APSEZ/EnvCell/2018-19/013 **Date:** 16.05.2018

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 Clearance for the "Establishment of Common Effluent Treatment Plant (CETP) of 17 MLD capacity at Survey no. 141 (part), village: Mundra, taluka; Mundra, Dist. Kutch, by M/s. MPSEZ Utilities Pvt. Ltd."

Ref : Environment clearance granted MPSEZ Utilities Pvt. Ltd. vide letter dated 20th February, 2010 bearing SEIAA letter no. SEIAA/GUJ/EC/7(h)/43/2010.

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 Clearance for the period of October – 2017 to March - 2018 is enclosed here for your records. The stated information is also provided in form of a CD (soft copy).

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) Zonal Officer, Regional Office, CPCB – Western Region, Parivesh Bhawan, Opp. VMC Ward Office No. 10, Subhanpura, Vadodara – 390 023
2) Member Secretary, GPCB – Head Office, Paryavaran Bhavan, Sector 10 A, Gandhi Nagar – 382 010
3) Member Secretary, SEIAA, Gujarat, Paryavaran Bhavan, GPCB, Sector 10 A, Gandhi Nagar – 382 010
4) Regional Officer, Regional Office GPCB (Kutch-East), Gandhidham, 370201

adani

Environmental Clearance Compliance Report

of

Common Effluent Treatment Plant, Mundra, Dist. Kutch, Gujarat

of

MPSEZ Utilities Pvt. Ltd. (MUPL-CETP)

for
Period:

October-2017 to March-2018

Index

Compliance Report of Environment Clearance

adani	**MPSEZ Utilities Pvt. Ltd., Mundra. (CETP)**	**From : Oct'17** **To : Mar'18**
Status of the conditions stipulated in Environment Clearance		

Half yearly Compliance report for Environment Clearance for the for the project "Establishment of Common Effluent Treatment Plant (CETP) of 17 MLD capacity at Mundra, Dist. Kachchh, Gujarat of M/s. MPSEZ Utilities Pvt. Ltd. (CETP) issued vide letter no. SEIAA/GUJ/EC/7(h)/43/2010 dated 20th February, 2010

Sr. No.	Conditions	Compliance Status as on 31-03-2018
A. Specific Conditions		
1	The MUPL shall conduct a study, every year for initial three years and thereafter once in a three year, through the reputed institute or the Agricultural University to assess the impacts on soil and ground water quality, if any, due to application of treated effluent on land for plantation/ gardening and adopt the additional mitigation measures as may be suggested through such studies.	Complied. Environment Audit is carried out on six monthly basis through reputed institute approved by GPCB. Soil and ground water quality monitoring is part of Environment Audit Report. Recommendations suggested as per Environment Audit Report are being complied. Last Audit Report was submitted to GPCB on 17.02.2018. Acknowledgement copy of the same is attached as **Annexure – 1**.
2	In order to assess and control the quality of effluent discharge, the MUPL shall carry out sampling of effluent from each member unit (cluster or individual unit) on daily basis, maintain records and submit the same at interval of every month.	Complied. Effluent sample of each member unit is collected on daily basis and analysed in-house at environmental laboratory. Analysis reports are submitted to GPCB every month and typical proof showing the same is attached as **Annexure – 2.**
3	Industries having high pollution potential like dyes and dye intermediates, bulk drugs and intermediates, pesticides etc. shall not be allowed in MPSEZL in such proportion that effluent received at the CETP always meets with the inlet norms.	Complied. Presently Textile, chemical, warehouse, oil, steel CFS, electronic and food products category industries are available in SEZ area. At present there is no such industry within APSEZ as mentioned in the condition. Inlet norms of effluent for CETP are mentioned at specific condition no. 6. Effluents from any industry are allowed only if they comply with inlet norms of CETP.
4	Fresh water requirement for the CETP shall be 100 KL/day, which shall be sourced	Complied. Fresh water requirement for CETP is ranging from 5

<table>
<tr><th>Sr. No.</th><th>Conditions</th><th>Compliance Status as on 31-03-2018</th></tr>
<tr><td></td><td>through Gujarat Water Infrastructure Ltd. (GWIL) pipeline from Narmada water supply. No ground water shall be tapped for the project.</td><td>KL/Day to 7 KL/Day, which is sourced through Gujarat Water Infrastructure Ltd. (GWIL) pipeline from Narmada water supply. No ground water is being tapped.

Details of water consumption, is given as Annexure – 3.</td></tr>
<tr><td>5</td><td>The quantity of effluent discharge from the CETP shall not exceed 17000 KL/ Day (17 MLD).</td><td>Complied.

The average quantity of effluent discharge from the CETP was 132 KL/ Day during the compliance period. Present installed capacity of CETP is 2.5 MLD only which is higher than average inflow of effluent from member industry. Details on quantity received from industry and treated water discharge are attached as Annexure – 3.</td></tr>
<tr><td>6</td><td>The total quantity of effluent discharge (including industrial effluent and sewage overflow from septic tank – soak pit) from the member units shall not exceed 17000 KL/ Day (17 MLD) and it shall be conveyed through underground pipeline to the CETP for further treatment. The effluent discharge from the CETP member units (cluster or individual unit) shall confirm to the following CETP inlet norms framed by the MUPL:
<table>
<tr><th>Parameter</th><th>CETP inlet norm of MUPL</th></tr>
<tr><td>pH</td><td>6.5 To 8.5</td></tr>
<tr><td>Suspended Solids</td><td>800 mg/l</td></tr>
<tr><td>BOD (3 Days at 27 ^{0}C)</td><td>1000 mg/l
2000 mg/l
2100 mg/l</td></tr>
<tr><td>COD</td><td>20 mg/l</td></tr>
<tr><td>TDS</td><td>1 mg/l</td></tr>
<tr><td>Oil & Grease</td><td>0.2 mg/l</td></tr>
<tr><td>Phenolic Compounds</td><td>2 mg/l
2 mg/l</td></tr>
<tr><td>Cyanides</td><td>50 mg/l</td></tr>
<tr><td>Fluorides</td><td>3 mg/l</td></tr>
</table></td><td>Complied.

The average quantity of effluent discharge from the CETP was 132.2 KL/ Day during the compliance period.

There are only two member industries of CETP as on date for industrial effluent and effluent is transferred though underground pipeline only. Presently on Avg. 144.2 KL/ Day effluent is treated at CETP.

Monitoring and analysis of CETP inlet wastewater from each industry is carried out regularly through in-house laboratory for the parameters such as pH, TDS, TSS, COD and BOD. Analysis reports are submitted to GPCB every month and proof showing the same is attached as Annexure – 2.
Sewage is also received from other member units for treatment in CETP and final disposal.

List of member units for industrial effluent as well as domestic sewage were submitted to the MoEF & CC along with half yearly compliance report Apr – 2016 to Sep – 2016 and there is no further change.

MUPL-CETP has also installed Continuous Effluent Monitoring System as per CPCB guidelines for continuous monitoring of pH, TSS, COD, BOD & Ammonical Nitrogen parameters. It is also connected with GPCB as well as CPCB server and information for the same was submitted to the MoEF & CC along with half yearly compliance report April– 2016 to Sep – 2016.</td></tr>
</table>

<table>
<tr><th>Sr. No.</th><th colspan="2">Conditions</th><th>Compliance Status as on 31-03-2018</th></tr>
<tr><td></td><td>Sulphides
Ammonical Nitrogen
Copper
Nickel</td><td>3 mg/l</td><td></td></tr>
<tr><td>7</td><td colspan="2">The individual member unit will be required to achieve CETP inlet norms. If required, necessary treatment for removal of metals, ammonical nitrogen and other such parameters will be given by the individual units to meet the CETP inlet norms.</td><td>Complied.

Agreement is made with the industry to consider aspect of conformance with the CETP inlet norms. Effluent samples are tested for conformance of inlet norms of CETP as provided in specific condition no. 6 above. Currently two units have agreement to discharge their effluent to CETP. The detail for the same is as below.

<table>
<tr><th>Unit</th><th>ETP Capacity</th><th>Treatment Methodology</th><th>Average Water Discharge</th></tr>
<tr><td>M/s Dorf ketal Specialty Catalyst Pvt. Ltd.</td><td>100 KLD</td><td>Primary & Secondary Treatment</td><td>77 KL</td></tr>
<tr><td>M/s Ahlstrom Fiber Composites India Pvt. Ltd.</td><td>50 KLD</td><td>Primary Treatment</td><td>10 KL</td></tr>
</table>
</td></tr>
<tr><td>8</td><td colspan="2">The MUPL will ensure that effluent discharge from member units (cluster or individual unit) complies with the inlet norms of the CETP.</td><td>Complied.

The details for the same are provided in specific condition no 6 above.</td></tr>
<tr><td>9</td><td colspan="2">Domestic waste water shall be discharged into septic tank/ soak pit system by the individual member units and the overflow shall be conveyed to the CETP along with industrial effluent for its treatment. Domestic waste water generated at the CETP will also be treated in the CETP.</td><td>Complied.

Sewage from each member industry is collected into collection tank, which is transferred to CETP at average rate of 83 KL/Day through pipeline.

Average generation of domestic wastewater is ranging from 1.0 to 1.5 KL per day at the CETP and the same is treated in the CETP itself along with industrial effluent.</td></tr>
<tr><td>10</td><td colspan="2">The MUPL will establish the adequate primary, secondary and tertiary effluent for its treatment facilities to achieve the GPCB norms. The</td><td>Complied.
MUPL has established the adequate primary, secondary and tertiary treatment facility to achieve the GPCB norms.</td></tr>
</table>

<table>
<tr><th>Sr. No.</th><th>Conditions</th><th>Compliance Status as on 31-03-2018</th></tr>
<tr><td></td><td>CETP shall be established in modules of 2.5 MLD to achieve the ultimate capacity of 17 MLD with the passage of time depending on the actual requirements as per development of the MPSEZL. The CETP shall be operated regularly and efficiently so that quality of treated effluent from the CETP always meets with the GPCB norms.</td><td>Present installed capacity of CETP is 2.5 MLD.

Third party analysis of the treated water is being carried out once in a month by NABL and MoEF & CC accredited agency namely M/s. Pollucon Laboratories Pvt. Ltd. Summary of the same for duration from Oct'17 to Mar'18 is mentioned below.

<table>
<tr><th>Parameter</th><th>Unit</th><th>Min</th><th>Max</th><th>Perm. Limit$</th></tr>
<tr><td>pH</td><td>--</td><td>6.76</td><td>7.53</td><td>6.0 – 9.0</td></tr>
<tr><td>SS</td><td>mg/L</td><td>36</td><td>68</td><td>100</td></tr>
<tr><td>COD</td><td>mg/L</td><td>59</td><td>104</td><td>250</td></tr>
<tr><td>BOD</td><td>mg/L</td><td>15</td><td>28</td><td>100</td></tr>
<tr><td>Ammonical Nitrogen</td><td>mg/L</td><td>1.86</td><td>18.6</td><td>50</td></tr>
</table>
$ Permissible Limits as per CC&A for CETP

Please refer Annexure – 4 for detailed analysis reports. Approx. INR 27 Lakh is spent for all environmental monitoring activities during F.Y. 2017-18.

MUPL has also installed Continuous Effluent Monitoring System as per CPCB guidelines for continuous monitoring of pH, TSS, COD, BOD & Ammonical Nitrogen parameters and result of the same is also transferring to regulatory authorities i.e. CPCB & SPCB regularly.

GPCB Sample analysis reports are attached as Annexure – 5, which shows that all the parameters are well within the permissible norms.</td></tr>
<tr><td>11</td><td>The treated effluent from the CETP conforming to the GPCB norms shall be utilized for plantation / gardening within the SEZ area of MPSEZL during non-rainy days whereas it shall be discharged to deep sea through outfall system of MPSEZL having CRZ permission during high rainy days.</td><td>Complied.
Average 132.2 KL/Day treated effluent was used for plantation/gardening within the premises of CETP and other areas of Adani Ports and Special Economic Zone Limited during the compliance period.</td></tr>
<tr><td>12</td><td>Well-designed effluent</td><td>Complied.</td></tr>
</table>

Sr. No.	Conditions	Compliance Status as on 31-03-2018
	distribution network with sprinklers / drip pipes shall be provided for proper utilization of treated effluent for plantation / gardening.	Drip irrigation system is provided for watering the green belt in the vicinity.
13	The CETP shall have and use only one outlet for the discharge of its effluent and no effluent shall be discharged without requisite treatment and without meeting with the GPCB norms. Such outlet shall be kept near the front gate/ entrance of the CETP.	Complied. Treated effluent from CETP is supplied through only one outlet for gardening purpose. MUPL CETP has installed Continuous Effluent Monitoring System as per CPCB guidelines for continuous monitoring of pH, TSS, COD, BOD & Ammonical Nitrogen parameters. It is also connected with GPCB as well as CPCB server and information for the same was submitted to the MoEF & CC along with half yearly compliance report April– 2016 to Sep – 2016. Quality of treated effluent from CETP meets with GPCB norms. Refer specific condition No. 10 for test result summery. Please refer **Annexure – 4 & 5** showing quality of treated effluent during this compliance period.
14	The MUPL shall instruct and make sure that each contributing member (cluster or individual unit) shall provide a storage tank having at least one day retention time, from where the effluent will go to the CETP for further treatment by pumping through rising main.	Complied. An agreement is made with the respective units to provide storage facility for retention. At present the industrial effluent from two units is received for treatment at the CETP. Both the units have two storage tanks of 50 KL each which is sufficient to store the effluent for at least one day.
15	The MUPL shall give time slot to the contributing member units for discharge of effluent and implement a mechanism for ensuring that the member units adhere to the same.	Complied. At present there are only two member industries of CETP and time slot has been given to each industry for discharging their effluent.
16	The MUPL shall strictly observe and make sure that every member shall supply entire effluent quantity to	Complied. MUPL verifies the data of wastewater generation produced by the member units and matches with the inlet meter reading to make sure the entire effluent

Sr. No.	Conditions	Compliance Status as on 31-03-2018
	the CETP.	quantity is supplied to CETP.
17	The MUPL shall be responsible for proper conveyance of effluent from their member units to the CETP. To distinguish the effluent conveyance pipelines from other pipelines, they should be coated with special colour. Periodical maintenance of effluent conveyance pipelines and valves shall be carried out to avoid any spillage or leakage of the effluent being conveyed to the CETP from the member units.	Complied. Black coloured HDPE pipeline for effluent conveyance has been provided to transfer effluent from member units. Daily monitoring of effluent conveyance pipeline and regular maintenance of pump, valve and panel is carried out. Periodical maintenance is carried out to avoid leakage.
18	Magnetic flow meters shall be provided at the inlet and outlet of the CETP as well as ETP outlets of the CETP member units and records for the same shall be maintained and submitted regularly.	Complied. Magnetic flow meters to maintain the record of quantity of raw effluent and treated effluent have been provided at inlet and outlet of CETP. Records of quantity received from industry and treated discharge are attached as **Annexure – 3.**
19	The MUPL shall also install pH sensor solenoid valve with alarm device at the inlet of equalization tanks. Emergency tank shall be provided at the CETP for diverting effluent with the CETP inlet norms, in case of unforeseen circumstances.	Complied. Online pH meter is provided at CETP inlet, equalization tank and neutralization tank for continuous monitoring of pH. Equalisation tank having capacity of 1700 KL is capable to take care of unforeseen circumstances.
20	The MUPL shall also install pH sensor with alarm device at final outlet to ensure that effluent being discharge is always neutral.	Complied. MUPL-CETP has also installed Continuous Effluent Monitoring System as per CPCB guidelines for continuous monitoring of pH, TSS, COD, BOD & Ammonical Nitrogen parameters with alarm/alert system in case of exceedance. It is also connected with GPCB as well as CPCB server. Information for the same was submitted to the MoEF & CC along with half yearly compliance report Apr – 2016 to Sep – 2016.

Sr. No.	Conditions	Compliance Status as on 31-03-2018
21	All the chemicals and nutrients which are required to be added / dosed in any CETP unit shall be added by using "Metering Pumps" only.	Complied. Metering pumps for dosing of chemicals such as Alum; Polyelectrolyte; Lime and HCl are provided with stand by pumps. Photographs showing the same were submitted as part of compliance report for the duration of Apr'17 to Sep'17.
22	The MUPL shall not keep any bypass line or system, or loose or flexible pipe for discharging effluent outside or even for conveying treated or untreated effluent within the CETP premises.	Complied. Treated effluent from CETP is supplied through only one outlet for gardening purpose and no bypass line or system, or loose/flexible pipe are provided for discharging effluent outside or even for conveying treated or untreated effluent within the CETP premises.
23	The MUPL shall provide impervious tanks / HDPE tanks / impervious guard ponds to hold effluent for at least 48 hours in the case of either maintenance of the CETP or process disturbances and any untreated effluent shall never be discharged into the environment.	Complied. Two nos. of Guard Ponds having RCC Structure with total capacity of 3000 KL for storage are available within CETP to ensure no untreated effluent discharge into environment.
24	In case of power failure, stand- by D.G. Set/s having power generation capacity equivalent to the requirement of power to run the CETP shall be installed, so that the CETP shall always be operated round the clock even in case of power failure.	Complied. D.G. Set having 380 KVA capacity has been provided as stand-by which is equivalent to the power requirement to run CETP.
25	The MUPL will maintain daily log books for the quantity and quality of effluent discharged by the member units, quantity and quality of inflow into the CETP, details of the treatment at each stage of the CETP including the chemicals used. MLSS/ MLVSS & DO concentrations in Aeration Tanks, quantity of	Complied. Log books containing all required information are maintained. A copy of logbook is attached here as **Annexure – 6**. Record of sludge generation and disposal is being maintained. CETP is designed having 2.5 MLD capacity, against that at present we are receiving only 170 KLD effluent from member industries.

Sr. No.	Conditions	Compliance Status as on 31-03-2018
	sludge extracted from the treatment process, energy consumed in treatment, quantity and quality of effluent utilized for plantation / gardening, quantity and quality of effluent discharged to deep sea through outfall system of MPSEZL etc. Details of the member units failing to comply with the CETP inlet norms shall be submitted to the GPCB on regular basis.	Sludge disposal was carried out through landfilling on 08.02.2018 at registered TSDF site as SEPPL, Bhachau. The disposal quantity was 6.710 MT. Manifest for the same is attached as **Annexure – 7**.
26	The MUPL shall set up a full fledge laboratory for collection, analysis of samples to monitor the effluent quality and deploy competent technical staff for the analysis and monitoring purpose.	Complied. Well-equipped laboratory having all the infrastructure facility and instruments is provided in CETP. Competent technical staff is deployed for monitoring and analysis of environmental parameters.
27	Regular effluent quality monitoring shall be carried out for relevant parameters and the monitored data along with the statistical analysis and interpretation should be submitted to the GPCB on monthly basis.	Complied. Daily analysis data are submitted to GPCB on monthly basis and proof showing the same is attached as **Annexure – 2.** Third party analysis of the treated water is being carried out once in a month by NABL and MoEF & CC accredited agency namely M/s. Pollucon Laboratories Pvt. Ltd. MUPL has also installed Continuous Effluent Monitoring System as per CPCB guidelines for continuous monitoring of pH, TSS, COD, BOD & Ammonical Nitrogen parameters and result of the same is also transferring to regulatory authorities i.e. CPCB & SPCB regularly. GPCB Sample analysis reports are attached as **Annexure – 5**, which shows that all the parameters are well within the permissible norms. Also refer Point no. 10.
28	The company shall also have	Complied.

Sr. No.	Conditions	Compliance Status as on 31-03-2018
	to submit every month, the analysis reports of the samples of effluent got collected and analysed by one of the recognized laboratories.	Third party analysis of the treated water is being carried out once in a month by NABL and MoEF & CC accredited agency namely M/s. Pollucon Laboratories Pvt. Ltd. and report of the same is also being submitted to the GPCB every month. Typical proof showing the same is attached as **Annexure – 5.** Monitoring report for the period from Oct'17 to Mar'18 is attached as **Annexure – 4.** Approx. INR 27 Lakh is spent for all environmental monitoring activities during F.Y. 2017-18.. Also refer Point no. 10 & 27.
29	The third party inspection of the CETP with respect to the compliance of the norms shall be carried out through a reputed institute like NEERI, IIT, etc. once in a year and mitigation measures as may be suggested by such an institute shall be implemented in consultation with the Gujarat Pollution Control Board.	Complied. Environment Audit is carried out on six monthly basis through reputed institute approved by GPCB. Soil and ground water quality monitoring is part of Environment Audit Report. Recommendations suggested as per Environment Audit Report are being complied. Please refer point no. 1 for further detail upon audit report submission.
30	The MUPL shall maintain accurate records of their member units in respect of quantity of each product manufactured, quantity of water consumption, quality of trade effluent, quantity of effluent generated, booked and supplied to CETP on day to day basis and shall submit the compiled record to the GPCB on monthly basis.	Complied. Data regarding quantity and quality of effluent generated from member units are submitted to GPCB regularly and proof showing the same is attached as **Annexure – 2.**
31	Ground water quality shall be monitored on regular basis with piezometer bore wells at suitable locations in consultation with GPCB and its records shall be maintained. The monitored	Complied. Bore-hole has been made at CETP main gate to check ground water quality and water level. No ground water contamination is evident as per the monitored data. Ground water sampling and analysis report is attached as **Annexure – 4.**

<table>
<tr><th>Sr. No.</th><th>Conditions</th><th>Compliance Status as on 31-03-2018</th></tr>
<tr><td></td><td>data along with interpretation shall be submitted at least once in six months.</td><td></td></tr>
<tr><td>32</td><td>Adequate stack height as per prevailing norms shall be provided to the D.G. Set. The flue gas emission from D.G. Set shall comply with the norms prescribed by the GPCB.</td><td>Complied.

At present there is only one D.G. set of having capacity of 380 KVA is used as stand-by. Adequate stack height of 6 meter has been provided to the said D.G. Set. The DG stack monitoring report carried out during compliance period is provided below. The summery of six monthly environmental monitoring reports is attached as Annexure – 4.

<table>
<tr><th>Sl. No.</th><th>TEST PARAMETERS</th><th>Unit</th><th>D.G. Set (350 KVA)</th><th>Permissible Limit</th></tr>
<tr><td>1</td><td>Particulate Matter</td><td>mg/Nm^3</td><td>10.84</td><td>150</td></tr>
<tr><td>2</td><td>Sulphur Dioxide</td><td>ppm</td><td>2.46</td><td>100</td></tr>
<tr><td>3</td><td>Oxide of Nitrogen</td><td>ppm</td><td>26.69</td><td>50</td></tr>
</table></td></tr>
<tr><td>33</td><td>The ambient air quality shall be monitored in and around the CETP area and results shall be submitted to the GPCB. The locations for the ambient air quality monitoring shall be fixed and reviewed in consultation with the GPCB.</td><td>Complied.

Ambient Air Quality Monitoring station is established in consultation with GPCB. Third party analysis of the ambient air quality is being carried out on regular basis (twice in a week) by NABL and MoEF & CC accredited agency namely M/s. Pollucon Laboratories Pvt. Ltd. Summary of the same for duration from Oct'17 to Mar'18 is mentioned below.

<table>
<tr><th>Parameter</th><th>Unit</th><th>Max</th><th>Min</th><th>Perm. Limit$^{\$}$</th></tr>
<tr><td>PM_{10}</td><td>µg/m^3</td><td>95.78</td><td>40.19</td><td>100</td></tr>
<tr><td>$PM_{2.5}$</td><td>µg/m^3</td><td>56.58</td><td>16.30</td><td>60</td></tr>
<tr><td>SO_2</td><td>µg/m^3</td><td>28.63</td><td>5.28</td><td>80</td></tr>
<tr><td>NO_2</td><td>µg/m^3</td><td>45.12</td><td>15.56</td><td>80</td></tr>
</table>
$^{\$}$ as per NAAQ standards, 2009

Monitoring report for the period from Oct'17 to Mar'18 is attached as Annexure – 4. Approx. INR 27 Lakh is spent for all environmental monitoring activities during F.Y. 2017-18.</td></tr>
<tr><td>34</td><td>The MUPL must strictly</td><td>Complied.</td></tr>
</table>

Sr. No.	Conditions	Compliance Status as on 31-03-2018
	comply with the rules and regulations with regards to handling and disposal of hazardous waste in accordance with the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008, as may be amended from time to time. Authorization from the GPCB must be obtained for collection / treatment / storage / disposal of hazardous wastes.	MUPL has been granted Authorization vide Order No. AWH – 79311 dated 02.06.2016, Valid up to: 07.04.2021 from GPCB, Gandhinagar. All the hazardous waste generated from premises is being disposed as per Hazardous & Other Waste Rules – 2016. There was no disposal of hazardous waste during this compliance period. Membership certificate for disposal of Hazardous waste (SEPPL) is submitted to the MoEF & CC along with half yearly compliance report April – 2016 to Sep – 2016.
35	CETP sludge shall be dried, packed and stored in designated hazardous waste storage facility with pucca bottom and leachate collection facility, before its disposal.	Complied. Generated CETP sludge is dried in sludge drying beds, packed in bags and stored in dedicated hazardous waste storage area having appropriate facilities.
36	CETP waste shall be disposed at authorized common TSDF facility. The company shall necessary permission of the TSDF operator for disposal of CETP sludge.	Complied. Hazardous waste generated from CETP is being disposed through authorised TSDF facility. MUPL have obtained membership with TSDF operator SEPPL, Bhachau for the same. CETP is designed having 2.5 MLD capacity, against that at present we are receiving only 144.2 KLD effluents from member industries. There is no sizable quantity of sludge generated during this compliance period hence no disposal was carried out. Copy of valid membership certificate submitted to the MoEF & CC along with half yearly compliance report April – 2016 to Sep – 2016 and there is no change further.
37	Discarded containers / drums / bags/ liners shall be either reused or returned back to suppliers or sold to authorized vendors after decontamination.	Complied. Hazardous waste generated from CETP is being disposed through authorised TSDF facility. Used Oil and Discarded Containers generation is not frequent in nature. As & when generated, the same will be disposed by selling out to registered recycler /
38	Used oil shall be sold to the	

Sr. No.	Conditions	Compliance Status as on 31-03-2018
	registered recyclers.	reprocessor.
39	Adequate hand rails shall be provided to all the CETP units for preventing fall of any person in the CETP tanks.	Complied. Adequate Hand rail are provided at CETP Tanks for fall protection.
40	All necessary precautionary measures shall be taken to avoid any kind of accident during storage and handling of chemicals. Handling and dosing of the materials shall be done in such a manner that minimal human exposure occurs.	Complied. Safety measures like appropriate hand gloves, safety goggles, safety shoes, reflective jacket are provided. Photographs showing the same were submitted as a part of compliance report for the duration of Apr'17 to Sep'17. Metering pumps for dosing of chemicals such as Alum; Polyelectrolyte; Lime and HCl are provided with stand by pumps to avoid human exposure.
41	All the storage tanks shall be fitted with appropriate controls to avoid any spillage / leakage. Bund/dyke walls shall be provided to the storage tanks. Closed handling system of chemicals shall be provided.	Complied There are no any chemical storage tanks within CETP Premises. Closed handling system is provided for chemical dosing.
42	Tie up shall be done with nearby health care unit / doctor for seeking immediate medical attention in the case of emergency, regular medical check-up of the workers and keeping its record etc.	Complied. MUPL CETP is subsidiary unit of Adani Ports and Special Economic Zone Limited. The Occupation Health Centre of APSEZ is accessible in case of emergency or regular medical check-up of workers. In addition, there is also a Multispecialty Hospital within the APSEZ area at a distance of approx. 1 Km from the CETP.
43	Personal Protective Equipments shall be provided to workers and its usage shall be ensured and supervised.	Complied. Personal protective equipments are provided to all workers and its usage is ensured and supervised regularly through site in-charge and safety department of APSEZ.
44	First Aid Box shall be made readily available in adequate quantity.	Complied. First aid box is available in CETP area. OHC of APSEZ maintains first aid box regularly.
45	Training shall be imparted to all the workers on safety and health aspects of chemicals handling and CETP operations.	Complied. Regularly tool box talk is being conducted at CETP for safety and health aspects of chemicals handling and CETP operations.
46	Occupational health	Complied.

Sr. No.	Conditions	Compliance Status as on 31-03-2018
	surveillance of the workers shall be done and its records shall be maintained. Pre-employment and periodical medical examination for all the workers shall be undertaken as per the Factory Act & Rules.	Pre-employment and periodical medical examination is being carried out. Record of the same was submitted as a part of compliance report for the duration of Oct'17 to Mar'18.
47	Transportation of hazardous chemicals shall be done as per the provisions of the Motor Vehicle Act & Rules.	Not Applicable No hazardous chemicals are transported during the compliance period.
48	The overall noise level in and around the CETP area and D.G. Set shall be kept well within the standards by providing noise control measures including engineering controls like acoustic insulation hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise level shall confirm to the standards prescribed under The Environment (Protection) Act, 1986 & Rules.	Complied. Noise level monitoring is being carried out on monthly basis by NABL and MoEF & CC accredited agency namely M/s. Pollucon Laboratories Pvt. Ltd. Summary of the same for duration from Oct'17 to Mar'18 is mentioned below. **Parameter** / **Unit** / **Min** / **Max** / **Perm. Limit** Day Time / dB(A) / 46 / 72 / 75 Night Time / dB(A) / 42 / 68 / 70 Please refer compliance condition no. 32 for DG stack monitoring test results. Monitoring report for the period from Oct'17 to Mar'18 is attached as **Annexure – 4.** Approx. INR 27 Lakh is spent for all environmental monitoring activities during F.Y. 2017-18.
49	The MUPL shall develop green belt within premises as per the CPCB guidelines, preferably with local species, and shall submit an action plan of plantation for next three years to the GPCB.	Complied. APSEZ has developed its own "Dept. of Horticulture" which is taking measures/ steps for terrestrial greening and developed 16.98 hectare of green belt with the density of 192 trees per hectare. Total 3261 trees are planted within CETP premises. So, far APSEZ have developed more than 400 ha. area as greenbelt with plantation more than 8.0 Lacs saplings within the APSEZ area.

Sr. No.	Conditions	Compliance Status as on 31-03-2018
		Details of the green belt development activity done by APSEZ Mundra are attached as **Annexure – 8.**
B. General Conditions		
50	GPCB will ensure while granting CTE to individual units that no industry of heavy pollution is allowed in such SEZ.	This point is applicable to GPCB.
51	Construction of the proposed CETP should be undertaken meticulously confirming to the existing central / local rules and regulations. All the construction designs/ drawing relating to the proposed construction activities must have approvals of the concerned State Government Department/Agencies.	Already complied. Construction for 2.5 MLD CETP is completed and the same is in operation phase. There is no requirement for additional capacity of CETP as on date. Upon requirement of additional capacity, the new module of CETP will be constructed confirming to the applicable rules and regulations.
52	In the event of the CETP's not functioning as proposed / breakdown of the CETP, the CETP member units shall be immediately intimated to stop discharging the effluent / to shut down their plants immediately. The effluent from the member units shall not be received at CETP until the desired efficiency of the CETP has been achieved.	Point noted and agreed. CETP has functioned as per designed efficiency and meeting with GPCB discharge norms during the entire compliance period. Hence no such event to stop collecting the effluent is required.
53	If the CETP fails to achieve the GPCB norms at its outlet; the individual units shall provide and operate the Effluent Treatment Plant (ETP) with adequate primary, secondary and tertiary treatment facility to achieve the GPCB norms.	Point noted and agreed. CETP is functioning with the designed efficiency and meeting with GPCB discharge norms during the entire compliance period. Individual members have their own ETPs which provides necessary treatment to achieve GPCB norms.
54	The MUPL shall ensure that each & every member renews	Complied.

Sr. No.	Conditions	Compliance Status as on 31-03-2018
	the agreement on / before expiry of said agreement and shall inform the GPCB about any unit not renewing within stipulated period. The MUPL shall immediately inform the Gujarat Pollution Control Board about termination/ suspension of the CETP membership of any member unit.	List of member units was submitted along with EC Compliance report for the period Apr-16 to Sep-16 and there is no further change. The agreements are renewed before its expiry by the member units. No event of termination or suspension of the CETP membership has occurred during the compliance period of April'17 to Sep'17.
55	The MUPL shall not allow any new member or enhance effluent quantity of existing members unless & until they have prior requisite permissions from competent authorities.	Complied. No new member has joined MUPL for effluent discharge during the compliance period of April'17 to Sep'17. No member has requested for enhancement of effluent quantity during the compliance period of April'17 to Sep'17.
56	Pucca flooring / impervious layer shall be provided in the work areas, chemical storage areas and chemical handling areas to minimize soil contamination.	Complied. Chemical storage areas and chemical handling areas are provided with Pucca flooring to minimize soil contamination. Photograph showing the same were attached as a part of compliance report submission for the duration of Apr'17 to Sep'17.
57	Good housekeeping shall be maintained within the CETP premises. All pipes, valves and drains shall be leak proof. Leakages from the pipes, pumps, shall be minimal and if occurs, shall be arrested promptly. Floor washing shall be admitted in to the effluent collection system for subsequent treatment and disposal.	Complied. Good housekeeping is maintained within the CETP premises by the dedicated housekeeping staff. Leakages were attended and recorded in the MIS report of MUPL. Photographs of all the maintenance work done during compliance period of Oct'17 to Mar'18 is attached as **Annexure – 9** No floor washing activity was carried out during the compliance period.
58	During effluent transfer, spillages shall be avoided and garland drain be constructed to avoid mixing of accidental spillages with domestic wastewater or storm water.	Point noted. Effluent is being transferred to CETP by dedicated pipeline. No major accidental spillage has occurred during financial year of 2017-18.
59	Storm water shall not be mixed with the effluent. The	Complied. Effluent is transferred by effluent transfer pipeline while

Sr. No.	Conditions	Compliance Status as on 31-03-2018
	storm water drains shall be kept separate and shall remain dry throughout the year except monsoon.	for storm water, a separate storm water drain is provided in CETP which remains dry throughout the year except monsoon.
60	The MUPL shall intimate the GPCB about occurrence of any accident, act or event resulting in discharge of poisonous, noxious or polluting matter or the likelihood of the same into a stream or land or well.	Complied. No accident, act or event has been occurred resulting in discharge of poisonous, noxious or polluting matter or the likelihood of the same into a stream or land or well during financial year 2017-18.
61	The Environmental Management Cell with suitably qualified staff for implementation of the stipulated environmental safeguards and for monitoring functions shall be setup under the control of the Chief Executive of the company.	Complied. APSEZ has a well structured Environment Management Cell, staffed with qualified manpower for implementation of the Environment Management Plan. Allocation of separate budget has also been done. EMC Organogram of APSEZ is attached as **Annexure – 10**.
62	The funds earmarked for environment protection measures should be maintained in a separate account and there should be no diversion of these funds for any other purpose. A year-wise expenditure on environmental safeguards should be reported	Complied. 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. Budget for environmental management measures (including horticulture) for the FY 2017-18 is to the tune of INR 957 lakh. Out of which, Approx. INR 890 lakh are spent during F.Y. 2017-18. Detailed breakup of the expenditures is attached as **Annexure – 11.**
63	The MUPL shall take appropriate community development and welfare program for improving socio-economic environment of villagers in the vicinity of the project site. A separate fund shall be allocated for this	Complied. The CSR Activities including community development and welfare programs for improving socio-economic environment of villages are planned out at Mundra by Adani Foundation in four core area. Details of the same are as below. Area | Activity

Sr. No.	Conditions	Compliance Status as on 31-03-2018	
	purpose.	Community Health	• The Adani Foundation operates Rural Dispensaries in 8 villages of Mundra block, 03 villages of Anjar block and 2 clinics at SEZ area. Mobile dispensary and rural clinics provide health services with token charge of 10/- rupees per patient daily by a doctor and a volunteer. Total patient was treated under this scheme during the year 2017-18: **53757 Nos.** • During the year 2017-18, total **9950** transactions were done by **8518** card holders of **66 villages** of Mundra Taluka and they received cash less medical services under this project. • During this year, anthropometry study done for **7202** children. Total **86** children became free of malnutrition due to efforts under "Suposhan" Project. Additionally, **1557** FGD were conducted during this year. • Total **8770** haemoglobin screenings of RPA woman and adolescent girls was carried out, which helps in controlling anaemia in women and indirectly malnutrition. • Total **7732** general health camp was organized during the year across the Mundra Taluka to provide primary medical care during various public events.
		Sustainable Livelihood – Fisher folk	• Average **118** KL of water was supplied to **983** households from different settlements on a daily basis under Machhimar Shudhh Jal Yojana. • Computer Training: **20 Fisherman Youth** • Sewing Training: **20 Women**

Sr. No.	Conditions		Compliance Status as on 31-03-2018
			• RTG Crane Operator: **02 Fisherman Youth** • Dori Work Training: **60 Women** • Mangrove Plantation: **4526 Man-days** • Painting Labour: **47 Fisherman** • AF has started poly culture project with consultancy of GUIDE In this system we stocked **6000 fingerlings** fishes of 3 gm weight in six different cages. There was 80% survival with 100 to 150 gm each weight after 5 month culture period. • We have facilitated **560 daughters** with Kit (Small Bed sheet, Mosquito net, Soap and Cream with nutritious food for mother) under Beti Vadhavo Programme.
		Education	• Total **2736 Schools** and **203309 students** have visited Adani Port, Adani Power & Adani Willmar facilities to get an insight upon the large scale business activity carried out at each of them as a part of project **UDAAN**. • 111 Govt. primary schools in total 62 villages of Mundra Taluka, 3 villages of in Anjar taluka and two villages of Mandvi Taluka every year on an average 2550 to 2700 children gets enrolled in 1st std in Taluka For 2017-2018 total **2500** children got enrolled & Adani foundation provided the "Enrollment kit" to all new enrolee in Taluka. • AF provided green board support at Tuna, Taluka shala Mundra, Lalji Sumar Mundra, Teacher's table support to Mota bhadiya vadi school number 2 & 3, fan at

Sr. No.	Conditions		Compliance Status as on 31-03-2018
			Shekhadiya, science equipment at Luni high school, Girls sanitation at Sadau primary school, water tank renovation at Shekhadiya and Mahesh nagar school.
		Rural Infrastructure	• 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 15 ponds) were built leading to a significant increase in water table and higher returns to the farmers. • Adani Foundation has studied impact of Check Dam Strengthening carried out in two villages before two years period. 1. Pond Deepening work at Vadala 2. Pond Deepening work at Mota Bhadiya • Participatory Ground Water Management. The objective of the project was to reduce the salinity ingress in and around the coastal regions of Mundra, Kutchh and mitigate the ill-effects of this manmade problem to improve the livelihoods of the rural people. The Project will help to get water table high, also it will help in agricultural activities. • Other works completed 1. Prayer Shed - Govt Primary School at Ragha and Bhadreshwar 2. Grill work – Kumar Shala Zarpara 3. RO Plant – Samaghogha, Siracha village & 4. Vallabh Vidyalaya at Mundra 5. Basic sanitation facility (18

Sr. No.	Conditions	Compliance Status as on 31-03-2018
		Nos) at Balvadi, medical centre and retiring places at labour settlements Skill Development: • Soft skill training – 675 Nos. • Technical Training – 278 Nos. Budget for CSR Activity for the FY 2017-18 was to the tune of INR 1565 lakh out of which, INR 1399 lakh are spent. Details of CSR activities carried out by Adani Foundation for Mundra and surrounding area is attached as **Annexure – 12.**
64	The MUPL shall also comply with any additional condition that may be imposed by the SEAC or the SEIAA or any other competent authority for the purpose of the environmental protection and management.	Point noted.
65	No further expansion or modifications in the plant shall be carried out without prior approval of the MoEF/ SEIAA, as the case may be. In case of deviations or alterations in the project proposal from those	Point noted. Considering existing scenario, at present CETP having 2.5 MLD capacity only installed against total granted capacity of 17.0 MLD. Capacity of the same will be expanded on later stage as per requirement. No expansion or modifications in the plant has been

Sr. No.	Conditions	Compliance Status as on 31-03-2018
	submitted to MoEF/ SEIAA/ SEAC for clearance, a fresh reference shall be made to the SEIAA/ SEAC to assess the adequacy of imposed and to add additional environmental protection measures required, if any.	carried out during financial year of 2017-18.
66	The project authorities shall earmark adequate funds to implement the conditions stipulated by SEIAA as well as GPCB along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.	Complied. Please refer point no. 62 for details regarding the same.
67	The applicant shall inform the public that the project has been accorded environmental clearance by the SEIAA and the copies of the clearance letter are available with the GPCB and may also be seen at the website of SEIAA/ SEAC/ GPCB. This shall be advertised within seven days from the date of clearance letter, in at least two local newspapers that are widely circulated in the region, one of which shall be in the Gujarati language and the other in English. A copy each of the same shall be forwarded to the concerned Regional Office of the Ministry.	Already complied. Typical copy of advertisement given in newspaper was submitted as a part of compliance report for the duration of Apr'17 to Sep'17.
68	It shall be mandatory for the project management to submit half-yearly compliance report of the stipulated prior environmental clearance	Complied. Last compliance report including results of monitoring data for the period of Apr'17 to Sep'17 was submitted to Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB vide our letter dated 22.11.2017 in

Sr. No.	Conditions	Compliance Status as on 31-03-2018
	terms and conditions in hard and soft copies to the regulatory authority concerned, on 1st June and 1st December of each calendar year.	soft as well as hard copy. Copy of the same is also available on our web site https://www.adaniports.com/ports-downloads.
69	The project authorities shall also adhere to the stipulations made by the Gujarat Pollution Control Board.	Complied. The stipulated norms made by GPCB are followed. All required data regarding to water, hazardous waste emission load and energy consumption are submitted to GPCB by Patrak submission on monthly basis.
70	The project authorities shall inform the GPCB, Regional Office of MoEF and SEIAA about the date of financial closure and final approval of the project by the concerned authorities and the date of start of project.	Already complied.
71	The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not found satisfactory.	Point noted.
72	The company in a time bound manner shall implement these conditions. The SEIAA reserves the right to stipulate additional conditions, if the same is found necessary. The above conditions will be enforced, interalia under the provisions of the Water (Preventation and Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1981, the Environment(Protection) Act 1986, Hazardous Wastes (Management and Handling) Rules, 2003 and the Public Liability Act, 1991 along with their amendments and rules.	Point noted.
73	This environmental clearance	Point noted.

Sr. No.	Conditions	Compliance Status as on 31-03-2018
	is valid for five years from the date of issue.	

Annexure – 1

O/C

adani

PCB ID: 10605

Env Cell/MUPL/CETP/EAR/2018/01

Date: 14.02.2018

To,
The Member Secretary,
Gujarat Pollution Control Board,
Paryavaran Bhavan,
Sector - 10A,
Gandhinagar – 382010.

Subject: Submission of Environmental Audit Report of our CETP (MUPL) for the period of 01.04.2017 to 30.09.2017.

Reference: CC&A Order No. AWH-79311 dated 02/06/2016, GPCB ID: 10605

Dear Sir,

With reference to the above stated and reference, please find enclosed environmental audit report for the half year ending on 30th September, 2017. Fees for environment audit have already been done through RTGS / NEFT and details of the same are as below.

Name of Industry	:	MPSEZ Utilities Pvt. Ltd. (MUPL)
Address of the Industry	:	S. No. / Plot No. 141 (Part) Village & Taluka: Mundra, Dist: Kutch – 370421.
Activity	:	Common Effluent Treatment Plant (2.5 MLD Capacity)
EC No.	:	SEIAA/GUJ/EC/7(h)/43/2010 dated 20.02.2010
CC&A Order No.	:	AWH-79311 dated 02.06.2016, valid up to 07.04.2021
UTR No.	:	TXSETU/STP18N640842/APPIT04001/GUJ, dated 09.02.2018
Bank Name	:	Axis Bank Ltd.
Total Amount	:	Rs. 20,000/- (Rs. Twenty Thousand only)
Pay to	:	Gujarat Pollution Control Board, Gandhinagar

Kindly accept and acknowledge the same.

Thanking you.

For, MPSEZ Utilities Pvt. Ltd.

Authorized Signatory

Gujarat Pollution Control Board
Head Office
Sector No. 10-A,
Gandhinagar-382010

Encl:

- Three copies of Environmental Audit Report (EAR)
- Payment Advice of payment done (INR 20,000/-)

MPSEZ Utilities Pvt Ltd
Adani House,
Nr Mithakhali Circle, Navrangpura,
Ahmedabad 380 009,
Gujarat, India
CIN: U45029GJ2007PTC051323

Tel +91 79 2555 5801
Fax +91 79 2555 6490
info@adani.com
www.adani.com

Registered Office: Adani House, Nr Mithakhali Circle, Navrangpura, Ahmedabad 380 009, Gujarat, India

MPSEZ UTILITIES PRIVATE LIMITED

Adani House, Nr. Mithakhali Six Road, Navrangpura

Ahmedabad 380009

CIN No: U45209GJ2007PTC051323

Payment Advice

Vendor Name GUJARAT POLLUTION CONTROL BOARD

Vendor Address

City KUTCH

Ref No 09.02.2018 MU86

Bank IFSC Code IOBA0001816

Bank A/c No 181602000000073

Document 2000002771

Date 09.02.2018

Vendor Code 103152

Posting Doc

UTR No

Dear SIR/MADAM

This is to inform you that your payment(s) have been released for Rs. 20,000.00 (Rupees Twenty Thousand Only). The details are mention below:

Yr Invoice (Reference)	Inv. Date	Amounts	TDS	WCT on Contract	Net Amounts
00000000	06.01.2018	20,000.00	0.00	0.00	20,000.00
	Total		0.00	0.00	20,000.00

Annexure – 2

adani

PCB ID: 10605

Env Cell/MUPL/CETP/AR/2018/03

Date: 13.03.2018

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

Sub.: Submission of Monthly Analysis Reports of Industrial and Sewage effluent of units connected with CETP operated by MPSEZ Utilities Pvt. Ltd.

Ref.: CC&A Order No. AWH-79311, GPCB ID: 10605

Dear Sir,
With reference to the above stated subject, please find enclosed monthly analysis reports of Industrial and Sewage effluent received from following units at CETP for the month of February-2018.

Sr. No.	Unit Name	Remarks
1.	M/s. Dorf Ketal Chemicals India Private Limited.	Industrial
2.	M/s. Ahlstrom Fiber Composites India Pvt. Ltd.	Industrial
3.	M/s SKAPS Industries India (Pvt) Ltd. (Unit-I)	Sewage
4.	M/s SKAPS Industries India (Pvt) Ltd. (Unit-II)	Sewage
5.	M/s Mundra SEZ Textile And Apparel Park Pvt. Ltd.	Sewage
6.	M/s. GSPC LNG Ltd.	Sewage

The reports are submitted here-with in view of the condition no. 4 of CC&A order granted by GPCB vide their letter no. PC/CCA-Kutch-644(2)/GPCB ID: 10605/364534 dated 30th July, 2016.

Kindly accept and acknowledge the same.

Yours Faithfully,
For, MPSEZ Utilities Pvt. Ltd.

Authorized Signatory

7-4-18
Received
Gujarat Pollution Control Board
Regional Office
Kutch (East)

Cc To:
Regional Officer, Regional Office, Gujarat Pollution Control Board, Gandhidham.

31/03/18
Gujarat Pollution Control Board
Sector No. 10 A,
Gandhinagar - 382 010.

MPSEZ Utilities Pvt Ltd
Adani House
Nr Mithakhali Circle, Navrangpura
Ahmedabad 380 009
Gujarat, India
CIN: U45209GJ2007PTC051323

Tel +91 79 2555 5801
Fax +91 79 2555 6490
info@adani.com
www.adani.com

Analysis Report (CETP Inlet)

M/s Dorf Ketal Speciality Catalyst Pvt. Ltd.

Feb-18

Sr. No.	DATE	Start rdg.	Diff (KL)	PH	TDS	SS	COD	BOD	Chloride
				6.5-8.5	2100	800	2000	1000	1000
					mg/l	mg/l	mg/l	mg/l	mg/l
1	01-Feb-18	116712	81	7.78	1535	212	479	160	839
2	02-Feb-18	116793	81	7.96	1479	188	512	171	881
3	03-Feb-18	116874	81	7.98	1619	196	292	97	864
4	04-Feb-18	116955	74	7.32	1766	180	329	109	870
5	05-Feb-18	117029	81	7.40	1718	109	212	71	873
6	06-Feb-18	117110	81	7.32	1680	141	312	104	831
7	07-Feb-18	117191	76	7.40	1744	180	348	116	799
8	08-Feb-18	117267	78	7.78	1719	111	325	108	877
9	09-Feb-18	117345	79	7.58	1798	163	363	121	851
10	10-Feb-18	117424	74	7.81	1746	191	405	135	834
11	11-Feb-18	117498	80	7.72	1689	202	420	140	812
12	12-Feb-18	117578	81.	7.64	1644	233	471	157	786
13	13-Feb-18	117659	79	7.92	1771	210	486	162	817
14	14-Feb-18	117738	81	8.12	1707	180	370	123	770
15	15-Feb-18	117819	80	7.60	1850	135	278	93	853
16	16-Feb-18	117899	81	7.91	1750	159	305	102	923
17	17-Feb-18	117980	79	7.69	1881	212	349	116	894
18	18-Feb-18	118059	80	7.77	1828	191	360	120	846
19	19-Feb-18	118139	70	7.88	1741	146	305	102	868
20	20-Feb-18	118209	75	8.12	1645	138	321	107	828
21	21-Feb-18	118284	76	7.61	1782	164	370	123	774
22	22-Feb-18	118360	75	7.70	1764	189	358	119	812
23	23-Feb-18	118435	76	7.59	1869	193	377	126	789
24	24-Feb-18	118511	72	7.80	1776	215	512	170	805
25	25-Feb-18	118583	70	7.88	1817	186	360	120	841
26	26-Feb-18	118653	76	8.02	1857	151	295	98	911
27	27-Feb-18	118729	75	7.87	1705	123	335	112	870
28	28-Feb-18	118804	72	7.98	1850	192	415	138	845
29	01-Mar-18	118876							
			2164						

For

MPSEZ Utilities Pvt Ltd

Analysis Report (CETP Inlet)

M/s Ahlstrom Fiber Composits India Pvt. Ltd.

Feb-18

Sr. No.	DATE	Start rdg.	Diff (KL)	PH	TDS	SS	COD	BOD	Chloride
				6.5-8.5	2100	800	2000	1000	1000
					mg/l	mg/l	mg/l	mg/l	mg/l
1	01-Feb-18	25390	0	7.88	1464	691	1848	616	542
2	02-Feb-18	25390	0	7.80	1278	667	1785	595	613
3	03-Feb-18	25390	0	7.85	1535	704	1995	665	581
4	04-Feb-18	25390	0	7.61	1539	668	1861	620	564
5	05-Feb-18	25390	0	7.12	1461	616	1936	645	496
6	06-Feb-18	25390	0	7.68	1534	642	1854	618	539
7	07-Feb-18	25390	0	7.55	1619	545	1674	558	617
8	08-Feb-18	25390	0	7.31	1442	414	1122	374	615
9	09-Feb-18	25390	15	7.48	1523	451	1204	401	678
10	10-Feb-18	25405	0	7.55	1614	404	1322	441	705
11	11-Feb-18	25405	0	7.68	1559	440	1196	399	686
12	12-Feb-18	25405	15	7.51	1445	474	1068	356	641
13	13-Feb-18	25420	0	7.80	1673	371	771	257	707
14	14-Feb-18	25420	0	7.98	1725	350	725	242	823
15	15-Feb-18	25420	15	7.71	1871	319	677	226	741
16	16-Feb-18	25435	15	7.65	1815	289	589	196	812
17	17-Feb-18	25450	0	7.82	1861	300	610	203	880
18	18-Feb-18	25450	0	8.02	1902	212	542	181	905
19	19-Feb-18	25450	0	8.17	1974	135	412	137	932
20	20-Feb-18	25450	15	7.84	1844	178	491	164	874
21	21-Feb-18	25465	15	7.53	1819	192	512	171	881
22	22-Feb-18	25480	15	7.29	1942	214	567	189	912
23	23-Feb-18	25495	15	7.46	1823	190	542	181	842
24	24-Feb-18	25510	15	7.53	1914	198	559	186	850
25	25-Feb-18	25525	0	7.66	2159	236	612	204	1086
26	26-Feb-18	25525	0	7.49	2145	249	635	212	1059
27	27-Feb-18	25525	0	7.78	2263	277	687	229	1020
28	28-Feb-18	25525	15	7.96	1923	151	442	147	915
29	01-Mar-18	25540							
			150						

For

MPSEZ Utilities Pvt Ltd

Analysis Report (CETP)
M/s SKAPS Industries India (Pvt) Ltd. (Unit-I)

Feb-18

Sr. No.	DATE	Start rdg.	Diff (KL)	PH	TDS	SS	COD	BOD
				6.5-8.5	2100	800	2000	1000
					mg/l	mg/l	mg/l	mg/l
1	1-Feb	-	-	-	-	-	-	-
2	2-Feb	-	-	7.89	1523	141	489	163
3	3-Feb	-	-	-	-	-	-	-
4	4-Feb	-	-	-	-	-	-	-
5	5-Feb	-	-	-	-	-	-	-
6	6-Feb	-	-	-	-	-	-	-
7	7-Feb	-	-	-	-	-	-	-
8	8-Feb	-	-	-	-	-	-	-
9	9-Feb	-	-	8.12	1486	159	531	177
10	10-Feb	-	-	-	-	-	-	-
11	11-Feb	-	-	-	-	-	-	-
12	12-Feb	-	-	-	-	-	-	-
13	13-Feb	-	-	-	-	-	-	-
14	14-Feb	-	-	-	-	-	-	-
15	15-Feb	-	-	-	-	-	-	-
16	16-Feb	-	-	7.75	1441	198	610	203
17	17-Feb	-	-	-	-	-	-	-
18	18-Feb	-	-	-	-	-	-	-
19	19-Feb	-	-	-	-	-	-	-
20	20-Feb	-	-	-	-	-	-	-
21	21-Feb	-	-	-	-	-	-	-
22	22-Feb	-	-	-	-	-	-	-
23	23-Feb	-	-	7.80	1550	160	553	184
24	24-Feb	-	-	-	-	-	-	-
25	25-Feb	-	-	-	-	-	-	-
26	26-Feb	-	-	-	-	-	-	-
27	27-Feb	-	-	-	-	-	-	-
28	28-Feb	-	-	-	-	-	-	-
29	1-Mar	-	-	-	-	-	-	-

Note: Analysis shown as per sampling done by CETP on weekly basis, whether effluent was discharged or not by unit to CETP.

For

MPSEZ Utilities Pvt Ltd

Analysis Report (CETP)
M/s SKAPS Industries India (Pvt) Ltd. (Unit-II)

Feb-18

Sr. No.	DATE	Start rdg.	Diff (KL)	PH	TDS	SS	COD	BOD
				6.5-8.5	2100	800	2000	1000
					mg/l	mg/l	mg/l	mg/l
1	1-Feb	-	-	-	-	-	-	-
2	2-Feb	-	-	7.91	1640	132	456	152
3	3-Feb	-	-	-	-	-	-	-
4	4-Feb	-	-	-	-	-	-	-
5	5-Feb	-	-	-	-	-	-	-
6	6-Feb	-	-	-	-	-	-	-
7	7-Feb	-	-	-	-	-	-	-
8	8-Feb	-	-	-	-	-	-	-
9	9-Feb	-	-	8.16	1562	163	596	198
10	10-Feb	-	-	-	-	-	-	-
11	11-Feb	-	-	-	-	-	-	-
12	12-Feb	-	-	-	-	-	-	-
13	13-Feb	-	-	-	-	-	-	-
14	14-Feb	-	-	-	-	-	-	-
15	15-Feb	-	-	-	-	-	-	-
16	16-Feb	-	-	7.84	1490	200	539	183
17	17-Feb	-	-	-	-	-	-	-
18	18-Feb	-	-	-	-	-	-	-
19	19-Feb	-	-	-	-	-	-	-
20	20-Feb	-	-	-	-	-	-	-
21	21-Feb	-	-	-	-	-	-	-
22	22-Feb	-	-	-	-	-	-	-
23	23-Feb	-	-	7.94	1602	188	560	186
24	24-Feb	-	-	-	-	-	-	-
25	25-Feb	-	-	-	-	-	-	-
26	26-Feb	-	-	-	-	-	-	-
27	27-Feb	-	-	-	-	-	-	-
28	28-Feb	-	-	-	-	-	-	-
29	1-Mar	-	-	-	-	-	-	-

Note: Analysis shown as per sampling done by CETP on weekly basis, whether effluent was discharged or not by unit to CETP.

For

MPSEZ Utilities Pvt Ltd

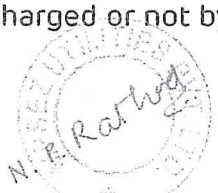
Analysis Report (CETP)
M/s Mundra SEZ Textile And Apparel Park Pvt. Ltd.

Feb-18

Sr. No.	DATE	Start rdg.	Diff (KL)	PH	TDS	SS	COD	BOD
				6.5-8.5	2100	800	2000	1000
					mg/l	mg/l	mg/l	mg/l
1	1-Feb	21110.8	35.9	-	-	-	-	-
2	2-Feb	21146.7	35.8	8.01	1550	142	498	166
3	3-Feb	21182.5	35.2	-	-	-	-	-
4	4-Feb	21217.7	39.1	-	-	-	-	-
5	5-Feb	21256.8	39.1	-	-	-	-	-
6	6-Feb	21295.9	39.1	-	-	-	-	-
7	7-Feb	21335.0	39.1	-	-	-	-	-
8	8-Feb	21374.1	39.1	-	-	-	-	-
9	9-Feb	21413.2	39.1	8.61	1690	187	558	186
10	10-Feb	21452.3	39.1	-	-	-	-	-
11	11-Feb	21491.4	39.1	-	-	-	-	-
12	12-Feb	21530.5	39.1	-	-	-	-	-
13	13-Feb	21569.6	39.1	-	-	-	-	-
14	14-Feb	21608.7	39.1	-	-	-	-	-
15	15-Feb	21647.8	39.1	-	-	-	-	-
16	16-Feb	21686.9	39.1	8.25	1588	174	512	170
17	17-Feb	21726.0	39.1	-	-	-	-	-
18	18-Feb	21765.1	39.1	-	-	-	-	-
19	19-Feb	21804.2	39.1	-	-	-	-	-
20	20-Feb	21843.3	39.1	-	-	-	-	-
21	21-Feb	21882.4	39.1	-	-	-	-	-
22	22-Feb	21921.5	39.1	-	-	-	-	-
23	23-Feb	21960.6	39.1	8.21	1465	201	560	186
24	24-Feb	21999.7	39.1	-	-	-	-	-
25	25-Feb	22038.8	39.1	-	-	-	-	-
26	26-Feb	22077.9	39.1	-	-	-	-	-
27	27-Feb	22117.0	39.1	-	-	-	-	-
28	28-Feb	22156.1	39.1	-	-	-	-	-
32	1-Mar	22195.2						
			1084.4					

Note: Analysis shown as per sampling done by CETP on weekly basis, whether effluent was discharged or not by unit to CETP.

For



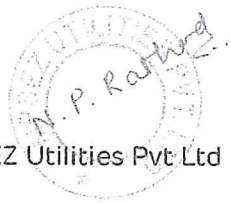
MPSEZ Utilities Pvt Ltd

Analysis Report (CETP)
M/s GSPC LNG Ltd.

Feb-18

Sr. No.	Date	Tanker No.	Received in KL	PH	TDS	SS	COD	BOD	Chloride	Remarks
				6.5-8.5	2100	800	2000	1000	1000	
					mg/l	mg/l	mg/l	mg/l	mg/l	
1	1-Feb	-	-	-	-	-	-	-	-	-
2	2-Feb	-	-	-	-	-	-	-	-	-
3	3-Feb	-	-	-	-	-	-	-	-	-
4	4-Feb	-	-	-	-	-	-	-	-	-
5	5-Feb	-	-	-	-	-	-	-	-	-
6	6-Feb	-	-	-	-	-	-	-	-	-
7	7-Feb	-	-	-	-	-	-	-	-	-
8	8-Feb	-	-	-	-	-	-	-	-	-
9	9-Feb	-	-	-	-	-	-	-	-	-
10	10-Feb	-	-	-	-	-	-	-	-	-
11	11-Feb	-	-	-	-	-	-	-	-	-
12	12-Feb	-	-	-	-	-	-	-	-	-
13	13-Feb	-	-	-	-	-	-	-	-	-
14	14-Feb	-	-	-	-	-	-	-	-	-
15	15-Feb	-	-	-	-	-	-	-	-	-
16	16-Feb	-	-	-	-	-	-	-	-	-
17	17-Feb	-	-	-	-	-	-	-	-	-
18	18-Feb	-	-	-	-	-	-	-	-	-
19	19-Feb	-	-	-	-	-	-	-	-	-
20	20-Feb	-	-	-	-	-	-	-	-	-
21	21-Feb	-	-	-	-	-	-	-	-	-
22	22-Feb	-	-	-	-	-	-	-	-	-
23	23-Feb	-	-	-	-	-	-	-	-	-
24	24-Feb	-	-	-	-	-	-	-	-	-
25	25-Feb	-	-	-	-	-	-	-	-	-
26	26-Feb	-	-	-	-	-	-	-	-	-
27	27-Feb	-	-	-	-	-	-	-	-	-
28	28-Feb	-	-	-	-	-	-	-	-	-
			0.00							

For



MPSEZ Utilities Pvt Ltd

Annexure – 3

adani

Annexure – 3

Details of Water Consumption (Oct-17 to March-18)

Sr. No.	Month	Total water Consumption (KL)	Common Effluent Treatment Plant (CETP) Month wise Water consumption data in KL	
			Domestic	Industrial
1.	OCT – 17	162.00	32.00	130.00
2.	Nov – 17	195.00	45.00	150.00
3.	Dec – 17	210.00	50.00	160.00
4.	Jan – 18	162.00	32.00	130.00
5.	Feb – 18	189.00	39.00	150.00
6.	March – 18	80.00	30.00	50.00
	Total	**998.00**	**228.00**	**770.00**

Collected Quantity of Trade Effluent and Treated Water Discharge

(Oct-17 to March-18)

Sr. No.	Month	Effluent collected from member units in KL	Treated water Discharge in KL
1	OCT – 17	4535.00	4910.00
2	Nov – 17	4524.00	3203.00
3	Dec – 17	4642.00	3428.00
4	Jan – 18	4199.00	3425.00
5	Feb – 18	4071.00	4824.00
6	March – 18	4420.00	4397.00
Total Quantity		**26391.00**	**24187.00**
Avg. Quantity per Day		**144.2**	**132.2**

Annexure – 4

"HALF YEARLY ENVIRONMENTAL MONITORING REPORT"

FOR

adani™

COMMON EFFLUENT TREATMENT PLANT [CETP]

MPSEZL UTILITIES PVT LTD (MUPL)

TAL: MUNDRA, KUTCH, MUNDRA – 370 421

MONITORING PERIOD:

OCTOBER 2017 TO MARCH 2018

PREPARED BY:

PollUcon

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

RESULT OF CETP OUTLET

SR. NO.	TEST PARAMETERS	UNIT	CETP OUTLET						GPCB Permissible Limit CETP OUTLET	TEST METHOD
			Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	March-18		
1	pH	--	7.26	7.53	7.22	6.76	7.38	7.19	6 to 9	IS3025(P11)83Re.02
2	Temperature	°C	30	30	30	28	29	32	Shall Not exceed more than 5 °C above ambient water temperature	IS3025(P9)84Re.02
3	Colour	Co-pt	20	30	50	40	40	40	100	IS3025(P4)83Re.02
4	Total Suspended Solids	mg/L	44	54	64	68	36	48	100	IS3025(P17)84Re.02
5	Oil & Grease	mg/L	BDL*	BDL*	1.42	BDL*	1.56	4.2	10	APHA(22ndEdi)5520D
6	Phenolic Compound	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	1	IS3025(P43)92Re.03
7	Fluorides	mg/L	0.13	0.14	0.18	0.11	0.19	0.30	2	APHA(22nd Edi) 4500 F D SPANDS
8	Iron	mg/L	0.084	0.063	0.073	0.054	0.041	0.062	3	AAS APHA(22ndEdi)3111 B
9	Zinc as Zn	mg/L	0.076	0.066	0.081	0.073	0.09	0.012	15	AAS APHA(22ndEdi)3111 B
10	Trivalent Chromium	mg/L	BDL*	BDL*	BDL*	BDL*	BDL*	BDL*	2	AAS APHA(22ndEdi)3111 B
11	Sulphide as S	mg/L	BDL*	BDL*	0.78	BDL*	1.44	0.8	2	APHA(22ndEdi) 4500-S
12	Ammonical Nitrogen as NH_3	mg/L	16.42	18.6	1.86	14.2	6.6	5.2	50	IS3025(P34)88Cla.2.3
13	BOD (3 Days @ 27°C)	mg/L	19	22	22	15	28	20	100	IS 3025 (P44)1993Re.03Edition 2.1
14	COD	mg/L	59	95	86	66	104	68	250	APHA(22ndEdi) 5520-D Open Reflux
15	Chloride as Cl	mg/L	619	545	530	599	629	669	1000	IS3025(P32)88Re.99
16	Sulphate as SO_4	mg/L	136	126	172	148	138	63.48	1000	APHA(22ndEdi)4500 SO_4 E
17	Total Dissolved Solids	mg/L	1268	1124	1096	1326	1400	1484	2100	IS3025(P16)84Re.02
18	Total Residual Chlorine	mg/L	0.6	0.5	0.8	0.6	0.5	0.5	1	APHA(22ndEdi)4500 Cl
19	Copper as Cu	mg/L	0.019	0.027	0.021	0.033	0.055	0.11	3	AAS APHA(22ndEdi)3111 B

*Below Detection Limit

H. T. Shah
Lab Manager

POLLUCON LABORATORIES PVT. LTD. SURAT-3

Dr. Arun Bajpai
Lab Manager (Q)

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**	**Hydrogen sulphide(H_2S) µg/m3**
1	04/10/2017	89.39	39.52	14.22	26.53	BDL*
2	07/10/2017	95.78	51.59	22.91	33.41	BDL*
3	11/10/2017	85.61	48.68	18.67	28.30	BDL*
4	14/10/2017	75.37	33.70	16.59	37.59	BDL*
5	18/10/2017	90.42	55.48	20.67	40.24	BDL*
6	21/10/2017	78.48	42.44	17.79	25.06	BDL*
7	25/10/2017	93.29	37.44	19.56	30.29	BDL*
8	28/10/2017	82.62	34.53	23.77	44.66	BDL*
9	01/11/2017	89.33	50.76	18.19	34.61	BDL*
10	04/11/2017	95.30	39.52	26.53	42.49	BDL*
11	08/11/2017	80.31	35.36	21.56	38.49	BDL*
12	11/11/2017	71.23	43.68	14.20	28.43	BDL*
13	15/11/2017	85.30	47.43	19.23	36.71	BDL*
14	18/11/2017	78.60	33.70	24.85	39.38	BDL*
15	22/11/2017	88.41	46.60	16.86	43.60	BDL*
16	25/11/2017	92.62	56.58	20.77	30.40	BDL*
17	29/11/2017	83.41	38.69	28.85	32.38	BDL*
18	02/12/2017	66.43	27.69	20.69	30.15	BDL*
19	06/12/2017	85.58	48.48	15.13	37.32	BDL*
20	09/12/2017	79.42	44.42	22.84	33.14	BDL*
21	13/12/2017	86.31	51.61	18.37	28.67	BDL*
22	16/12/2017	72.59	30.41	24.67	42.26	BDL*
23	20/12/2017	81.37	43.42	16.66	24.69	BDL*
24	23/12/2017	90.83	54.29	21.36	39.37	BDL*
25	27/12/2017	70.70	36.39	14.33	25.70	BDL*
26	30/12/2017	63.93	29.40	12.69	35.83	BDL*
27	03/01/2018	86.80	40.78	13.45	26.35	BDL*
28	06/01/2018	66.18	35.72	21.51	36.18	BDL*
29	10/01/2018	81.19	42.83	15.83	42.48	BDL*
30	13/01/2018	77.53	37.85	19.12	33.30	BDL*

Continue …

H. T. Shah
Lab Manager

POLLUCON LABORATORIES PVT. LTD. SURAT-3

Dr. Arun Bajpai
Lab Manager (Q)

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**	**Hydrogen sulphide(H2S) µg/m3**
31	17/01/2018	61.49	33.38	23.25	39.29	BDL*
32	20/01/2018	92.41	54.62	17.52	21.56	BDL*
33	24/01/2018	82.23	49.42	16.67	38.57	BDL*
34	27/01/2018	73.32	30.62	20.64	29.47	BDL*
35	31/01/2018	89.30	51.53	26.29	32.34	BDL*
36	03/02/2018	76.67	32.46	20.68	31.58	BDL*
37	07/02/2018	92.41	51.40	13.44	25.56	BDL*
38	10/02/2018	80.40	44.54	18.82	33.63	BDL*
39	14/02/2018	59.47	25.76	15.37	38.41	BDL*
40	17/02/2018	62.52	30.24	22.40	23.39	BDL*
41	21/02/2018	83.63	46.38	25.25	42.67	BDL*
42	24/02/2018	93.33	53.75	14.29	34.48	BDL*
43	28/02/2018	87.59	39.61	19.55	26.69	BDL*
44	03/03/2018	73.38	31.75	23.12	40.28	BDL*
45	07/03/2018	82.29	45.38	18.34	37.64	BDL*
46	10/03/2018	76.43	35.47	19.39	32.58	BDL*
47	14/03/2018	67.71	28.40	21.81	35.66	BDL*
48	17/03/2018	94.30	54.33	25.85	39.13	BDL*
49	21/03/2018	75.58	47.68	28.63	45.12	BDL*
50	24/03/2018	85.58	50.40	16.91	29.27	BDL*
51	28/03/2018	79.30	44.38	20.51	42.55	BDL*
52	31/03/2018	91.50	49.23	22.15	31.69	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-NaAsO2)**	**IS:5182(Part VII) 1973**

*Below detection limit

H. T. Shah
Lab Manager

POLLUCON LABORATORIES PVT. LTD. SURAT-3

Dr. Arun Bajpai
Lab Manager (Q)

RESULT OF AMBIENT AIR QUALITY MONITORING

AIR STRIP								
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	Carbon Monoxide as CO mg/m³	Hydrocarbon as CH_4 mg/m³	Benzene as C_6H_6 µg/m³
1	04/10/2017	71.77	30.41	7.94	21.49	0.48	BDL*	BDL*
2	07/10/2017	62.80	35.41	10.39	38.28	0.71	BDL*	BDL*
3	11/10/2017	75.29	45.40	16.99	25.69	0.39	BDL*	BDL*
4	14/10/2017	60.62	26.66	13.41	32.46	0.85	BDL*	BDL*
5	18/10/2017	87.30	51.77	9.79	35.42	0.40	BDL*	BDL*
6	21/10/2017	66.38	36.66	11.15	29.39	0.52	BDL*	BDL*
7	25/10/2017	52.37	21.66	14.31	33.10	0.41	BDL*	BDL*
8	28/10/2017	78.50	39.57	19.85	36.31	0.36	BDL*	BDL*
9	01/11/2017	67.89	39.57	7.14	18.64	0.37	BDL*	BDL*
10	04/11/2017	58.50	29.57	13.43	35.56	0.53	BDL*	BDL*
11	08/11/2017	71.53	32.49	6.18	20.58	0.31	BDL*	BDL*
12	11/11/2017	53.41	24.58	9.78	22.37	0.25	BDL*	BDL*
13	15/11/2017	75.29	38.74	12.81	19.24	0.34	BDL*	BDL*
14	18/11/2017	84.20	42.49	15.21	26.39	0.30	BDL*	BDL*
15	22/11/2017	93.60	52.48	11.52	33.55	0.40	BDL*	BDL*
16	25/11/2017	63.41	28.74	5.37	15.66	0.14	BDL*	BDL*
17	29/11/2017	55.41	22.49	17.67	29.30	0.21	BDL*	BDL*
18	02/12/2017	42.39	16.30	15.21	34.56	0.15	BDL*	BDL*
19	06/12/2017	55.30	31.32	17.55	32.11	0.34	BDL*	BDL*
20	09/12/2017	70.58	40.30	10.71	27.20	0.27	BDL*	BDL*
21	13/12/2017	81.61	30.57	14.41	20.07	0.13	BDL*	BDL*
22	16/12/2017	63.22	27.62	6.36	16.60	0.53	BDL*	BDL*
23	20/12/2017	54.51	33.40	9.78	30.54	0.40	BDL*	BDL*
24	23/12/2017	77.71	37.39	13.56	35.67	0.29	BDL*	BDL*
25	27/12/2017	58.59	22.58	5.28	21.30	0.37	BDL*	BDL*
26	30/12/2017	69.79	34.60	19.81	17.61	0.11	BDL*	BDL*
27	03/01/2018	56.27	26.16	5.57	21.61	0.29	BDL*	BDL*
28	06/01/2018	74.48	41.67	12.86	25.29	0.15	BDL*	BDL*
29	10/01/2018	61.21	33.56	16.77	29.39	0.18	BDL*	BDL*
30	13/01/2018	51.22	20.46	10.58	22.33	0.37	BDL*	BDL*

H. T. Shah
Lab Manager

POLLUCON LABORATORIES PVT. LTD. SURAT-3

Dr. Arun Bajpai
Lab Manager (Q)

AIR STRIP								
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	Carbon Monoxide as CO mg/m³	Hydrocarbon as CH_4 mg/m³	Benzene as C_6H_6 µg/m³
31	17/01/2018	48.78	28.53	14.24	32.18	0.47	BDL*	BDL*
32	20/01/2018	78.38	43.55	13.48	15.56	0.24	BDL*	BDL*
33	24/01/2018	62.41	24.48	6.21	18.44	0.21	BDL*	BDL*
34	27/01/2018	40.19	16.84	17.86	34.58	0.20	BDL*	BDL*
35	31/01/2018	68.21	39.47	8.84	26.80	0.23	BDL*	BDL*
36	03/02/2018	41.60	17.18	16.28	33.71	0.18	BDL*	BDL*
37	07/02/2018	57.19	31.86	6.27	22.23	0.27	BDL*	BDL*
38	10/02/2018	77.77	36.39	10.89	26.32	0.36	BDL*	BDL*
39	14/02/2018	69.31	30.32	13.47	31.10	0.48	BDL*	BDL*
40	17/02/2018	72.78	33.56	11.72	21.27	0.14	BDL*	BDL*
41	21/02/2018	52.37	28.49	15.36	31.42	0.16	BDL*	BDL*
42	24/02/2018	63.09	23.54	5.72	16.53	0.39	BDL*	BDL*
43	28/02/2018	80.33	33.86	9.91	23.44	0.23	BDL*	BDL*
44	03/03/2018	68.39	28.41	20.25	26.72	0.21	BDL*	BDL*
45	07/03/2018	52.37	23.67	23.39	30.15	0.17	BDL*	BDL*
46	10/03/2018	47.62	18.47	17.70	27.70	0.29	BDL*	BDL*
47	14/03/2018	55.30	25.62	18.90	33.54	0.50	BDL*	BDL*
48	17/03/2018	60.29	34.56	13.72	29.34	0.33	BDL*	BDL*
49	21/03/2018	42.57	18.34	16.93	23.17	0.14	BDL*	BDL*
50	24/03/2018	80.51	37.60	19.37	34.32	0.46	BDL*	BDL*
51	28/03/2018	71.50	42.34	8.10	18.53	0.18	BDL*	BDL*
52	31/03/2018	85.32	45.63	12.79	17.65	0.23	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-NaAsO2)**	**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

POLLUCON LABORATORIES PVT. LTD. SURAT-3

Dr. Arun Bajpai
Lab Manager (Q)

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	11/10/2017	01/11/2017	13/12/2017	03/01/2018	07/02/2018	21/03/2018
1	6:00-7:00	63.1	57.2	57.1	57.3	60.4	60.4
2	7:00-8:00	65.1	59.3	62.4	59.1	63.7	64.1
3	8:00-9:00	65.9	62.1	63.1	63.1	67.1	63.8
4	9:00-10:00	66.8	61.9	65.4	65.5	62.5	67.2
5	10:00-11:00	69.1	68.8	62.1	63.7	68.4	62.8
6	11:00-12:00	72.1	69.3	68.4	67.9	64.1	65.4
7	12:00-13:00	65.8	70.1	63.1	67.1	62.6	65.1
8	13:00-14:00	63.1	65.2	61.2	62.4	60.4	65.9
9	14:00-15:00	69.4	69.3	63.4	62.9	61.8	66.8
10	15:00-16:00	66.4	67.2	68.4	68.4	65.4	69.4
11	16:00-17:00	62.8	62.9	62.1	65.1	63.4	64.1
12	17:00-18:00	68.4	62.3	60.1	66.3	61.8	60.8
13	18:00-19:00	65.1	60.2	63.1	69.2	69.4	63.2
14	19:00-20:00	70.4	59.3	65.1	71.4	69.1	65.4
15	20:00-21:00	71.8	59.8	64.8	70.3	62.4	64.8
16	21:00-22:00	69.4	58.7	62.1	65.1	65.3	67.2
Day Time Limit*		75 dB(A) Leq					

Result of Noise level monitoring [Night Time]

SR. NO.	Name of Location	CETP					
		Result [dB(A) Leq]					
	Sampling Date & Time	11/10/2017 & 12/10/2017	01/11/2017 & 02/11/2017	13/12/2017 & 14/12/2017	03/01/2018 & 04/01/2018	07/02/2018 & 08/02/2018	21/03/2018 & 22/03/2018
1	22:00-23:00	68.4	58.7	66.2	68.4	62.4	65.4
2	23:00-00:00	65.1	56.9	62.1	61.4	60.1	62.4
3	00:00-01:00	63.4	60.2	60.4	63.4	68.4	59.7
4	01:00-02:00	64.8	59.1	63.1	64.5	65.1	57.8
5	02:00-03:00	62.4	60.0	61.4	62.4	63.1	63.4
6	03:00-04:00	63.8	57.9	60.1	60.4	61.7	60.1
7	04:00-05:00	64.1	52.1	60.8	57.4	61.8	59.4
8	05:00-06:00	62.8	58.1	62.8	60.1	65.4	60.1
Night Time Limit*		70 dB(A) Leq					

H. T. Shah
Lab Manager

POLLUCON LABORATORIES PVT. LTD. SURAT-3

Dr. Arun Bajpai
Lab Manager (Q)

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	18/10/2017	29/11/2017	27/12/2017	18/01/2018	25/02/2018	10/03/2018
1	6:00-7:00	49.1	48.2	55.1	55.1	51.4	49.1
2	7:00-8:00	46.1	45.9	58.4	59.4	56.7	52.4
3	8:00-9:00	50.8	58.2	60.1	62.1	62.1	63.1
4	9:00-10:00	62.1	56.3	62.4	63.4	55.7	61.4
5	10:00-11:00	60.8	61.1	59.1	60.8	62.1	59.7
6	11:00-12:00	63.4	61.3	63.4	60.4	60.4	62.7
7	12:00-13:00	59.4	64.5	62.8	61.7	63.4	68.4
8	13:00-14:00	54.1	59.3	59.4	59.4	61.7	63.4
9	14:00-15:00	58.1	56.1	61.2	63.4	62.8	60.4
10	15:00-16:00	53.4	54.2	61.8	65.1	66.4	62.4
11	16:00-17:00	57.4	61.3	60.8	61.4	61.8	61.8
12	17:00-18:00	61.8	59.3	62.4	62.8	63.7	65.4
13	18:00-19:00	60.4	54.2	63.4	61.5	68.7	62.4
14	19:00-20:00	62.7	63.1	61.8	63.7	66.4	63.4
15	20:00-21:00	60.8	61.9	62.8	62.4	61.7	60.4
16	21:00-22:00	60.3	49.7	65.2	60.8	63.4	60.8
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	18/10/2017 & 19/10/2017	29/11/2017 & 30/11/2017	27/12/2017 & 28/12/2017	18/01/2018 & 19/01/2018	25/02/2018 & 26/02/2018	10/03/2018 & 11/03/2018
1	22:00-23:00	56.1	48.3	55.0	53.4	60.1	59.4
2	23:00-00:00	52.1	52.9	53.1	56.1	57.1	60.1
3	00:00-01:00	53.1	51.7	56.8	49.8	55.1	52.1
4	01:00-02:00	50.4	41.8	57.1	52.7	51.4	50.3
5	02:00-03:00	61.4	48.6	50.1	57.4	55.7	56.1
6	03:00-04:00	60.8	52.3	50.8	60.4	62.7	59.2
7	04:00-05:00	62.4	43.7	53.1	60.8	60.7	60.7
8	05:00-06:00	59.4	48.7	55.8	61.8	59.1	61.7
Night Time Limit*		70 dB(A) Leq					

H. T. Shah
Lab Manager

POLLUCON LABORATORIES PVT. LTD. SURAT-3

Dr. Arun Bajpai
Lab Manager (Q)

RESULTS OF D.G. STACK MONITORING

SR. NO.	TEST PARAMETERS	Unit	25/02/2018 D.G. Set* (350 KVA) CETP - WTP	Test Method
1	Particulate Matter	mg/Nm^3	10.84	IS:11255 (Part-I):1985
2	Sulphur Dioxide	ppm	2.46	IS:11255 (Part-II):1985
3	Oxide of Nitrogen	ppm	26.69	IS:11255 (Part-VII):2005
4	Carbon Monoxide	mg/m3	3.51	Digital Gas Analyzer
5	Haydro Carbon NMHC	ppm	BDL*	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 %

H. T. Shah
Lab Manager

POLLUCON LABORATORIES PVT. LTD. SURAT-3

Dr. Arun Bajpai
Lab Manager (Q)

RESULTS OF BORE HOLE WATER

SR. NO	TEST PARAMETERS	UNIT	RESULTS		TEST METHOD
			NEAR CETP MAIN GATE		
	GPS Location		N 22° 48.630' S 069° 42.393'		
	Sampling Date		14/10/2017	18/01/2018	
	Sampling Time		12:30	12:55	
1	pH	--	7.59	7.81	IS3025(P11)83Re.02
2	Salinity	mg/L	3.52	3.37	APHA 2520B
3	Oil & Grease	mg/L	1.12	BDL*	APHA(22nd Edi)5520D
4	Hydrocarbon	mg/L	BDL*	BDL*	GC/GC-MS
5	Lead as Pb	mg/L	0.43	0.012	AAS APHA(22nd Edi)3111 B
6	Arsenic as As	mg/L	BDL*	BDL*	AAS APHA 3114 B
7	Nickel as Ni	mg/L	0.13	BDL*	AAS APHA(22nd Edi)3111 B
8	Total Chromium as Cr	mg/L	0.012	0.019	AAS 3111B
9	Cadmium as Cd	mg/L	BDL*	BDL*	AAS APHA(22nd Edi)3111 B
10	Mercury as Hg	mg/L	BDL*	BDL*	AAS APHA- 3112 B
11	Zinc as Zn	mg/L	0.088	0.048	AAS APHA(22nd Edi)3111 B
12	Copper as Cu	mg/L	0.33	BDL*	AAS APHA(22nd Edi)3111 B
13	Iron as Fe	mg/L	10.14	0.22	AAS APHA(22nd Edi)3111 B
14	Insecticides/Pesticides	mg/L	BDL*	Absent	GC/GC-MS
15	Depth of Water Level from Ground Level	meter	2.8	1.86	--

Minimum Detection Limit [MDL]

Ambient Air Parameter		
Sr. No.	**Test parameter**	**MDL**
1	Particulate Matter (PM10) ($\mu g/m^3$)	10
2	Particulate Matter (PM 2.5) ($\mu g/m^3$)	10
3	Sulphur Dioxide (SO_2) ($\mu g/m^3$)	5
4	Oxides of Nitrogen ($\mu g/m^3$)	5
5	Hydrogen Sulphide as H_2S ($\mu g/m^3$)	6

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

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

H. T. Shah
Lab Manager

POLLUCON LABORATORIES PVT. LTD. SURAT-3

Dr. Arun Bajpai
Lab Manager (Q)

Annexure – 5

ANALYSIS REPORT FOR
WATER / WASTE WATER SAMPLE

Sample ID:220950 - Analysis Completion:22/11/2017

Common treatment and disposal facilities(CETP, TSDF, Ewaste recycling, CBMWTF, effluent conveyance project, incinerator, solvent/acid recovery plant, MSW sanitary landfill site) / LAB Inward : 4257

Gujarat Pollution Control Board, Kutch West
Katira Commercial Complex-1, First Floor
Near Income Tax office, Manglam Char rasta ,Sanskar nagar,
BHUJ - 370 001

TEST REPORT

Test Report No. : 4257 **Date: 23/11/2017**

1. Name of the Customer : **Mpsez Utilities Pvt. Ltd.(Mupl) - 10605**
2. Address : **SURVEY NO. 141 (PART),SURVEY NO. 141 (PART),VILL MUNDRA,SURVEY NO. MUNDRA**
3. Nature of Sample : **REP-Representative/Grab, (Insp Type : ROU-Routine Visit)**
4. Sample Collected By : **R.H.JIVANI,SO**
5. Quantity of Sample Received : **5 Ltr**
6. Code No. of the Sample : **220950**
7. Date & Time of Collection & Inwarding : **06/11/2017 , (1645 to 1647) & 09/11/2017**
8. Date of Start & Completion of Analysis : **09/11/2017 & 22/11/2017**
9. Sampling Point : **From in let of CETP ~**
10. Flow Details (Remarks) : **-**
11. Mode of Disposal : **In to CETP for treatemnt**
12. Ultimate Receiving Body : **u/g strata**
13. Temperature on Collection : **30 & pH Range on pH Strip :@ 7-8 on pH strip**
14. Carboys Nos for : **W-2 & Color & Appearance :Gray**
15. Water Consumption & W.W.G (KLPD) : **Ind :80.000 , Dom :20.000 & Ind :0.000 , Dom :15.000**

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	Temperature	Centigrade	IS: 3025 (Part – 9) – 1984(Reaffirmed 2006)	Ambient oC - 60 oC	30
2	pH	pH Units	4500 H+ B APHA Standard Methods 22nd edi.2012	1 – 14 pH value As or	7.75
3	Colour	Pt.Co.Sc.	2120 B APHA Standard Methods 22nd edi. 2012	2 - to 99 Hazen & 1-50	60
4	Total Dissolved Solids	mg/l	Gravimetric method. (2540 C APHA Standard Methoc	10 – 200000 mg/L	1640
5	Suspended Solids	mg/l	Gravimetric method. (2540 D APHA Standard Methoc	2 – 10000 mg/L	580
6	Ammonical Nitrogen	mg/l	1).Titrimetric method (4500 NH3 B & C APHA Standa	1 - 2000 mg/l.	5.6
7	Percent Sodium	%Na	IS11624-1986(Reaffirmed 2009)	0.01 – 100%.	76.39
8	Chloride	mg/l	Argentometric method. (4500 Cl? B APHA Standard M	1 - 50000 mg/l	720
9	Sulphate	mg/l	APHA(22nd edi)4500 SO4 E	2-40mg/l	67
10	Chemical Oxygen Demand	mg/l	APHA (22nd Edition)- 5220 B Open Reflux Method-2	5.0- 50000 mg/l	833
11	Oil & Grease	mg/l	Liquid – Liquid Partition Gravimetric method. (5520 B	01 – 1000 mg/l	5.2
12	Phenolic Compounds	mg/l	4 Amino Antipyrene method without Chloroform Extra	0.1 – 50 mg/l	0.0
13	Fluoride	mg/l	SPADNS method (4500-F-D APHA standard Methods	0.10-40 mg/l	0.61
14	Iron	mg/l	(3111 B APHA Standard methods 21st edi)	0.02-150mg/l	0.004
15	Zinc	mg/l	(3111 B APHA Standard methods 21st edi)	0.005-100mg/l	0.013
16	Hexavalent Chromium	mg/l	APHA (22nd Edition) –3500 – Cr B : -2012 Colorimet	0.1 – 100 mg/l	0.0
17	Copper	mg/l	3111 B APHA Standard methods 21st edi)	0.01-150 mg/l	0.028
18	B.O.D (3 Days 27oC)	mg/l	3 – Day BOD test. (IS 3025 (Part 44) 1993 Reaffirmed	05–50000 mg/l	307

Laboratory Remarks : Freeze By:682-aee_682 Dt.: 23/11/2017

Dr. S. N. Agravat,Lab Head

Field Observation :

Note :

1. * - These parameters are covered under the scope of NABL.
2. The results refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied.
3. Samples will be destroyed after 10 days from the date of issue of test report unless otherwise specified.
4. This report is not to be reproduced wholly or in part or used in any advertising media without the permission of the Board in writing.
5. The Board is not responsible for the authenticity for the samples not collected by the Board's officials.
6. Total liability of our laboratory is limited to the invoiced amount. Any dispute arising out of this report is subject to Gujarat Jurisdiction only.
7. Permissible Limits: as per Schedule VI of EPA Rules, 1986 as ammended by Second and Third ammendment 1993 for Effluents
8. Physicochemical and microbiological parameters, Std.Methods for Water and Waste Water- 22nd Edition by APHA.
9. Bioassay test (for toxicity) -IS:6582:Part-2:2001; Reaffirmed 2007.

ANALYSIS REPORT FOR
WATER / WASTE WATER SAMPLE

Sample ID:220952 - Analysis Completion:22/11/2017

Common treatment and disposal facilities(CETP, TSDF, Ewaste recycling, CBMWTF, effluent conveyance project, incinerator, solvent/acid recovery plant, MSW sanitary landfill site) / LAB Inward : 4258

Gujarat Pollution Control Board, Kutch West
Katira Commercial Complex-1, First Floor
Near Income Tax office, Manglam Char rasta ,Sanskar nagar,
BHUJ - 370 001

TEST REPORT

Test Report No. : 4258 **Date: 23/11/2017**

1. Name of the Customer : **Mpsez Utilities Pvt. Ltd.(Mupl) - 10605**
2. Address : **SURVEY NO. 141 (PART),SURVEY NO. 141 (PART),VILL MUNDRA,SURVEY NO. MUNDRA**
3. Nature of Sample : **REP-Representative/Grab, (Insp Type : ROU-Routine Visit)**
4. Sample Collected By : **R.H.JIVANI,SO**
5. Quantity of Sample Received : **5 Ltr**
6. Code No. of the Sample : **220952**
7. Date & Time of Collection & Inwarding : **06/11/2017 , (1650 to 1652) & 09/11/2017**
8. Date of Start & Completion of Analysis : **09/11/2017 & 22/11/2017**
9. Sampling Point : **## Final Outlet of the ETP ~ From out let of CETP**
10. Flow Details (Remarks) : **-**
11. Mode of Disposal : **On land discharge for gardening-plantation**
12. Ultimate Receiving Body : **u/g strata**
13. Temperature on Collection : **29 & pH Range on pH Strip :@ 7-8 on pH strip**
14. Carboys Nos for : **W-3 & Color & Appearance :Light Yellowish**
15. Water Consumption & W.W.G (KLPD) : **Ind :80.000 , Dom :20.000 & Ind :0.000 , Dom :15.000**

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	Temperature	Centigrade	IS: 3025 (Part – 9) – 1984(Reaffirmed 2006)	Ambient oC - 60 oC	29
2	pH	pH Units	4500 H+ B APHA Standard Methods 22nd edi.2012	1 – 14 pH value As or	8.25
3	Colour	Pt.Co.Sc.	2120 B APHA Standard Methods 22nd edi. 2012	2 - to 99 Hazen & 1-50	5.0
4	Total Dissolved Solids	mg/l	Gravimetric method. (2540 C APHA Standard Methoc	10 – 200000 mg/L	1162
5	Suspended Solids	mg/l	Gravimetric method. (2540 D APHA Standard Methoc	2 – 10000 mg/L	24
6	Ammonical Nitrogen	mg/l	1).Titrimetric method (4500 NH3 B & C APHA Standa	1 - 2000 mg/l.	3.1
7	Percent Sodium	%Na	IS11624-1986(Reaffirmed 2009)	0.01 – 100%.	75.14
8	Chloride	mg/l	Argentometric method. (4500 Cl? B APHA Standard M	1 - 50000 mg/l	620
9	Sulphate	mg/l	APHA(22nd edi)4500 SO4 E	2-40mg/l	68
10	Chemical Oxygen Demand	mg/l	APHA (22nd Edition)- 5220 B Open Reflux Method-2	5.0- 50000 mg/l	95
11	Oil & Grease	mg/l	Liquid – Liquid Partition Gravimetric method. (5520 B	01 – 1000 mg/l	2
12	Phenolic Compounds	mg/l	4 Amino Antipyrene method without Chloroform Extra	0.1 – 50 mg/l	0.0
13	Fluoride	mg/l	SPADNS method (4500-F-D APHA standard Methods	0.10-40 mg/l	0.47
14	Iron	mg/l	(3111 B APHA Standard methods 21st edi)	0.02-150mg/l	0.010
15	Zinc	mg/l	(3111 B APHA Standard methods 21st edi)	0.005-100mg/l	0.045
16	Hexavalent Chromium	mg/l	APHA (22nd Edition) –3500 – Cr B : -2012 Colorimet	0.1 – 100 mg/l	0.0
17	Copper	mg/l	3111 B APHA Standard methods 21st edi)	0.01-150 mg/l	0.030
18	B.O.D (3 Days 27oC)	mg/l	3 – Day BOD test. (IS 3025 (Part 44) 1993 Reaffirmed	05–50000 mg/l	32

Laboratory Remarks : Freeze By:682-aee_682 Dt.: 23/11/2017

Dr. S. N. Agravat,Lab Head

Field Observation :

Note :

1. * - These parameters are covered under the scope of NABL.
2. The results refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied.
3. Samples will be destroyed after 10 days from the date of issue of test report unless otherwise specified.
4. This report is not to be reproduced wholly or in part or used in any advertising media without the permission of the Board in writing.
5. The Board is not responsible for the authenticity for the samples not collected by the Board's officials.
6. Total liability of our laboratory is limited to the invoiced amount. Any dispute arising out of this report is subject to Gujarat Jurisdiction only.
7. Permissible Limits: as per Schedule VI of EPA Rules, 1986 as ammended by Second and Third ammendment 1993 for Effluents
8. Physicochemical and microbiological parameters, Std.Methods for Water and Waste Water- 22nd Edition by APHA.
9. Bioassay test (for toxicity) -IS:6582:Part-2:2001; Reaffirmed 2007.

Annexure – 6

MPSEZ UTILITIES PVT LTD

Common Effluent Treatment Plant

Date: 30-03-2018

Unit / Time	07:00	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	Total running Hrs
MITAP Pump (I & II) Auto running								√	√																	
Sector 5 Pump			√	√	√	√	√	√	√	√	√	√														
Screen Chamber Mechanism					√																					
Effluent Feed Pump - 1																										
Effluent Feed Pump - 2																										
Effluent Feed Pump - 3						√	√			√	√															
Triton Mixer - 1																										
Triton Mixer - 2																										
Triton Blower - 1			√	√	√	√	√	√	√	√	√	√														
Triton Blower - 2																										
Neutralisation Blower - 1						√	√	√	√	√	√															
Neutralisation Blower - 2																										
Lime Dosing Mixer - 1																										
Lime Dosing Mixer - 2																										
Lime Dosing Pump - 1																										
Lime Dosing Pump - 2																										
Alum Dosing Mixer - 1																										
Alum Dosing Mixer - 2			√	√	√	√	√	√	√	√	√	√														
Alum Dosing pump - 1						√	√			√	√															
Alum Dosing pump - 2																										
Poly Electrolyte Dosing Mixer - 1						√	√	√	√	√	√															
Poly Electrolyte Dosing Mixer - 2																										
Poly Electrolyte Dosing Pump - 1						√	√			√	√															
Poly Electrolyte Dosing Pump - 2																										
Primary Clarifier Mechanism			√	√	√	√	√	√	√	√	√	√														
Primary Sludge Drain Mixer																										
Primary Sludge Drain Pump - 1																										
Primary Sludge Drain Pump - 2																										
Aeration I Blower - 1																										
Aeration I Blower - 2																										
Aeration I Blower - 3																										
Aeration II Blower - 1			√	√	√	√	√																			
Aeration II Blower - 2								√	√	√	√	√														
Aeration II Blower - 3																										
Secondary Clarifier I																										
Secondary Clarifier II																										
Sludge Recirculation Pump - 1																										
Sludge Recirculation Pump - 2																										
Sludge Recirculation Pump - 3																										
Secondary Sludge Drain Mixer																										
Secondary Sludge Drain Pump - 1																										
Secondary Sludge Drain Pump - 2																										
Poly (Dewatering) Dosing Mixer - 1																										
Poly (Dewatering) Dosing Mixer - 2																										
Poly (Dewatering) Dosing Pump - 1																										
Poly (Dewatering) Dosing Pump - 2																										
Poly (Dewatering) Dosing Pump - 3																										
Centrifuge - I																										
Centrifuge - II																										
Sludge Thickner Mechanism																										
Sludge Thickner Drain Mixer																										
Sludge Thickner Drain Pump - 1																										
Sludge Thickner Drain Pump - 2																										
Sludge Thickner Drain Pump - 3																										
Leachate Pump																										
Chlorine Dosing Pump - 1																										
Chlorine Dosing Pump - 2																										
Filter Feed Pump - I																										
Filter Feed Pump - II																										
Filter Feed Pump - III			√	√	√																					
Filter Feed Pump - IV																										

Flow Meter Reading	Initial	Final	Diff. M^3/day
MITAP Line	99920	99981	61
Sector 5 Line	158389	158474	85
Final Outlet (MGF&ACF)	119215	119215	0
Final Outlet (Horticulture)	42219	42412	193
Electrical Meter Reading	Initial	Final	KWH/day
Plant	4893.025293	4895.144224	254.3

Filter Backwash					
Sr. No.	**Unit**	**Start**	**Stop**	**Total time**	
1	MGF-1	9	10	1	
2	ACF-1	10	11	1	
3	MGF-2	-	-	-	
4	ACF-2	-	-	-	

Chemical Consumption				
Chemical	**O/B**	**Recd.**	**C/B**	**Cons (Kg)**
Alum	846		838	8
Lime	-			
Acid - HCL	0			
Poly	95		94.6	0.4
Poly de	-			
Sodium Hypo.	851		833	18

Remarks :

Operator / Supervisor

N.P. Rathod

Plant Incharge

MPSEZ UTILITIES PVT LTD

Common Effluent Treatment Plant

Date:- 30-03-2018

Unit	Time / Parameter	7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
Screen Chamber	pH		8.71	8.72	8.70	8.71	8.70	8.70					
Equalisation Tank I	pH		8.36	8.36	8.36	8.36	8.36	8.36					
Equalisation tank II	pH		8.10	8.10	8.10	8.10	8.10	8.10					
Neutralization Tank	pH		7.80	7.86	7.85	7.81	7.88	7.80					
Aeration tank I	DO		-	-	-	-	-	-					
Aeration tank II	DO		1.05	1.05	1.05	1.05	1.05	1.05					
Guard Pond I	pH		8.18	8.18	8.18	8.18	8.18	8.18					
Guard Pond II	pH		7.60	7.64	7.66	7.61	7.60	7.69					
Chlorination ORP	Res. Cl												

Daily Analysis

	pH	TDS	TSS	COD	BOD	Chloride	MLSS/MLVSS - AT
Unit		mg/ltr.	mg/ltr.	mg/ltr.	mg/ltr.	ppm	ppm
Un Treated water	8.5	1200	93	288	96	686	
Clarified Water							
Treated Water	8.1	1050	25	90	30	612	
Aeration tank							60
Return Sludge							
Dorf Ketal	7.2	1039	112	332	110	812	
Ahlstrom	7.6	1369	233	578	193	879	
Ashapura Garments							
MITAP (Comm. Fac.)	8.4	1544	217	420	140	-	
SKAPS (Unit - I)	8	1625	200	664	221	-	
SKAPS (Unit - II)	8	1654	171	610	203	-	
GSPC (IHI)							
GSPC (ITD)							
GSPC (Vijay)							
GSPC (Toyo Engg.)							

Remarks

N.P. Rathod

Operator/Supervisor **Analyst**

Annexure – 7

Bhachau-Saurashtra Enviro Projects Pvt. Ltd [28203]

(Hazardous Waste Manifest)

Manifest No: 656778
08/02/2018

Copy 6

To be returned by the Operator of the facility to the Occupier after treatment and disposal of hazardous material/waste.

1	**Occupier's Name & Mailing Address:** Registration No: 28203	**10605 - Mpsez Utilities Pvt. Ltd.(Mupl)** PLOT NO:SURVEY NO. 141 (PART),SURVEY NO. 141 (PART),VILL MUNDRA, SURVEY NO. 141 (PART),VILL MUNDRA ,MUNDRA - 370421 DIST : Kutch East, TAL : Mundra , GIDC : Not In Gidc
2	**Transporter's Name & Address :**	Sathi Enterprise, Mundra, kutch Ph: 9998912166
3	**Transporter's Registration No :**	--
4	**Vehicle No & Type :**	GJ12BV4270 - TRUCK
5	**Designated Facility Name & Site Add:**	**Bhachau-Saurashtra Enviro Projects Pvt. Ltd[28203]**
6	**Facility's Reg No with PCB :**	[28203]
7	**Waste Type :**	Incenerable Waste
8	**Waste Description & Codes :**	35.3
9	**Total Quantity :**	6.710 Metric Tonne Containers: 1
10	**Consistency :**	Solid
11	**Waste Description :**	CETP Sludge (Cat No. 35.3) sent to SEPPL, Bhachau for Co-processing.
12	**Occupier's Certificate :**	I hereby declare that the contents of the consignment are fully and accurately decribed above by proper shipping name and are categorised, packed, marked, and labeled, and are in all respects in proper condition for transport by road according to applicable national government regulations.

Name & Stamp of Industry **Date: 08/02/2018** **Signature**

13 **Transporter Acknowledgement of Receipt of Wastes**

Stamp of: **Sathi Enterprise** **Date : 07/02/2018 0:00** **Signature**

14 **Discrepancy Note Space**

15 **Facility Owner or Operator's Certification of Receipt of Hazardous Waste**

RECEIVED 09 FEB 2018

Stamp of: **Bhachau-Saurashtra Enviro Projects Pvt. Ltd[28203]** **Date :** **Signature**

Sr	Quantity	Hazardous Waste Type
1	6.710	35.3 - Chemical sludge from waste water treatment

Annexure – 8

Details of Greenbelt development at APSEZ, Mundra

LOCATION	Total Green Zone Detail				
	Area (In Ha.)	Trees (Nos.)	Palm (Nos.)	Shrubs (SQM)	Lawn (SQM)
SV COLONY	65.34	30051.00	6965.00	51138.00	80069.00
PORT & NON SEZ	77.52	131942.00	18613.00	68166.78	58455.18
SEZ	99.52	227135.00	15924.00	220449.60	27462.03
MITAP	2.48	8168.00	33.00	1670.00	4036.00
WEST PORT	83.20	182118.00	50221.00	24112.00	22854.15
AGRI PARK	7.63	17244.00	1332.00	5400.00	2121.44
SOUTH PORT	14.08	25150.00	3430.00	3882.00	4826.97
Samudra Township	38.72	44872.00	11818.00	19978.07	35071.67
Productive Farming (Vadala Farm)	23.79	27976.00	0.00	0.00	0.00
TOTAL (APSEZL)	**412.27**	**694656.00**	**108336.00**	**394796.45**	**234896.44**
		802992.00			

Annexure – 9

CETP Maint. Work

Oct-17 to March 18



CETP Guard Pond No- 2 cleaning work done



Maintenance work of MITAP Central Kitchen sewage underground line

Maintenance of CETP sludge thickener gear box motor

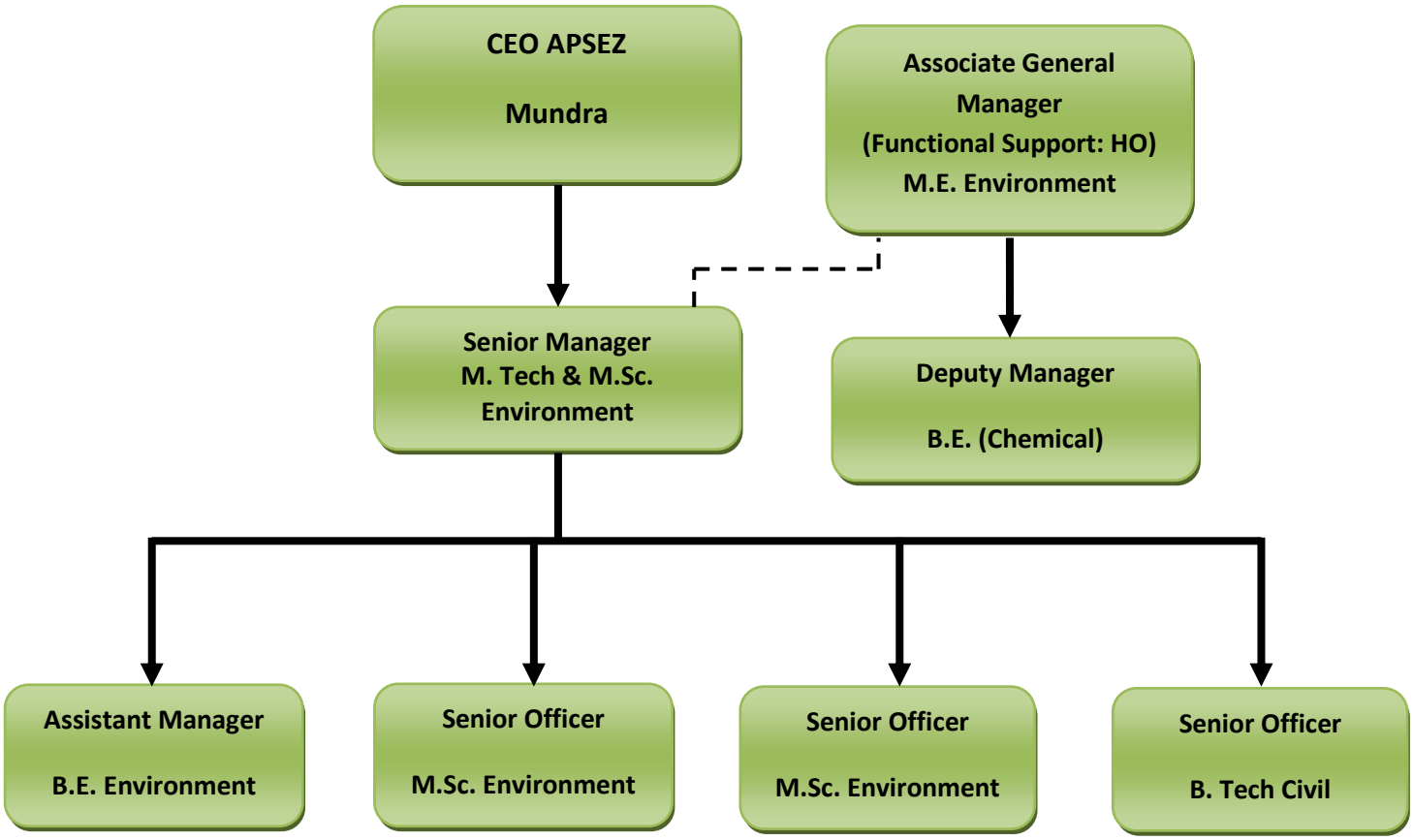
Maintenance of CETP MGF 02 no's HDPE line

CETP MGF outlet line 01 no's valve installed before flow meter to avoid revers flow of treated water.

CETP Equilization tank no – 2 cleaning work done and sludge kept in bags

Annexure – 10

Organogram of Environment Management Cell, APSEZ, Mundra



Annexure – 11

Cost of Environmental Protection Measures

Sr. No.	Activity	Cost incurred (INR in Lakh)			Budgeted Cost (INR in Lakh)
		2014 – 15	2015 – 16	2016 – 17 (Till Date)	2016 – 17
1.	Environmental Study / Audit and Consultancy	29.87	45.45	158.14	146.86
2.	Legal & Statutory Expenses	11.26	3.30	7.39	7.88
3.	Environmental Monitoring Services	23.76	26.80	15.48	32.82
4.	Hazardous Waste Management & Disposal	9.56	34.56	7.50	11.04
5.	Environment Day Celebration	7.01	7.18	6.54	12.00
6.	Treatment and Disposal of Bio-Medical Waste	1.00	1.22	0.69	1.39
7.	Mangrove Plantation	127.97	53.28	30.00	30.00
8.	Mangrove Monitoring & Conservation	36.75	20.36	20.26	40.00
9.	Horticulture Expenses	380.27	434.72	498.00	518.58
10.	O&M of Sewage Treatment Plant and Effluent Treatment Plant (including STP, ETP of Port & SEZ & Common Effluent Treatment Plant)	30.78	18.18	41.43	48.38
11.	Expenditure of Environment Dept. (Apart from above head)	184.91	135.90	112.47	178.01
	Total	**843.14**	**837.73**	**897.90**	**1026.96**

Further year wise breakup of the cost is mentioned in table below:

Year	Env.	Horticulture	Total
2012-2013	150.00	200.00	350.00
2013-2014	250.00	433.75	683.75
2014-2015	462.87	380.27	843.14
2015-2016	346.23	434.72	780.95
2016-2017	399.90	498.00	897.90
Total	**1609.00**	**1946.74**	**3555.74**

Annexure – 12

ANNUAL REPORT 2017-18

Adani Foundation, Mundra

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

Your Hard Work and Team Effort Will Speak Louder Than Voice – This has been the core philosophy enlivened by Adani Act over the years, on its path of sustainable community development. Adani Group also firmly believes that growth is possible only by working together with and for the community, and enriching the environment – ecology.

Year 2017-18 witnessed many major milestones achieved by Adani Foundation, Mundra that brought national fame and big laurels to the organization for its high standard CSR projects aiming at sustainable development of the community at large. The unit was crowned with coveted CII Sustainability Recognition, Gold Award for "Ek Kam Desh K Nam" and the First Position in Gujarat CSR Authority Award in "Sustainable and Impactful" CSR category.

Besides, the last fiscal was also a year of new development initiatives for AF, Mundra. In the first quarter, the unit initiated fodder cultivation and individual fodder development projects in five periphery villages along with rejuvenating of check dams and deepening of major ponds. The initiatives were successfully implemented through community participatory approach in the line of sustainable development.

With the greater objective to make our healthcare services more sustainable and value-added, in the second quarter we introduced token charges from the beneficiaries for community medical facilities such as, MHCU and Rural Clinic. Here also the idea of injecting community ownership feeling worked very well for long-term good health of the people-welfare project.

Even as the third quarter was full of achievements, awards and recognitions with independent evaluation teams visiting the site and highly praising our initiatives and objectives post physical verification of the projects, the last quarter was furthermore meaningful with regard to our key infrastructure projects with a long-term vision of nation development.
Dignity of Labour, a project close to the heart of our promoters and the senior management was carried out very efficiently by AF, Mundra team. Apart from creating basic healthcare and hygiene, education infrastructures for large number of labour families in the project surroundings, a Rest-Shed for Drivers in the SEZ area of the port was constructed by the RID. This is remarked as a stand-alone infrastructure project by AF.
Participatory Ground Water Management, which has been a buzz word in all major civil society and CSR conclaves, seminars and workshops in Kutchh district, was taken up as a sustainable project AF, Mundra. With involvement of expert bodies in the field, the project work has kick-started with the objective of ground water recharge in Kankavati Sandstone Aquifer.

All our above achievements were not possible without the valuable inputs and continued support and guidance of Mr. Mukesh Saxena (Site Head, CSR-Mundra), Mr. Rakshit Shah (Executive Director – APSEZ), PNR Sir (ED-AF) and the plentiful faith and passionate support by Dr. (Mrs.) Priti G Adani, Managing Trustee – Adani Foundation.

Community health

It is said that "health is wealth". 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 Mundra region. Following motto of "Health for All" the Foundation runs Mobile Dispensaries, Rural Clinics, Special Innovative Projects i.e. Health Card to Senior Citizens, "SuPoshan"- Fighting to Mal nourishment in Mundra and support to dialysis patients projects. Adani Foundation also organizes special medical camps during disease outbreak.

Index

Community health Mobile Van and Rural Clinic

The population of Mundra block is spread over various villages. There is no strong transportation facility available to reach for getting basic medical care. The patients have to spend minimum 200-500 INR for their common ailments like-cough, cold, fever, diarrhea etc.
The medical expenses and zero earning per day add surplus to their hardships.
To help the community in their medical needs, the service of mobile medical van has been started by the Adani Foundation in Mundra block. In big villages, rural dispensaries have been started considering their population and area.
The Main objective of Mobile Van is to reduce travel time, hardships and expenses. one mobile health care unit cover 25 villages and 07 fishermen settlements at Mundra. Another unit cover 8 villages at Bitta. Around 90 types of general and 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. Total OPD for MHCU – Bitta is 6400 for year 2017-18.
The Adani Foundation operates Rural Dispensaries in 8 villages of Mundra block, 03 villages of Anjar block and 2 clinics at SEZ area. Mobile dispensary and rural clinics provide health services with token charge of 10/- rupees per patient daily by a doctor and a volunteer.

Project name	17-Apr	17-May	17-Jun	17-Jul	17-Aug	17-Sep	17-Oct	17-Nov	17-Dec	18-Jan	18-Feb	18-Mar	Total
Mobile van - Mundra	2758	2460	2157	1751	2024	1921	1642	2291	1932	2352	2213	1890	25391
Rural clinic	2999	2811	3034	2275	2390	2490	1929	2026	2127	2363	2097	1825	28366
Total	5757	5271	5191	4026	4414	4411	3571	4317	4059	4715	4310	3715	53757

Community health Vadil Swasthya Yojana

When people become old, they start living a life of remoteness and isolation. The needs of old people are less looked after. Therefore, the Adani Foundation has started the Adani Health Programme for the aged to look after their health. To address the health care issues related to ageing, AF launched a 3 years long pilot project – 'Adani Vadil Swasthya Yojna' on 20th February 2011 at Mundra and further extended the same for the next three years i.e. up to 2017. Under this Programme, the individuals aged 60 years and above are benefitted. Health Cards are issued to them with the purpose of providing adequate and timely treatment. The families consisting of aged ones with a yearly income of Rs. 2 lacs or more get a Blue Card. The Blue Card holders can avail diagnosis facility and treatment at a subsidized rate in the Adani hospitals, Mundra. The families with a yearly income of less than Rs. 2 lacs are issued a Green Card. Green Card holder aged people get treatment for illness in Adani hospitals, Mundra with an aid up to the limit of Rs. 50,000/- within a period of 3 years.

During the year 2017-18, total 9950 transactions were done by 8518 card holders of 66 villages of Mundra Taluka. They received cash less medical services under this project. In Green Card category, 6139 aged people got treated for various illness & diseases at Adani hospitals, Mundra with an aid up to a limit of Rs. 50,000/- within the period of 3 years.

The 763 Blue Card Holders can avail diagnosis facility and treatment at a subsidized rate in the Adani hospitals, Mundra. Scheme is continue since seven years 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 they are referred to GAIMS, Bhuj for further treatment.

Dialysis Project

Drinking water of Mundra contains high Fluoride (amount of salt). Hence, the proportion of patients with urinary stone and kidney failure is more . A project for patients who need dialysis is thus initiated so that the poor patients can receive the treatment at Adani hospitals. The main objective of providing dialysis treatment is to help the extremely needy patients to live a healthy life.

Total 5 Patients were being supported for regular dialysis (twice in a week) during this year.

Awareness Sessions

Awareness sessions at various schools conducted to sensitize the future generations and teachers regarding importance of personal hygiene and cleanliness. We had included health issues related with personal hygiene such as worms, skin diseases, various infections etc. to promote awareness among the people.

During this year more than 1500 students are benefitted by awareness sessions

Awareness Session

Sr.no.	Month	Place	Villages Name
1	May-17	Sadipani Vidhaylay school - pratappar	Pratapar
2	Jun-17	Sukhpar vas Pra school - Maleria	Mundra
3	Jul-17	Seth R.D. High School Mundra- Swain Flu	Mundra
4	Jul-17	Adani Vidhya mandir-Bhadreshwar- Swain Flu	Bhadreshwar
5	Dec-17	Primry School Moti Bhujpur	Moti Bhujpur
6	Dec-17	Vanki- Primary School - Gaynec	Vanki
7	Dec-17	Dhrub- Primary School - Gaynec	Dhrub
8	Jan-18	Nari Samalan - Rotaray Club - Wonam Health	Mundra
9	Feb-18	Adani Hospital - Suposhan Sagini Meeting- Gaynec	Mundra
10	Feb-18	Samaghogha Kumar Sala	Sama Ghogha
11	Feb-18	Dhrub- High School - Gaynec	Dhrub
12	Feb-18	Baroi Aganvadi - Gaynec	Baroi
13	Feb-18	Patri - Aganvadi - Gaynec	Patri
14	Feb-18	Dakhan Faliyu Moti Bhujpur- Gaynec	Moti Bhujpur

Adani Vadil Swasthya Yojana : We Seek the blessings!!

This octogenarian will always greet you with an innocent smile no matter how she is physically and mentally. Age-related ailments like hypertension and osteoarthritis couldn't take away her inner happiness and the desire to live young.

Javerben Dayaram Rajgor of Pratappar village in Mundra locality is one important case study for the Senior Citizen Project of Adani Foundation. The elderly lady would teach you how life should be lived and how physical deformities can't be spoilsport for your healthy living in the true sense.

Adani Foundation feels it a great privilege to stand by such jovial and energetic senior citizens in their journey of old-age life and aims to extend all possible medical and emotional care to retain the invaluable smile on their faces. In return to our dedicated services for the elderly ones, we seek their blessings which would take our mission of selfless service to the society and attain sustainable development to greater heights.

As if luck has turned cruel to her, Bhagirathi Ben (72) has a heart-throbbing story of never-ending struggle and misery. Married at 19, she was widowed at just 32 with the challenge of raising her son and making a livelihood for the two. Toiling hard in local factories and working as housemaid for long years, she had harrowing times discharging her responsibility as a true parent. In this long journey of life, countless times she had to starve, but never did she allow a situation when her son would remain empty stomach. Moreover, she educated her son to become a graduate and serve a company in Mumbai.

As she is left behind in the village, again the loneliness and miseries of life haunt this elderly widow. Since she became a part of the senior citizen healthcare project of Adani Foundation since six years, taking care of her health and giving her the emotional support like a member of the family, has become an honor for the organization. Standing by her in the forward journey of life we strive to bring a sigh of relief and smile in the face of Bhagirathi Ben

Community health Suposhan

Malnutrition amongst Children, Adolescent girls and Women in India is an alarming phenomenon. (In India: 48 % or 54 million children under-five years were stunted. India accounted for 33 %of stunted children in the world. As per Global Nutrition Report released recently, Children below five years- 38.7 % Stunted and 15.1%are wasted. 69.5% children6-59 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.

- **During this year, anthropometry study done for 7202 children. Total 86 children became free of malnutrition due to efforts under "Suposhan" Project. Additionally, 1557 FGD were conducted during this year.**
- **Total 8770 haemoglobin screenings of RPA woman and adolescent girls was carried out. Which helps in controlling anaemia in women and indirectly malnutrition.**

Worth Results of "SuPoshan"

Standing on her lush green kitchen garden in Zarpara village, Manek Gadhavi smiles herself thinking about her past conversations with a representative of Adani Foundation who was the source behind his motivation for the profitable vegetable farming. When the AF official had suggested her to experiment vegetable farming in some portion of 12-acre land, Manek bai had instantly rejected the idea and laughed at him thinking that he was talking something meaningless and unnecessary.

After repeated motivation and AF support of a 15x15 feet kitchen garden kit containing water tank, drip line, vegetable seed and fertilizer, the villager had ventured into vegetable farming last year. Continued support of AF remained in the form of extending technical support, knowledge sharing on pest control and possible market linkages for the farm produces.

Manek Gadhavi is quite happy that her kitchen garden could cater to all the vegetable and green leaf requirements for her large-size joint family round-the-year.

This is the story of "Veerbai"- 13 years adolescent girl living in vadi Vistar in Zarpara village. She was in the grip of an invisible enemy until she got lucky because her school teacher flagged her condition with help of Hemoglobin check up by Adani Foundation. With the objective to get most feasible solution, We have motivated adolescent girls and their mothers to develop kitchen garden at the back of their house. Total 22 Kitchen garden developed in Zarpara and Navinal villages. Kitchen garden has brought worth results for "Suposhan" in Adolescent girls. All the vegetables grown at the garden are consumed by their own house

SaHil : Our Ray of Hope!!"

Sahil- a ten month boy, the other name of boundless excitement, vigor and happiness, always smiling and bubbling with enthusiasm

Four months back, the picture was all different. Four months back, when Sahil was six months old, he was extremely thin and weak. He weighed only 4 kg and his M.A.U.C. was 8.5 cm. He appeared to be an extremely malnourished child.

Suposhan- a project run by the Adani foundation for children, adolescent girls, pregnant women and mothers feeding their new born. To spread this project to the innermost and remote areas, there is a team of well trained, dedicated members and they are known as Sangini workers.

One such Sangini worker – Sahemaben works on this activity in Baroi village. She met Sahil and Fatmaben during one health checkup camp for children. While talking to her in detail, Sahemaben came to know that Sahil had not been able to get mother's milk in the initial days. Mother's milk is the most powerful and must food for any child and its absence may cause malnutrition to children.

Later on, Sahemaben went to meet her at her place. There she observed and very mildly drew her attention towards the importance of cleanliness of the household and the utensils used for cooking. She also asked her about the food intake of Sahil. She informed her about 'Balbhog' (ready to eat therapeutic food RUTF by Amul). Convincing Fatemaben about her child's health was a herculean task but after a series of logical arguments, Sahemaben could convince her.

Sahil gradually started consuming the baby food (balbhog) and could show a noticeable improvement in his health.

Along with the improvement in Sahil's health, the household witnessed many positive changes like cleanliness and Fatemaben herself stopped consuming Tobacco.

The household is now surrounded with cleanliness and the small plants of Neem, chilly, pomegranate, lemon etc. embellish the household.

And Sahil is now hale and hearty. He weighs 6 kg and 700 grams. The vibrant smile of health and happiness on his face is the reward of Sahemaben' s dedicated and sincere work.

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 and To support efforts in reducing IMR and MMR

Community health Suposhan

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

•Total Number Anganwadi in the selected area

•Information on Sub-centers/ 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 & 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

Community Engagement and other Activities -2017-18

Sr.No	Activity	Progress
1	No of Sangini	39
2	Total Village Cover	59
3	Total Anghanvadi Cover	99
4	Total PRA	10
5	SAM to MAM Monitoring Progress	45
6	MAM to Normal Monitoring Progress	86
7	SAM/MAM Child Camp	3
8	Focus Group Discussion	1557
9	Family Based Counselling	287
10	Village level Events	680
11	Formation of women's groups	274
12	Formation of adolescent's Groups	246
13	No of SAM children referred to CMTC	18
14	No of SAM children provided with RUTF	86
15	Total HB screening - RPA	3751
16	Total HB screening - Adolescent girls	5020
17	Women in RPA provided with IFA Tablets	246
18	Adolescent girls provided with IFA Tablets	351
19	Anthromatry Study (0 to 5)	7202
20	Sangini Meeting	24
21	Sangini Training	12
22	SuPoshan Workshop	1

Holistic Intervention to tackle malnutrition!!"

When we talk about Kutch, we get two pictures - Kutch, before the earthquake and after the earthquake. After the earthquake, Kutch has witnessed green revolution along with industrial revolution. The crops which were earlier not possible to be cultivated here are now grown successfully because of the modern agricultural equipment and the methods like drip irrigation. This is one of the reasons why many labourers from outside Kutch come here to work and earn.

One such family is that of Deepika ben and Dinesh Bhai who have come here from Halol to earn their daily bread. They have settled themselves in Nani Bhujpur. The family consists of the couple and their five daughters. The couple in expectation of a baby boy gave birth to five daughters, thanks to the rigid and orthodox mentality of Indians! Probably it would take years to eradicate this mentality.

The family which could barely manage hand to mouth was to welcome one more member in the family. The situation was really crucial for Deepika ben as after delivering five children, her body had lost its ability to bear anymore. She started remaining unwell. Who would take care of this lady in the village which was far from her own village? But it is truly said that every dark night is followed by a bright morn. Deepika ben too got such a warm ray of hope in form of a Sangini worker.

Sangini workers are those workers who are the active harbingers of the good work of Adani Foundation and the Project Suposhan. The Project Suposhan aims at fighting the malnutrition prevalent in many states across India. These female workers are known as 'Sangini Bahen'. One such is Sangini Deval Ben. Deval Ben was once busy surveying the condition of the expecting mothers and how would Deepika Ben's condition stay out of her attention? She met her, talked to her and made her aware about her condition. She brought it to her notice that it would be dangerous for her to have a child in such a frail physical condition. It may be fatal for both- the baby and the mother. She motivated her to attend meetings of the Suposhan Project.

She took her to Bhujpur PHC and got her tests done. To her great shock, she came to know that Deepikaben's hemoglobin level was just 4.2% which was really fatal for a pregnant woman. The doctor prescribed certain injections of Iron and bottles of blood for her body. Deval Ben stood by her in all her testing times.

As a result of Deval ben's efforts, Deepika ben's HB level went up to 10.5%. At the end of the ninth month, she gave birth to a completely normal and healthy baby girl weighing three kg.

Thus, Deval Ben saved not only Deepika Ben's life but also the lives of the whole family.

Community health "Suposhan" - Bitta

A child's entire life is determined in large measures by the food given to him/her during his/her first five years because childhood is the period of rapid growth and development. Nutrition is one of the most influencing factors in this period.

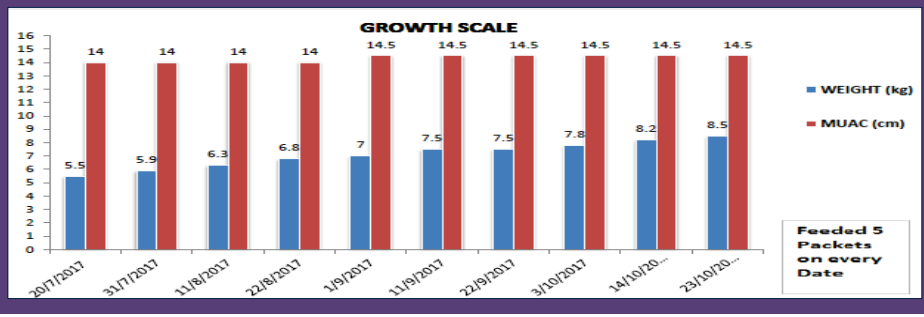
Project Suposhan is initiated at Bitta also with the objectives to **Curb malnutrition amongst Children and Adolescent girls and Women in our CSR villages**

- Total 18 Adolescent and 23 RPA groups are already formed. HB Testing completed for 766 RPA and 612 girls. **During this year, anthropometry study done for 400 children. Total 6 children became free of malnutrition due to efforts under "Suposhan" Project.**

Priyanshi's mother told the Sangini worker that Priyanshi is a pampered child and gets what she wanted. Thus she got into the habit of eating packet food and would eat two packet per day. Due to these packets, she consumed less of homemade nutritious food. She was taken to the doctor at the Adani Foundation and was given the packets of baby Amul food according to her weight.

Every week the Sangini worker would go to measure her height and weight. The parents also started paying proper attention and giving her the baby Amul food regularly. Desired improvement could be noticed within the first week. For three months, every week she was given the baby Amul food and her improvement was constantly monitored. She also started consuming the homemade food. A very constant improvement could be seen in her weight. She was given as many as 50 packets and it was noticed that she had gained 3 kg. She is now 8.5 kg. Her height is now 75 cm. Every month, the Sangini worker goes to visit her and monitor her progress.

Priyanshi's parents thank Adani Foundation and tell the villagers about the good work done by the team of Suposhan worker



My Daughter is glowing now !!

The village Nani Dhufi is situated in Abdasa taluka on Bhuj- Naliya highway. The village is 20 kilometers from Naliya and 67 kilometer from Bhuj. It is inhabited by many different communities like Darbar, Muslims, Koli, Dalits etc. who all are involved in various professions like driving, agriculture, cattle breeding etc. The population of the village is 800 but the level of education is very low. The reasons for the same may be poor financial conditions and some wrong beliefs. When the Adani Foundation started its SuPoshan Project in this village, a survey was conducted in the primary school and the Anganwadi. Later on, the Sangini surveyed the health condition of 50 children of the village in the age group of 0 to 5 years. Their height, weight and the other health criteria were assessed and based on this assessment, children were divided in the categories 'malnourished', 'less malnourished' and 'healthy'. The workers of Adani Foundation working in the SuPoshan Project had previously informed about the importance of nutritious food, its importance and the diseases caused when such food is not consumed. The people of the village were made aware about the harms caused by eating fast food or packet food readily available in shops. They got to know that the reason behind the malnutrition of their children is lack of nutritious food.

Working of the Project:

During the survey, it came to the notice of the workers that Priyanshi Rajeshbhai Yadav was one such malnourished child. She was 1 year, 7 months old but her weight was 5.5 kg. , her height was 75 cm and her M.U.A.C. was 14 cm. As Priyanshi was an underweight child, the worker talked to her parents, informed them about malnourishment and also the Suposhan project being run by the Adani Foundation.

Community health : Health Camps

Various health camps are organized at regular intervals to meet the specific requirements of the community. We organize special health camps during the season of disease outbreak. We also organize medical camps to provide primary medical care during various public events. We organized total 21 such health camps during this year.

General Health Camp

Sr.no.	Month	Villages Name	Total Patients
1	Apr-17	Baroi	192
2	May-17	Mundra	139
3	May-17	Mundra	141
4	Jun-17	Nana Kapaya	51
5	Jun-17	Mundra	48
6	Jun-17	Luni	55
7	Aug-17	Navinal	71
8	Aug-17	Baroi	32
9	Aug-17	Luni	85
10	Aug-17	Mundra	90
11	Aug-17	Dhrub	34
12	Sep-17	Nana Kapaya	1200
13	Sep-17	Nana Kapaya	110
14	Sep-17	Zarpara	4000
15	Sep-17	Bhadreshwar	410
16	Oct-17	Tharad	155
17	Oct-17	Luni	519
18	Dec-17	Mundra	118
19	Feb-18	Mundra	119
20	Mar-18	Luni	59
21	Mar-18	Bharapar	104
Total...			7732

Community Health

It is not a coincidence that the first four letters of health is "Heal". Instilling health pursuing activities and ensuring availability of quality health care services to the remote areas is the objective of this sector. Committed to "Health for All" the Foundation runs Mobile Health Care Units, Rural Clinics, Special Innovative Projects i.e. Senior Citizens priority card for GKGH, School health and Variety of Health Related Camps.

JEDLE JO JATAN (WOMAN HEALTH)

Adani Foundation organized one district level workshop for creating awareness for breast cancer and survival cancer and preventive measures. Guidance given by five gynecologists doctors. Total 530 women from various villages of Kutch District took active part in this workshop. They also visited GKGH hospital and got knowledge about mammography and pep test.

Gujarat Adani Institute of Medical Sciences

Gujarat Adani Institute of Medical Science is the first Medical College of Kutch region. It started in partnership with Adani Group and Government of Gujrat 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 affiliate 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 heart of Bhuj city on a large plot of 27 acres.

- Adani Foundation Team has initiated coordination with GKGH hospital since last year and established a reception area for the smooth patient coordination and preparation for the social networking Programme.
- **Adani Foundation organized General Health Camps and Specialty Camps in various interior villages of Kutch in coordination with GKGH which created magical impact and benefitted 3483patients**. Adani Foundation Bhuj Health team has also organized more than ten awareness camps and village level meetings at 293 villages of Kutch regarding services of GKGH.
- **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 625 dead bodies privileged till now to different locations in Kutch**.
- It is not always possible to predict the medical expenses. Moreover, those who are economically not so sound, become indebted for lifetime in case of certain illnesses. Therefore, 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.
- In current year **we have Supported 610 People from all over district - Kutch**

અદાણી જી કે જનરલ હોસ્પિટલમાંઅદાણી ફાઉન્ડેશનના આર્થિક સહયોથી૧૧૦ વર્ષના માજી પર સફળતા પુર્વક સાથળના ભાગના હાડકાનો ગોળો બદલવાનું ઓપરેશન હાથ ધરાયું.

શું તમે કયારેય વિચાર્યુ છે કે ૧૧૦ વર્ષની વ્યકિતના હાડકાના ઓપરેશન કરાયું હોય અને તે પણ સફળતા પુર્વક સંભવત સામાન્ય માણસ માટે અચરજ પમાડે તેમ અને મેડિકલમાં પણ અઘરૂ કહી શકાય તેવુ ઓપરેશન તાજેતરમાં અદાણી સ્થિર જી.કે જનરલ હોસ્પિટલમાં મુળ ગાગોદર હાલે મોટી હમીપર કુભારામ આશ્રમના ૧૧૦ વર્ષના લાછીબેન મહાદેવભાઈ પ્રજાપતિ પર સફળતા પુર્વક હાથ ધરવામાં આવ્યું હતુ આ આખી ઘટનાની વિગત કાઈક અમવી છે. પોતાનું કામ જાતે કરવું એવા સિધ્ધાતવાદી ૧૧૦ વર્ષના લાછીબેન થોડાક મહિનાઅગાઉદિવસ અસાનક લપસી પડયા હતા જેને કારણે તેમને થાપાના ભાગમાં ગંભીર ઈજાઓ થઈ હતી સખ્ત દુખાવાના કારણે તેમનાથી સામાન્ય હલન ચલન થઈ શકતી ન હતી એટલે તેમના દિકરા કરશન મહાદેવ પ્રજાપતિ ત્યાના સ્થાનિક દવાખાનામાં લઈ ગયા પરંતુ આખો કેસ તથા દર્દીની ઉમર જોતા તે હોસ્પિટલના તેમજ શહેરના અન્ય ડોકટરોએ તેમની આગવી સારવાર આપવા ઈન્કાર કરી દીધો જો કે અગાઉના સારા અનુંભવો બાદ તેમના દિકરા વધુ સમય ના બગાડતા માજીને હોસ્પિટલથી સીધા ભુજ સ્થિત અદાણી જી.કે જનરલ હોસ્પિટલ સલાહ સારવાર માટે હાડકા વિભાગમાં લઈ આવ્યા.

આ આખા કેસની વાત કરતા હાડકા વિભાગના ડોકટર પારસ મોટવાની ડોકટર સંગીન ભુડીયા એ જણાવ્યું હતું કે આ આખો કેસ બહુ અઘરો હતો અલ્બત ૧૧૦ વર્ષની ઉમર હોય અને વળી તેમના પર હાડકાનું ઓપરેશન હાથ ધરવાનું હોય એટલે બહુ સાવચેતી રાખવી પડે અસહય પીડા સહન કરતા માજીને થાપાના ભાગમાં ફેકચર થયું હતુ જેના કારણે તેઓ સામાન્ય હલન ચલન પણ કરી કકાતા ન હતા સામાન્ય હલન ચલન વખતે તેમને ખુબ પીડા થતી હતી અલ્બત ઉમરના હીસાબથી તેમના પર ઓપરેશન હાથ ધરવું જોખમી હતું જો કે આ છતાએ હોસ્પિટલના હાડકા વિભાગનાતબિબો ડો.પારસ મોટવાની ડો.સંગીન ભુડીયા.ડો.ગૌરવ કાવરીયા ડો.નવીન ગાગલ ડો.સત્યજીત ભારડ ડો.આનંદ ડિરાણી એ અદાણી ફાઉન્ડેશનના આર્થિક સહયોગથી **થાપાનો ગોળો બદલવાનુંઆખુ** ઓપરેશન ખુબ સફળતા પુર્વક હાથ ધર્યું.

આ આખા કેસમા નોધ પાત્ર બાબત તો એ હતી કે ઓપરેશન દરમ્યાન તેમને ન તો લોહી ચડાવવું પડયું કે ન તો તેમને આઈ.સી.યુ મા રાખવા પડયા દર્દી ત્રીજા દિવસથી જ પથારીમાં હલન ચલન કરી શકયા અને વધુમાં ઉમેરતા તેમના દિકરા એ જણાવ્યું હતુ કે મોટા ભાગના ડોકટરોએ ના જ પાડી હતી જો કે અમે લોકો અદાણી ફાઉન્ડેશનના કિશોર ભાઈ ચાવડા સલાહ સુચનથી સમય સુચકતા વાપરીને ભુજ સ્થિર હોસ્પિટલમા આવી ગયા હતા હને મારી માતાજી પેલાની જેમજ સરળતાથી ચાલી શકે છે. ભુજ અદાણી જી.કે જનરલ હોસ્પિટલનો આભાર વ્યકત કરીએ છીએ.

Community health : Bhuj

૮૦૦ ગ્રામ વજન ધરાવતા નવજાત શિશુનેઅદાણી જી.કે.જનરલ હોસ્પિટલ માં મોતના મુખેથી બચાવાયું.

સામાન્ય રીતે બાળકનુ જન્મ થતા તેનુ વજન ૨.૫ થી ૩ કી.ગ્રા હોવુ જોઈએ તેવા બાળકને શારીરિક રીતે સ્વસ્થ માનવા માં આવે છે. ભુજ ની અદાણી જી.કે.જનરલ હોસ્પીટલ મા માત્ર ૮૦૦ ગ્રામ વજન ધરાવતા બાળકનુ બાળ રોગના નિષ્ણાંત ડો. હરદાસ ચાવડા અને એન.આઈ.સી.યુ વિભાગના ઈનચાર્જ ડો. હસમુખ ચૌહાણ અને સ્ટાફ ખુબ જ કાળજી પુર્વક સારવાર આપવામા આવી હતી જેથી બાળક ગંભીર બીમારીઓથી બહાર આવી ગયું

આજથી ૨૭ દિવસ પહેલા મિરઝાપરના નર્સ બહેન જયશ્રીબેન ચાવડા દ્વારાનોરમલ પ્રસુતિ કરવામા આવી હતી આ સમય દરમિયાનજન્મેલ નવજાત બેબી નુ વજન માત્ર ૮૦૦ ગ્રામ હોતા નવજાત શિશુનો જીવજોખમમા હતુ આથી ગભરાયેલામાતા–પિતા ગીતાબેન અરવિંદ કોલી નવજાત શિશુની સારવાર માટેભુજ ની અદાણી જી.કે.જનરલ હોસ્પીટલ મા લઈ આવ્યાજયા તેમને લાબા સમય સુધી વેન્ટીલેટર મશીન પર રાખવામાં આવ્યુ હતુ ત્યારબાદ તેમની તબિયતમાં સુધારો થતા તેમને સી પેપ પર રાખવામાં આવ્યુ ધીરે ધીરે તેમની તબિયતમાં સુધારો થતા લાગ્યો આ બાળકની જીદગી ડોકટર અને નર્સિંગ સ્ટાફના અથાગ પ્રયત્નથી નવજાત શિશુનો જીવ બચાવામા આવ્યો.

૧૪/૦૪/૧૭ ના હોસ્પિટલમા આવેલા નવજાત શિશુને ૧૦/૦૫/૧૭ ના રોજ રજા આપવામા આવી ત્યારેનવજાત શિશુનુ વજન ૮૦૦ ગ્રામ થી વધીને ૧કિલો ને ૩૫ ગ્રામ થયુ મહત્વની બાબતતો એ ગણવામાં આવે છે કે આટલા લાબા સમય સુધી તેમના માતા પિતાએ ધીરજ રાખી તેમને ડોકટર અને સ્ટાફ ની સારવાર ઉપર વિશ્વાસ હતો આ હોસ્પિટલના મેડીકલ ડારેકટર ડો. જ્ઞાનેશ્વર રાવ સાહેબે જણાવ્યું હતુ આટલા દિવસ સારી સારવાર કરાવી અને કરી એ બદલ બાળકના વાલીઓ અને હોસ્પિટલના સ્ટાફ અભિનંદને પાત્ર ગણાવ્યા હતા અને આ ઉપરાત અદાણી જી.કે જનરલ હોસ્પિટલમાં વધારે સારી સારવાર મળી રહેશે એવુ જણાવ્યુ હતું. અદાણી ફાઉન્ડેશનના સહયોગથી ડો. હરદાસ ચાવડા, ડો. હસમુખ ચૌહાણ અન કિશોર ચાવડા ના હસ્તે શુભેચ્છારૂપે નવજાત શિશુને બેબી હેલ્થ કીટ આપવામાં આવી હતી.

Fisherman : Education Initiatives

Education is a strong building block in building a stronger and healthier community. Adani Foundation, through its surveys and assessments with fishermen community came to know that only education can make change in the status of fishermen community so we have started education intervention work from pre primary to college level under various project which are as below

Fisherman Vidya deep Yojana

Adani foundation has been working restless to strengthen to pre-primary level education as "BALWADI" and to achieve this goal foundation has constructed four balwadi center at different fishermen helmet for 2.5 to 5 years group children. This Programme focuses on the development of basic age-appropriate learning concepts, discipline, regularity, awareness about health, hygiene, cleanliness and also provides nutritious food. Total beneficiaries of Vidya deep Yojana are 138 of four fisherman vasahat

Fisherman Vidya Sahay Yojana

Adani foundation implement various program to improve higher education level of fishermen children through various support.
Scholarship Support (80%) to 50 students studying in 10th standard in SMJ High School, Luni.
Book Support : Total 57 students benefitted by book support for standard 9th to 12th.
Ramotsav organized at five fisher folk settlement to motivate young children for developing sportsman spirit

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.

Dares to dream of a bright future

The otherwise hopeless eyes of Isak Bhai are today filled with great hopes of prosperity and wellness. Sitting near his wretched house in the Luni fisher folk hamlet, this poor fisherman dares to dream of a bright future for his family surrounding his minor son Samir .

A school-goer of Balwadi run by Adani Foundation, Samir has undergone a varied transformation which has brought in the belief in Isak Bhai that "Future Good" is waiting to happen with his family. The small boy who couldn't even utter his name properly, today speaks clear English lines with much confidence.

Thanks to the Balwadi teaching process, Samir knows lot about basic hygiene, public speaking, table manners and what all. The change in Samir has highly impressed the parents and showed them a ray of hope for better tomorrow.

A Story of Transformation of Life

A woman is called a divinity of power and lame at the same time. She is called a deity of power because there are many conflicts in life and she fights back to any circumstances and survives. And she is called lame because though society trumpets about the rights and respects for the women but still she suffers and society, may be unintentionally, do not care about her problems.

Even today in remote areas she is stopped from going to school as soon as she becomes literate enough to read and write. Unless this thinking will not change we have no rights to worship the deity of power. It is not responsibility of government only to change the mind-set. Contribution from each one of us can only bring the change and will get good results.

This is a story of such inimitable change. The story of Muslim daughter Husena! Husena is a brilliant girl who was studying in class 7th in Bavadi Vasahat in Bhadreshwar Village in Adani Vidya Mandir Bhadreshwar. Suddenly she stopped going school. Teachers visited her home and tried a lot to convince her parents but they did not agree to give permission. Next day Ishwar Bhai reached to her house. Her father Isak Bhai opposed him in the beginning but after some time his anger calm down with ending the conversation Isak Bhai just spoke ,"if Husena want to study she can go to school".

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 4526 man–days. In addition to this, employment worth of 29526 man-days has been provided till date. The Foundation has also supported Pagadiya fishermen as painting labourers by providing them with employment and job in various field.

Alternate Livelihood for Fisherman

Fishing is only source to earn livelihood. There is uncertainty in fishing business so Adani foundation support them to provide alternate livelihood like contract work and painting work in Adani. due to this intervention we awarded painting job in port as well as colonies and SEZ. In addition, After successful completion of technical training by Adani skill development center, provided job to 19 fishermen and contract work to 28 fishermen.

Fisherman : Health Initiatives

A person of perfect health does not shirk his duties. He can work properly and leaves nothing undone As a student, he shines in his examinations though the important mobile dispensary has been started by Adani foundation at different vasahat since 2009 to provide medical facilities and primary treatment of diseases , this year its reached to patients At different vasahat.

1. Due lack of health awareness in fishermen community there are some dominant diseases found hence apart dispensary facility we also organized health awareness camps, women meeting at frequent intervals,.
2. Medical Financial Support –Adani Foundation has extended financial assistance to more than 1519 financially challenged patients from the Fisher Folk Community in case of medical urgency during this year.
3. Health Card for Senior Citizen Project – This is one of the major and prominent and the most innovative project of the Adani Foundation. Under this scheme Health Cards were given to the to Senior Poverty Stricken Citizens to provide them financial support to combat with their health related needs. The project for the senior citizens is popularly known as Vadil Swasthya Yojana and till date 219 senior citizens from fisher folk community are enrolled in the scheme. They are getting cash less medical services upto Rs. 30,000 for three years. Besides this, follow up with the card holders is a regular activity. It has been observed that card holders treat the card as an important document. Most of them keep these cards in their wallets with other important documents and cards.

Machhimar Kausalya Vardhan Yojana

Skill building is a powerful tool to empower individuals and improve their social acceptance hence skill development program has been started by Adani foundation as per fishermen youth need assessment to create employability by ASDC at Mundra and from this year we have started Dori work and sewing training program for fisherwomen at their vasahat to make them self reliant.

Year	2017-18
IT Basic Computer	20
Tailoring Training	20
RTG Crane Operator	2
Dori Work Training	60
Total	102

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 (1,18000 Litre/Day) liters of water was supplied to 983 households from different settlements on a daily basis

Potable Water to Fisher Folk at vasahat-2017-18

Sr.	Vasahat	family	Requirement Per day	Remarks
1	Luni Bandar	110	15000	9th Month
2	Bavdi Bandar	88	15000	9th Month
3	Kutdi Bandar	140	15000	9th Month
4	Virabandar	80	10000	9th Month
5	Randh Bandar	250	23000	9th Month
6	Ghavarvaro Banadar	60	10000	9th Month
7	Junabandar	165	30000	9th Month
8	Zarapra Vasahat	35		As per requirement
9	Chhachh vadi Zarapra	55		
	Total	983	118000	

Fisherman Cricket League

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 and Anjar Taluka The Adani Premiere League by Adani Foundation started on 13.07.2016 at Shantivan Colony Cricket Ground. Total 58 Teams of 15 villages and 696 Fisherman participated. Teams from Villages Zarpara, Navinal, Shekhadiya, Modhava, Salaya, Mundra, Tragadi, Luni, Sanghad, Gundiyali, Bhadreshwar ,Vandi (Tuna),Layja and kathada participated with great enthusiasm. we took 786Rs registration fees from all participated teams.

Cage Culture

Fishing occupation and Port business coexists. When we started port operations, condition of Fisherfolk community was deprived. After inception of CSR arm of Adani Group – Adani Foundation in 1996, strategy was planned based on priorities for socio-economic development of Fisher folk community. The fishers of the Shekhadiya fishing village (Juna Bandar) are one of the stakeholders of the Adani Port Ltd., Mundra.

Cage culture mean The production method for raising aquatic species using enclosures made of wire or netting around rigid frames which are placed in water.

Technology change is an important instrument in the continuous process of socio-economic development toward this path Adani foundation has started cage culture project with two beneficiary with consultancy of CMFRI for technical guide line.in this culture system 619 tiny lobster were stocked in to two 6x6 meter square cage. the growth and health of lobster were being monitored after seven month culture period 125 kg lobster and 80 kg native fish were harvested which create 1.10 lakh Rs income over fishermen. we organized grand harvesting inauguration and cage culture awareness program in presence of Mrs. Emleda Joseph (principal scientist of CMFRI).and 6 fishermen were facilitated by CMFRI training certificate.

It was reported that about big numbers of fisher folks are willing to change their occupation; therefore, Cage culture aimed to provide alternative employment and encouraging them to shift from full-time to part-time fishing.

Journey for career building and shaping a golden future !!

A journey for career building and shaping a golden future in the game of cricket has begun for Fakir Ahmed. An extraordinary talent with astonishing batting and bowling skills, the 21-year old from Luni fishermen community has taken his road to stardom at the right time and age.

Due to the sincere efforts of Adani Foundation, Fakir has been enrolled into the prestigious Yusuf Bamaniya Academy, Rajkot for able mentoring and high standards of coaching. Like few other maestros emerging from the Academy to play for India in the national team, Fakir may become a shining star of Indian cricket tomorrow, bringing laurels to his community and the nation as a whole.

Born to economically poor parents of the fishing community in Kathda village of Mandvi Taluka, the cricket talent of Fakir and his passion for game was well noticed by his father even when the boy was at the tender of 9 years only. With his limited ability and resources, the father would encourage Fakir to take part in village and district level tournaments and appreciate his series of wins and victories.

Till November 2017, Fakir was just another face in the crowd when he had come to Mundra to play among 696 youths of his fishermen community representing 58 different teams for a mega cricket tournament organised by Adani Foundation. Throughout the tournament his consistent performance and unique style of playing was vividly noticed by the audience as well as the organisers.

However, Fakir's one-man show and struggle to save his team from a miserable defeat in the final match was worth viewing. In his sincere efforts for victory he was shining like a lone star in the dark sky. Heart beats fastened and the curiosity kept on rising with Fakir intelligently facing each ball of the deciding match with utmost calmness. With his awesome playing, Fakir literally made all the audience and the organisers his fans and became the star attraction of the entire tournament.

Subsequently, with the intervention and counselling of AF, Fakir has got into the Yusuf Bamani Academy where he will have One year of rigorous training in the game. Realising the fact very well that Fakir was an active member of the family and the residential cricket coaching would cease that running income, AF has facilitated a stipend of Rs. 10,000/- a month to the budding cricketer which would prevent his family from financial crunch.

Poly Culture

Polyculture is the practice of culturing more than one species of aquatic organisms in the same unit area (marine, pond and rivers). The principle of Polyculture is that production of more organisms in the particular unit area having different food habits in one unit.

The main objectives for promotion of alternative livelihood to raise the economic standard of fisher folk, second is to reduce the pressure on fishing effort.AF has started poly culture project with consultancy of GUIDE In this system we stocked 6000 fingerlings fishes of 3gm weight in six different cages. There was 80% survival with 100 to 150 gm each weight after 5 month culture period

The activities involved i.e. capacity building, expert inputs, machineries, seeds of fish and fish food. We have identified feasible sites for the Polyculture and implement the activities with participation of fisher folk committees who has taken whole responsibilities. These Polyculture will add value to the fishing occupation of the local fisher folk community.

Thanks AF for Guiding me to Success !!

It's a complete paradigm shift for Altaf Jakub Manjaliya. From a small fisherman to a salaried employee in Airlines company, the college-educated fisher youth has made a noteworthy journey in life.

Altaf Bhai of Luni village was compelled to get into the traditional fishing profession of the family after employment seemed a distance dream for his 12th pass qualification. Frustration had loomed large and he had no hope of ever getting into a salaried profession as had dreamt during studies.

However, Adani Foundation lend him a helping hand and made the dream come true. With necessary guidance and coaching by Adani Foundation, Altaf had appeared an interview in Odisha Airlines against a vacancy in Mundra location. Luck shined, he got selected for the position, and today earns a monthly salary of Rs 8500/- leading a contended life.

Expressing his heartfelt gratitude to Adani Foundation, Altaf reacts, "Now I have got a status in the society and could help my family financially. Today I realized the value of education and sincerely thank Adani Foundation for guiding me to success. "

SLD Agriculture initiatives

Adani Foundation puts efforts in Mundra block for consistent betterment in livelihood sector. The organization has carried out remarkable activities in the agricultural and animal husbandry sectors.

Drive for Technology to use in agriculture

We have initiated Programme for Awareness of Farmers in collaboration with KVK. The outreach is approximate 105 farmers of 5 villages

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.

This year Main Focused Activities

- Biogas Support to 10 Nos of farmers (AF, Beneficiaries and Govt support)
- Participatory Fodder Development Programme Individual 105 Farmer 45 Acer 5 Village
- Participatory Fodder Development Programme Group wise 1 Village
- Organic Farming 7 Farmers Wheat and Bajara
- Soil Health cards analysis : 27 individual farmers
- Organic farming Related 15 Demonstration for "Jivamrut" at Zarpara
- Marketing Linkages Work : Dates

SLD Fodder Cultivation NB21

The organization provides fodder during the time of scarcity and the last 3 months of summer every year. During this period, fodder is regularly sent to every village with the help of the local people. This has given stability to the families who earn their livelihood through animal husbandry. In order to meet the demand of fodder, the Adani Foundation purchases it from the regional farmers. This gives them fair rates in return.

This year we have given 60,000 man fodder worth Rs. 170.00 Lacs approximately.

Additionally, to bring sustainable approach in fodder cultivation – two strategies has been work out.

Participatory approach

1. Fodder cultivation in common land provided by Gram Panchayat

Kutch is famous for animal husbandry business specially for banni buffaloes.as Kutch is a dry and scanty rainfall region so scarcity of fodder is always remain major issue in Kutch and Mundra region. Though to solve this challenge and make village fodder sustainable Adani foundation has begin from FGD approach in different village to run this program in participatory manner. Mr. kalyanji from bareja village had taken lead to start sorghum fodder development in 25 acre land the security and fodder cutting responsibility had done by villagers and after the one cycle of crop total 90 ton fodder was harvested even after low rainfall . The villagers are ready to go with 100 acre land in next year for fodder development.

2. Individual Farmer fodder cultivation NB21

We have promoted cultivation of green fodder in the operational four villages (Siracha, Zarpara under public private partnership mode. Our endeavor is also to improve the production of milk in this area. **Green fodder has its own nutritional values as it helps in the growth of cattle and increases the quality and quantity of milk.** We are promoting green fodder cultivation with the help of Krishi Vigyan Kendra. Beneficiaries : 105 farmers and quantity of 3 Lac Kgs will be cultivated. Upto next year we are planning to increase our outreach upto 200 farmers by participatory approach. AF will provide Cuttings of NB21 and KVK will provide their expertise.

Sustainability is not only about making projects self-reliant, but also about adding value to existing projects or, activities for its long-term viability.

The story of Kamalaben Sheda's encounter with Adani Foundation is something of this sort. The village woman was running a small dairy farm with 11 cows and earned from selling milk in the local market. And, whatever she earned from selling milk, about 40 percent of the amount she had to spent on procuring cattle feed which squeezed the income majorly.

AF in coordination with Krishi Vigyan Kendra has been doing demonstration farming of NB-21 fodder with an idea of minimizing the cost of cattle feed for milk producers in Kutchh district. The linkage of AF helped Kamalaben immensely and her adoption of NB-21 farming technique drastically reduced the fodder expenses. As a result, she has today higher profit margin and a better scope of her business sustainability. She demonstrated the technique in 0.75 acres of land and the harvesting of first year stood above 8000 kgs. While doing a considerable cost-saving on her cattle feed procurement, the association of Kamilaben also made AF proud as she was the first lady farmer to adopt NB-21 technique and succeed.

Kutchh is dried and arid region and there is always shortage of fodder in Kutchh as well as in Mundra region. Abdul Latif Suleman is from Dhrub village however he is mainly depended on dates farming but due to expanding dairy Udyog he is also engaging in animal husbandry business.

Whenever we met him, He always discussed and worry about the fodder as main part of animal husbandry business and requested to find out the technology to solve of fodder scarcity ,so we organize exposure tour for NB20 as well as meetings with parijnya and KVK to make them familiar about NB20.

After all this Mr. Abdul Bhai inspired and has started NB 20 farming in his 0.5 acre land with AF financial and technical support. The total production was 4000kg after first cutting and consequently it will be harvested as its multi crop nature.

Abdul Bhai says that He has total 7 animal and now he don't need to purchase fodder. its also nutritive fodder for cattle which make milk more nutritive hence ultimately save his money and increase his income. he also add that NB21 grows up to 12 to 13 feet and as its multi crop effect farmer can reach their fodder requirement even in small area land hence they can be use more land in other crop.

SLD Bio gas

Biogas is a clean, non-polluting and low cost fuel. It contains about 55 to 75 percent methane, which is inflammable. Bio gas can be produced from cattle dung, human waste and other organic matter by a process called "Anaerobic digestion" which takes place in a biogas plant. The digested effluent, which comes out of the plant, is enriched manure.

The Multiple benefits of the biogas have changed many lives in rural areas. During the last year 11 plants have been constructed and process for 10 more plants is going on. We are providing support addition to Government support to the beneficiary. (Under bio-gas scheme of government, the total cost is Rs.33, 500 out of which Rs.15, 000 will be granted by the government and out of the pending amount of Rs.18, 500 sum of Rs.10, 000 will be contributed by the Adani Foundation. The beneficiary will have to pay only Rs. 8, 500). Beneficiary women use the time, saved from cooking and fuelwood collection, to take up an additional economic activities.

Self Dependency brings confidence !!

A lady Narmadaben 38 year old from Shekhadiya village. She has started her journey though joining in Sonal Krupa Mandal in which they save Rs.100 per month.

As a part of women empowerment we always remain in touch with all SHG Groups even provide various training for saving, Account and entrepreneurship.

Narmadaben has business oriented mind and she always think about to start business. Though as her strong desire she started to washing powder preparation Gruh Udyog with Saheli Gruh Udyog support. Now a day she and their group Members earns minimum 2000Rs per month as optional livelihood with AF market linkage support.

She says: I get status in my society and I am able to support my Family and I realize that women can do anything. This all come true due to AF support and motivational. she become inspirable for other women .

A lady Dhanbai Ravji chuiya 28 year old from Baroi village. Her husband has been working in private company.

Her empowering journey is started from joining in Adhar Saheli Mandal which is our initiative for women empowerment. Each women saved Rs.100 per month in this saving group than We had organized training program to create entrepreneurship and motivation among them though as a result of it she started khakhara Udyog on small scale with support of Saheli Gruh Udyog (Supported by Adani Foundation) for training and marketing meanwhile we also organized some training as per their need like account and Rasoi, Papad at VRTI and other center. After all they earn well to meet their day end but Dhanbai has burning desire to start her own business hence she has started to sell dresses, cutlery items and sewing work in their rental shop at Mundra. now she earn more than 4000Rs/month. Additionally, She appeared for HSC boar examination and could able to clear 12th standard with support and motivation of Adani Foundation team.

She says: I get status in my society and support my husband to earn this all happened due to AF strong effort

SLD – Women empowerment

Encouraging women, to take control of their lives and building their confidence whether they are single, married or a widow; is one of the initiatives under the sustainable livelihood development program.

- Considering this situation, We have started our training programme with two major women's group of Villages near Adani Power and Adani Ports. Both the groups of women (90 women in total) successfully completed their training for preparing washing powder, phenyl, liquid for cleaning utensils and hand wash etc.
- We have selected 6 women groups having 15 members each, as per their ability for different work i.e. accounting, banking, leadership, marketing, administration etc.
- Before two years we have started shop "Saheli Mahila Gruh Udyog" at Shantivan Colony and started coordinating with various companies for orders of perishable as well as non perishable items.
- **"Saheli Mahila Gruh Udyog "has annual turn over of Rs.8.00Lacs**.

SLD – Beti Vadhavo

Beti Vadhavo Programme was organized in 32 Villages in the presence of Village Sarpanch and other leaders. 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)

Messages of Women's Day !!

International Women's Day has been celebrated by the Adani Foundation, Mundra with Integrated Child Development Scheme. On this momentous occasion the supervisors of ICDS were felicitated and honoured for their noble work including the five women entrepreneurs who were supported by the Adani Foundation, Mundra for income generation. The Head of Sarswatam trust was also honoured for his/er remarkable contribution in the upliftment of women. The Staff of AF, Mundra was also facilitated by the ICDS for their remarkable work in field of women empowerment. The SDM, Mamalatdar and the TDO remained present on the occasion. Total 250 women attended the programme followed with a lunch which was prepared by Saheli Mahila Gruh Udyog.

Coordination with Government for Widow and Senior Citizen Scheme

- We are 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 to two persons for the handicapped in coordination with Bhuj Samaj Suraksha Khata for regular visit and follow up.
- **Last year, 71 widows and 47 Senior citizens and 733 handicapped - total 853 members got benefitted** from the approval of pension certificate. The financial benefit of the senior citizen Yojana is Rs. 400 per month and the widow scheme is of Rs. 900 per month.

No	Linkages Detail	Beneficiaries	Source
1	Handicap medical certificate	180	Under medical camp and G.k -Bhuj
2	Handicap Buss pass and I card	196	Samaj surxa khata at Bhuj
3	Sadhan sahay munent	47	By Jilla samaj surxa khatu at : Bhuj
4	Physiotherapy – students	30	Coordination with B.R.C and Adani hospital
5	I.G sadhan sahay	51	Sewing machine, hand cart, computer kit 1
	I.G sadhan sahay and widow	48	By adani foundation
6	Sadhan sahay	38	By adani foundation- tricycle, wheelchair..
7	Handicap pension	3	Sant surdas Yojana – samaj suraxa - Bhuj
8	Widows pension	71	Mamlatdar Office Mundra
9	Snr Citizens pension	47	Mamlatdar Office Mundra
10	Centeral govat shadhan shay	142	With Taluka health programs
	Total benefits	853	

Rural Infrastructure Development

Global Problem-Local Solution

Water Conservation Work : Impact Study

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 15 ponds) were built leading to a significant increase in water table and higher returns to the farmers.

Many of these check dams are now in need of repair. Problems such as silting, damaged gates or broken structures have to be attended to for optimal water harvesting.

Adani Foundation has studied impact of Check Dam Strengthening carried out in two villages before two years period.

1. Pond Deepening work at Vadala
2. Pond Deepening work at Mota Bhadiya

In Both the villages post survey has been carried out and impact on surrounding agriculture is measured.

Pond Deepening work : Vadala

Sans irrigation facilities and the drastic fall in water level in dug wells as well as bore wells in the non-monsoon seasons, several big farmers of Vadala village in Mundra locality were deprived of a second crop, thereby keeping their large patches of cultivable land barren post the Ravi crop harvest. Apart from ceasing good income possibility, the water-scarcity scenario had frustrated the farmers who remained helpless and hopeless of getting any solution to the crisis.

This was a situation during 2014-15, when Vadala village had irrigation facility for hardly 30 percent of the agricultural land and the rest patches of land were depending on water availability from dug wells and bore wells surrounding the age-old Radhan Peer Pond located on the northern side of the village. But, the poor storage level accompanied by seepage at many points of the pond resulted negligible ground water recharge in the locality.

The then Sarpanch of Vadala gram panchayat, Manjibhai Paradhi, who requested Adani Foundation, Mundra for a permanent solution to the issue, informed that during monsoon season not more than **3 mcft of water could be stored in the pond**, which used to vanish and totally wasted within days due to the prominent seepages. The village with a population of 2871 had around 718 households and majority of them were earning livelihood from cultivation of bajra and castor and animal husbandry. Hence, the poor ground water recharge and faulty pond storage had impacted heavily on the economic condition of the villagers.

Before

Village Name	:Vadala
Village Population	: 2871
Village HH	: 718
Pond Storage	: 3 Mcft
Study area	: 15 acre – 6 farmers
Crop	: Bajra
	: Castor

After

Pond Storage	: 3.25 Mcft
Study area	: 15 acre – 6 farmers
Total earning	: 2.25 Lacs
Crop	: Bajra
	: Castor
	: Cotton
	: Wheat

Depends on irrigation facility two times summer and winter

Impact

Annual increase of Rs.15,000 per Acre after Pond Deepening

After carrying out a preliminary survey of the area and identification of the issues, the RID team of AF, Mundra had taken up a project to deepen the pond through silt excavation and close the seepages by erecting RCC protection wall. With a rich experience of working on water recharge in Mundra locality for over a decade benefitting large number of farmers, AF had undertaken the project at Vadala in the year 2015-16 at an expenditure of Rs 8 lakh, and handed over the same to village panchayat for community ownership.

On the very year of project completion itself, good results spoke about the quality of work. While the pond storage level had gone up to 3.25 mcft, the total check in seepage caused water to remain in store for months together allowing the natural recharging of ground water. Again to the excitement of the surrounding farmers, all the dug wells and bore wells remained water-filled for several months facilitating a winter crop to six major farmers in an approximate farming land of 15 acres.

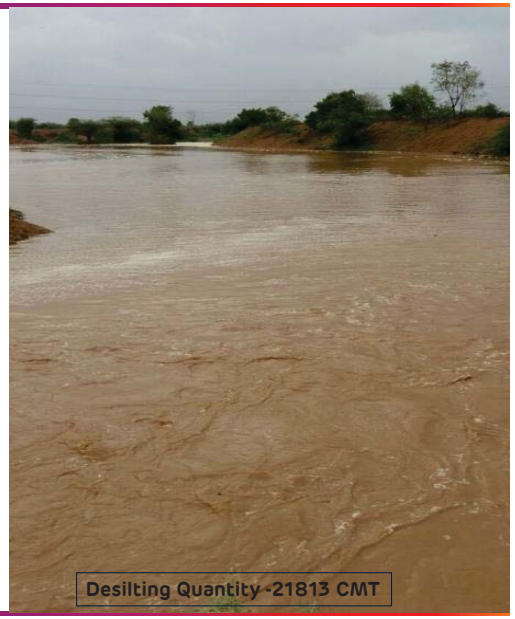
Manjibhai, who is the ex-sarpanch today says, "per acre a farmer makes an additional earning of Rs 15,000/- which comes to a total rise in earning of Rs 2.25 lakh for 15 acres of land belonging to the six major farmers." Apart from improving the socio-economic status of the agricultural farmers, the RID initiative of AF has also benefited large number of other villagers practising animal husbandry due to round-the-year availability of ground water in the locality, added further a local farmer Parbatbhai Vasubhai.

Pond Deepening work : Mota Bhadiya

Sigh of relief has come to the large number farmers and residents of Mota Bhadia village in Mundra taluka who were struggling with perennial woes of water crisis. Adani Foundation acted as a change-agent to facilitate better storage of rain water, further recharge of ground water and rise in water table of the locality.

Even though a check dam existed in the village, yet the storage of water during monsoon was very negligible due to faulty upstream level and excess deposition of silt on the water storage area. After doing a field survey, Adani Foundation had taken up the project of excavation of silt on the upstream of the check dam about two years back. While in 2016-17 financial year around 8535 CMT of sand was excavated, another about 13278 CMT sand was excavated during 2017-18, which deepened the storage space increasing its capacity substantially.

And the result, water recharging takes place automatically improving the ground water condition and maintain a healthy water table. Above 100 acres of agricultural land today give better yield due to water availability and the quality of drinking water from nearly 12 tube wells sunk in the area for public use has improved considerably. The efforts have resulted in ending up a long-standing worry to the farmers.



Demonstration of Conversion of Non used bore well into Artificial Recharge Bore well

Program: Participatory Groundwater Management on Kankavati Sandstone Aquifer

Project Area: Adani Foundation CSR Villages of Mundra Taluka

Coastal region of Kutchh has potential aquifer known as Kankavati sandstone speeded over 04 coastal talukas. The aquifer is backbone for entire region and groundwater extracted for this aquifer is being used for various purposes like drinking, domestic use, irrigation and others. The groundwater resource is under threat of water table depletion and quality deterioration. Therefore, it is required to manage the resource for long term sustainability with approach of Participatory Groundwater Management (PGWM). PGWM program is being implemented on Kankavati sandstone aquifer by Arid Communities and Technologies (ACT) with multi partners. With the support of Adani Foundation, the program is being implemented in 10 villages of Mundra Taluka jointly by ACT, Geo Science Services (GSS) and PARAB water management.

It is aim to maintain balance between demand and supply based on groundwater resource characteristics. For supply side management, various techniques designed for groundwater recharge augmentation. As a part of this, demonstration has been designed to convert non used bore well into artificial recharge bore well. This demonstration activity has been implemented at farm level with 06 farmers of Jharpara village.

To set demonstration, series of discussion have been made with farmers, village Sarpanch and PGWM committee. At primary state, 06 farmers have been selected having different farmland situations. Each farm has one none use bore well and another in use for irrigation. By diverting rainwater and recharging aquifer through non used bore well, groundwater condition will get improve and that will increase and secure crop production and successively farmer's economy

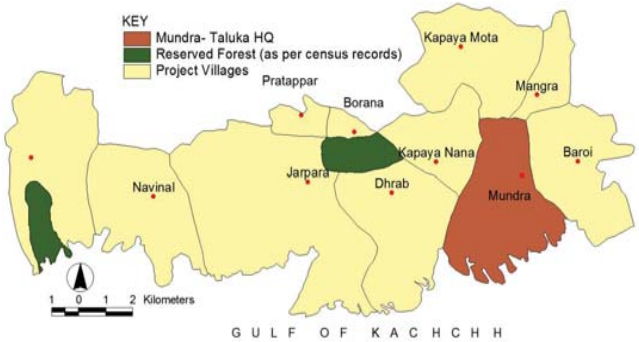
A very positive and active farmer Muljibhai says-'in Jharpara village, there are 2 to 3 bore wells in each farm. If we convert one bore well in recharge bore well, groundwater condition will improve and lush green past of the village can be seen again. This is direct benefit to farmer with low expenditure. I am sure that each farmer will adopt this technology with your guidance and support.'

Participatory Ground Water Management

In Region Kutchh, in many cases, groundwater or surface water may be unavailable for drinking water. The objective of the project was to reduce the salinity ingress in and around the coastal regions of Mundra, Kutchh and mitigate the ill-effects of this manmade problem to improve the livelihoods of the rural people. The Project will help to get water table high, also it will help in agricultural activities.

MAIN AIM OF THE PROJECT : Participatory groundwater management of Kankavati sandstone aquifer to create water secure future. Due to problem of Salinity ingress, we received many issues regarding water scarcity during our village meetings, Public hearings and GRI related meetings.

Expected outcome : If we will start this initiative the issue can be sorted out upto some extent. This is not a corporate requirement but environment compliances – Eco friendly project for the business. This Project will also help agricultural activities also



- Aquifer level Institution working on resource management
- Multi Stakeholder Engagement for sharing and learning of groundwater management at cluster / block level
- Pilots to demonstrate Participatory Ground Water Management Framework for Use

Farmer Karsanbhai says- 'Through diversion of rainwater in this non use bore well, groundwater condition will improve in bore well which is in use for irrigation. Overall groundwater quality is poor but through this activity I can secure my one season crop with good production'

Recharge plan and estimates have been prepared for each farm. Depth of bore well ranges from 380 to 450 feet. While groundwater table stands at 280 feet. Catchment area has been calculated for each bore well to estimate rainwater. Catchment area may be upstream farm land, own farm land or small tributary. Rainwater will get accumulated in low laying area and then diverted through underground pipeline to the bore well. Recharge chamber has been constructed around bore well by arranging filter media to prevent blockage. Through filter chamber, rain water will directly replenish groundwater resource. In this demonstration, farmers have contributed through labor work required at farm level.

Estimated rainwater for each bore well is more than irrigation requirement for one season crop in respective farm. Through this demonstration, balance could be set between recharge and discharge. Such demonstration can be replicate in entire region and that will improve groundwater condition in term of salinity dilution, water quality improvement and increase in water storage.

Basic details of the demonstration activity

Sr. No.	Farmer's Name	Location	Farm area	Depth of Nonuse bore well Feet	Catchment Area	Received Rainfall Cum
1	Karsanbhai Lakhamanbhai Gagiya	N 22° 50' 20.73" E 69° 36' 36.47"	4	380	10 acre	17,600
2	Muljibhi Visrambhai Gelva	N 22° 50' 25.3" E 69° 36' 31.1"	8	450	8 acre	14,080
3	Lakhamanbhai Manshibhai Gagiya	N 22° 50' 13.2" E 69° 36' 42.7"	4	400	8 acre	14,080
4	Joshi Ashariyabhai Ranshibhai	N 22° 50' 37.3" E 69° 36' 35.74"	5	450	4 sqkm	17,60,000
5	Kalyanbhai Karsanbhai Sheda	N 22° 51' 4.6" E 69° 37' 3.2"	18	415	24 acre	42,240
6	Bharubhai Dada Lakhani	N 22° 50' 20.73" E 69° 36' 36.47"	7	460	4 sqkm	17,60,000


Filter chamber around bore well


Mini filter chamber for clay settlement


Site visit by PGWM Team


Excavation for diversion canal


Pipe laying in diversion canal

Google layout of artificial recharge bore well demonstration activity

Workshop : Participatory Ground Water Management

Every stage of implementation is initiated by advocacy workshop at block level to share experiences of various partners including farmers, village committees, CSR foundations, researchers, Bhujal Jankars and local experts. One such workshop has been organized on 22 March 2018 by Adani Foundation, (AF) Arid Communities and Technologies, (ACT) Geo Sciences Services (GSS) and Parab Water Management Pvt ltd. at Mundra. The aim of workshop is to inform about PGWM project planned jointly by AF and ACT and to create awareness among various stakeholders about PGWM activities on other part of kankavati Sandstone area by different CSR and community interventions. One of the objectives of the workshop is to sensitize stakeholders about groundwater use by users and educate about kankavati sandstone issues and potential. Considering aim and objectives workshop sessions were planned for sharing of learning and characteristics of Kankavati sandstone by experts of ACT and GSS., experiences sharing by CSR foundations, AF, CGPL and IL&FS, regarding their interventions on PGWM and activities and impact of different activities. In this workshop special focus has given to role of Media on raising awareness and how they can be helpful developing sensitization towards water management with special focus on groundwater management within and outside the project areas.

The workshop has also planned to develop platform for discussions, suggestions by farmers, village committees and Bhujal jankars and to discuss what should be done at village level, cluster level and aquifer levels for developing protocols for demand side and supply management.

The workshop has been attended by 107 participants from 29 villages including 10 village partners of AF project areas, three CSR foundations, KVK, five organizations, four main media i.e. Kachchh Mitra, Divya Bhaskar, Maa News, all India radio and immanent citizens of Mundra town.

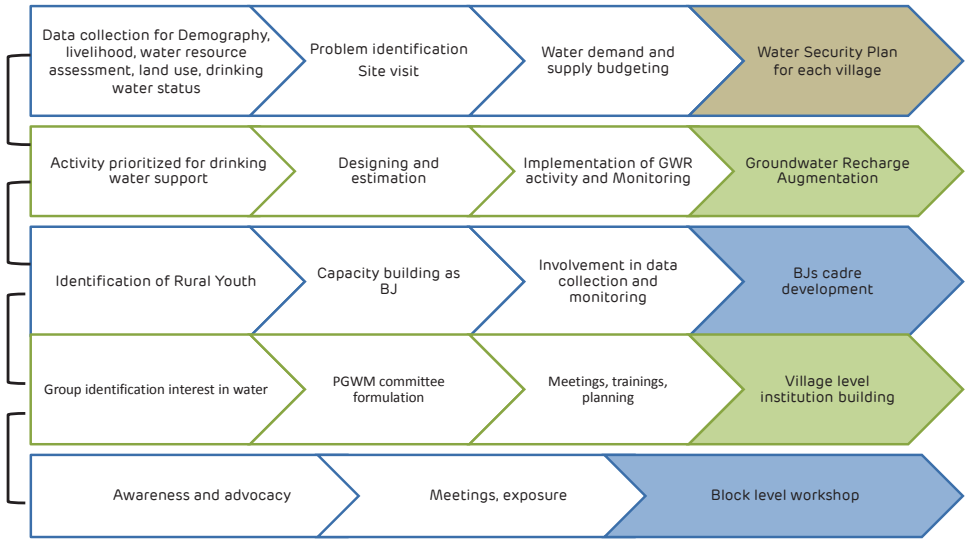
The workshop way forward

09 village water security plan have given to respective villages

- Village community people have highly appreciated Adani foundations attempts on PGWM and promise to cooperate for PGWM activities and agreed to develop protocols based on PGWM principle.
- KVK should be involved in monitoring of PGWM activities carried out in villages and document changes in agriculture and water conservations due to change in water quality and quality

Participatory Ground Water Management

PGWM Activity ongoing....



Water Conservation Projects: Scarcity of potable water in Kutch has led to acute problems in its coastal region. In Mundra, people mostly use ground water for drinking. Unfortunately this water has a high level of TDS which causes bone and kidney diseases. To alleviate this situation, the Adani Foundation has taken initiatives for water conservation including construction of check dams and pond deepening

This year Adani foundation carried out pond deepening in Bhujpur and Mota Bhadiya Village and Canal Repairing work across the river at Zarpara village. Also repaired check dam at kandagara to rejuvenate the same.

Education Related Projects: Education is the most powerful weapon which you can use to change the world." To improve the quality of education and to improve school environment, the Adani Foundation supports for infrastructure development on request basis. Adani Foundation carries out the construction of assembly hall, classrooms, computer labs, space for midday meal, playground, school walls, washrooms etc. as per the needs and preferences of the school. It is aimed at providing facilities in education sector to the present generation.

We have constructed Prayer Shed at Govt Primary School at Ragha and Bhadreshwar. Also grill work done in Kumar Shala Zarpara.

Rural Infrastructure Development

Drinking Water Related Projects: Potable drinking water is basic requirement of any village. For better health and hygiene of village drinking water should be clean and pure. So, this project will create positive and effective social impact. **Adani Foundation has installed RO Plant at Samaghogha and Siracha village. Also RO installation at Vallabh Vidyalaya at Mundra**

RID – Dignity of Workforce

Present condition of migrated labour community of Adani port, power and Wilmar is really matter of concern. They are living in pathetic condition. It is true that we cannot achieve our goal of development unless and until we support to bring up the lives of this community. Basic needs of this labour force need to be addressed. In labour Vasahats they were not getting even the facility of pure drinking water, proper living condition, sanitation or in one go we can say "NO" proper living conditions.

With the objective to build up trust and transparency in labour community, union Labours and Smooth business operations, **Adani foundation has constructed and provided basic sanitation facility (18 Nos), Balvadi, medical center and retiring places at labour settlements near Adani Wilmar Ltd.** The provided facilities may lead them to live happy, healthy, secure and hygienic conditions and will definitely make them happy and will boost the efficiency and commitment of the people.

- Health Related Projects: The proposed work was related to our major core area – health. Adani Foundation has constructed toilet block at Sadau Primary school. Also two toilets constructed at Tuna Village of Anjar Taluka
- Other Projects: Some Projects we took up to fulfill the demands of communities. We have completed road repair work at Shekhadia, fodder shed at Tuna, water pipeline work at Wandi, garden development at kandagara etc,
- Other Projects: Some Projects we took up to fulfill the demands of communities. We have completed road repair work at Shekhadia, fodder shed at Tuna, water pipeline work at Wandi, garden development at kandagara etc,

A step towards Swachh Bharat : School Sanitation

Adani Foundation has brought smiles to large number of girl students of Sadau primary school in Mundra locality, who were otherwise unhappy with the poor toilet and sanitation facilities available in their premises. The construction of three new urinals, two toilet blocks and one wash basin exclusively for girls has largely changed the scenario and created much impact on the hygiene conditions as well as psychology of the female students. Even the parents and guardians are a relaxed lot with the improved facility and privacy for toilet use to their children.

Earlier, there were only two toilets each for boys and girls which was insufficient considering the large number of about 243 girl students. Besides, the boys and girls toilets were adjoined, thereby causing psychological impact on the users.

Citing lack of fund, the school authorities had requested Adani Foundation to support the construction of exclusive toilet facilities for girls. As per prescribed designed of government, the toilets, urinals and wash basin for girl students were constructed.

Apart from playing a key role in Swachh Bharat Abhiyan, this RID project of Adani Foundation also contributed towards Girl Child Education.

RID – Dignity of Drivers

It is very difficult to achieve a healthy lifestyle for truck drivers. It's no secret that truck drivers are strapped to their seats for long periods of time. Poor sleep and busy life style leads to many diseases i.e. blood pressure, diabetic, obesity and this leads to heart attack sometimes. With reference to the above stated issue Adani Foundation decided to provide resting shed with water and sanitation facility for truckers near SEZ parking areas. We can reach upto truckers and help them to be comfortable after long tiring journey, Which will useful to create trust among vendors and union Labours.

With objective to build up trust and transparency in Truckers community and Smooth business operations. In long term it will help us in trust building for the group and necessary for the business relations with stakeholders.

Size of shed is 24.10 Mtr x 12.40 Mtr and total 50 platform is constructed for resting. Other facilities are drinking water, sanitation, LCD for recreation purpose and canteen facility nearby

Education

Education is a strong building block in building a stronger and healthier community. Adani Foundation, through its surveys and assessments with fishermen community came to know that only education can make change in the status of fishermen community so we have started education intervention work from pre primary to college level under various project which are as below

Summary of School Visits at Shanti Vihar from December-2010 to March-2018

Financial Year	No Of Schools / Institutes	No Of Visitors
FY 2010-11 (December 2010 to March 2011)	99	4145
FY 2011-12	318	22652
FY 2012-13	364	27704
FY 2013-14	375	36744
FY 2014-15	423	28310
FY 2015-16	343	27926
FY 2016-17	327	23804
FY 2017-18	487	32024
Total	**2736**	**203309**

Udaan
get inspired

Project UDAAN

Udaan is a learning based initiative focused on the youth coming from various schools across the state of Gujarat. Under this project, a two day free of cost exposure tour is organized wherein students are given a chance to visit the Adani Port, Adani Power & Adani Willmar facilities to get an insight upon the large scale business activity carried out at each of them.

Specifically students from high school (9th to 11th grade) are encouraged to take part in the exposure tours. It is believed that students of this age would be able to absorb the learning in a better way which could help them shape their lives by aspiring for big. The spread of the schools extends to various districts in Gujarat. There is a specific effort to reach out to schools in the rural areas. Other than schools even colleges where the exposure visit seems to be helping the curriculum are encouraged.

Till Date Total 2736 Schools and 203309 students have been part of project UDAAN

Adani Vidya Mandir

About School :-

Adani Vidya mandir (AVM-B), a GSEB affiliated school is the first of its kind initiative, under the support of Adani Foundation.

Mission :- To fulfill the quality base education for economically poor family & Fisherman Students, so that no children can drop primary education.

School Provides "cost-free" education to meritorious students coming from challenging economic background, who have priceless treasures but have been under achievers due to situation.

The school was established to realize the dreams of those parents who owing to financial constraints are not in a position to provide quality education.

School also provides them free uniform, textbooks, Notebooks, Breakfast, Lunch and refreshments.

Students strength Year wise (2013-18)

Class	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
1st	53	40	45	41	38	40
2nd	26	68	46	41	39	37
3rd	27	40	73	45	37	39
4th	-	39	48	70	44	36
5th	-	-	37	46	58	39
6th	-	-	37	36	46	58
7th	-	-	34	37	35	44
8th	-	-	39	34	36	34
9th	-	-	-	38	38	30
10th	-	-	-	-	23	27
Total	106	187	359	387	394	384

Key Activities:

1. Science Fair – Block level
2. Drawing Competition under the P.C.R.A. National level competition
3. Assembly on every Saturday.
4. International Yoga Day Celebration
5. Guru Purnima celebration
6. 71st Independence Day Celebration
7. Teacher's day Celebration
8. Children's Day Celebration
9. Educational Tour for each standard
10. Festival Celebration
11. Awareness Street Play organized at various villages

ADANI VIDYA MANDIR, BHADRESHWAR								
ANALYZED GRADE OF THE STUDENTS								
CLASS	A1 90% ABOVE	A 80%-89	B 65%-79%	C 50%-64%	D 33%-49%	E	ABSENT	TOTAL
1	7	13	9	11	0	0	0	40
2	2	10	14	8	3	0	0	37
3	3	11	7	9	9	0	0	39
4	1	13	10	3	9	0	0	36
5	0	6	14	13	7	0	1	41
6A	0	1	8	12	8	0	0	29
6B	0	2	4	17	6	0	0	29
7	0	1	8	17	19	0	0	45
8	0	1	8	12	12	0	1	34
9	0	0	3	22	0	5	0	30
10	0	0	4	12	0	11	0	27
TOTAL	13	58	89	136	73	16	2	387

Shala Praveshotsav

To motivated children for schooling by providing the welcome kit / education kit and to create conducive children for **" joyful learning"** Environment for children for Learning during shala Praveshotsav Govt. has wide spread network of 111 Govt. primary schools in total 62 villages of Mundra Taluka, 3 villages of in Anjar taluka and two villages of Mandvi Taluka every year on an average 2550 to 2700 children gets enrolled in 1st std in Taluka For 2017-2018 total 2500 children got enrolled & Adani foundation provided the "Enrollment kit" to all new enrollee in Taluka

Adani Education Development Center

Kutchh District is very poor in case of Primary Education. Educational Standards of Govt. School is considerably depraved. It continuously destroying our young generation in absence of proper direction and base. keeping this situation in view, We have initiated Coaching center at Zarpara and Sharda Mandir, Mundra. More than 85 students has benefitted by coaching center. (22 students were in D Grade who secured C Grade and rest 63 students were in C Grade among them secured 21 students got B Grade this year.

Key Focus of center:

- Efforts to Improve Quality of Education
- Child Education & Nurturing
- Propagate Child Friendly Environment at schools
- Community Participation
- Maximum [100%] enrollment and retention in Schools

Vatvruksha : Come, Let Us Walk Together on the Path of Development'

Education has the power to transform the social landscape. With its progressive approach and ideas, the Foundation has been carrying out innovative activities to improve the scenario of primary education in the Mundra taluka for many years. Its unique initiatives are aimed at making education more effective and interesting for the children to ensure that no child remains bereft of primary education. These initiatives target children, teachers as well as schools. With these objectives, education camps are organized regularly.

'Come, Let Us Walk Together on the Path of Development' – With this idea, the Foundation organized a teacher's camp named 'Vatvruksha'. Hon'ble Collector Shri Remya Mohanji, DEO Shri Vaghela, DPEO Shri Suvarnakar, Adani Foundation Advisors Shri Vasant Gadhvi, Shri Rakshit Shah and Shri Mukesh Saxena, TDO Shri Mamlatdar, DPEO Shri Haresh bhai, Mundra Taluka CRC as well as invited teachers attended the camp.

Mohan Vaghela, Nisha Trivedi, Viraj Vohra, Alka Chavda, Sanjay Mehta, Rashida Hussain and other experts also participated. Important topics like teaching methods and evaluation, classroom arrangements, life skills, positive attitude, lesson planning and personality development were covered in the camp.

Material Support

Adani foundation is supporting for improving quality of education under the teaching learning material schools for teachers and students. Role on infrastructure is must to achieve quality of education. Many studies highlight that lack of infrastructure is also affected the school dropout ratio. Good and proper infrastructure attracting children for school. Adani foundation is also trying to full fill need of infrastructure in schools. Where there is no provision of Govt. grant & school's required support AF is there. During this period AF provided green board support at Tuna, Taluka shala Mundra, Lalji Sumar Mundra, Teacher's table support to Mota bhadiya vadi school number 2 & 3, fan at Shekhadiya, science equipment at Luni high school, Girls sanitation at Sadau primary school, water tank renovation at Shekhadiya and Mahesh nagar school.

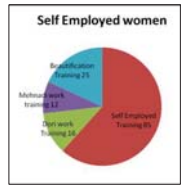
Adani Foundation Launches 'Swachhagraha' to create a culture of cleanliness

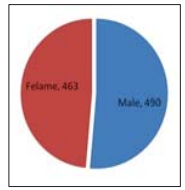
Swachhagraha, a Behavior Change Education Programme, is an initiative of the Adani Foundation. 'Swachhagraha' draws inspiration from 'Satyagraha' led by Mahatma Gandhi during the freedom struggle movement, which catalyzed action through tremendous patience and perseverance, instilling in the Indian mind, dignity and self-respect. It aims at engaging people and bringing about a change, similar in scale to India's freedom movement, where people get involved to take action for 'Creating a culture of Cleanliness'.

The programme was launched in Mundra, Bhuj District, Gujarat with participation of over 32 schools in Swachhagraha Prerak's training with support of District Education Officer, Bhuj & Taluka Primary Education Officer, Mundra. The programme was launched by Shri Bhupendra Sinh Vaghela, DEO, Bhuj, Shri Haresh bhai Patel, TPEO, Mundra and Jignesh R. Vibhandik, Project Coordinator, Adani Foundation, on 20th January at Adani House, Mundra Port Road, Mundra with full day Swachhagraha training workshop of principals & teachers. Mrs. Pankti Shah, Unit head CSR, Adani Foundation, said, "The Swachhagraha project is perfectly aligned with the 'Swachh Bharat Abhiyan'. At the heart of this project is the idea of 'creating a culture of cleanliness' in the upcoming generations of India."

Adani Skill Development Center

- ASDC's approach to skill development is holistic and aimed at making each candidate a well-developed individual hence, the team goes to each and every area for making the initiative, a success.
- ASDC reaches out to various communities by leaflet and other advertisements.
- The team holds various meetings with women and youth of the villages to explain them the objective of ASDC.
- ASDC maintains all the records, follow-up with candidates meticulously during the entire training period.



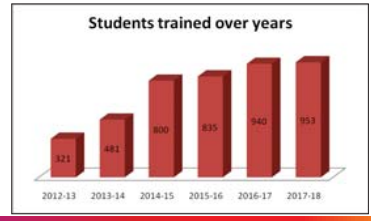


OUR IMPACT

Success of a project is defined by the fulfillment of its objectives. And ASDC's succeeds when the trainees get suitable employment.

A total of 378 trained students from ASDC has been suitably placed with an average income minimum of Rs.9000pm

ASDC has proven to be a major catalyst in igniting the fire of self-employment and entrepreneurship amongst women. A total of 138 women are now earning at home after getting trained at ASDC in various exclusive courses.



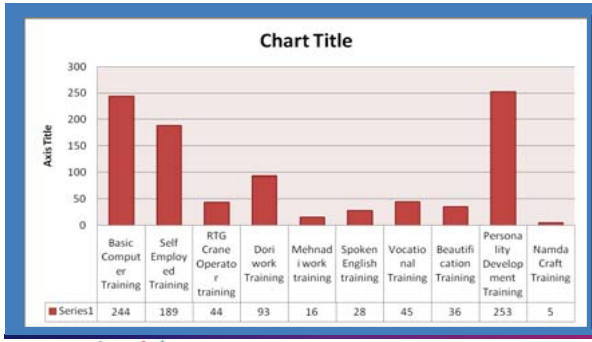
SAKSHAM

Adani Skill Development Centre

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

Adani Skill Development Centre has initialized in the 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 both is minimized.

- The objective of this center 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.
- Due to social and cultural traditions, various training Programme are organized at school OR village level for youth and women so that they can gain its benefits in the future as well.
- **In the year 2017-18, ASDC trained 953 candidates at Mundra.**
- **Soft skills training was imparted to 675 students in total, while technical training have been given to 278 students**



Jaru Devabhai Arjanbhai, an RTG crane operator at GTI Port, Maharashtra is a classic case study of skill development training ensuing employability. Just couple of years back a much stressed Jaru bhai had approached Adani Skill Development Centre (ASDC) Mundra to undertake checker-cum-RTG crane operator training with a hope of getting some employment somewhere to support his economically poor family. After passing ITI post his 12th qualification, Jaru bhai was rendered unemployed like hundreds and thousands of youths of his age and locality. While undergoing the ASDC training he would have never imagined that this additional knowledge and skill upgradation would bring him a bright future and good days for his family in Vaghura village of Mundra. Soon after completion of his 3 months duration course, Jaru bhai got a job in AK Enterprises company doing cargo handling operations at GTI Port, Maharashtra. His current earning per month is Rs 43,000/- with company accommodation.

He is now a big support for his father, who is a local farmer and his two brothers and sisters, who are continuing their studies to follow the steps of Jaru bhai for employability through knowledge and skill development.

Bhand Navin Devjibhai is very fond of financial autonomy and self-sufficiency, a principle of life which he has got by virtue of his skill development training at Adani Skill Development Centre (ASDC), Mundra. A Commerce graduate from Mundra village, in the year 2017 Navin had enrolled himself at ASDC for the IT-Basic Computer training. He was unemployed and lacked the minimum confidence of facing any job interview as per his qualification.

As part of the well-designed training curriculum at ASDC, the 21-year old youth learnt skills of public speaking, professional manners, facing interviews etc. along with core subject of IT basic computer. The training helped he immensely and fetched him a company job with lucrative Rs. 10,000/- per month salary. Happy with his financial autonomy, he is now in a comfortable position to support his parents and three brothers.

Namda on revival path : Adani Skill Development Centre launches artisan training

Even as a breakthrough is waiting to happen, five trainees were enrolled in Dec 17 by Adani Skill Development Centre (ASDC) for the age-old Namda craft, a dying art form of Kutchh district in Gujarat. First initiative of its kind, the skill development training on Namda is aimed at preparing a future generation of artisans for the historic art form.

Adani Foundation, the CSR wing of Adani Group had vowed to save Namda from extinction and bring back its past glory. Originally innovated by an artisan of Mughal Era in the 11th Century India, Namda craft was primarily practiced by the Pinjara and Mansuri communities and Sama Muslims native to Kutchh. Sans proper encouragement, marketing avenues and promotion, the art suffered a major setback with artisans gradually switching over to other professions for livelihood earning.

Till recently, when the Adani Foundation, Mundra team members approached Mansuri Karimbhai Umarbhai, perhaps the sole survivor of the craft in Kutchh, Namda was dying a natural death. As a good corporate citizen, the Adani Group initiated a move to protect the art form, as well to make it popular and sustainable.

The first step towards the enormous goal of reviving Namda, the training programme kicked started with lots of positivity and enthusiasm among the trainees, who are committed to put best efforts for bringing back the past glory for this craft. And the best part of the initiative is that, the Namda survivor himself would train the future-artisans.

The trainees comprised of two male and three female artisans, who would be given stipend by Adani Foundation during the three-month training duration.

And what sounds quite favourable about the revival-attempt for Namda is that many important people from the related fields of art promotion and marketing attended the inaugural function of the training programme to witness and support the big effort by Adani Foundation.

The assistant director, Handicrafts Marketing and Service Extension Centre, Development Commissioner Handicrafts, Shri Archit Sahare, Manager, Gujarat State Handloom and Handicraft Corporation Shri MK Parmar, Guide and Retired Profession of NID Shri Vinay Kumar, Director of VRTI Shri Mavjibhai Baraiya, Director of Qasab Shri Pankaj Soni and the local marketing head of Amazon Shri Viraj Thaker were among the key persons present on the occasion to support and encourage the initiative.

Employee Volunteering Programme

Always spreading the warmth of concern and care for members of its community in and around Mundra through its sustainable CSR projects, we made yet another endeavor by taking the warmth to labour habitants in the APSEZ Mundra periphery. **As the part of "Employees Volunteering Programme "JOY OF GIVING WEEK" Warm cloth distribution was arranged at all three residential colonies of Adani group.**

As part of the 2nd phase of Dignity of Labour drive by Adani Group, nearly 350 Labour families were distributed warm clothes by AF, Mundra on Monday. Nearly 150 blankets, 100 sweaters and jackets along with winter caps and shocks were given away to Labour families in view of the already prevalent winter. **The warm clothes were donated by employee families, company associates and residents of Mundra under a drive initiated by the company**

Swachhata Abhiyan – Village cleaning campaign was organized by Adani ports and SEZ Limited (Baroi, Luni and Sadau), Adani Power Limited (Siracha), Adani Wilmar Limited (Dhrub) and Mundra Solar Private Limited (Tunda Wandh)

"AWAZ DE : Voice for the Community"

Small farmers and Fisherfolk remain vulnerable to weather conditions and lack of access to necessary knowledge that enables better decision making related to livelihood activities, health and disaster preparedness.

Adani Foundation reaches out to the farming and fishing community of Mundra through multiple knowledge dissemination – AWAZ DE (Voice messages) which provides reliable information at the right time from the right source.

Note : "AWAZ DE" is the software by which AF reaches out to the various target groups by voice messages. AF Mundra is using this software since five years and got a very good result to communicate the same message to more than 5000 people.

Making Community Partners

We do not treat community as a receipt of charity. In fact, people are active partners in development process. The community participates in the work and people own the programs. "Ownership helps make the change Sustainable." It also gives birth to social leaders within the community.

Recognition

The Gujrat CSR Authority launched the CSR Awards'18 with an aim to recognize exemplary work in integrating and internalizing CSR. We are honored to receive the "Sustainable and Impactful CSR Project" Award in the presence of Shri O.P.Kohli. Such recognitions inspire us to continue on our journey. Award received by Shri Mukesh Saxena (COO, SEZ) and Pankti Shah (CSR Head, Adani Foundation)

Glad to announce our latest accolade-the Eminent Award 2017 presented at the Ek Kaam Desh Ke Naam award ceremony on 15th January, 2018 at New Delhi. The Award was bestowed upon Adani Ports and SEZ Ltd, Mundra, for outstanding achievement in CSR, specifically for "Sustainable Livhihood for Fisherman Community". Award was presented by Thavar Chand Gehlot, Hon'ble ,minister of social justice and empowerment, GOI and received by shri TT Mehta and Vijay Gosai of CSR Mundra Team.

Pleased to announce a milestone for APSEZ Mundra, as it receives the "CII ITC Excellence in sustainable business" commendation award - CSR for the year 2017. The award was presented by Shri C K Mishra, Secretary Ministry of Environment and Climate to *Capt. Unmesh Abhyankar, Jt. President - APSEZ* and Ms. Pankti Shah, Mundra CSR Head, Adani Foundation. Our endeavor towards sustainability strengthens with every achievement unlocked

Adani Foundation, CSR Budget - Mundra Budget Utilization F.Y. 2017-18			
			Rs. In lacs
Sr. No.	Program	Budget 2017-18 Rs.	Budget Utilization Rs.
A.	Admin Expense	152.05	128.06
B.	Education		
(i)	Education Initiative	59.70	50.51
(ii)	Adani Vidya Mandir- Bhadreshwar	142.08	125.35
(iii)	Project Udaan- Mundra	332.33	298.93
	Sub Total	534.11	474.79
C.	Community Health	214.49	187.26
D.	Sustainable Livelihood Development	289.20	285.00
E.	Rural Infrastructure Development	374.70	323.40
	GRAND TOTAL	1564.55	1398.51

adani Act