	2170
Aug-18	895	2925	2340
Sep-18	111	2205	1764
Oct-18	165	2151	1721
Nov-18	670	2018	1614
Dec-18	1153	1856	1485
Jan-19	2716	1910	1528
Feb-19	2168	1676	1341
Mar-19	1149	1891	1513
Total	28146	28018	22414

ANNEXURE – 3

Cost of Environmental Protection Measures of APSEZ, Mundra
F.Y. 2018-19

Sr. No.	Activity	Cost incurred (INR in Lacs)	Budgeted Cost (INR in Lacs)
1.	Environmental Study / Audit and Consultancy	6.7	30.5
2.	Legal & Statutory Expenses	4.42	5.7
3.	Environmental Monitoring Services	20.36	36.0
4.	Hazardous / Non Hazardous Waste Management & Disposal	95.72	84.8
5.	Environment Days Celebration	0.28	10.0
6.	Treatment and Disposal of Bio-Medical Waste	1.21	1.56
7.	Mangrove Plantation, Monitoring & Conservation	47.0	50.0
8.	Other Horticulture Expenses	579.32	579.32
9.	O&M of Sewage Treatment Plant and Effluent Treatment Plant (including STP, ETP of Port & SEZ & Common Effluent Treatment Plant)	144.29	153.9
10.	Expenditure of Environment Dept. (Apart from above head)	109.28	117.29
Total		1008.58	1069.07

"HALF YEARLY ENVIRONMENTAL MONITORING REPORT"

FOR



**ADANI MUNDRA SEZ INFRASTRUCTURE PVT. LTD.
TAL: MUNDRA, KUTCH, MUNDRA – 370 421**

**MONITORING PERIOD:
APRIL 2018 TO SEPTEMBER 2018**

PREPARED BY:



POLLUCON LABORATORIES PVT.LTD.

**PLOT NO.5/ 6 "POLLUCON HOUSE", OPP. BALAJI INDUSTRIAL SOCIETY,
OLD SHANTINATH SILK MILL LANE, NEAR GAYTRI FARSAN MART,
NAVJIVAN CIRCLE, UDHANA MAGDALLA ROAD, SURAT-395007.**

PHONE/ FAX – (+ 91 261) 2455 751, 2601 106, 2601 224.

E-mail: pollucon@gmail.com

Web: www.polluconlab.com

TC - 5945

ISO 9001:2015

ISO 14001:2015

OHSAS 18001:2007

**POLLUCON**

LABORATORIES PVT. LTD.

Environmental Auditors, Consultants & Analysts.
Cleaner Production / Waste Minimisation Facilitator

Recognised by MoEF, New Delhi Under Sec. 12 of Environmental (Protection) Act-1986

RESULT OF AMBIENT AIR QUALITY MONITORING

WTP- NEAR CETP						
Sr. No.	Date of Sampling	Particulate Matter (PM ₁₀) µg/ m ³	Particulate Matter (PM _{2.5}) µg/ m ³	Sulphur Dioxide (SO ₂) µg/ m ³	Oxides of Nitrogen (NO ₂) µg/ m ³	Hydrogen sulphide(H ₂ S) µg/ m ³
1	04/04/2018	80.40	49.48	24.62	45.42	BDL*
2	07/04/2018	91.50	53.41	22.46	36.63	BDL*
3	11/04/2018	73.62	38.40	15.15	41.49	BDL*
4	14/04/2018	85.40	46.30	19.60	32.75	BDL*
5	18/04/2018	93.39	51.57	13.24	27.66	BDL*
6	21/04/2018	70.39	42.57	21.53	42.36	BDL*
7	25/04/2018	82.41	35.38	17.64	30.35	BDL*
8	28/04/2018	90.52	45.30	14.34	33.48	BDL*
9	02/05/2018	90.34	51.65	20.56	32.53	BDL*
10	05/05/2018	76.61	34.51	17.41	29.38	BDL*
11	09/05/2018	84.24	48.56	22.49	39.27	BDL*
12	12/05/2018	79.60	36.85	13.75	26.47	BDL*
13	16/05/2018	88.93	45.46	14.54	36.24	BDL*
14	19/05/2018	72.47	33.38	24.38	33.55	BDL*
15	23/05/2018	69.35	28.40	18.52	38.47	BDL*
16	26/05/2018	82.47	37.27	15.43	34.23	BDL*
17	30/05/2018	94.61	54.29	19.51	28.56	BDL*
18	02/06/2018	93.51	48.64	22.37	42.62	BDL*
19	06/06/2018	83.57	38.52	18.66	32.55	BDL*
20	09/06/2018	95.71	54.25	16.43	40.21	BDL*
21	13/06/2018	77.53	34.55	20.44	38.31	BDL*
22	16/06/2018	81.25	44.59	15.67	35.36	BDL*
23	20/06/2018	90.34	50.32	23.42	44.33	BDL*
24	23/06/2018	73.50	40.19	19.50	39.58	BDL*
25	27/06/2018	91.56	55.54	25.38	36.76	BDL*
26	30/06/2018	75.39	31.33	17.53	31.63	BDL*
27	04/07/2018	82.71	36.81	16.42	29.36	BDL*
28	07/07/2018	75.76	39.23	24.23	35.64	BDL*
29	11/07/2018	69.23	30.28	18.63	32.75	BDL*
30	14/07/2018	90.22	52.41	15.62	39.24	BDL*

Continue ...

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

**POLLUCON****LABORATORIES PVT. LTD.**Environmental Auditors, Consultants & Analysts.
Cleaner Production / Waste Minimisation Facilitator

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WTP- NEAR CETP						
Sr.No.	Date of Sampling	Particulate Matter (PM10) $\mu\text{g}/\text{m}^3$	Particulate Matter (PM2.5) $\mu\text{g}/\text{m}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{m}^3$	Oxides of Nitrogen (NO ₂) $\mu\text{g}/\text{m}^3$	Hydrogen sulphide(H ₂ S) $\mu\text{g}/\text{m}^3$
31	18/07/2018	60.27	24.76	13.55	33.45	BDL*
32	21/07/2018	87.65	48.56	19.52	42.67	BDL*
33	25/07/2018	84.52	54.38	22.30	36.71	BDL*
34	28/07/2018	76.37	33.21	20.28	38.34	BDL*
35	01/08/2018	76.43	37.68	24.51	39.42	BDL*
36	04/08/2018	82.65	40.28	20.38	45.35	BDL*
37	08/08/2018	90.22	51.28	15.77	34.52	BDL*
38	11/08/2018	87.65	47.64	18.37	29.51	BDL*
39	15/08/2018	64.35	31.29	21.32	37.24	BDL*
40	18/08/2018	74.30	28.57	12.69	25.25	BDL*
41	22/08/2018	88.75	39.27	17.84	31.46	BDL*
42	29/08/2018	73.44	32.75	17.54	21.45	BDL*
43	01/09/2018	86.37	46.84	20.63	32.32	--
44	05/09/2018	68.20	33.46	23.62	40.34	--
45	08/09/2018	82.47	38.69	25.65	44.21	--
46	12/09/2018	77.53	35.59	17.38	36.49	--
47	15/09/2018	91.80	48.69	22.33	39.57	--
48	19/09/2018	75.70	43.54	19.44	33.51	--
49	22/09/2018	66.85	31.20	13.63	28.72	--
50	26/09/2018	80.33	42.54	15.64	24.34	--
51	29/09/2018	93.63	47.56	18.65	35.21	--
TEST METHOD		IS:5182(Part 23):Gravimetric CPCB - Method (Vol.I,May-2011)	Gravimetric-CPCB - Method (Vol.I,May-2011)	IS:5182(Part II):Improved West and Gaeke	IS:5182(Part VI):Modified Jacob & Hochheiser (NaOH-NaAsO ₂)	IS:5182(Part VII) 1973

* Below detection limit

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

**POLLUCON**

LABORATORIES PVT. LTD.

Environmental Auditors, Consultants & Analysts.
Cleaner Production / Waste Minimisation Facilitator

Recognised by MoEF, New Delhi Under Sec. 12 of Environmental (Protection) Act-1986

RESULT OF AMBIENT AIR QUALITY MONITORING

AIR STRIP								
Sr. No	Date of Sampling	Particulate Matter (PM10) $\mu\text{g}/\text{m}^3$	Particulate Matter (PM 2.5) $\mu\text{g}/\text{m}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{m}^3$	Oxides of Nitrogen (NO ₂) $\mu\text{g}/\text{m}^3$	Carbon Monoxide as CO mg/m^3	Hydrocarbon as CH ₄ mg/m^3	Benzene as C ₆ H ₆ $\mu\text{g}/\text{m}^3$
1	04/04/2018	47.50	31.65	5.61	18.24	0.34	BDL*	BDL*
2	07/04/2018	64.62	24.75	8.76	26.75	0.22	BDL*	BDL*
3	11/04/2018	79.48	48.58	9.70	31.30	0.11	BDL*	BDL*
4	14/04/2018	60.29	27.87	11.46	20.79	0.22	BDL*	BDL*
5	18/04/2018	46.53	36.77	7.21	15.56	0.18	BDL*	BDL*
6	21/04/2018	58.58	28.62	13.76	23.68	0.25	BDL*	BDL*
7	25/04/2018	50.61	23.42	15.14	19.46	0.36	BDL*	BDL*
8	28/04/2018	61.51	37.68	10.72	27.36	0.27	BDL*	BDL*
9	02/05/2018	62.48	35.69	6.65	23.53	0.14	BDL*	BDL*
10	05/05/2018	58.77	26.79	10.31	29.41	0.56	BDL*	BDL*
11	09/05/2018	66.81	23.75	14.53	15.67	0.31	BDL*	BDL*
12	12/05/2018	72.59	31.48	9.50	23.62	0.41	BDL*	BDL*
13	16/05/2018	83.50	48.62	11.37	27.75	0.53	BDL*	BDL*
14	19/05/2018	63.40	29.65	17.32	19.20	0.37	BDL*	BDL*
15	23/05/2018	54.20	22.63	12.37	26.39	0.25	BDL*	BDL*
16	26/05/2018	77.59	34.69	5.53	15.64	0.44	BDL*	BDL*
17	30/05/2018	80.63	30.49	13.19	21.26	0.60	BDL*	BDL*
18	02/06/2018	79.66	33.52	14.54	26.83	0.62	BDL*	BDL*
19	06/06/2018	62.42	28.66	12.55	35.41	0.46	BDL*	BDL*
20	09/06/2018	56.70	36.48	10.67	31.52	0.30	BDL*	BDL*
21	13/06/2018	70.65	20.59	13.40	21.54	0.39	BDL*	BDL*
22	16/06/2018	48.60	34.35	8.27	18.42	0.32	BDL*	BDL*
23	20/06/2018	59.50	24.66	18.53	34.68	0.17	BDL*	BDL*
24	23/06/2018	63.46	37.27	11.47	20.55	0.66	BDL*	BDL*
25	27/06/2018	80.45	43.51	6.58	25.37	0.22	BDL*	BDL*
26	30/06/2018	65.65	26.37	15.83	28.56	0.41	BDL*	BDL*
27	04/07/2018	59.32	24.29	9.46	25.61	0.28	BDL*	BDL*
28	07/07/2018	65.65	35.69	13.71	29.58	0.31	BDL*	BDL*
29	11/07/2018	54.20	27.24	7.54	19.24	0.11	BDL*	BDL*
30	14/07/2018	69.61	37.64	11.31	22.25	0.21	BDL*	BDL*

Continue ...

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

**POLLUCON****LABORATORIES PVT. LTD.**Environmental Auditors, Consultants & Analysts.
Cleaner Production / Waste Minimisation Facilitator

Recognised by MoEF, New Delhi Under Sec. 12 of Environmental (Protection) Act-1986

AIR STRIP								
Sr. No	Date of Sampling	Particulate Matter (PM ₁₀) µg/ m ³	Particulate Matter (PM _{2.5}) µg/ m ³	Sulphur Dioxide (SO ₂) µg/ m ³	Oxides of Nitrogen (NO ₂) µg/ m ³	Carbon Monoxide as CO mg/ m ³	Hydrocarbon as CH ₄ mg/ m ³	Benzene as C ₆ H ₆ µg/ m ³
31	18/07/2018	52.37	22.79	5.47	16.62	0.23	BDL*	BDL*
32	21/07/2018	82.64	49.20	16.22	24.65	0.15	BDL*	BDL*
33	25/07/2018	70.82	33.42	10.41	19.64	0.39	BDL*	BDL*
34	28/07/2018	48.66	20.42	17.69	34.24	0.44	BDL*	BDL*
35	01/08/2018	75.33	34.56	11.84	26.27	0.53	BDL*	BDL*
36	04/08/2018	84.23	44.25	18.61	36.23	0.21	BDL*	BDL*
37	08/08/2018	69.24	29.41	9.49	20.34	0.41	BDL*	BDL*
38	11/08/2018	86.24	36.56	15.65	23.45	0.36	BDL*	BDL*
39	15/08/2018	57.80	18.34	8.35	31.64	0.31	BDL*	BDL*
40	18/08/2018	62.55	25.79	10.35	21.55	0.14	BDL*	BDL*
41	22/08/2018	83.62	30.24	14.54	25.47	0.30	BDL*	BDL*
42	29/08/2018	67.60	28.70	13.34	24.52	0.18	BDL*	BDL*
43	01/09/2018	80.27	41.26	7.50	17.55	0.46	BDL*	BDL*
44	05/09/2018	63.46	30.24	9.55	35.67	0.42	BDL*	BDL*
45	08/09/2018	71.68	38.93	13.53	28.65	0.77	BDL*	BDL*
46	12/09/2018	62.30	33.23	11.45	22.62	0.58	BDL*	BDL*
47	15/09/2018	72.65	37.60	18.29	29.35	0.30	BDL*	BDL*
48	19/09/2018	68.64	40.26	17.24	25.47	0.37	BDL*	BDL*
49	22/09/2018	58.59	28.49	8.66	21.28	0.19	BDL*	BDL*
50	26/09/2018	74.54	31.11	14.56	32.67	0.26	BDL*	BDL*
51	29/09/2018	85.63	36.39	16.37	38.35	0.62	BDL*	BDL*
	TEST METHOD	IS:5182(Part 23):Gravimetric CPCB - Method (Vol.I,May-2011)	Gravimetric-CPCB - Method (Vol.I,May-2011)	IS:5182(Part II):Improved West and Gaeke	IS:5182(Part VI):Modified Jacob & Hochheiser (NaOH-NaAsO ₂)	NDIR Digital Gas Analyzer	SOP: HC: GC/ GCMS/ Gas analyzer	IS 5182 (Part XI):2006/ CPCB Method

* Below detection limit

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

**POLLUCON**

LABORATORIES PVT. LTD.

Environmental Auditors, Consultants & Analysts.
Cleaner Production / Waste Minimisation Facilitator

Recognised by MoEF, New Delhi Under Sec. 12 of Environmental (Protection) Act-1986

RESULTS OF AMBIENT AIR QUALITY MONITORING

SAMUDRA TOWNSHIP STP					
Sr. No.	Date of Sampling	Particulate Matter (PM ₁₀) µg/ m3	Particulate Matter (PM _{2.5}) µg/ m3	Sulphur Dioxide (SO ₂) µg/ m3	Oxides of Nitrogen (NO ₂) µg/ m3
1	04/04/2018	72.62	45.21	21.17	37.32
2	07/04/2018	80.62	48.29	15.18	42.56
3	11/04/2018	64.12	34.57	19.84	26.67
4	14/04/2018	49.67	17.41	8.88	27.89
5	18/04/2018	60.40	30.42	10.39	20.30
6	21/04/2018	45.58	18.34	14.22	29.15
7	25/04/2018	56.31	20.82	7.91	28.37
8	28/04/2018	68.09	32.41	12.47	19.42
9	02/05/2018	77.64	42.55	13.44	36.93
10	05/05/2018	53.46	22.11	8.33	17.59
11	09/05/2018	74.66	29.88	18.30	33.73
12	12/05/2018	58.66	25.72	11.64	19.67
13	16/05/2018	68.40	36.73	17.47	24.58
14	19/05/2018	55.38	24.64	15.31	23.42
15	23/05/2018	48.62	19.66	12.33	32.12
16	26/05/2018	62.57	28.76	9.52	20.32
17	30/05/2018	73.42	40.64	7.22	15.83
18	02/06/2018	60.34	44.63	8.51	17.65
19	06/06/2018	58.66	25.43	10.24	20.31
20	09/06/2018	79.38	41.22	19.23	28.28
21	13/06/2018	65.86	27.51	16.54	25.44
22	16/06/2018	54.26	30.38	12.61	32.41
23	20/06/2018	76.28	33.62	20.33	37.54
24	23/06/2018	68.83	29.46	9.55	23.64
25	27/06/2018	70.39	47.21	14.19	41.24
26	30/06/2018	52.65	21.57	11.58	24.61
27	04/07/2018	73.61	32.41	13.63	22.46
28	07/07/2018	53.83	28.46	18.47	18.35
29	11/07/2018	61.89	23.44	15.30	23.45
30	14/07/2018	70.26	41.76	17.49	26.32

Continue..

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

**POLLUCON****LABORATORIES PVT. LTD.**Environmental Auditors, Consultants & Analysts.
Cleaner Production / Waste Minimisation Facilitator

Recognised by MoEF, New Delhi Under Sec. 12 of Environmental (Protection) Act-1986

SAMUDRA TOWNSHIP STP					
Sr. No.	Date of Sampling	Particulate Matter (PM ₁₀) µg/ m ³	Particulate Matter (PM _{2.5}) µg/ m ³	Sulphur Dioxide (SO ₂) µg/ m ³	Oxides of Nitrogen (NO ₂) µg/ m ³
31	18/07/2018	49.24	19.86	11.28	28.93
32	21/07/2018	74.29	44.21	14.61	36.75
33	25/07/2018	64.58	27.79	12.83	31.88
34	28/07/2018	56.25	25.56	7.46	15.64
35	01/08/2018	68.65	30.38	14.32	34.26
36	04/08/2018	70.63	37.81	16.84	40.23
37	08/08/2018	62.45	26.68	6.45	28.23
38	11/08/2018	77.64	32.45	13.64	23.62
39	15/08/2018	51.60	24.48	17.38	20.71
40	18/08/2018	42.67	16.46	5.66	16.61
41	22/08/2018	78.69	33.53	19.46	29.28
42	29/08/2018	52.71	25.68	11.41	19.25
43	01/09/2018	60.34	36.57	15.52	25.67
44	05/09/2018	57.61	27.63	19.51	23.67
45	08/09/2018	76.28	33.33	17.55	38.45
46	12/09/2018	69.27	30.42	7.68	31.66
47	15/09/2018	72.31	26.59	14.25	36.25
48	19/09/2018	55.32	22.44	12.34	28.48
49	22/09/2018	47.56	18.24	6.54	19.32
50	26/09/2018	52.40	28.34	11.35	35.76
51	29/09/2018	71.25	40.81	13.25	29.47
	TEST METHOD	IS:5182(Part 23):Gravimetric CPCB - Method (Vol.I,May-2011)	Gravimetric- CPCB - Method (Vol.I,May-2011)	IS:5182(Part II):Improved West and Gaeke	IS:5182(Part VI):Modified Jacob & Hochheiser (NaOH-NaAsO ₂)

* Below detection limit

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

**POLLUCON**

LABORATORIES PVT. LTD.

Environmental Auditors, Consultants & Analysts.
Cleaner Production / Waste Minimisation Facilitator

Recognised by MoEF, New Delhi Under Sec. 12 of Environmental (Protection) Act-1986

RESULTS OF AMBIENT AIR QUALITY MONITORING

SAMUDRA TOWNSHIP CUSTOMER CARE					
Sr.No.	Date of Sampling	Particulate Matter (PM ₁₀) µg/ m3	Particulate Matter (PM _{2.5}) µg/ m3	Sulphur Dioxide (SO ₂) µg/ m3	Oxides of Nitrogen (NO ₂) µg/ m3
1	04/04/2018	52.60	19.54	17.65	28.49
2	07/04/2018	73.60	33.40	13.59	33.36
3	11/04/2018	59.32	27.54	10.46	38.57
4	14/04/2018	67.55	23.62	16.90	22.35
5	18/04/2018	70.58	39.29	12.52	24.59
6	21/04/2018	45.58	18.34	14.22	29.15
7	25/04/2018	64.28	30.34	11.27	21.48
8	28/04/2018	74.45	40.36	7.22	30.46
9	02/05/2018	69.67	37.56	10.68	29.67
10	05/05/2018	70.21	31.21	14.24	20.47
11	09/05/2018	54.66	26.35	15.42	25.66
12	12/05/2018	62.65	27.54	18.33	27.24
13	16/05/2018	74.33	40.24	13.45	33.45
14	19/05/2018	50.24	21.85	19.58	26.87
15	23/05/2018	43.28	15.54	16.18	28.42
16	26/05/2018	72.51	25.40	12.61	22.53
17	30/05/2018	67.25	36.28	9.55	19.42
18	02/06/2018	72.57	39.54	18.51	22.68
19	06/06/2018	65.80	32.37	16.32	26.57
20	09/06/2018	75.72	45.60	13.58	36.45
21	13/06/2018	53.69	23.62	10.50	30.52
22	16/06/2018	68.76	26.43	9.62	24.57
23	20/06/2018	71.55	29.64	15.76	28.35
24	23/06/2018	58.41	22.47	14.34	32.34
25	27/06/2018	63.25	40.82	11.23	29.57
26	30/06/2018	47.21	17.56	8.57	20.46
27	04/07/2018	67.25	28.53	7.67	18.71
28	07/07/2018	59.26	31.54	15.25	24.39
29	11/07/2018	49.39	18.43	9.54	28.49
30	14/07/2018	62.47	34.55	13.24	33.52

Continue..

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

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SAMUDRA TOWNSHIP CUSTOMER CARE					
Sr.No.	Date of Sampling	Particulate Matter (PM ₁₀) µg/ m3	Particulate Matter (PM _{2.5}) µg/ m3	Sulphur Dioxide (SO ₂) µg/ m3	Oxides of Nitrogen (NO ₂) µg/ m3
31	18/07/2018	42.61	16.37	8.40	22.72
32	21/07/2018	66.22	41.52	10.58	27.51
33	25/07/2018	52.76	24.83	16.55	26.43
34	28/07/2018	60.53	29.44	14.22	20.55
35	01/08/2018	57.38	27.54	17.66	29.64
36	04/08/2018	66.46	36.32	11.60	31.25
37	08/08/2018	53.63	31.38	13.40	25.32
38	11/08/2018	69.43	29.60	10.61	20.47
39	15/08/2018	46.37	21.52	14.42	28.32
40	18/08/2018	48.36	19.50	8.60	19.33
41	22/08/2018	73.36	26.30	12.73	36.66
42	29/08/2018	49.27	22.47	6.52	15.31
43	01/09/2018	66.52	32.53	13.73	22.19
44	05/09/2018	50.36	23.46	16.56	30.68
45	08/09/2018	68.34	30.63	19.40	35.34
46	12/09/2018	59.68	26.43	9.69	28.32
47	15/09/2018	77.66	42.63	12.68	32.56
48	19/09/2018	62.83	28.65	14.36	21.55
49	22/09/2018	52.60	21.69	10.25	25.70
50	26/09/2018	60.23	24.70	7.23	17.64
51	29/09/2018	79.23	43.79	11.54	19.62
	TEST METHOD	IS:5182(Part 23):Gravimetric CPCB - Method (Vol.I,May-2011)	Gravimetric- CPCB - Method (Vol.I,May-2011)	IS:5182(Part II):Improved West and Gaeke	IS:5182(Part VI):Modified Jacob & Hochheiser (NaOH-NaAsO ₂)

* Below detection limit

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

**POLLUCON**

LABORATORIES PVT. LTD.

Environmental Auditors, Consultants & Analysts.
Cleaner Production / Waste Minimisation Facilitator

Recognised by MoEF, New Delhi Under Sec. 12 of Environmental (Protection) Act-1986

RESULT OF AMBIENT AIR QUALITY MONITORING

ADANI HOUSE								
Sr. No.	Date of Sampling	Particulate Matter (PM10) $\mu\text{g}/\text{m}^3$	Particulate Matter (PM 2.5) $\mu\text{g}/\text{m}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{m}^3$	Oxides of Nitrogen (NO ₂) $\mu\text{g}/\text{m}^3$	Carbon Monoxide as CO mg/m^3	Hydrocarbon as CH ₄ mg/m^3	Benzene as C ₆ H ₆ $\mu\text{g}/\text{m}^3$
1	03/04/2018	80.60	43.76	15.82	39.57	0.42	BDL*	BDL*
2	06/04/2018	65.41	29.34	18.46	30.56	0.60	BDL*	BDL*
3	10/04/2018	79.39	36.72	11.31	26.63	0.80	BDL*	BDL*
4	13/04/2018	64.20	27.63	9.40	22.70	0.61	BDL*	BDL*
5	17/04/2018	52.58	19.42	19.46	35.47	0.18	BDL*	BDL*
6	20/04/2018	72.47	41.56	10.42	34.71	0.73	BDL*	BDL*
7	24/04/2018	82.72	46.72	16.70	31.53	0.29	BDL*	BDL*
8	27/04/2018	62.51	26.38	14.73	25.24	0.36	BDL*	BDL*
9	01/05/2018	56.76	23.84	18.45	31.83	0.17	BDL*	BDL*
10	04/05/2018	80.78	37.72	15.64	27.63	0.27	BDL*	BDL*
11	08/05/2018	50.47	21.30	12.49	22.69	0.34	BDL*	BDL*
12	11/05/2018	79.33	44.55	7.34	25.74	0.77	BDL*	BDL*
13	15/05/2018	60.45	25.63	9.78	19.63	0.58	BDL*	BDL*
14	18/05/2018	76.37	30.71	16.79	33.65	0.53	BDL*	BDL*
15	22/05/2018	55.37	33.42	11.85	30.58	0.70	BDL*	BDL*
16	25/05/2018	82.78	35.63	5.64	35.63	0.40	BDL*	BDL*
17	29/05/2018	65.47	29.76	8.67	26.70	0.57	BDL*	BDL*
18	01/06/2018	72.43	32.55	16.37	35.61	0.65	BDL*	BDL*
19	05/06/2018	53.61	23.21	13.92	25.30	0.44	BDL*	BDL*
20	08/06/2018	60.81	39.22	8.69	21.57	0.96	BDL*	BDL*
21	12/06/2018	75.64	42.55	11.53	31.21	0.41	BDL*	BDL*
22	15/06/2018	64.26	24.55	17.23	36.57	0.23	BDL*	BDL*
23	19/06/2018	81.63	46.26	9.53	19.63	0.87	BDL*	BDL*
24	22/06/2018	66.86	29.26	10.92	22.59	0.54	BDL*	BDL*
25	26/06/2018	58.39	34.26	18.58	29.53	0.39	BDL*	BDL*
26	29/06/2018	70.50	26.26	6.58	39.55	0.46	BDL*	BDL*
27	03/07/2018	69.53	38.67	10.33	27.75	0.26	BDL*	BDL*
28	06/07/2018	56.76	24.84	14.50	31.54	0.15	BDL*	BDL*
29	10/07/2018	77.58	43.63	6.50	25.33	0.44	BDL*	BDL*
30	13/07/2018	62.69	31.34	12.64	21.57	0.29	BDL*	BDL*

Continue ...

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

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ADANI HOUSE								
Sr. No.	Date of Sampling	Particulate Matter (PM10) $\mu\text{g}/\text{m}^3$	Particulate Matter (PM 2.5) $\mu\text{g}/\text{m}^3$	Sulphur Dioxide (SO2) $\mu\text{g}/\text{m}^3$	Oxides of Nitrogen (NO2) $\mu\text{g}/\text{m}^3$	Carbon Monoxide as CO mg/m^3	Hydrocarbon as CH ₄ mg/m^3	Benzene as C ₆ H ₆ $\mu\text{g}/\text{m}^3$
31	17/07/2018	48.83	19.71	5.37	18.35	0.18	BDL*	BDL*
32	20/07/2018	65.84	37.30	11.58	28.55	0.31	BDL*	BDL*
33	24/07/2018	54.60	23.42	7.55	30.64	0.48	BDL*	BDL*
34	27/07/2018	76.79	45.76	9.63	38.46	0.58	BDL*	BDL*
35	31/07/2018	59.60	33.67	7.53	16.46	0.32	BDL*	BDL*
36	03/08/2018	59.72	33.21	12.68	29.51	0.33	BDL*	BDL*
37	07/08/2018	67.23	27.51	10.53	25.50	0.52	BDL*	BDL*
38	10/08/2018	76.85	45.43	8.40	18.80	0.27	BDL*	BDL*
39	14/08/2018	61.48	30.46	11.53	28.51	0.47	BDL*	BDL*
40	17/08/2018	55.67	22.46	6.86	16.27	0.30	BDL*	BDL*
41	21/08/2018	74.55	29.92	9.69	36.75	0.40	BDL*	BDL*
42	24/08/2018	65.84	37.67	13.51	27.59	0.26	BDL*	BDL*
43	28/08/2018	72.55	42.84	17.56	32.78	0.44	BDL*	BDL*
44	31/08/2018	48.35	18.55	16.57	21.58	0.13	BDL*	BDL*
45	04/09/2018	72.55	26.88	15.67	30.76	0.25	BDL*	BDL*
46	07/09/2018	65.72	39.34	12.61	22.39	0.62	BDL*	BDL*
47	11/09/2018	53.25	22.59	9.38	26.26	0.18	BDL*	BDL*
48	14/09/2018	76.43	43.47	10.54	29.63	0.74	BDL*	BDL*
49	18/09/2018	68.26	28.38	13.18	33.58	0.67	BDL*	BDL*
50	21/09/2018	88.29	35.72	16.54	20.52	0.52	BDL*	BDL*
51	25/09/2018	56.82	31.63	8.70	25.60	0.58	BDL*	BDL*
52	28/09/2018	63.29	36.55	14.69	23.63	0.34	BDL*	BDL*
	TEST METHOD	IS:5182(Part 23):Gravimetric CPCB - Method (Vol.I,May-2011)	Gravimetric-CPCB - Method (Vol.I,May-2011)	IS:5182(Part II):Improved West and Gaeke	IS:5182(Part VI):Modified Jacob & Hochheiser (NaOH-NaAsO ₂)	NDIR Digital Gas Analyzer	SOP: HC: GC/ GCMS/ Gas analyzer	IS 5182 (Part XI):2006/ CPCB Method

* Below detection limit

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

PLOT NO.5/6 "POLLUCON HOUSE", OPP. BALAJI INDUSTRIAL SOCIETY, OLD SHANTINATH SILK MILL LANE, NEAR GAYTRI FARFAN MART,
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RESULTS OF NOISE LEVEL MONITORING**Result of Noise level monitoring [Day Time]**

SR. NO.	Name of Location	CETP					
		Result [dB(A) Leq]					
	Sampling Date & Time	11/04/2018	16/05/2018	06/06/2018	04/07/2018	22/08/2018	01/09/2018
1	6:00-7:00	62.4	59.4	62.4	59.3	62.1	61.2
2	7:00-8:00	60.8	62.4	62.9	62.5	60.8	63.8
3	8:00-9:00	63.4	61.7	68.0	67.3	65.9	64.7
4	9:00-10:00	61.9	69.1	65.1	65.4	67.4	67.8
5	10:00-11:00	69.4	70.4	60.4	64.0	64.3	70.4
6	11:00-12:00	65.7	66.1	62.4	65.2	65.6	65.5
7	12:00-13:00	68.4	63.4	65.8	68.3	69.5	63.4
8	13:00-14:00	62.4	61.5	69.1	71.3	65.2	70.2
9	14:00-15:00	60.5	65.2	63.1	65.2	62.1	72.1
10	15:00-16:00	63.4	66.1	61.4	65.8	70.1	68.8
11	16:00-17:00	62.4	68.4	65.2	67.4	63.5	61.2
12	17:00-18:00	63.4	63.4	60.8	66.2	65.2	63.4
13	18:00-19:00	60.7	62.8	69.0	62.7	62.4	68.5
14	19:00-20:00	62.8	65.1	65.3	69.2	68.5	67.0
15	20:00-21:00	68.7	61.2	67.1	65.3	61.5	64.3
16	21:00-22:00	66.1	62.4	62.4	68.3	64.9	63.8
Day Time Limit*		75 dB(A) Leq					

Result of Noise level monitoring [Night Time]

	Name of Location	CETP					
		Result [dB(A) Leq]					
	Sampling Date & Time	11/04/2018	16/05/2018	06/06/2018	04/07/2018	22/08/2018	01/09/2018
1	22:00-23:00	63.4	65.4	62.4	67.3	60.4	60.4
2	23:00-00:00	62.7	62.4	62.9	62.1	62.4	62.8
3	00:00-01:00	68.4	61.5	60.4	63.1	58.2	59.4
4	01:00-02:00	61.4	63.4	58.4	60.5	62.5	62.7
5	02:00-03:00	60.8	68.5	55.1	59.3	62.3	61.8
6	03:00-04:00	65.3	65.1	62.4	57.3	65.2	60.9
7	04:00-05:00	62.4	62.4	54.1	62.3	61.2	60.4
8	05:00-06:00	62.4	65.8	56.4	64.2	63.8	62.8
Night Time Limit*		70 dB(A) Leq					

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

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RESULTS OF NOISE LEVEL MONITORING**Result of Noise level monitoring [Day Time]**

SR. NO.	Name of Location	AIR STRIP					
		Result [dB(A) Leq]					
	Sampling Date & Time	18/ 04/ 2018	23/ 05/ 2018	20/ 06/ 2018	05/ 07/ 2018	29/ 08/ 2018	19/ 09/ 2018
1	6:00-7:00	55.1	56.1	54.1	56.3	55.1	49.5
2	7:00-8:00	60.4	60.4	56.4	58.3	52.4	47.7
3	8:00-9:00	59.9	65.1	60.4	62.6	62.4	58.5
4	9:00-10:00	63.4	61.2	62.4	67.2	61.5	53.4
5	10:00-11:00	65.1	65.4	59.4	65.3	63.2	59.1
6	11:00-12:00	62.4	64.7	63.4	66.2	62.5	62.4
7	12:00-13:00	60.7	56.4	55.8	59.2	69.5	63.1
8	13:00-14:00	68.4	59.8	57.1	60.2	65.4	57.3
9	14:00-15:00	63.4	60.8	63.4	67.2	64.8	52.1
10	15:00-16:00	61.5	60.7	62.4	65.3	66.2	56.4
11	16:00-17:00	65.6	57.1	61.8	57.2	62.4	64.8
12	17:00-18:00	66.1	59.4	65.1	62.1	63.5	58.8
13	18:00-19:00	63.4	60.1	62.5	60.2	66.1	60.0
14	19:00-20:00	61.5	63.1	58.4	57.3	68.4	58.4
15	20:00-21:00	62.8	59.8	55.4	59.2	65.8	65.2
16	21:00-22:00	66.1	56.1	62.4	62.7	61.7	63.3
Day Time Limit*		75 dB(A) Leq					

Result of Noise level monitoring [Night Time]

SR. NO.	Name of Location	AIR STRIP					
		Result [dB(A) Leq]					
	Sampling Date & Time	18/ 04/ 2018	23/ 05/ 2018	20/ 06/ 2018	05/ 07/ 2018	29/ 08/ 2018	19/ 09/ 2018
1	22:00-23:00	63.1	55.1	56.4	56.3	56.4	55.7
2	23:00-00:00	60.4	52.4	60.1	59.2	52.4	59.4
3	00:00-01:00	58.4	55.8	49.2	62.4	46.6	56.1
4	01:00-02:00	55.7	58.4	51.8	54.2	48.1	60.8
5	02:00-03:00	52.4	60.4	56.1	51.3	48.7	62.8
6	03:00-04:00	51.4	59.4	52.4	50.3	53.4	57.1
7	04:00-05:00	56.1	57.4	59.4	47.2	55.6	53.8
8	05:00-06:00	60.4	62.4	62.4	53.2	58.8	59.7
Night Time Limit*		70 dB(A) Leq					

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

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Result of Noise level monitoring [Day Time]

SR. NO.	Name of Location	SAMUNDRA TOWNSHIP STP					
		Result [Leq dB(A)]					
	Sampling Date & Time	25/04/2018	02/05/2018	13/06/2018	18/07/2018	01/08/2018	12/09/2018
1	6:00-7:00	55.1	60.4	58.4	57.2	65.2	62.3
2	7:00-8:00	61.8	58.7	60.1	60.3	62.1	58.8
3	8:00-9:00	65.4	62.4	62.4	65.3	62.7	52.1
4	9:00-10:00	62.1	63.7	60.4	68.4	67.5	60.0
5	10:00-11:00	62.3	61.4	68.4	65.1	63.1	59.7
6	11:00-12:00	63.4	59.4	63.1	61.7	60.9	67.4
7	12:00-13:00	60.4	57.1	62.4	67.3	63.5	62.9
8	13:00-14:00	62.4	62.8	61.4	65.5	65.2	61.4
9	14:00-15:00	61.8	66.2	68.4	68.3	62.4	62.7
10	15:00-16:00	62.7	62.1	65.7	66.3	69.4	64.8
11	16:00-17:00	67.4	62.8	66.1	65.3	72.4	62.0
12	17:00-18:00	60.4	61.7	61.4	71.3	74.1	67.4
13	18:00-19:00	61.4	63.8	63.4	69.3	70.2	65.8
14	19:00-20:00	63.4	68.4	68.1	67.3	69.5	61.9
15	20:00-21:00	60.8	65.5	62.4	65.3	65.2	59.8
16	21:00-22:00	65.8	62.7	63.1	66.3	63.4	58.1
Day Time Limit*		75 Leq dB(A)					

Result of Noise level monitoring [Night Time]

SR. NO.	Name of Location	SAMUNDRA TOWNSHIP STP					
		Result [Leq dB(A)]					
	Sampling Date & Time	25/04/2018	02/05/2018	13/06/2018	18/07/2018	01/08/2018	12/09/2018
1	22:00-23:00	65.4	65.1	60.4	61.3	58.4	65.1
2	23:00-00:00	68.4	62.4	62.4	64.3	60.4	58.7
3	00:00-01:00	62.4	68.4	59.4	58.3	60.2	53.7
4	01:00-02:00	61.4	59.4	63.4	62.4	63.4	52.9
5	02:00-03:00	59.4	62.4	61.4	64.2	61.4	52.1
6	03:00-04:00	63.4	61.5	60.4	67.3	63.2	56.4
7	04:00-05:00	61.7	65.4	58.1	65.2	61.7	55.9
8	05:00-06:00	62.4	63.8	56.8	65.3	60.3	58.4
Night Time Limit*		70 Leq dB(A)					

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

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Result of Noise level monitoring [Day Time]

SR. NO.	Name of Location	SAMUNDRA TOWNSHIP CUSTOMER CARE					
		Result [Leq dB(A)]					
	Sampling Date & Time	04/04/2018	09/05/2018	27/06/2018	25/07/2018	08/08/2018	05/09/2018
1	6:00-7:00	60.4	55.1	58.4	64.2	54.5	52.4
2	7:00-8:00	62.4	60.4	60.1	60.3	59.5	60.4
3	8:00-9:00	59.4	61.8	65.1	62.5	62.4	61.9
4	9:00-10:00	63.4	68.4	63.1	68.3	65.4	58.7
5	10:00-11:00	68.7	67.1	64.2	60.2	68.4	68.4
6	11:00-12:00	65.1	63.1	68.4	57.3	63.4	64.5
7	12:00-13:00	61.4	62.4	62.4	64.2	61.5	65.1
8	13:00-14:00	68.2	61.5	63.1	59.9	60.4	68.7
9	14:00-15:00	65.2	60.2	68.4	61.9	68.4	69.0
10	15:00-16:00	62.4	60.8	62.4	60.2	68.1	62.4
11	16:00-17:00	61.8	65.1	65.1	65.3	62.5	61.4
12	17:00-18:00	69.4	61.8	62.1	66.2	64.8	63.8
13	18:00-19:00	65.3	68.4	63.4	65.1	66.2	59.1
14	19:00-20:00	63.4	65.2	68.4	62.1	60.1	62.7
15	20:00-21:00	68.7	62.8	67.4	68.4	61.6	64.8
16	21:00-22:00	65.1	67.1	62.4	67.3	62.4	61.9
Day Time Limit*		75 Leq dB(A)					

Result of Noise level monitoring [Night Time]

SR. NO.	Name of Location	SAMUNDRA TOWNSHIP CUSTOMER CARE					
		Result [Leq dB(A)]					
	Sampling Date & Time	04/04/2018	09/05/2018	27/06/2018	25/07/2018	08/08/2018	05/09/2018
1	22:00-23:00	60.4	63.1	63.4	65.3	62.4	62.8
2	23:00-00:00	62.4	60.7	58.1	60.2	56.3	65.7
3	00:00-01:00	57.4	60.3	55.1	58.3	50.4	55.4
4	01:00-02:00	55.1	59.8	52.4	60.2	52.5	59.8
5	02:00-03:00	59.4	57.1	53.8	53.2	49.2	56.8
6	03:00-04:00	60.4	55.1	55.1	49.4	56.3	55.4
7	04:00-05:00	61.4	59.1	59.4	51.2	58.3	53.4
8	05:00-06:00	59.9	60.4	60.7	52.4	61.9	68.4
Night Time Limit*		70 Leq dB(A)					

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

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Result of Noise level monitoring [Day Time]

SR. NO.	Name of Location	ADANI HOUSE					
		Result [Leq dB(A)]					
	Sampling Date & Time	10/ 04/ 2018	01/ 05/ 2018	15/ 06/ 2018	17/ 07/ 2018	21/ 08/ 2018	04/ 09/ 2018
1	6:00-7:00	63.1	60.1	66.1	62.4	58.4	64.3
2	7:00-8:00	60.4	63.4	65.7	56.1	63.1	68.8
3	8:00-9:00	69.1	68.4	68.1	63.1	61.5	65.7
4	9:00-10:00	72.4	62.1	62.1	61.8	62.5	70.1
5	10:00-11:00	70.1	68.7	63.4	68.4	69.4	72.4
6	11:00-12:00	65.1	70.5	65.1	70.4	72.1	63.4
7	12:00-13:00	68	63.4	68.1	71.8	70.1	60.4
8	13:00-14:00	67.2	68.1	70.1	68.8	68.4	67.9
9	14:00-15:00	62.4	68.5	70.6	66.1	65.4	67.5
10	15:00-16:00	62.4	66.4	69.4	69.4	60.4	62.4
11	16:00-17:00	65.3	62.1	65.1	62.5	68.5	70.3
12	17:00-18:00	68.1	69.4	62.1	63.4	65.2	71.9
13	18:00-19:00	63.4	64.2	60.4	60.4	64.8	68.8
14	19:00-20:00	65.1	62.9	64.1	65.4	63.1	62.1
15	20:00-21:00	62.5	63.4	70.1	68.1	61.4	60.1
16	21:00-22:00	63.1	61.8	68.1	66.8	62.8	64.1
Day Time Limit*		75 Leq dB(A)					

Result of Noise level monitoring [Night Time]

SR. NO.	Name of Location	ADANI HOUSE					
		Result [Leq dB(A)]					
	Sampling Date & Time	10/ 04/ 2018	01/ 05/ 2018	15/ 06/ 2018	17/ 07/ 2018	21/ 08/ 2018	04/ 09/ 2018
1	22:00-23:00	65.1	62.4	68.4	67.3	60.4	68.4
2	23:00-00:00	68.4	66.2	65.1	59.5	65.1	64.2
3	00:00-01:00	68.2	66.8	60.4	63.1	65.4	62.1
4	01:00-02:00	65.4	63.4	62.4	61.0	61.8	62.1
5	02:00-03:00	62.4	61.5	58.1	61.3	63.4	60.4
6	03:00-04:00	66.1	65.9	60.8	63.4	62.4	64.8
7	04:00-05:00	60.4	67.1	60.7	68.3	65.7	63.1
8	05:00-06:00	63.1	65.6	61.8	66.2	67.1	61.7
Night Time Limit*		70 Leq dB(A)					

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

**POLLUCON**

LABORATORIES PVT. LTD.

Environmental Auditors, Consultants & Analysts.
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RESULTS OF STP WATER OUTLET

SR. NO	TEST PARAMETERS	Unit	ADANI HOUSE STP OUTLET							
			April-18		May-18		June-18		GPCB Permissible Limit	TEST METHOD
			04/04/2018	17/04/2018	02/05/2018	15/05/2018	05/06/2018	20/06/2018		
1	pH	--	7.34	7.4	7.10	7.21	7.15	7.26	--	IS3025(P11)83Re.02
2	Total Suspended Solids	mg/L	23	24	20	28	27	17	100	IS3025(P17)84Re.02
3	BOD (3 days @ 270 C)	mg/L	14	18	16	18	16	15	30	IS 3025 (P44)1993Re.03Edition2.1
4	Fecal Coliform	MPN/100 mL	920	550	550	950	450	350	< 1000	APHA (22ndEdi) 9221 C&E

SR. NO	TEST PARAMETERS	Unit	ADANI HOUSE STP OUTLET							
			July-18		August-18		September-18		GPCB Permissible Limit	TEST METHOD
			10/07/2018	23/07/2018	04/08/2018	14/08/2018	05/09/2018	19/09/2018		
1	pH	--	7.88	7.65	7.34	7.28	7.15	7.39	--	IS3025(P11)83Re.02
2	Total Suspended Solids	mg/L	12	16	23	14	16	10	100	IS3025(P17)84Re.02
3	BOD (3 days @ 270 C)	mg/L	10	12	16	8	16	14	30	IS 3025 (P44)1993Re.03Edition2.1
4	Fecal Coliform	MPN/100 ml	550	450	400	550	400	450	< 1000	APHA (22ndEdi) 9221 C&E

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

"HALF YEARLY ENVIRONMENTAL MONITORING REPORT"

FOR



**ADANI PORTS AND SPECIAL ECONOMIC ZONE LIMITED
TAL: MUNDRA, KUTCH, MUNDRA – 370 421**

**MONITORING PERIOD:
OCTOBER 2018 TO MARCH 2019**

PREPARED BY:



POLLUCON LABORATORIES PVT. LTD.

**PLOT NO.5/6 "POLLUCON HOUSE", OPP. BALAJI INDUSTRIAL SOCIETY,
OLD SHANTINATH SILK MILL LANE, NEAR GAYTRI FARSAN MART,
NAVJIVAN CIRCLE, UDHANA MAGDALLA ROAD, SURAT-395007.**

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TC - 5945

ISO 9001:2015

ISO 14001:2015

OHSAS 18001:2007

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RESULT OF AMBIENT AIR QUALITY MONITORING

WTP- NEAR CETP					
Sr. No.	Date of Sampling	Particulate Matter (PM ₁₀) µg/ m3	Particulate Matter (PM _{2.5}) µg/ m3	Sulphur Dioxide (SO ₂) µg/ m3	Oxides of Nitrogen (NO ₂) µg/ m3
1	03/10/2018	88.69	40.32	22.44	42.32
2	06/10/2018	95.46	51.53	13.35	32.77
3	10/10/2018	81.25	37.52	20.24	38.65
4	13/10/2018	73.62	40.28	24.39	44.21
5	17/10/2018	80.84	42.66	18.66	34.43
6	20/10/2018	96.25	58.30	16.50	39.33
7	24/10/2018	83.63	45.34	14.64	27.63
8	27/10/2018	96.25	58.30	19.29	35.35
9	31/10/2018	87.29	41.24	17.39	29.56
10	03/11/2018	81.56	35.61	24.66	38.62
11	07/11/2018	79.34	42.59	16.44	37.54
12	10/11/2018	86.54	56.31	22.51	40.23
13	14/11/2018	72.74	38.6	18.22	29.59
14	17/11/2018	69.41	41.55	21.57	35.52
15	19/11/2018	84.33	45.54	13.46	28.54
16	21/11/2018	68.38	30.75	10.62	25.54
17	26/11/2018	74.58	43.76	17.35	33.62
18	28/11/2018	65.64	28.55	20.24	31.33
19	03/12/2018	95.38	51.49	20.93	39.26
20	05/12/2018	88.26	36.82	23.58	36.61
21	10/12/2018	78.58	34.53	17.51	43.63
22	12/12/2018	68.24	30.63	19.58	34.32
23	17/12/2018	74.29	38.65	26.3	28.5
24	19/12/2018	94.68	56.31	22.65	37.72
25	24/12/2018	82.42	35.65	18.37	33.62
26	26/12/2018	72.52	45.34	15.61	42.52
27	31/12/2018	93.59	39.56	12.62	29.35
28	02/01/2019	86.38	48.62	27.59	32.62
29	07/01/2019	74.30	35.78	21.38	44.39
30	09/01/2019	85.63	38.69	19.53	36.53

Continue ...

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

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WTP- NEAR CETP					
Sr.No.	Date of Sampling	Particulate Matter (PM10) µg/ m3	Particulate Matter (PM2.5) µg/ m3	Sulphur Dioxide (SO2) µg/ m3	Oxides of Nitrogen (NO2) µg/ m3
31	15/01/2019	90.22	47.58	22.79	42.45
32	16/01/2019	76.34	43.84	25.39	40.24
33	21/01/2019	92.34	37.27	20.38	31.58
34	23/01/2019	79.72	46.54	17.24	45.35
35	28/01/2019	82.41	49.20	24.35	39.37
36	30/01/2019	72.37	31.29	18.66	35.74
37	04/02/2019	82.62	44.5	22.52	26.79
38	06/02/2019	68.43	36.57	11.84	35.84
39	11/02/2019	74.58	41.35	25.6	30.73
40	13/02/2019	86.68	48.49	20.65	34.44
41	18/02/2019	78.55	32.74	18.91	43.42
42	20/02/2019	61.86	24.27	21.55	41.53
43	25/02/2019	84.57	45.38	14.47	32.34
44	27/02/2019	69.36	40.22	26.29	38.57
45	04/03/2019	70.87	34.53	21.23	41.37
46	06/03/2019	85.44	46.54	19.43	33.5
47	11/03/2019	91.26	53.44	13.49	39.29
48	13/03/2019	67.23	40.18	28.49	35.4
49	18/03/2019	74.28	31.25	24.3	30.2
50	20/03/2019	82.45	43.26	22.07	42.81
51	25/03/2019	77.48	39.56	16.34	36.53
52	27/03/2019	61.60	32.41	25.61	40.44
TEST METHOD		IS:5182(Part 23):Gravimetric CPCB - Method (Vol.I,May-2011)	Gravimetric- CPCB - Method (Vol.I,May-2011)	IS:5182(Part II):Improved West and Gaeke	IS:5182(Part VI):Modified Jacob &Hochheiser (NaOH-NaAsO2)

* Below detection limit

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

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RESULT OF AMBIENT AIR QUALITY MONITORING

AIR STRIP								
Sr. No	Date of Sampling	Particulate Matter (PM10) $\mu\text{g}/\text{m}^3$	Particulate Matter (PM 2.5) $\mu\text{g}/\text{m}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{m}^3$	Oxides of Nitrogen (NO ₂) $\mu\text{g}/\text{m}^3$	Carbon Monoxide as CO mg/m^3	Hydrocarbon as CH ₄ mg/m^3	Benzene as C ₆ H ₆ $\mu\text{g}/\text{m}^3$
1	03/10/2018	66.56	28.66	14.89	29.43	0.53	BDL*	BDL*
2	06/10/2018	86.36	45.67	10.33	18.33	0.21	BDL*	BDL*
3	10/10/2018	75.33	35.64	15.60	24.52	0.30	BDL*	BDL*
4	13/10/2018	80.45	41.55	17.42	37.29	0.44	BDL*	BDL*
5	17/10/2018	64.38	31.88	8.68	31.83	0.26	BDL*	BDL*
6	20/10/2018	89.34	54.32	6.49	34.63	0.48	BDL*	BDL*
7	24/10/2018	68.33	32.57	12.41	25.66	0.40	BDL*	BDL*
8	27/10/2018	77.59	29.32	9.67	18.42	0.16	BDL*	BDL*
9	31/10/2018	80.33	37.56	11.25	21.62	0.34	BDL*	BDL*
10	03/11/2018	78.57	32.51	13.55	26.84	0.22	BDL*	BDL*
11	07/11/2018	60.38	26.43	6.3	15.42	0.14	BDL*	BDL*
12	10/11/2018	71.56	23.45	7.6	21.41	0.47	BDL*	BDL*
13	14/11/2018	68.25	29.49	9.36	25.44	0.17	BDL*	BDL*
14	17/11/2018	80.45	34.58	15.62	30.27	0.33	BDL*	BDL*
15	19/11/2018	63.78	31.56	8.33	16.7	0.13	BDL*	BDL*
16	21/11/2018	50.17	19.52	11.6	19.67	0.21	BDL*	BDL*
17	26/11/2018	47.62	27.63	14.63	35.38	0.37	BDL*	BDL*
18	28/11/2018	59.22	24.32	10.78	18.7	0.19	BDL*	BDL*
19	03/12/2018	79.88	45.5	7.57	23.5	0.78	BDL*	BDL*
20	05/12/2018	50.31	20.64	12.37	28.35	0.33	BDL*	BDL*
21	10/12/2018	62.68	39.25	9.52	20.61	0.19	BDL*	BDL*
22	12/12/2018	52.4	33.67	14.63	30.34	0.41	BDL*	BDL*
23	17/12/2018	48.6	23.53	16.27	24.57	0.16	BDL*	BDL*
24	19/12/2018	66.76	38.63	13.65	19.7	0.22	BDL*	BDL*
25	24/12/2018	58.44	26.51	15.83	22.57	0.39	BDL*	BDL*
26	26/12/2018	42.66	18.86	12.5	26.39	0.13	BDL*	BDL*
27	31/12/2018	64.59	28.25	6.33	16.7	0.21	BDL*	BDL*
28	02/01/2019	55.67	34.66	18.33	25.45	0.30	BDL*	BDL*
29	07/01/2019	61.28	27.59	16.57	33.55	0.21	BDL*	BDL*
30	09/01/2019	50.31	21.55	13.39	23.62	0.50	BDL*	BDL*

Continue ...

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

PLOT NO.5/6 "POLLUCON HOUSE", OPP. BALAJI INDUSTRIAL SOCIETY, OLD SHANTINATH SILK MILL LANE, NEAR GAYTRI FARSAN MART,
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**POLLUCON****LABORATORIES PVT. LTD.**Environmental Auditors, Consultants & Analysts.
Cleaner Production / Waste Minimisation Facilitator

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AIR STRIP								
Sr. No	Date of Sampling	Particulate Matter (PM ₁₀) µg/ m ³	Particulate Matter (PM _{2.5}) µg/ m ³	Sulphur Dioxide (SO ₂) µg/ m ³	Oxides of Nitrogen (NO ₂) µg/ m ³	Carbon Monoxide as CO mg/ m ³	Hydrocarbon as CH ₄ mg/ m ³	Benzene as C ₆ H ₆ µg/ m ³
31	15/01/2019	75.63	40.29	6.56	27.85	0.11	BDL*	BDL*
32	16/01/2019	57.26	24.53	14.43	21.61	0.14	BDL*	BDL*
33	21/01/2019	71.55	28.58	7.37	17.60	0.48	BDL*	BDL*
34	23/01/2019	48.37	32.43	12.67	26.63	0.16	BDL*	BDL*
35	28/01/2019	51.59	22.54	17.49	30.52	0.41	BDL*	BDL*
36	30/01/2019	45.36	19.23	9.63	22.45	0.24	BDL*	BDL*
37	04/02/2019	66.25	25.77	15.6	15.75	0.64	BDL*	BDL*
38	06/02/2019	51.62	24.53	10.24	28.39	0.16	BDL*	BDL*
39	11/02/2019	46.58	20.43	14.62	21.67	0.39	BDL*	BDL*
40	13/02/2019	68.32	39.66	12.33	22.45	0.32	BDL*	BDL*
41	18/02/2019	56.69	23.41	7.58	32.52	0.58	BDL*	BDL*
42	20/02/2019	78.23	32.84	9.58	19.44	0.27	BDL*	BDL*
43	25/02/2019	65.45	35.69	11.53	25.4	0.53	BDL*	BDL*
44	27/02/2019	59.63	26.31	13.85	20.6	0.21	BDL*	BDL*
45	04/03/2019	63.68	40.37	13.66	26.39	0.13	BDL*	BDL*
46	06/03/2019	72.66	35.49	8.42	18.69	0.42	BDL*	BDL*
47	11/03/2019	80.47	23.45	12.59	31.84	0.21	BDL*	BDL*
48	13/03/2019	51.65	29.2	16.29	23.49	0.27	BDL*	BDL*
49	18/03/2019	60.68	25.4	14.61	15.39	0.46	BDL*	BDL*
50	20/03/2019	71.69	31.52	10.69	21.72	0.19	BDL*	BDL*
51	25/03/2019	50.23	22.62	15.6	29.4	0.23	BDL*	BDL*
52	27/03/2019	67.20	36.44	9.66	24.56	0.18	BDL*	BDL*
	TEST METHOD	IS:5182(Part 23):Gravimetric CPCB - Method (Vol.I,May-2011)	Gravimetric-CPCB - Method (Vol.I,May-2011)	IS:5182(Part II):Improved West and Gaeke	IS:5182(Part VI):Modified Jacob & Hochheiser (NaOH-NaAsO ₂)	NDIR Digital Gas Analyzer	SOP: HC: GC/ GCMS/ Gas analyzer	IS 5182 (Part XI):2006/ CPCB Method

* Below detection limit

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

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RESULTS OF AMBIENT AIR QUALITY MONITORING

SAMUDRA TOWNSHIP STP					
Sr. No.	Date of Sampling	Particulate Matter (PM ₁₀) µg/ m3	Particulate Matter (PM _{2.5}) µg/ m3	Sulphur Dioxide (SO ₂) µg/ m3	Oxides of Nitrogen (NO ₂) µg/ m3
1	03/10/2018	79.50	34.20	17.48	33.58
2	06/10/2018	64.49	30.25	15.21	27.35
3	10/10/2018	54.26	24.35	13.44	30.34
4	13/10/2018	68.40	33.41	11.64	25.31
5	17/10/2018	57.38	23.77	10.41	29.35
6	20/10/2018	70.51	42.72	14.19	32.40
7	24/10/2018	62.26	35.28	8.70	19.53
8	27/10/2018	78.69	41.22	16.33	28.53
9	31/10/2018	59.22	26.35	12.51	24.21
10	03/11/2018	58.37	23.41	10.50	19.44
11	07/11/2018	74.34	38.75	21.18	22.35
12	10/11/2018	66.75	30.58	17.54	35.77
13	14/11/2018	77.54	42.56	12.45	21.58
14	17/11/2018	61.34	26.48	14.53	18.60
15	19/11/2018	72.35	40.24	6.48	25.60
16	21/11/2018	63.51	27.64	9.50	23.17
17	26/11/2018	55.84	31.29	15.35	27.52
18	28/11/2018	73.57	35.39	7.56	16.55
19	03/12/2018	73.6	41.65	15.5	35.52
20	05/12/2018	62.64	26.36	7.82	20.46
21	10/12/2018	59.44	27.68	11.72	26.51
22	12/12/2018	76.36	46.29	8.6	17.7
23	17/12/2018	69.65	33.86	20.32	25.47
24	19/12/2018	79.47	47.36	19.32	23.36
25	24/12/2018	67.57	28.34	6.56	19.48
26	26/12/2018	58.68	35.64	13.9	34.63
27	31/12/2018	77.58	32.41	16.34	24.41
28	02/01/2019	75.77	43.30	22.62	27.63
29	07/01/2019	54.23	25.36	9.55	19.59
30	09/01/2019	68.55	29.46	7.58	21.35

Continue..

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

**POLLUCON****LABORATORIES PVT. LTD.**Environmental Auditors, Consultants & Analysts.
Cleaner Production / Waste Minimisation Facilitator

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SAMUDRA TOWNSHIP STP					
Sr. No.	Date of Sampling	Particulate Matter (PM ₁₀) µg/ m3	Particulate Matter (PM _{2.5}) µg/ m3	Sulphur Dioxide (SO ₂) µg/ m3	Oxides of Nitrogen (NO ₂) µg/ m3
31	15/01/2019	78.31	44.35	17.39	36.37
32	16/01/2019	62.51	27.64	21.49	24.42
33	21/01/2019	84.33	34.56	18.40	28.67
34	23/01/2019	66.37	42.68	15.60	37.40
35	28/01/2019	57.58	20.64	8.22	22.78
36	30/01/2019	69.85	36.55	12.92	30.24
37	04/02/2019	79.6	33.44	14.57	22.26
38	06/02/2019	56.39	28.68	7.58	17.59
39	11/02/2019	64.55	39.78	20.54	23.85
40	13/02/2019	52.53	24.37	18.37	30.46
41	18/02/2019	60.41	29.67	10.36	18.64
42	20/02/2019	71.63	40.57	12.85	36.38
43	25/02/2019	50.42	27.52	8.59	19.42
44	27/02/2019	63.82	37.54	17.42	28.56
45	04/03/2019	46.27	18.44	17.65	35.63
46	06/03/2019	80.41	42.27	11.48	20.37
47	11/03/2019	75.68	27.35	8.4	17.64
48	13/03/2019	56.36	34.27	22.37	33.49
49	18/03/2019	67.81	28.76	16.46	28.76
50	20/03/2019	59.38	33.69	13.57	38.47
51	25/03/2019	71.51	36.42	9.4	21.34
52	27/03/2019	55.34	29.34	19.28	31.42
	TEST METHOD	IS:5182(Part 23):Gravimetric CPCB - Method (Vol.I, May-2011)	Gravimetric- CPCB - Method (Vol.I, May-2011)	IS:5182(Part II):Improved West and Gaeke	IS:5182(Part VI):Modified Jacob & Hochheiser (NaOH-NaAsO ₂)

* Below detection limit

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

**POLLUCON****LABORATORIES PVT. LTD.**Environmental Auditors, Consultants & Analysts.
Cleaner Production / Waste Minimisation Facilitator

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RESULTS OF AMBIENT AIR QUALITY MONITORING

SAMUDRA TOWNSHIP CUSTOMER CARE					
Sr.No.	Date of Sampling	Particulate Matter (PM ₁₀) µg/ m3	Particulate Matter (PM _{2.5}) µg/ m3	Sulphur Dioxide (SO ₂) µg/ m3	Oxides of Nitrogen (NO ₂) µg/ m3
1	03/10/2018	74.21	30.51	12.59	36.76
2	06/10/2018	69.31	36.57	8.31	24.63
3	10/10/2018	70.33	32.45	17.30	21.58
4	13/10/2018	53.45	27.67	15.36	33.26
5	17/10/2018	52.38	20.83	13.44	23.76
6	20/10/2018	64.83	35.42	11.51	20.58
7	24/10/2018	56.47	26.47	6.81	22.35
8	27/10/2018	72.63	38.67	14.57	31.25
9	31/10/2018	66.88	29.40	9.61	18.67
10	03/11/2018	50.33	20.57	17.50	15.69
11	07/11/2018	67.68	34.66	13.70	31.55
12	10/11/2018	58.72	28.67	9.62	28.35
13	14/11/2018	61.73	33.58	14.48	19.58
14	17/11/2018	53.43	18.70	12.64	27.53
15	19/11/2018	66.32	37.61	10.36	21.30
16	21/11/2018	55.31	23.60	7.20	17.31
17	26/11/2018	62.67	36.53	11.22	30.50
18	28/11/2018	51.22	21.53	15.22	25.64
19	03/12/2018	66.55	34.66	11.35	30.35
20	05/12/2018	57.68	23.48	16.57	18.45
21	10/12/2018	69.3	30.5	14.49	23.54
22	12/12/2018	59.33	25.39	13.56	26.56
23	17/12/2018	63.27	28.38	18.67	20.22
24	19/12/2018	74.28	46.54	15.7	33.26
25	24/12/2018	62.69	31.62	9.83	27.53
26	26/12/2018	50.43	29.42	6.58	31.62
27	31/12/2018	71.62	33.58	20.45	21.56
28	02/01/2019	70.55	40.35	20.57	22.74
29	07/01/2019	66.55	31.58	18.53	28.68
30	09/01/2019	72.50	26.39	10.21	29.35

Continue...

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

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SAMUDRA TOWNSHIP CUSTOMER CARE					
Sr.No.	Date of Sampling	Particulate Matter (PM ₁₀) µg/ m3	Particulate Matter (PM _{2.5}) µg/ m3	Sulphur Dioxide (SO ₂) µg/ m3	Oxides of Nitrogen (NO ₂) µg/ m3
31	15/01/2019	56.37	25.59	12.33	33.28
32	16/01/2019	69.32	33.62	17.62	36.52
33	21/01/2019	78.61	30.58	22.52	39.22
34	23/01/2019	58.66	37.57	9.55	32.22
35	28/01/2019	64.68	41.22	19.65	34.52
36	30/01/2019	54.30	23.56	16.21	20.34
37	04/02/2019	75.63	30.46	8.78	33.89
38	06/02/2019	61.63	33.41	15.32	24.57
39	11/02/2019	58.64	29.42	17.65	18.45
40	13/02/2019	64.39	35.32	10.6	27.72
41	18/02/2019	71.29	26.22	22.87	35.61
42	20/02/2019	50.37	19.61	19.43	32.72
43	25/02/2019	73.54	38.69	16.33	28.66
44	27/02/2019	54.56	31.25	20.25	23.76
45	04/03/2019	56.31	20.44	15.38	30.43
46	06/03/2019	60.22	27.47	14.59	29.5
47	11/03/2019	70.67	24.23	22.42	25.36
48	13/03/2019	47.22	18.62	19.48	20.52
49	18/03/2019	54.2	22.69	10.34	18.62
50	20/03/2019	65.68	36.48	20.3	26.37
51	25/03/2019	59.44	28.26	18.65	32.6
52	27/03/2019	48.2	25.22	23.31	28.68
	TEST METHOD	IS:5182(Part 23):Gravimetric CPCB - Method (Vol.I,May-2011)	Gravimetric- CPCB - Method (Vol.I,May-2011)	IS:5182(Part II):Improved West and Gaeke	IS:5182(Part VI):Modified Jacob & Hochheiser (NaOH-NaAsO ₂)

* Below detection limit

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

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RESULT OF AMBIENT AIR QUALITY MONITORING

ADANI HOUSE								
Sr. No.	Date of Sampling	Particulate Matter (PM10) $\mu\text{g}/\text{m}^3$	Particulate Matter (PM 2.5) $\mu\text{g}/\text{m}^3$	Sulphur Dioxide (SO ₂) $\mu\text{g}/\text{m}^3$	Oxides of Nitrogen (NO ₂) $\mu\text{g}/\text{m}^3$	Carbon Monoxide as CO mg/m^3	Hydrocarbon as CH ₄ mg/m^3	Benzene as C ₆ H ₆ $\mu\text{g}/\text{m}^3$
1	02/10/2018	62.57	31.51	18.73	24.53	0.40	BDL*	BDL*
2	05/10/2018	84.35	44.38	11.35	29.67	0.55	BDL*	BDL*
3	09/10/2018	79.63	35.34	16.22	31.22	0.20	BDL*	BDL*
4	12/10/2018	57.24	27.55	13.52	22.43	0.46	BDL*	BDL*
5	16/10/2018	72.80	38.44	10.83	30.58	0.41	BDL*	BDL*
6	19/10/2018	67.89	30.42	8.65	25.69	0.26	BDL*	BDL*
7	23/10/2018	58.64	23.50	12.37	19.40	0.33	BDL*	BDL*
8	26/10/2018	71.58	38.63	15.62	26.19	0.50	BDL*	BDL*
9	30/10/2018	65.65	29.38	9.61	20.60	0.22	BDL*	BDL*
10	02/11/2018	63.77	27.26	7.64	16.26	0.14	BDL*	BDL*
11	06/11/2018	80.35	43.62	12.46	20.25	0.33	BDL*	BDL*
12	09/11/2018	70.43	33.23	6.81	23.7	0.17	BDL*	BDL*
13	13/11/2018	69.32	30.45	8.46	18.64	0.5	BDL*	BDL*
14	16/11/2018	56.38	23.51	11.37	22.48	0.29	BDL*	BDL*
15	21/11/2018	53.45	20.65	13.47	26.83	0.42	BDL*	BDL*
16	26/11/2018	73.64	39.29	16.5	19.53	0.64	BDL*	BDL*
17	28/11/2018	58.42	26.88	17.26	21.24	0.37	BDL*	BDL*
18	03/12/2018	80.24	44.5	6.56	25.71	0.39	BDL*	BDL*
19	05/12/2018	68.32	29.36	19.59	21.6	0.21	BDL*	BDL*
20	10/12/2018	76.34	31.67	13.64	18.65	0.33	BDL*	BDL*
21	12/12/2018	61.25	38.82	10.19	24.61	0.44	BDL*	BDL*
22	17/12/2018	58.35	24.35	8.92	27.6	0.61	BDL*	BDL*
23	19/12/2018	89.32	48.62	12.48	20.37	0.56	BDL*	BDL*
24	24/12/2018	63.57	24.69	17.55	17.69	0.65	BDL*	BDL*
25	26/12/2018	82.68	46.31	14.46	22.68	0.73	BDL*	BDL*
26	31/12/2018	67.87	31.29	9.56	30.23	0.48	BDL*	BDL*
27	02/01/2019	65.56	37.35	9.64	30.34	0.77	BDL*	BDL*
28	07/01/2019	76.51	34.58	11.41	27.70	0.57	BDL*	BDL*
29	09/01/2019	69.32	30.75	18.67	20.46	0.85	BDL*	BDL*
30	15/01/2019	70.20	39.63	7.54	15.63	0.38	BDL*	BDL*

Continue ...

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

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ADANI HOUSE								
Sr. No.	Date of Sampling	Particulate Matter (PM ₁₀) µg/ m ³	Particulate Matter (PM _{2.5}) µg/ m ³	Sulphur Dioxide (SO ₂) µg/ m ³	Oxides of Nitrogen (NO ₂) µg/ m ³	Carbon Monoxide as CO mg/ m ³	Hydrocarbon as CH ₄ mg/ m ³	Benzene as C ₆ H ₆ µg/ m ³
31	16/01/2019	81.27	32.56	13.61	23.92	0.66	BDL*	BDL*
32	21/01/2019	74.35	29.57	10.41	33.55	0.55	BDL*	BDL*
33	23/01/2019	91.39	51.53	8.51	24.72	0.36	BDL*	BDL*
34	28/01/2019	62.34	27.51	14.41	17.66	0.50	BDL*	BDL*
35	30/01/2019	85.45	33.57	19.30	26.62	0.41	BDL*	BDL*
36	04/02/2019	62.47	26.37	10.36	28.69	0.84	BDL*	BDL*
37	06/02/2019	70.53	37.52	13.37	23.74	0.73	BDL*	BDL*
38	11/02/2019	54.68	22.38	16.5	25.49	0.4	BDL*	BDL*
39	13/02/2019	63.59	34.24	19.38	18.69	0.65	BDL*	BDL*
40	18/02/2019	58.64	24.86	17.53	17.6	1.09	BDL*	BDL*
41	20/02/2019	76.49	33.48	11.36	22.7	0.48	BDL*	BDL*
42	25/02/2019	53.4	23.43	15.19	29.27	0.76	BDL*	BDL*
43	27/02/2019	84.28	45.3	7.54	26.54	0.47	BDL*	BDL*
44	04/03/2019	65.65	35.33	14.52	33.49	0.64	BDL*	BDL*
45	06/03/2019	54.35	25.62	21.54	21.75	0.82	BDL*	BDL*
46	11/03/2019	66.24	33.69	15.65	24.4	0.53	BDL*	BDL*
47	13/03/2019	50.22	23.47	18.39	28.52	0.26	BDL*	BDL*
48	18/03/2019	56.86	27.55	11.85	32.5	0.62	BDL*	BDL*
49	20/03/2019	70.42	41.22	12.36	25.79	0.33	BDL*	BDL*
50	25/03/2019	51.28	24.52	17.5	34.57	0.54	BDL*	BDL*
51	27/03/2019	75.59	39.62	8.91	29.5	0.34	BDL*	BDL*
	TEST METHOD	IS:5182(Part 23):Gravimetric CPCB - Method (Vol.I,May-2011)	Gravimetric-CPCB - Method (Vol.I,May-2011)	IS:5182(Part II):Improved West and Gaeke	IS:5182(Part VI):Modified Jacob & Hochheiser (NaOH-NaAsO ₂)	NDIR Digital Gas Analyzer	SOP: HC: GC/ GCMS/ Gas analyzer	IS 5182 (Part XI):2006/ CPCB Method

* Below detection limit

H. T. Shah

Lab Manager



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Lab Manager (Q)

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RESULTS OF NOISE LEVEL MONITORING**Result of Noise level monitoring [Day Time]**

SR. NO.	Name of Location	CETP					
		Result [dB(A) Leq]					
	Sampling Date & Time	03/ 10/ 2018	14/ 11/ 2018	12/ 12/ 2018	11/ 01/ 2019	08/ 02/ 2019	22/ 03/ 2019
1	6:00-7:00	61.4	62.6	62.7	62.1	63.4	68.4
2	7:00-8:00	61.6	58.8	69.1	60.8	60.4	62.1
3	8:00-9:00	64.8	62.9	65.7	65.9	61.8	69.7
4	9:00-10:00	66	66.7	70.4	67.4	68.4	63.1
5	10:00-11:00	71.1	72	72.1	64.3	62.4	70.1
6	11:00-12:00	66.4	64.4	68.1	65.6	65.1	72.3
7	12:00-13:00	62.8	60.6	63.5	69.5	65.3	63.1
8	13:00-14:00	72.7	74.2	65.9	65.2	69.4	69.4
9	14:00-15:00	74.1	71.1	69.1	62.1	73.1	64.1
10	15:00-16:00	65.4	66.2	62.8	70.1	68.4	62.8
11	16:00-17:00	62.8	63.2	66.1	63.5	65.1	68.1
12	17:00-18:00	64.2	67.2	62.8	65.2	65.9	71.3
13	18:00-19:00	66.1	63.8	66.1	62.4	62.4	68.1
14	19:00-20:00	64	61.5	69.4	68.5	66.1	65.1
15	20:00-21:00	63.1	60.2	65.6	61.5	66.8	65.9
16	21:00-22:00	61.8	63.4	63.7	64.9	64.1	64.2
Day Time Limit*		75 dB(A) Leq					

Result of Noise level monitoring [Night Time]

	Name of Location	CETP					
		Result [dB(A) Leq]					
	Sampling Date & Time	03/ 10/ 2018 & 04/ 10/ 2018	14/ 11/ 2018 & 15/ 11/ 2018	12/ 12/ 2018 & 13/ 12/ 2018	11/ 01/ 2019 & 12/ 01/ 2019	08/ 02/ 2019 & 09/ 02/ 2019	22/ 03/ 2019 & 23/ 03/ 2019
1	22:00-23:00	56.9	57.5	62.1	60.4	62.1	55.1
2	23:00-00:00	64.4	67.3	60.4	62.4	60.4	61.8
3	00:00-01:00	56.7	56.8	63.4	58.2	63.4	56.7
4	01:00-02:00	60	58.8	65.1	62.5	65.1	59.7
5	02:00-03:00	59.7	57.6	59.4	62.3	59.4	62.1
6	03:00-04:00	60.6	59.3	61.4	65.2	61.4	65.4
7	04:00-05:00	56.9	59.9	62.7	61.2	62.7	60.4
8	05:00-06:00	65.1	65.7	63.4	63.8	63.4	57.4
Night Time Limit*		70 dB(A) Leq					

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Lab Manager



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RESULTS OF NOISE LEVEL MONITORING**Result of Noise level monitoring [Day Time]**

SR. NO.	Name of Location	AIR STRIP					
		Result [dB(A) Leq]					
	Sampling Date & Time	10/ 10/ 2018	10/ 11/ 2018	26/ 12/ 2018	03/ 01/ 2019	14/ 02/ 2019	25/ 03/ 2019
1	6:00-7:00	49.7	49.3	52.1	54.1	55.1	57.1
2	7:00-8:00	50.4	52.5	56.4	58.1	58.4	56.1
3	8:00-9:00	60.7	63.7	63.1	60.4	60.1	60.1
4	9:00-10:00	55.5	58.2	62.4	62.4	62.4	59.8
5	10:00-11:00	56.8	58.2	68.4	68.4	59.1	59.1
6	11:00-12:00	64.1	65.5	61.4	59.4	63.4	62.4
7	12:00-13:00	59.7	58.8	60.4	60.4	62.8	63.1
8	13:00-14:00	55.4	56.8	58.4	62.1	59.4	66.4
9	14:00-15:00	50	49.4	60.4	58.7	61.2	64.1
10	15:00-16:00	57.4	59	60.9	56.1	61.8	62.7
11	16:00-17:00	66	65.1	63.1	58.4	60.8	62.8
12	17:00-18:00	61.8	63	61.4	60.4	62.4	60.4
13	18:00-19:00	56.5	58.8	65.4	55.8	63.4	65.1
14	19:00-20:00	57.5	56.1	62.4	59.8	61.8	62.7
15	20:00-21:00	66.41	68.41	60.4	56.4	62.8	60.8
16	21:00-22:00	62.2	64.4	60.7	58.4	65.2	63.4
Day Time Limit*		75 dB(A) Leq					

Result of Noise level monitoring [Night Time]

SR. NO.	Name of Location	AIR STRIP					
		Result [dB(A) Leq]					
	Sampling Date & Time	10/ 10/ 2018 & 11/ 10/ 2018	10/ 11/ 2018 & 11/ 11/ 2018	26/ 12/ 2018 & 27/ 12/ 2018	03/ 01/ 2019 & 04/ 01/ 2019	14/ 02/ 2019 & 15/ 02/ 2019	25/ 03/ 2019 & 26/ 03/ 2019
1	22:00-23:00	57.8	56	59.4	59.4	59.4	58.1
2	23:00-00:00	57.4	54.9	54.4	54.4	54.4	55.1
3	00:00-01:00	56.8	56.9	54.8	54.8	54.8	50.4
4	01:00-02:00	57.8	58.8	58.3	58.3	58.3	53.1
5	02:00-03:00	61.5	62.6	50.3	50.3	50.3	57.1
6	03:00-04:00	58.8	58.9	50.2	50.2	50.2	60.4
7	04:00-05:00	51.5	50.8	51.4	51.4	51.4	56.1
8	05:00-06:00	59.3	56.8	56.4	56.4	56.4	62.8
Night Time Limit*		70 dB(A) Leq					

H. T. Shah

Lab Manager



Dr. ArunBajpai

Lab Manager (Q)

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Result of Noise level monitoring [Day Time]

SR. NO.	Name of Location	SAMUNDRA TOWNSHIP STP					
		Result [Leq dB(A)]					
	Sampling Date & Time	17/ 10/ 2018	21/ 11/ 2018	19/ 12/ 2018	25/ 01/ 2019	22/ 02/ 2019	08/ 03/ 2019
1	6:00-7:00	62.1	64.1	61.7	65.2	62.4	57.1
2	7:00-8:00	55.5	57	55.4	62.1	60.2	60.4
3	8:00-9:00	52.6	55.2	59.1	62.7	65.3	59.1
4	9:00-10:00	58.6	58.2	61.7	67.5	67.2	62.4
5	10:00-11:00	60.8	60.3	65.8	63.1	67.2	61.4
6	11:00-12:00	65.2	65.2	65.1	60.9	70.2	63.1
7	12:00-13:00	62.7	60.4	59.1	63.5	73.8	65.4
8	13:00-14:00	59.1	61.1	62.7	65.2	69.3	62.4
9	14:00-15:00	60.4	57.5	67.4	62.4	65.2	62.8
10	15:00-16:00	65.9	65.7	62.4	69.4	63.9	62.9
11	16:00-17:00	62.9	64.7	61.8	72.4	67.3	63.4
12	17:00-18:00	64.7	63.6	60.9	74.1	68.3	61.7
13	18:00-19:00	68	71.1	63.8	70.2	62.1	64.7
14	19:00-20:00	60.5	61.9	62.8	69.5	63.2	67.1
15	20:00-21:00	56.6	59.6	65.1	65.2	65.2	65.1
16	21:00-22:00	58.1	59.9	61.8	63.4	66.9	61.8
Day Time Limit*		75 Leq dB(A)					

Result of Noise level monitoring [Night Time]

SR. NO.	Name of Location	SAMUNDRA TOWNSHIP STP					
		Result [Leq dB(A)]					
	Sampling Date & Time	17/ 10/ 2018 & 18/ 10/ 2018	21/ 11/ 2018 & 22/ 11/ 2018	19/ 12/ 2018 & 20/ 12/ 2018	25/ 01/ 2019 & 26/ 01/ 2019	22/ 02/ 2019 & 23/ 02/ 2019	08/ 03/ 2019 & 09/ 03/ 2019
1	22:00-23:00	61.7	62	65.1	58.4	60.4	63.4
2	23:00-00:00	60	61.2	58.7	60.4	61.5	61.2
3	00:00-01:00	55.5	55	53.7	60.2	59.8	60.2
4	01:00-02:00	51.2	51.7	52.9	63.4	62.1	62.1
5	02:00-03:00	51.4	54	52.1	61.4	60.4	61.2
6	03:00-04:00	56.6	59.6	56.4	63.2	60.8	62.4
7	04:00-05:00	55.6	57	55.9	61.7	61.7	63.1
8	05:00-06:00	55.4	54.9	58.4	60.3	62.5	65.3
Night Time Limit*		70 Leq dB(A)					

H. T. Shah

Lab Manager



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Lab Manager (Q)

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Result of Noise level monitoring [Day Time]

SR. NO.	Name of Location	SAMUNDRA TOWNSHIP CUSTOMER CARE					
		Result [Leq dB(A)]					
	Sampling Date & Time	06/ 10/ 2018	07/ 11/ 2018	03/ 12/ 2018	12/ 01/ 2019	07/ 02/ 2019	15/ 03/ 2019
1	6:00-7:00	54.3	53.6	57.3	55.1	60.8	56.1
2	7:00-8:00	61.8	61.9	55.5	60.4	63.4	59.4
3	8:00-9:00	61.7	63	60.3	62.1	59.4	61.7
4	9:00-10:00	60.4	62.9	65.3	65.4	63.1	63.1
5	10:00-11:00	68.6	67.4	61.2	61.7	60.7	61.7
6	11:00-12:00	65.7	64.2	61.7	65.4	60.8	62.7
7	12:00-13:00	64.4	62.7	63.8	68.4	63.4	68.4
8	13:00-14:00	70.3	67.4	65.3	61.7	65.1	64.1
9	14:00-15:00	70.48	71.28	62.7	65.1	65.2	62.4
10	15:00-16:00	58.9	61.7	62.3	66.1	66.8	68.4
11	16:00-17:00	59	57.3	65.3	68.4	62.7	62.4
12	17:00-18:00	61.14	63.14	62.3	63.4	67.1	63.4
13	18:00-19:00	57.7	59	63.7	61.8	65.7	65.1
14	19:00-20:00	64.4	66.1	65.3	60.4	64.1	67.4
15	20:00-21:00	64.8	66.9	62.4	62.7	62.8	63.4
16	21:00-22:00	62.3	59.4	65.4	61.8	63.8	65.2
Day Time Limit*		75 Leq dB(A)					

Result of Noise level monitoring [Night Time]

SR. NO.	Name of Location	SAMUNDRA TOWNSHIP CUSTOMER CARE					
		Result [Leq dB(A)]					
	Sampling Date & Time	06/ 10/ 2018 & 07/ 10/ 2018	07/ 11/ 2018 & 08/ 11/ 2018	03/ 12/ 2018 & 04/ 12/ 2018	12/ 01/ 2019 & 13/ 01/ 2019	07/ 02/ 2019 & 08/ 02/ 2019	15/ 03/ 2019 & 16/ 03/ 2019
1	22:00-23:00	65.2	63.4	62.8	60.3	60.3	61.4
2	23:00-00:00	67.9	69.4	65.7	60.5	60.5	60.4
3	00:00-01:00	57.7	57.5	55.4	57.3	57.3	54.1
4	01:00-02:00	57.5	56.5	59.8	52.6	52.6	56.4
5	02:00-03:00	54.7	55.8	56.8	54.7	54.7	59.1
6	03:00-04:00	52.8	51.8	55.4	50.4	50.4	51.4
7	04:00-05:00	56.2	55.4	53.4	59.4	59.4	60.1
8	05:00-06:00	61	58.5	68.4	62.5	62.5	60.3
Night Time Limit*		70 Leq dB(A)					

H. T. Shah

Lab Manager



Dr. ArunBajpai

Lab Manager (Q)

Recognised by MoEF, New Delhi Under Sec. 12 of Environmental (Protection) Act-1986

Result of Noise level monitoring [Day Time]

SR. NO.	Name of Location	ADANI HOUSE					
		Result [Leq dB(A)]					
	Sampling Date & Time	02/ 10/ 2018	13/ 11/ 2018	18/ 12/ 2018	02/ 01/ 2019	15/ 02/ 2019	01/ 03/ 2019
1	6:00-7:00	65	62.6	60.3	60.3	62.5	65.4
2	7:00-8:00	67.7	68.1	63.4	63.4	68.4	62.8
3	8:00-9:00	67.1	68.7	62.3	62.3	68.1	68.1
4	9:00-10:00	73	71.8	67.4	67.4	63.4	72.1
5	10:00-11:00	72.4	71.3	65.6	65.6	72.4	71.5
6	11:00-12:00	64.6	62.8	68.4	68.4	70.4	69.4
7	12:00-13:00	60.3	59.5	70.4	70.4	70.9	65.2
8	13:00-14:00	65.5	69	65.3	65.3	68.1	62.8
9	14:00-15:00	64.35	67.35	69.4	69.4	62.4	62.8
10	15:00-16:00	62.5	65.3	69.7	69.7	65.1	62.1
11	16:00-17:00	71.11	72.81	67.3	67.3	62.8	65.1
12	17:00-18:00	69.9	72	65.3	65.3	66.8	69.1
13	18:00-19:00	70.9	70	63.8	63.8	69.4	63.4
14	19:00-20:00	63.1	60.9	64.3	64.3	62.1	65.1
15	20:00-21:00	57.9	56	67.4	67.4	68.4	61.8
16	21:00-22:00	64.9	62.4	63.8	63.8	68.2	60.4
Day Time Limit*		75 Leq dB(A)					

Result of Noise level monitoring [Night Time]

SR. NO.	Name of Location	ADANI HOUSE					
		Result [Leq dB(A)]					
	Sampling Date & Time	02/ 10/ 2018 & 03/ 10/ 2018	13/ 11/ 2018 & 14/ 11/ 2018	18/ 12/ 2018 & 19/ 12/ 2018	02/ 01/ 2019 & 03/ 01/ 2019	15/ 02/ 2019 & 16/ 02/ 2019	01/ 03/ 2019 & 02/ 03/ 2019
1							
2	22:00-23:00	67.8	69.5	60.4	67.4	60.4	62.5
3	23:00-00:00	66.8	64.4	65.1	68.3	65.1	65.1
4	00:00-01:00	64.3	66.8	65.4	63.2	65.4	65.7
5	01:00-02:00	63.8	64	61.8	60.1	61.8	60.8
6	02:00-03:00	62.3	61.2	63.4	60.4	63.4	60.7
7	03:00-04:00	62	61.2	62.4	62.4	62.4	62.4
8	04:00-05:00	61.3	60.1	65.7	65.3	65.7	58.1
9	05:00-06:00	61.3	63.8	67.1	63.6	67.1	61.8
Night Time Limit*		70Leq dB(A)					

H. T. Shah

Lab Manager



Dr. ArunBajpai

Lab Manager (Q)

**POLLUCON**

LABORATORIES PVT. LTD.

Environmental Auditors, Consultants & Analysts.
Cleaner Production / Waste Minimisation Facilitator

Recognised by MoEF, New Delhi Under Sec. 12 of Environmental (Protection) Act-1986

RESULTS OF STP WATER OUTLET

SR. NO	TEST PARAMETERS	Unit	ADANI HOUSESTP OUTLET							
			October-18		November-18		December-18		GPCB Permissible Limit	TEST METHOD
			03/10/2018	16/10/2018	05/11/2018	20/11/2018	04/12/2018	18/12/2018		
1	pH	--	7.02	7.35	7.19	7.04	7.25	7.60	--	IS 3025 (P11) 83Re.02
2	Total Suspended Solids	mg/L	11	18	23	11	27	24	30	IS 3025 (P17) 84Re.02
3	BOD (3 days @ 270 C)	mg/L	14	16	18	10	19	12	20	IS 3025 (P44) 1993Re.03 Edition 2.1
4	Residual Chlorine	mg/L	0.6	0.8	--	--	0.6	0.8	Min 0.5	APHA (22nd Ed) 4500 Cl
5	Fecal Coliform	MPN/100 ml	430	540	540	920	350	280	< 1000	APHA (22nd Ed) 9221 C&E

SR. NO	TEST PARAMETERS	Unit	ADANI HOUSESTP OUTLET							
			January-19		February-19		March-19		GPCB Permissible Limit	TEST METHOD
			04/01/2019	18/01/2019	04/02/2019	18/02/2019	04/03/2019	18/03/2019		
1	pH	--	7.60	7.70	7.25	7.65	7.69	7.90	--	IS 3025 (P11) 83Re.02
2	Total Suspended Solids	mg/L	23	17	16	24	23	18	30	IS 3025 (P17) 84Re.02
3	BOD (3 days @ 270 C)	mg/L	15	16	18	14	14	10	20	IS 3025 (P44) 1993Re.03 Edition 2.1
4	Residual Chlorine	mg/L	0.8	0.2	0.6	0.4	0.8	0.6	Min 0.5	APHA (22nd Ed) 4500 Cl
5	Fecal Coliform	MPN/100 ml	280	240	240	280	280	350	< 1000	APHA (22nd Ed) 9221 C&E

H. T. Shah

Lab Manager



Dr. Arun Bajpai

Lab Manager (Q)

Annexure–12

APSEZ/EnvCell/2020-21/002

Date: 27.04.2020

To,
Regional Officer
Regional Office,
Gujarat Pollution Control Board (East – Kutch),
Sector No. 8, Gandhidham,
Kutch – 370201.

Subject: Submission of compliance to observation/suggestion/instruction made by GPCB officials during inspection.

Reference: GPCB Inspection letter dated 16.03.2020, PCB ID: 31463 (**Annexure – A**)

Dear Sir,

With reference to the above mentioned subject, APSEZL is submitting the compliance details of your observations as below:

1. Chartered engineer certificate showing facilities developed and to be developed within notified multi product SEZ is attached as **Annexure – B**.

APSEZL is submitting the compliances regularly and hope the above mentioned submission is in line with requirement.

Thanking you,
For, **Adani Ports and Special Economic Zone Ltd.**



Shalin Shah
(Head – Environment)

Copy to:

Unit Head (Kutch unit)
Gujarat Pollution Control Board,
Gandhinagar – 382010.



ગુજરાત પ્રદુષણ નિયંત્રણ બોર્ડ

પ્રાદેશિક કચેરી : કચ્છ (પૂર્વ)

દિનદયાલ પોર્ટ ટ્રસ્ટનું વહીવટ મકાન રૂમ નં. ૨૧૫, ૨૧૬, ૨૧૭, બીજો માળ,
સેક્ટર નં. ૮, ગાંધીધામ-૩૭૦૨૦૧, કચ્છ. ફોન : ૦૨૮૩૬-૨૩૦૮૨૮

ANNEXURE - A

પ્રતિ, Adani Ports & Special Economic Zone,
Mundra, Ta. Mundra,
Kutch.

તારીખ : 16/05/2020

ગ્રુપીસીબી આઈડી : 31463

ગુજરાત પ્રદુષણ નિયંત્રણ બોર્ડના અધિકારીઓ દ્વારા આપના એકમની આજરોજ જુદા જુદા પર્યાવરણીય નિયમોને આધિન સ્થળ મુલાકાત લેવામાં આવેલ. આપના એકમના સ્થળ મુલાકાત દરમિયાન કરેલ અવલોકનો, આપે આપેલ માહિતી / દસ્તાવેજો અને પર્યાવરણીય નિયમોની જોગવાઈ આધીન, આપને નીચે મુજબ સુચનાઓ આપવામાં આવે છે જેની પૂર્તતા / સ્પષ્ટતા અંગેનો અહેવાલ (કોમ્પલાયન્સ રીપોર્ટ) આ આદેશ મળ્યાની તારીખથી કામકાજના દિવસ-૩ માં લેખીત/એક્ઝાઇએન/ઇલેક્ટ્રોનિક માધ્યમ મારફતે બોર્ડની વડી કચેરી ગુજરાત પ્રદુષણ નિયંત્રણ બોર્ડ, પર્યાવરણ ભવન, સેક્ટર ૧૦-એ, ગાંધીનગર-૩૮૨૦૧૦ ને આ કચેરીની જાણ હેઠળ અચૂક મોકલી આપશો.

- (૧) અકિમના પ્રોજેક્ટના પુરાણની સ્થિતિના મુલ્યાંકન અર્થે બોર્ડ અંશગુનીકરણ પુરાણનુ મુલ્યાંકન મુજબ જેમાં થયેલ કામગીરી તથા વાહી રહેલી કામગીરીની વિગતોના સમાવેશ કરવા.

એકમના પ્રતિનિધિનું નામ અને હોદ્દો
Mr. Chirag Rajput
Dy. Manager

R. R. Virela
ARE

K. B. Chaudhary
R.O.

Ar. Rajni Patwa

Reg. No. CA/86/10237
 Council of Architecture
 New Delhi - India.
 Approved Valuer
 Reg. No. F 1737/Cat 1
 The Indian Institution of Valuers
 Chartered Engineer (India)
 M - 110 449 - 08
 GICEA FLM 2522
 The Gujarat Institute of
 Civil Engineers & Architects

**Rachna Design Unit**

ARCHITECTS, INTERIOR DESIGN, LANDSCAPE
 CONSERVATION, APPROVED VALUER,
 CHARTERED ENGINEER

Ref.:

CERTIFICATE OF CHARTERED ENGINEER

This is to certify that the inline to the statutory approvals obtained from MoEF&CC & State Pollution Control Board, M/s. Adani Ports and SEZ Limited, Mundra has utilized the area of 3587.2 Ha from the total notified multiproduct SEZ area of 8434.5890 Ha, i.e. 42% of total area. Remaining area will be developed phase wise, as per the future requirement which includes processing zone, non-processing zone, water treatment plants, rail & road network, water supply network, effluent connection network, power supply network, IT network, drainage system, recycling water network and other utilities approved in Environmental & CRZ clearance.

RAJNIKANT J. PATWA**CHARTERED ENGINEER CE(I)**

Reg. M-110 449-08

BHUJ - KUTCH.

Signature and Stamp/Seal of Chartered Engineer

Place: BHUJ

Date: 27/04/2020

Name: Rajnikant Patwa

Full Address: Rachna Design Unit

Akshayraj Apartment,

Bankers Colony, Bhuj-KUTCH

370001

Membership No. M-110449-08

SAVE ENVIRONMENT

Annexure–13

Expense Details for Fisherfolk Amenities work in different core areas

Sr.	Details	2016-17	2017-18	2018-19	2019-20	TOTAL	AMT IN LACS
Expenditure Details (Amount in Rs.)							
1	Vidya Deep Yojana	2069300	193000	2087000	1771000	6120300	61.20
2	Vidya Sahay Yojana	552580	495000	691000	708000	2446580	24.47
3	Adani Vidya Mandir – Shaping Lives	4200000	4030000	3472000	6434020	18136020	181.36
4	SENIOR CITIZEN HEALTH CARD	0	8430000	1750000	2975000	13155000	131.55
5	FINANCIAL SUPPORT TO POOR PATIENTS	4439507	1275000	813000	1296063	7823570	78.24
6	Machhimar Kaushalya Vardhan Yojana	188708	200000	397000	73000	858708	8.59
7	Machhimar Sadhan Sahay Yojana	0	0	315000	522000	837000	8.37
8	Machhimar Awas Yojana	4592106	1165000	0	2311000	8068106	80.68
9	Machhimar Shudhh Jal Yojana	2236050	2700000	2038000	1773000	8747050	87.47
10	Sughad Yojana	1367300	170000	0	192000	1729300	17.29
11	Machhimar Akshay kiran Yojana	860850	100000	68000	0	1028850	10.29
12	Machhimar Suraksha Yojana			0	0	0	0.00
13	Machhimar Ajivika Uparjan Yojana-Mangroves plantation	1558800	500000	1382000	1400000	4840800	48.41
14	Bandar Svachhata Yojana	106400	50000	0	0	156400	1.56
15	Cricket league and Cycle Marathon	432000	657119	638000	610800	2337919	23.38
16	Sports Material For Children & Youth at Vasahats	197797	0	0	0	197797	1.98
17	New Pilot Initiative for Polyculture	398240	160000	0	0	558240	5.58
18	New Pilot Initiative for Cage farming Asian Seabass & Lobster	864000	660000	0	0	1524000	15.24
19	Sea Weed Culture Project	0	0	0	200000	200000	2.00
20	Mangrove Biodiversity Project	0	0	1890000	684000	2574000	25.74
		24063638	20785119	15541000	20949883	81339640	813.40

Annexure–14

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 1	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 2180 households and associated infrastructure facilities. Accommodation is made available for all interested employees working within Adani group & SEZ industries. Out of which 86% Occupancies are accommodated within the townships and rest are available for employees working within APSEZ.</p> <p>At present 43 nos. of industries are operating within the SEZ. 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>

S. No.	Identified environmental and social impacts for the fully developed scenario (year 2030)	Type of Impact & Magnitude 1	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
							APSEZ has also been granted permission for receiving domestic sewage @ 2.5 MLD from Mundra village (which was earlier discharged in to 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 will abate 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 peak daily rainfall of 440 mm/hr. Hence flooding of	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	<p>Presently, 42% of the total SEZ area (8434.5890 Ha) is developed. Based on technical studies, APSEZ has developed adequate storm water facilities that meets with daily demand as per recorded highest rainfall.</p> <p>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. Photographs showing the drain and dump pond are attached as Annexure – A.</p> <p>During last year 2019-20, the maximum recorded rain fall was 33.2 mm/hr., which was</p>

S. No.	Identified environmental and social impacts for the fully developed scenario (year 2030)	Type of Impact & Magnitude 1	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
			water in the neighboring areas is not envisaged.				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.
			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 designed and being implemented without disturbing the natural flow of rainwater in all the seasonal streams.	The channel depth in all the natural streams shall be maintained to accommodate peak flood flow during the monsoon and periodical de-silting activities in the natural streams passing through the APSEZ area	APSEZ, District Administration * and Irrigation department	As and When Required	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 without disturbing the natural flow of rainwater in all the seasonal streams.

S. No.	Identified environmental and social impacts for the fully developed scenario (year 2030)	Type of Impact & Magnitude 1	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
1.3	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 years due to natural growth. This will enhance the overall biodiversity in the local coastal eco-system.	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 across the coast of Gujarat state in consultation with various organizations	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 2890 ha. area across the coast of Gujarat till date.</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 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>Further work has been assigned to NCSCM in March 2020 as part of compliance for the action plan "Monitoring of mangrove cover". The cost of the said work is INR 23.56 Lacs.</p>
1.4	Development activities along the coast might cause certain		Detailed hydro-dynamic modelling and shoreline change	It is recommended to map the coastal morphology (Shoreline) at least once in three years	APSEZ	Continual Process	Shoreline assessment study will be conducted in FY 2020-21.

S. No.	Identified environmental and social impacts for the fully developed scenario (year 2030)	Type of Impact & Magnitude 1	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
	changes in hydro-dynamic characteristics along the shoreline. Shoreline of any area also can be influenced by storm surges and other natural processes.		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 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.				
2	Regional Traffic Management Plan						
2.1	The projected traffic data as per the EIA Report of Multi-Product	Level-1	As per the master plan of APSEZ, eight artillery roads will be	Additional road as per master plan will be built in future based on the overall progress of the project.	APSEZ	As and When Required	Presently 42% of the total SEZ area (8434.5890 Ha) is developed. Existing road/rail infrastructure facilities are adequate to evacuate the existing cargo. Further, APSEZ's cargo evacuation through rail

S. No.	Identified environmental and social impacts for the fully developed scenario (year 2030)	Type of Impact & Magnitude 1	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>Special Economic Zone, the peak 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>connected to either state highway or national highway for evacuating 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>Currently about 25% of cargo from APSEZ is transported by 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>has increased to 30 %, thereby reducing the usage of road.</p> <p>Additional road facilities will be built as per master plan considering future development.</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>

S. No.	Identified environmental and social impacts for the fully developed scenario (year 2030)	Type of Impact & Magnitude 1	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
			PCU/hr. Out of eight artillery roads considered in APSEZ master plan, seven roads were already developed and functional.				
			APSEZ has been imparting Driver Training Programs to all their contractors to enhance awareness on road safety.	APSEZ can undertake technical feasibility of implementing Intelligent Transport System (ITS) for the freight carriers associated with their development activities.	APSEZ & GSRDC*	Long Term	<p>APSEZ is being imparting the regular in-house classroom and on-job training to the 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 • Defensive Driving & BBS • Traffic Management & Road Signage • Driving safety training • RORO Driver training • Defensive Driving & Emergency Action Plan • Drivers Responsibilities & Safe driving • Emergency Rescue (Vehicle) Training <p>Approx. 3300 Participants (On roll and contractual manpower) were benefitted from above trainings in FY 2019-20. The same will</p>

S. No.	Identified environmental and social impacts for the fully developed scenario (year 2030)	Type of Impact & Magnitude 1	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>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"> ✓ Installation of approx. 100 Nos. of cameras which is being operated at ISCR (Integrated security control room) to monitor & manage the traffic system in APSEZ on real time basis. ✓ Installation of 02 Nos. RTMS - Remote traffic management system (having combination of Radar + OCR camera + LED display board - showing speed limit) to recognize the over speeded vehicles, so that timely capture the same and avoid any road accidents.
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 m3/day (430 MLD). APSEZ	No-Impact	APSEZ is meeting the current water demand through Narmada water supply scheme and 47 MLD captive	As per the master plan and permissions granted under EC, APSEZ will be developing progressively 4,50,000 m3/day (450 MLD) of desalination plants to meet the	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 – 11 MLD (sanctioned capacity).</p> <p>Current water demand for APSEZ along with SEZ industries including Adani Power Plant is around 30 MLD.</p>

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	will be sourcing majority of the water from the captive desalination plants, which will be developed in progressive manner.		desalination 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.	future demand. Hence stress on regional water resources due to these developmental projects will be less significant.			So presently, these sources are adequate to fulfill the current fresh water requirement of APSEZ. 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 m3/day (@55 lpcd) and the potable and sanitation water needs would increase to 37,000 m3/day (@125 lpcd) in future when the area is	Level-2	Adani Foundation has been contributing to various watershed development projects in the Mundra region to enhance ground water resources in the area. Adani Foundation has contributed about Rs. 300 Lakhs so far for	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 Narmada canal supplied by the GWIL which may be further enhanced on modular basis, At present Ground water is not utilized for any activities of APSEZ. However various works are being carried out 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. <ul style="list-style-type: none"> Under “Sujlam Suflam Jal Abhiyan campaign” AF Mundra had completed deepening work in 26 pond works as per

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	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 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		the development of 18 check dams.				<p>given target by District Collector Kutch in 19 villages. Total excavation done 51723 Cum. Total storage capacity created 51.72 million liters. These works done as per government guidelines.</p> <ul style="list-style-type: none"> • Under “Participatory Ground Water Management” work we have created artificial recharge borewell in Borana, Mangara & Dhrub village. • Participatory Ground Water Management in ten villages with holistic approach for Kankavati Sandstone Aquifer Programme. With the objective of to preserve the rain water 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. • Ground recharge activities (pond deepening work for more than 52 ponds) individually were built leading to a significant increase in water table and higher returns to the farmers. • Roof Top Rain Water Harvesting 54 Nos. and Recharge Bore well 75 Nos. • Drip Irrigation 823 Farmers benefitted in coordination with Gujrat Green Revolution Company • Under UTHHAN MODEL VILLAGE PROJECT, Salinity ingress issue is well taken with pond deepening, recharge bore well technique and roof top rain water harvesting. Total ground water recharged

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	development, there could be some stress on the ground water resources in future.						due to this project 1878 ML. Adani foundation has spent approx. INR 3437 lakhs during last two years (i.e. 2018-19 & 2019-20) for CSR activities which also includes water conservation projects as mentioned above.
3.3	It is estimated that about 60,000 m3/day (60 MLD) of sewage will be generated from the APSEZ facility when the project is fully developed.	No Impact	Seven sewage treatment plants with an aggregate 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.	APSEZ is permitted to develop decentralized sewage 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.	APSEZ	As and When Required	Current installed capacity of wastewater treatment plants is 5.6 MLD (ETP, STPs & CETP) for treatment of effluent & sewage generated at various locations. Out of 43 only 3 industries within the SEZ are sending their partially treated industrial as well as domestic effluent to the CETP confirming 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. Presently avg. 1.4 MLD of wastewater (in to ETP, STPs & CETP) is treated and being utilized on land for horticulture purpose within APSEZ premises. Existing wastewater treatment plants are adequate to treat and handle the total effluent / sewage load considering current development.

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							Existing wastewater treatment facilities will be augmented or new plants will be developed on modular basis considering future requirement.					
4	Air quality management Plan											
4.1	Although all the regulated activities in the study area will be adopting promulgated emission norms, total air emission mass discharge from the study area would increase.	Level-2	APSEZ and other thermal power plants 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 presented to	All existing and new industrial establishments will obtain requisite consents from GPCB and adhere to the stipulated emission norms regulations and guidelines issued by authorities from time to time.	APSEZ And Other Industries	Continual Process	<p>APSEZ has been granted requisite permissions from the concerned authorities with stipulated norms for air emission (flue gas as well as ambient air).</p> <p>Ambient Air Quality monitoring is being carried out by NABL accredited and MoEF&CC authorized agency namely M/s. Pollucon Laboratory Pvt. Ltd. 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'19 to Mar'20) are as below. Locations: 17 Nos. (APSEZ – 12 + APL – 5 including 3 villages) Frequency: Twice in a week</p> <table><tr><th>Parameter</th><th>Unit</th><th>Max</th><th>Min</th><th>Perm. Limit^s</th></tr></table>	Parameter	Unit	Max	Min	Perm. Limit ^s
Parameter	Unit	Max	Min	Perm. Limit ^s								

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			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.				<table><tr><td>PM₁₀</td><td>µg/m³</td><td>96.23</td><td>46.29</td><td>100</td></tr><tr><td>PM_{2.5}</td><td>µg/m³</td><td>58.30</td><td>17.65</td><td>60</td></tr><tr><td>SO₂</td><td>µg/m³</td><td>29.44</td><td>6.34</td><td>80</td></tr><tr><td>NO₂</td><td>µg/m³</td><td>45.56</td><td>13.50</td><td>80</td></tr></table> <p>\$ as per NAAQ standards, 2009 Values recorded confirms to the stipulated standards.</p> <p>Approx. INR 21.74 Lakh is spent for environmental monitoring activities during the FY 2019-20 which also includes ambient air quality monitoring.</p> <p>Other industries located within the SEZ have obtained requisite permissions from the competent authorities for their respective plant and they are 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 on regular basis. APSEZ carries out regular visits of member industries within SEZ and last visit was conducted during March & April 2019 for EMS & compliance verification. 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</p>	PM ₁₀	µg/m ³	96.23	46.29	100	PM _{2.5}	µg/m ³	58.30	17.65	60	SO ₂	µg/m ³	29.44	6.34	80	NO ₂	µg/m ³	45.56	13.50	80
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							report of EC for Multi Product SEZ.
				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.	APSEZ and Other Industries, Stakeholders, District Administration and GPCB*	Long Term And Continual	<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 Sr. Management from APSEZ and Adani Power Limited, 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>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>

S. No.	Identified environmental and social impacts for the fully developed scenario (year 2030)	Type of Impact & Magnitude 1	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
4.2	Release of particulate emissions from handling and storage of coal at the port and power plants 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.	Health Impact	APSEZ has been implementing the following management plan to control emissions as per the 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	All industries located in the APSEZ shall adhere to the emissions norms and minimum stack height guidelines issued by CPCB and consent to operate issued by Gujarat Pollution Control Board from time to time.	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 • 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</p>

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			water mist canon, covered conveyor belts, regular sprinkling on coal heaps,				<p>within the thermal power plant.</p> <p>The stack monitoring summary for last six months (Oct'19 to Mar'20) are as below. Total Nos. of Stacks: 22 Nos. Frequency: Monthly / Half Yearly</p> <table><tr><th>Parameter</th><th>Unit</th><th>GPCB Limit</th><th>Min</th><th>Max</th></tr><tr><td>PM</td><td>mg/nm³</td><td>150</td><td>30.81</td><td>10.5</td></tr><tr><td>SO₂</td><td>Ppm</td><td>100</td><td>7.69</td><td>2.64</td></tr><tr><td>NO_x</td><td>ppm</td><td>50</td><td>37.46</td><td>23.6</td></tr></table> <p>Values recorded confirms to the stipulated standards.</p> <p>Approx. INR 21.74 Lakh is spent for all environmental monitoring activities during the FY 2019-20 which includes stack gas monitoring.</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>	Parameter	Unit	GPCB Limit	Min	Max	PM	mg/nm ³	150	30.81	10.5	SO ₂	Ppm	100	7.69	2.64	NO _x	ppm	50	37.46	23.6
Parameter		Unit	GPCB Limit	Min	Max																						
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SO ₂	Ppm	100	7.69	2.64																							
NO _x	ppm	50	37.46	23.6																							
			covering of other types of dry bulk cargo heaps by protective	An internal Coal Dust Management Working	APSEZ and Other Industries,		As mentioned above, presently, APSEZ has formed Internal Environment Monitoring Committee, involving Sr. Management of APSEZ and Adani Power Limited, with specific role and responsibilities as defined above.																				

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			materials, installation of wind breaking wall, development of greenbelt along the periphery of the storage 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	Group shall be formed by APSEZ to effectively co-ordinate the approach to coal dust management and monitoring	Concerned Stake holders, District Administration *	Long Term	<p>The dry cargo is being handled by mechanized system and transported by covered conveyer system, trucks and rail wagons.</p> <p>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> <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>

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			installation 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 higher sulphur content. As per the international best practices,	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 anchored at the port are adopting the	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 should explore the possibility of providing shore power to the ships at the port to reduce idling stage ship emissions.	APSEZ and Ship Owners	Long Term	The ships coming to the APSEZ are 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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	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 the local environment and might pose risk of fumigation during the early morning and evening hours due to atmospheric inversion break-up periods.		MARPOL4 regulations.				

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4.4	Road vehicle emissions will be other major contributors to the air pollution in the region when the facility is fully developed.	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 policy to ensure that Bharat Stage VI emission norms are adopted by all their contractors and sub-contractors.	APSEZ and All Industries	Short Term	<p>Presently, cargo evacuation through rail has increased to 30 %, thereby reducing the usage of road.</p> <p>Vehicles having valid PUC certificate are only being allowed to enter within APSEZ area.</p> <p>In future, APSEZ will also explore the feasibility of using Electric Vehicles for internal cargo movement.</p>
5	Noise emissions						
5.1	Noise emissions are envisaged from port operations, industrial operations and power plants in the study area.	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	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	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 equipments on regular frequency. <p>Noise monitoring is being carried out by NABL accredited and MoEF&CC authorized agency namely M/s. Pollucon Laboratory Pvt. Ltd. as per permission granted and reports are being</p>

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	Any increase in noise levels beyond three decibels from the background levels would be perceived as noise nuisance (USEPA)7.		greenbelt is being developed by APSEZ to further 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.	installed by APSEZ at facility boundary to address the community grievances, when 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.			<p>submitted to the concerned authorities on regular basis.</p> <p>The noise monitoring summary for last six months (Oct'19 to Mar'20) are as below.</p> <p>Locations: 12 Nos. Frequency: Once in a month (24 hourly)</p> <table><tr><th>Noise</th><th>Unit</th><th>Max</th><th>Min</th><th>Perm. Limit^{\$}</th></tr><tr><td>Day Time</td><td>dB(A)</td><td>74.3</td><td>52.4</td><td>75</td></tr><tr><td>Night Time</td><td>dB(A)</td><td>69.8</td><td>48.3</td><td>70</td></tr></table> <p>^{\$} as per GPCB standards</p> <p>Approx. INR 21.74 Lakh is spent for all environmental monitoring activities during the FY 20 19-20 which includes noise monitoring.</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 has been 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</p>	Noise	Unit	Max	Min	Perm. Limit ^{\$}	Day Time	dB(A)	74.3	52.4	75	Night Time	dB(A)	69.8	48.3	70
Noise	Unit	Max	Min	Perm. Limit ^{\$}																		
Day Time	dB(A)	74.3	52.4	75																		
Night Time	dB(A)	69.8	48.3	70																		

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							the stakeholders.
				In order to address the public grievances 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.	APSEZ	Continual Process	As mentioned above, presently, APSEZ has formed Internal Environment Monitoring Committee, involving Sr. Management of APSEZ and Adani Power Limited, having role and responsibilities as defined above. No grievance received for noise related issues and it is observed that ambient noise level are well within the permissible standards.
6	Surface water quality (Terrestrial and Marine)						
6.1	In general, release of untreated wastewater from industrial facilities would pose threat to water quality of streams, estuaries and marine water bodies.	Level -1	As per the master plan 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	As per the master plan of APSEZ, 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.	APSEZ	As and When Required	APSEZ has installed Common Effluent Treatment Plant (CETP) having 2.5 MLD capacities for treatment of partially treated effluent and sewage generated from industries within SEZ. Currently, CETP receives 350 KLD 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. Out of 43 only 3 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

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			capacities are already obtained. Presently a CETP capacity of 2.5 MLD is in place. Presently member units treat their effluents to 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.				<p>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. 1.4 MLD (from CETP, ETP & STPs) of treated water is being utilized on land for horticulture purpose within APSEZ premises and no discharge is made to any other source.</p>
			Online wastewater quality monitoring systems are installed at	Efforts shall be made to recycle complete treated wastewater for port operations and industrial operations of APSEZ	APSEZ	Based on outcome Techno-feasibility Study	<p>Online continuous effluent monitoring system installed at the discharge point of CETP to track any deviation from discharge norms.</p> <p>Presently entire quantity of treated water from CETP is used for gardening / horticulture</p>

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			CETP to ensure quality of treated effluent meets the requisite discharge norms. No wastewater from CETP is discharged into natural bodies as on date..	in future based on a detailed techno- economic feasibility study.			purpose within APSEZ premises.
			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 control program and no effluents shall be discharged into	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 Laboratory Pvt. Ltd. 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'19 to Mar'20) is as per below.</p> <p>Locations: 14 Nos. (APSEZ – 9 + APL – 5) Frequency: Once in a Month</p>

S. No.	Identified environmental and social impacts for the fully developed scenario (year 2030)	Type of Impact & Magnitude 1	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																																														
				storm water-drains.			<table><tr><th rowspan="2">Parameter</th><th rowspan="2">Unit</th><th colspan="2">Surface</th><th colspan="2">Bottom</th></tr><tr><th>Max</th><th>Min</th><th>Max</th><th>Min</th></tr><tr><td>pH</td><td>--</td><td>8.34</td><td>8.02</td><td>8.28</td><td>7.88</td></tr><tr><td>TSS</td><td>mg/ L</td><td>364</td><td>26</td><td>381</td><td>22</td></tr><tr><td>BOD (3 Days @ 27 °C)</td><td>mg/ L</td><td>5.3</td><td>2.2</td><td>4.3</td><td>ND*</td></tr><tr><td>DO</td><td>mg/ L</td><td>8.8</td><td>5.1</td><td>6.2</td><td>4.9</td></tr><tr><td>Salinity</td><td>ppt</td><td>37.5</td><td>32.85</td><td>38.2</td><td>33.03</td></tr><tr><td>TDS</td><td>mg/ L</td><td>38496</td><td>35602</td><td>38796</td><td>35112</td></tr></table> <p>*ND = Not Detectable</p> <p>Approx. INR 21.74 Lakh is spent for all environmental monitoring activities during the FY 2019-20 which includes marine water monitoring.</p>	Parameter	Unit	Surface		Bottom		Max	Min	Max	Min	pH	--	8.34	8.02	8.28	7.88	TSS	mg/ L	364	26	381	22	BOD (3 Days @ 27 °C)	mg/ L	5.3	2.2	4.3	ND*	DO	mg/ L	8.8	5.1	6.2	4.9	Salinity	ppt	37.5	32.85	38.2	33.03	TDS	mg/ L	38496	35602	38796	35112
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			Detailed marine hydrodynamic modelling studies revealed that the current and proposed dredged soil disposal practices, sea water intake and outfall facilities and desalination	Good dredging practices shall be adopted by APSEZ: (i).Improving the dredging accuracy (ii).Improving onboard automation and monitoring, (iii). Reduce spill and loss, (iv). evaluating the need for installing silt screens near mangrove areas during the dredging phase	APSEZ	Long Term	<p>No capital dredging has been done, since Feb 2019. 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> <p>Marine monitoring is being carried out once in a month by NABL and MoEF&CC accredited</p>																																														

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			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 basis.	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 the directions of MoEF&CC and GPCB.			agency namely M/s. Pollucon Laboratory Pvt. Ltd. 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. The same practice will be continued in future also as per direction by MoEF&CC as well as GPCB. Monitoring will be focused near ecological sensitive area in case of need to carryout capital dragging near such areas..
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	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	A dedicated desalination plant of capacity 4,50,000 m3/day (450 MLD) will be developed in progressive manner to meet the APSEZ requirements.	APSEZ	As and When Required	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. APSEZ does not draw any ground water. The desalination plant of additional capacities will be installed on modular basis considering future development and requirement.

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	population growth, use of ground water resources by the local people might increase in Mundra region. This might increase the TDS and chloride levels in the ground water in future.		captive desalination plant at site.				
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	The Govt. of Gujarat, Narmada, Water Resources, Water Supply & Kalpsar Dept.,(WRD)12 has prevention projects	District Administration *	Long Term	APSEZ will co-operate and comply with the directions from concerned regulatory authorities. APSEZ does not draw any ground water for the fresh water requirement.

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			not be disturbed. Due to the above reasons, the 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 salinity ingress from the shore into the land				

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			due to existing APSEZ facilities and power plant outfalls are less significant.																																												
				While the individual industries in the study area will continue to undertake ground water quality monitoring as per the environmental 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.	All Concerned Stakeholders, District Administration and CGWB*	Continual Process	<p>APSEZ is carrying out ground water sampling at 8 locations at every six months and reports of the same are being submitted to the regulatory authorities on regular basis. The summary of ground water quality monitoring for last six months (Oct'19 to Mar'20) are as below.</p> <p>Locations: 8 Nos. Frequency: Half Yearly</p> <table><tr><th>Sr. No.</th><th>Parameter</th><th>Unit</th><th>Max. Value</th><th>Min. Value</th></tr><tr><td>1</td><td>pH</td><td>--</td><td>8.1</td><td>7.6</td></tr><tr><td>2</td><td>Salinity</td><td>ppt</td><td>18.9</td><td>1.72</td></tr><tr><td>3</td><td>Oil & Grease</td><td>mg/L</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></tr><tr><td>5</td><td>Lead as Pb</td><td>mg/L</td><td>0.072</td><td>ND*</td></tr><tr><td>6</td><td>Arsenic as As</td><td>mg/L</td><td>ND*</td><td>ND*</td></tr><tr><td>7</td><td>Nickel as Ni</td><td>mg/L</td><td>ND*</td><td>ND*</td></tr></table>	Sr. No.	Parameter	Unit	Max. Value	Min. Value	1	pH	--	8.1	7.6	2	Salinity	ppt	18.9	1.72	3	Oil & Grease	mg/L	ND*	ND*	4	Hydrocarbon	mg/L	ND*	ND*	5	Lead as Pb	mg/L	0.072	ND*	6	Arsenic as As	mg/L	ND*	ND*	7	Nickel as Ni	mg/L	ND*	ND*
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							<p>formed Internal Environment Monitoring Committee, involving Sr. Management of APSEZ and Adani Power Limited, 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, organic waste, inert material and e-waste etc. In the absence of	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	<p>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</p>

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	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.						Waste to Landfill certification from reputed organization. Copy of certificate is attached as Annexure – B . APSEZ will continue proper solid waste management in his operational area.
8.2	Considering an average solid waste generation of 0.25 Kg/person/day, the estimated solid waste from facilities within APSEZ will be in the order of 100	Level-2	APSEZ has made a provision for central waste 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.	The existing waste segregation and material recycling 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	APSEZ	Continual Process	

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	TPD (36,500 TPA).			Management Rules 2016			Industries located within the SEZ area are also complying with the waste management rules stipulated by statutory authorities and same has also been 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 located outside the APSEZ area.	Level-2	As per the MSW Rules 2016 all the industrial facilities and SEZs are required to adopt waste segregation facilities at the respective properties and non-recyclable waste shall be disposed to landfill sites.	Solid Waste Management Program shall be adopted and implemented as per Municipal Solid Waste Management Rules 2016 and Construction Waste Management Rules 2016	All Industries	Continual Process	
9	Ecological aspects (terrestrial and marine)						
	About 1576 ha of shrub		It is noted that the designated forest land is free from any	APSEZ has approached concerned authorities for diversion of designated forest land. Suitable compensatory			Stage -1 forest Clearance for about 1576. 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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9.1	forest land contiguous to APSEZ area is applied for land diversion for various developmental activities. This might have certain level of changes in the biodiversity in the study area.	Level -1	<p>native vegetation and comprises of Prosopis juliflora. It is also noted that no endangered species are present at the shrub forests that are applied for land diversion.</p> <p>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.</p> <p>It is also noted that no tribal lands are located in the</p>	<p>afforestation plan shall be adopted based on the recommendations and directions of the concerned authorities. Due to adoption of compensatory afforestation program through a scientific manner, the overall ecological footprint in the district will be increased.</p> <p>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>	APSEZ/State Forest Department*	Long Term	

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			designated 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 across the coast of Gujarat state in consultation with various	Mangrove footprint and health status shall be monitored annually	APSEZ	Continual Process	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. Further work has been assigned to NCSCM in March 2020 as part of compliance for the action plan "Monitoring of mangrove cover". The cost of the said work is INR 23.56 Lacs.

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			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.				
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 area will not increase from the prevailing	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 program shall be continued.	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 Laboratory Pvt. Ltd. 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</p>

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			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.				<p>accredited agency namely M/s. 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><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><tr><td>Temp.</td><td>°C</td><td>30.2</td><td>30.4</td><td>28</td><td>29.5</td></tr><tr><td>Salinity</td><td>ppt</td><td>41.8</td><td>37.8</td><td>34.9</td><td>34.6</td></tr></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> <p>Presently no desalination plant, sea water intake as well as outfall facilities have been developed as a part of EC & CRZ Clearance of Multiproduct SEZ. Hence there is no marine discharge from components approved as part of SEZ.</p>	Parameter	Unit	Max		Min		CIA	Present	CIA	Present	Temp.	°C	30.2	30.4	28	29.5	Salinity	ppt	41.8	37.8	34.9	34.6
Parameter	Unit	Max		Min																									
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9.4	Terrestrial Ecology: Study area doesn't	Level-1	APSEZ has developed greenbelt in an	The compensatory afforestation area to	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																						

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	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.		area of 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.	be monitored annually to check the survival rate of the plantation.			and Adani Power Plant has developed total 623 ha. area as greenbelt with plantation about 11.6 Lacs saplings within the APSEZ area including SEZ industries & Adani Power Plant. Dedicated horticulture department is maintaining and monitoring the terrestrial green belt development on regular basis to check the survival rate of plantation. Total expenditures of the horticulture dept. during the FY 2019-20 within APSEZ is INR 728 lakh.
10	Socio-economic aspects						
10.1	Population growth in the Mundra region was reported to be in the order of 85% during the past decade (2001-2011). Further expansion of the urban area could be possible due to	Level-1	Dedicated townships are developed within APSEZ area with necessary community infrastructures such as hospital, school, recreational facilities, sewage treatment and waste collection	The existing townships will be expanded to accommodate about 4lakh people when the project activity is fully developed.	APSEZ	As and When Required	APSEZ has developed two townships (Shantivan and Samudra) accommodating 2180 households and associated infrastructure facilities. Accommodation is made available for all interested employees working within Adani group & SEZ industries. Out of which 86% Occupancies are accommodated within the townships and rest are available for employees working within APSEZ. At present 43 nos. of industries are operating within the SEZ. Township facilities are also

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	induced economic growth in the region. Increase in population will have a additional need for public infrastructure in the region.		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 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>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 • Sustainability Livelihood – Fisher Folk • Education • Rural Infrastructures • Skill Development <p>About Rs. 34 Cr has been spent on various CSR activities in the Mundra region since April</p>

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							<p>2018 till March 2020 including cost of rural infrastructure projects development.</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 & Dhruv 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 52 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 54 Nos. and Recharge Bore well 75 Nos. • Drip Irrigation 823 Farmers benefitted in

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							<p>coordination with Gujrat Green Revolution Company</p> <ul style="list-style-type: none"> Participatory Ground Water Management in ten villages with holistic approach for Kankavati Sandstone Aquifer Programme. <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 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	Level-2	Adani foundation is taking up several girl child education programs as part of CSR activities to create awareness about girl child protection.	Suitable regional level awareness programs on the girl child protection and encouragement programs in line with state and national policies shall be adopted under Corporate Social Responsibility programs in association with district authorities.	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. This year total 78 students are being facilitated by Adani foundation. Separate sanitation facilities for girl child in schools. Total 8770 haemoglobin screenings of RPA woman and adolescent girls was carried out in year 2017-18. Which helps in controlling anaemia in women and indirectly malnutrition. Beti Vadhavo Programme was organized in 32 Villages in the presence of Village Sarpanch and other leaders in year 2017-

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	region.						<p>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.</p> <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. • 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. <p>About Rs. 34 Cr has been spent on various CSR activities in the Mundra region since April 2018 till March 2020 including cost of community health and education for woman and girl child.</p>

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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 additional 3 Lakh from induced growth by the year by 2030 (fully developed scenario), total hospitals facilities with about 540 beds would be required.	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 bed Adani hospital at Mundra has been catering the services ranging from wellness and preventative care.	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 100 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><u>Community Health – Mundra</u></p> <ul style="list-style-type: none"> • 11 Rural Clinic-8 from Mundra & 3 from Anjar block treated; 25142 patients. • 31 villages covered through Mobile healthcare unit 20399 patients benefited during the year. • The mobile health care unit cover 25 villages and 07 fishermen settlements. Around 90 types of general life saving medicines are available in these units. • During the year 2019-20, total 9860 transactions were done by 8672 card holders of 68 villages of Mundra Taluka. They received cash less medical services under the senior citizen project. • In the year of 2019-20, Total 3137 people had been benefitted by various kind of camp and needy and screened patients are treated in Adani Hospital. <p><u>Community Health – Bhuj</u></p> <ul style="list-style-type: none"> • 5398 Patients taken Care and

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							<p>Coordination</p> <ul style="list-style-type: none"> • 609 Dead body referred by carry van • 3557 Ayushman Gold Card facilitation through Enrollment camp and Mahiti Setu • 549 support for Implants and Needy Patients • 9896 People helped through Mahiti Setu for various government schemes • 816 people benefitted in 6 health awareness camps • Adani Foundation organized 52 General Health Camps and Speciality Camps in various interior villages of Kutch in coordination with GKGH which created magical impact and benefitted 4779 patients. Adani Foundation Bhuj Health team has also organized more than six awareness camps. • Adani foundation, Adani Hospital and GAIMS have Jointly Celebrated "Arogya Saptah" 8th to 14th August & 20th to 26th January in Respect of Independence and Republic of our country. Celebration included multi-specialty camps, Workshops, truckers health check-up, surgical camp on foundation day and adolescent fair at different part of district. Collector. <p>About Rs. 34 Cr has been spent on various CSR activities in the Mundra region since April 2018 till March 2020 including cost of community health.</p>

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							<p>Present Hospital facilities are adequate to avail the medical treatment for Mundra region considering present development. Other Occupational Health centres, primary health centers 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 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</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</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>The Adani Foundation has provided employment equivalent to 6261 man-days to fishermen in the year 2019-20. So total employment worth of 42048 man-days has been provided to fishermen till date. The Foundation has also supported Pagadiya fishermen as painting laborers by providing them with employment and job in various fields.</p> <p>Adani Skill Development Centre (ASDC) is playing a pivotal role in implementing sustainable development in the state. The objective of this Centre is to impart different kinds of training to the students of 10th, 12th, college or ITI from surrounding areas.</p>

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	2030, the working population of the Mundra taluk would increase from current level of 55,000 to as high as 4,00,000, which will be 45% of the total envisaged population in Mundra Taluk by the end of 2030.		Foundation to enhance the employability of youth from fisherfolk communities. Based on the need assessment 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.				<p>During this year Total 2664 people trained in various trainings to enhance socio economic development.</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 • 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 • 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, March 2020 (Since 2016-17) approx. 8.13 Cr. INR, has already been spent in support for</p>

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							fishermen livelihood activities.

ANNEXURE – A

Photographs showing Dump Pond and Strom Water Drain near Coal Yard



ZERO Waste to Landfill Certificate

Certificate

LIBEROASSURANCE



This is to certify that the
Management System of:

Adani Ports and SEZ Ltd (APSEZ)

adani

Ports and
Logistics

Mundra, Kutch 370421, India

Has been assessed and registered under the certification and inspection scheme of
LiberoAssurance for the following standard:

Zero Waste to Landfill

The Management System is applicable to:

Handling, Warehousing, Logistics

Issued 28/03/2019 at PIRAEUS, GREECE
(Date of issue) (Place of issue of certificate)

Expiry 27/03/2020
(Expiration date)

For the Issuing Organisation
Efthimios Liberopoulos

LiberoAssurance is:
ISO 17021 Accredited Body by IAS
(USA) & ESYD (GREECE)

This certificate is valid subject to satisfactory
completion of annual audits.

Certificate ID: **IN28135002192WL1**

Please Check Validity of this Certificate at:
<https://liberoassurance.org/verification/>

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