

Fw: Submission of Six monthly Environment & CRZ clearence Compliance Report October 2019 to March 2020, Adani Hazira Port Private Limited

Devendra Banthia <Devendra.Banthia@adani.com>

Tue 5/26/2020 12:21 PM

To: Dilip Kumar Moolchandani <Dilip.Moolchandani@adani.com>

2 attachments (7 MB)

AHPPL-SIX Monthly EC Compliance Report AHPPL Oct 19 to Mar 20.pdf; E Mail EC Compliance Report AHPPL 25.2020.pdf;

26/5/20
कार्यालय/OFFICE
पर्यावरण एवं जलवायु परिवर्तन मंत्रालय
Ministry of Environment, Forests & Climate Change
भारतीय पर्यावरण (परिचर्या) विभाग
भोपाल (म.प्र.)/BHOPAL-462016

From: Nandan Kumar <nandan.kumar@adani.com>

Sent: Monday, May 25, 2020 12:39 PM

To: Devendra Banthia <Devendra.Banthia@adani.com>

Cc: Harsh Yadav <Harsh.Yadav@adani.com>

Subject: FW: Submission of Six monthly Environment & CRZ clearence Compliance Report October 2019 to March 2020, Adani Hazira Port Private Limited

Dear Sir,

Please find attached herewith Copy of E mail for acknowledgement.

With regards,
Nandan

From: Nandan Kumar

Sent: Monday, May 25, 2020 12:16 PM

To: rowz.bpl-mef@nic.in

Cc: mefcc.ia3@gmail.com; monitoring-ec@nic.in; chairman-gpcb@gujarat.gov.in; westzonepcb@yahoo.com; brnaidu.cpcb@nic.in; ro-gpcb-sura@gujarat.gov.in; Shalin Shah <Shalinm.Shah@adani.com>; Rupesh Jambudi <Rupesh.Jambudi@adani.com>; Harsh Yadav <Harsh.Yadav@adani.com>; Devendra Banthia <Devendra.Banthia@adani.com>

Subject: Submission of Six monthly Environment & CRZ clearence Compliance Report October 2019 to March 2020, Adani Hazira Port Private Limited

Dear Sir,

This has reference to submission of **Six Monthly Environment & CRZ Clearances Compliance Report** for **Adani Hazira Port Private Limited**. Please find attached herewith point wise compliance status report of conditions stipulated in the following referred letters for the period of **October 2019 to March 2020**:


Reference:

- 1). Environmental and CRZ Clearance issued by MoEF & CC, New Delhi vide letter No.: 11-150/2010-IA.III dated 03rd May, 2013.
- 2.) CRZ Recommendations issued by Forests & Environment Department, Govt. of Gujarat to MoEF & CC, New Delhi vide letter No.: ENV-10-2012-30-E dated 11th May, 2012.

Best Regards,
Nandan Kumar


LIST OF APPENDIXES

APPENDIX NO.	DETAILS
1.	Compliance To The Conditions Stipulated In CRZ Recommendations Issued By Forests & Environment Department, Government Of Gujarat To MOEF & CC, New Delhi Vide Letter No.: ENV-10-2012-30-E, Dated 11 th May, 2012.

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LIST OF ANNEXURES

ANNEXURE NO.	DETAILS
1	Action Plan And Compliance Status On The Issues Raised During The Public Hearing.
2.	Compliance Status Of Environmental Management Plan As Per Integrated EIA Report - September, 2012.
3	Details Of The CSR Activities Along With Budgetary Provisions And Expenditures For The Financial Year: 2019-20.
4.	Environmental Monitoring / Analysis Results For The Period From April 2019 to September 2019
5.	Organogram Of AHPPL - Environment Management Cell.
6.	Details Of Environment Management Budget For The Financial Year: 2019-20
7	Copy of renewed PESO Licence
8	Details of Liquid/Wastes Collection & Disposed off from Vessels by GPCB Approved Third Party During period April 2019 to September 2019
9.	Copy of ISO 9001:2015, 14001:2015, 48001:2018 Certificates
10.	Photographs showing present status of Bioshields at Tankari (Jambusar) Gujarat

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SIX MONTHLY COMPLIANCE REPORT

OF

ENVIRONMENT AND CRZ CLEARANCE ISSUED BY MOEF & CC, NEW DELHI


VIDE LETTER NO.: 11-150/2010-IA.III, DATED 03RD MAY, 2013

FOR

**THE DEVELOPMENT OF MULTI CARGO PORT WITH SUPPORTING UTILITIES AND
INFRASTRUCTURE FACILITIES AT HAZIRA, SURAT, GUJARAT**

BY

M/S. ADANI HAZIRA PORT PVT. LTD.

	Adani Hazira Port Private Limited	From : October 2019 to March 2020
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- A. Six Monthly Compliance Report for Environmental and CRZ Clearance issued by MoEF & CC, New Delhi vide letter No.: **11-150/2010-IA.III dated 03rd May, 2013** for the development of Multi Cargo Port with supporting utilities and infrastructure facilities at Hazira, Surat, Gujarat by M/s. Adani Hazira Port Pvt. Ltd.: -

S. No.	Stipulated Conditions	Compliance Status																		
6.	Specific Conditions																			
i.	"Consent for Establishment" shall be obtained from State Pollution Control Board under Air & Water Act and a copy shall be submitted to the Ministry before start of any construction work at site.	<p>Complied,</p> <p>AHPPL has obtained Consent to Establish (NOC) from Gujarat Pollution Control Board on 05.10.2012 and same was submitted on 16.05.2012 prior to obtaining the Environment and CRZ clearances. Subsequently there were amendments in the Consent to Establish which were also submitted to the MoEF&CC before start of respective construction as per the details given below: -</p> <table border="1"> <thead> <tr> <th>Consent No.</th><th>Issued On</th><th>Submitted To MoEF & CC On</th></tr> </thead> <tbody> <tr> <td>CTE_49766</td><td>05.10.2012</td><td>Along with Six Monthly Compliance Report dated 19.11.2014 & 19.05.2017.</td></tr> <tr> <td>CTE-64900</td><td>26.09.2014</td><td>Along with Six Monthly Compliance Report dated 12.05.2015 & 19.05.2017.</td></tr> <tr> <td>CTE-74330</td><td>13.01.2016</td><td>Along with Six Monthly Compliance Report dated 23.05.2016 & 19.05.2017.</td></tr> <tr> <td>CTE-77767</td><td>16.04.2016</td><td>Along with Six Monthly Compliance Report dated 21.11.2016 & 19.05.2017.</td></tr> <tr> <td>CTE-101590</td><td>20.05.2019</td><td>Along with last Six Monthly Compliance Report dated 27.11.2019</td></tr> </tbody> </table>	Consent No.	Issued On	Submitted To MoEF & CC On	CTE_49766	05.10.2012	Along with Six Monthly Compliance Report dated 19.11.2014 & 19.05.2017.	CTE-64900	26.09.2014	Along with Six Monthly Compliance Report dated 12.05.2015 & 19.05.2017.	CTE-74330	13.01.2016	Along with Six Monthly Compliance Report dated 23.05.2016 & 19.05.2017.	CTE-77767	16.04.2016	Along with Six Monthly Compliance Report dated 21.11.2016 & 19.05.2017.	CTE-101590	20.05.2019	Along with last Six Monthly Compliance Report dated 27.11.2019
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CTE-101590	20.05.2019	Along with last Six Monthly Compliance Report dated 27.11.2019																		
ii.	The action plan on the issues raised during public hearing shall be submitted to the Pollution Control Board. The action plan shall be implemented without fail. Report on compliance shall be submitted to the Regional Office, MOEF along with the six monthly reports.	<p>Complied</p> <p>Public hearing was conducted on 14.08.2012. All the issues have been addressed adequately and to the satisfaction of the stakeholders. The key points raised during PH were: -</p>																		



Adani Hazira Port Private Limited

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S. No.	Stipulated Conditions	Compliance Status
		<p>1) Preference to be given to the local people for employment and transport & other contracts. M/s. AHPPL is giving preference to the locals for contracts, such as M/s. Hazira Vikas Samiti has been engaged for providing transport facilities for employees. M/s. AHPPL also giving preference for skilled local candidates for employment as per suitable requirements. As on 31st March 2020 total 207 out of 242 on roll employees are from Gujarat.</p> <p>2) Villagers were anxious about their displacement due to port development. M/s. AHPPL is developing port on approx. 873.27 hectares which is uninhabited and there is no acquisition of private property.</p> <p>The details action status of all other issues raised during the public hearing is enclosed as <u>Annexure-1</u>.</p>
iii.	All the recommendations of SCZMA shall be complied with.	<p>Being Complied</p> <p>All the recommendations of the Gujarat Coastal Zone Management Authority (GCZMA) are being complied. Compliance status of the conditions stipulated in GCZMA recommendations vide letter dated 11/05/2012 bearing No.: ENV-10-2012-30-E is enclosed as <u>Appendix-1</u>.</p>
iv.	Periodical study on shore line changes shall be conducted and mitigation carried out if necessary. The details shall be submitted along with six monthly monitoring reports.	<p>Complied.</p> <p>Shoreline change study was conducted by NIO, Vizag during the period from November, 2014 to December, 2015. Report of the shoreline change study was submitted along with compliance report dated 21.11.2016. Study confirms that there is no significant change in the nearby shoreline except for the approved layout of the AHPPL. The report did not warrant any mitigation measures.</p> <p>There are no marine construction activities on shore after Dec, 2016.</p>



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S. No.	Stipulated Conditions	Compliance Status
v.	Oil spills if any shall be properly collected and disposed as per Rules. Proper Oil Contingency Management Plan shall be put in the place.	Complied. <ul style="list-style-type: none"> Till date no oil spill has occurred. Oil Spill Contingency Plan has been prepared and the same was approved / vetted by Indian Coast Guard (Letter No.: 7563, dated 09.01.2014). The same has been implemented at site in order to properly collect and dispose oil spills (if any).
vi.	The detailed plan with budgetary provisions for the CSR shall be submitted to the ministry.	Complied. <ul style="list-style-type: none"> CSR activities are carried out by Adani Foundation in four verticals i.e.: - (1) Education, (2). Community Health, (3). Sustainable Livelihood and (4). Rural Infrastructure Development. Detail of the CSR activities along with budgetary provisions and progress are regularly submitted to MoEF & CC as part of six monthly compliance reports. The status of the CSR activities carried out in FY 2019-20 is enclosed as <u>Annexure-3</u>.
vii.	All the recommendation of the EMP and DMP shall be complied within letter and spirit.	Complied. <ul style="list-style-type: none"> Recommendation given in EMP is being complied in letter and spirit. Status of the same is enclosed as <u>Annexure-5</u>. AHPPL is an ISO 14001: 2015, ISO 9001:2015, ISO and 45001: 2018 certified company. Copy of Certificates enclosed as <u>Annexure 9</u> AHPPL has developed and implemented DMP. Regular mock drill to ensure the compliance and preparedness is being done. <ul style="list-style-type: none"> Last Mock Drill (On Site) was on: <u>16.03.2020</u> Last Update of ERP & DMP : <u>30.05.2019</u> Copy of the Schematic of ERP & DMP communication flow is submitted along with the six monthly compliance report dated <u>19.05.2017</u>.
viii.	Periodical monitoring of the sea water quality at the outlet shall be carried out to check the discharge is meeting the standard and not causing any impact to marine life.	Complied. <ul style="list-style-type: none"> AHPPL is not discharging any effluent into the sea. There are no standards prescribed for the sea water quality. Only trends can be observed to ensure that quality of sea water is not changing significantly.



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S. No.	Stipulated Conditions	Compliance Status
		<ul style="list-style-type: none">Marine water quality is being monitored through M/s. Pollucon Laboratories, Surat (a MoEF&CC recognized and NABL accredited laboratory).Monitoring of sea water quality at three locations is being done on monthly basis. Copy of the Sea Water Quality Monitoring /Analysis Reports for the period October, 2019 to March 2020 is enclosed as <u>Annexure-4D</u>.From the monitoring report it is evident that there is no significant change in the sea water quality which could have impact on the marine life.
ix.	Transport of cargo shall in closed system and dust control viz. water sprinkler, along conveyor and transfer points shall be provided.	Complied. Following control measures are in place and effectively working at port to control fugitive dust: - <ol style="list-style-type: none">1. Transportation of coal from jetty to coal storage yard through 1.7 Km. long conveyor belt with hood.2. Water sprinklers in the coal yard,3. Dust arresting sprinklers are installed on Coal Discharge Chute4. Dust Suppression System / Spray Nozzles in Conveyor System and Discharge Chute,5. Water spray through Water Browsers,6. Water Mist Canon / Fog System,7. Wind Brake Shield of 14 meters high and 1200 meters long,8. Transportation of cargo from port to hinterland is being done through dumpers / trucks covered with tarpaulin,9. Regular cleaning the roads through Road Sweeping Machines, and10. Company has set up dedicated greenbelt area for plantation at periphery / avenue plantation / landscaping etc. Total greenbelt area developed so far is approx. 74.30 ha within the port premises.
x.	Construction activity shall be carried out strictly as per the provisions of CRZ notification 2011. No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone.	Complied. <ul style="list-style-type: none">Construction activities are carried out as per the provisions of CRZ Notification, 2011.No construction work other than those permitted in CRZ Notification has been done.

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S. No.	Stipulated Conditions	Compliance Status
		<ul style="list-style-type: none"> Development of the port and other ancillary facility is being done as per the approval received under CRZ Notification, 2011 and EIA Notification, 2006.
xi.	The project shall be executed in such a manner that there shall not be any disturbance to the fishing activity.	Complied. <ul style="list-style-type: none"> Project execution is being done without any disturbance to fishing activities. Majority of fishing activities are in the river TAPI estuary region which is approx. 3-4 KM away from the project site. There are few "PAGADIA" fishermen doing fishing near the project area. They are continuing with their activities without any disturbance.
xii.	It shall be ensured that there is no displacement of people, houses or fishing activity as a result of the project.	Complied. <ul style="list-style-type: none"> There is no displacement of people, houses or fishermen as the port is being developed on reclamation land and land allotted by Government also there is no acquisition of private land. Majority of fishing activities are in the river TAPI estuary region which is approx. 3-4 KM away from the project site. There are few "PAGADIA" fishermen doing fishing near the project area. They are continuing with their activities without any disturbance AHPPL is regularly working with fishermen to understand their needs and provide required support as per of CSR activities.
xiii.	The project proponent shall set up separate Environment Management Cell for effective implementation of the stipulated environmental safe guards under the supervision of a Senior Executive.	Complied. <ul style="list-style-type: none"> Environment Management Cell has been set up with qualified staff to ensure the effective implementation of environmental safe guards. In addition to the site Environment Management Cell a well-established corporate environment cell also ensures effective implementation of the environmental safeguards. Environment Management Cell Organogram is enclosed as <u>Annexure-5</u>.
xiv.	The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purposes.	Complied. <ul style="list-style-type: none"> Separate budget has been allocated to the HSE Department. Allocated budget for the




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S. No.	Stipulated Conditions	Compliance Status
		<p>FY: 2019-20 is INR 363.80 Lakhs but total expenditure regarding environment management is about INR 326.766 Lakhs in FY 2019-20</p> <ul style="list-style-type: none">• Detail of the environment budget and expenditure for the FY: 2019-20 is enclosed as <u>Annexure-6</u>.• Environment budget is not being diverted to any other purpose.
7.	General Conditions	
i.	Appropriate measures must be taken while undertaking digging activities to avoid any degradation of water quality.	<p>Complied.</p> <ul style="list-style-type: none">• Digging activities are involved in the piling, construction of building and other ancillary facilities. Proper care is being given to ensure that no excavated material is mixed with the water. Entire excavated material is being used in leveling and grading of project area.• Marine, Surface and Ground Water quality is being monitored through M/s. Pollucon Laboratories Pvt. Ltd., Surat (a MoEF & CC and NABL accredited laboratory).• Reports show that there are no impacts on the water quality. Copy of the water monitoring reports for the period, October 2019 to March 2020 is enclosed as <u>Annexure-4B, 4C, 4D</u> for ground, surface and marine water quality, respectively.
ii.	Full support shall be extended to the officers of this Ministry /Regional Office at Bhopal by the project proponent during inspection of the project for monitoring purposes, by furnishing full details and action plans including the action taken reports in respect of mitigation measures and other environmental protection activities.	<p>Being Complied</p> <ul style="list-style-type: none">• AHPPL is regularly submitting six monthly compliance reports which comprise compliance to the conditions stipulated in Environment and CRZ clearance, action taken report of Environment Management Plan, environment monitoring reports etc.• Last report was submitted vide letter No. AHPPL/MoEFF&CC 2019-20/002 dated 27.11.2019.• Whenever any authorities such as MoEF&CC, GPCB and GMB etc. visit AHPPL, full support is extended and AHPPL provides all additional information seek by them during the inspection.• Last visit by representative of MoEF & CC - RO, Bhopal was on 24th Oct, 2018 .

	Adani Hazira Port Private Limited	From : October 2019 to March 2020
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S. No.	Stipulated Conditions	Compliance Status
iii.	A six-monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry at Bhopal regarding the implementation of the stipulated conditions.	Being Complied Six monthly monitoring reports are regularly submitted to the RO - MoEF & CC, Bhopal and other authorities along with Six Monthly Compliance Report of Environment & CRZ Clearance. Please refer the Annexure-4 for the monitoring report from October 2019 to March 2020.
iv.	Ministry of Environment & Forests or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary subsequently, if deemed necessary for environmental protection, which shall be complied with.	Noted and agreed to comply with additional conditions stipulated or modification in the existing ones by MoEF & CC, if any.
v.	The Ministry reserves the right to revoke this clearance, if any of the conditions stipulated are not complied with to the satisfaction of this Ministry.	Noted and agreed to comply with the directions of the MoEF & CC, if any.
vi.	In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to Ministry of Environment and Forests.	Noted. There is no change in project profile or implementation agency.
vii.	The project proponents shall inform the Regional Office as well as the Ministry the date of financial closure and final approval of the project by the concerned authorities and the date of start of Land Development Work.	Closed. Financial Closure date was 29 th September, 2011. Approval from GMB to commence work was obtained on 09 th April, 2010 vide letter No.: GMB/N/PVT/923(10)/42/458. Copy of the same has been submitted to the MoEF & CC and other concerned authorities along with the six monthly compliance report dated 19.05.2017.
viii.	A copy of the clearance letter shall be marked to concerned Panchayat/ Local NGO, if any from whom any suggestions/ representations has been received while processing the proposal.	Closed. Copy of the clearance letter was sent to the concerned Panchayat and local NGO. Copy of the RPAD receipt were submitted to MoEF&CC along with six monthly compliance report dated 27.11.2013 and again along with the six monthly compliance report dated 19.05.2017.
ix.	State Pollution Control Board shall display a copy of the clearance letter	This condition does not belong to M/s. AHPPL.

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S. No.	Stipulated Conditions	Compliance Status
	at the Regional Office, District Industries Center and Collector's Office/Tehsildar's Office for 30 days.	
8.	These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act 1986, the Public Liability (Insurance) Act 1991 and EIA notification 1994, including the amendments and rules thereafter.	<p>Noted and Complying with the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act 1986, the Public Liability (Insurance) Act 1991 and EIA notification 2006, including the amendments.</p> <p>AHPPL has obtained: -</p> <ul style="list-style-type: none"> • Environmental and CRZ Clearance issued by MoEF & CC, New Delhi vide letter No.: 11-150/2010-IA.III dated 03rd May, 2013. • Consolidated Consent and Authorization under the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981 vide Consent Order No.: AWH-87176 valid till 14.04.2022. Public Liability Insurance vide Policy No.: 2999202761483000000 valid up to 31st March, 2020. Copy of Public Liability Insurance Policy has been submitted to with last six monthly EC compliance report vide Letter no AHPPL/MoEFF&CC 2019-20/001 dated 27.11.2019.
9.	All other statutory clearance such as the approvals for storage of diesel from Chief Controller of Explosive, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponent from the respective competent authorities.	<p>Complied.</p> <p>All applicable clearances from respective authorities have been obtained i.e.: -</p> <ol style="list-style-type: none"> 1. PESO License from Chief Controller of Explosive, Nagpur vides Order No.: P/HQ/GJ/15/5294 (P270337), Renewed on 04.01.2019 valid till 31.12.2020. Copy of the PESO License is attached herewith as <u>Annexure 7</u> 2. License to work a Factory Adani Hazira Port Pvt. Ltd. (Liquid Terminal) from Director of Industrial Safety and Health, Govt. of Gujarat their vide Registration No.: 3502 / 51410 / 2013 and License No.: 18757, Renewed on 03-11-2018, valid till 23rd December, 2023. Copy of the license to work a factory is submitted with last Six monthly EC compliance Report AHPPL/MoEFF&CC 2019-20/001 dated 27.11.2019 3. Civil Aviation: Not Applicable, 4. Wildlife Conservation: Not Applicable.



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**From : October 2019
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S. No.	Stipulated Conditions	Compliance Status
10.	The project proponent shall advertise in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environment and CRZ clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen at Website of the Ministry of Environment & Forests at http://www.envfor.nic.in . The advertisement should be made within 10 days from the date of issue of the clearance letter and a copy of the same should be forwarded to the Regional Office of this Ministry at Bhopal.	Closed. <ul style="list-style-type: none">• Advertisements were published in Gujarat News Paper "Gujarat Mitra" and English News Paper "The Times of India" on 13/05/2013 (within 10 days of receipt of EC & CRZ clearance).• Copy of the advertisement is submitted to MoEF & CC along with the six monthly compliance report dated 27th November, 2013.
11.	This clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No.: 460 of 2004 as may be applicable to this project.	Noted.
12.	Status of Compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website.	Complied. Compliance report of conditions stipulated in Environment and CRZ Clearance is available on the company website i.e.: http://www.adaniports.com/ports-downloads
13.	Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Noted.
14.	A copy of the clearance letter shall be sent to concerned Panchayat, Zila Parishad/ Municipal Corporation, Urban Local Body and the Local NGO, if any from whom suggestions/ representations if any, were received while processing the proposal. The Clearance letter shall also be put on the website of the company by the proponent.	Closed, <ul style="list-style-type: none">• Copy of the clearance letter was sent to the concerned Panchayat and local NGO from whom the suggestions/ representations received.• Copy of the RPAD receipt is submitted to MoEF & CC along with Six Monthly Compliance Report dated 27.11.2013 and again along with the six monthly compliance report dated 19.05.2017.• Clearance letter is available on website at http://www.adaniports.com/ports-downloads

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S. No.	Stipulated Conditions	Compliance Status
15.	The Proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB.	<p>Complied.</p> <p>The six monthly compliance report comprising of the status of compliance of the stipulated EC conditions, including results of monitored data is being uploaded on the company website at http://www.adaniports.com/ports-downloads and submitted to:</p> <ol style="list-style-type: none"> 1. RO - MoEF & CC, Bhopal, 2. MoEF & CC, New Delhi, 3. DoEF, Gandhinagar, 4. Zonal Office - CPCB, Vadodara, 5. HO - GPCB, Gandhinagar, and 6. RO - GPCB, Surat. <ul style="list-style-type: none"> • Last report was submitted vide letter No. AHPPL/MoEFF&CC 2019-20/002 dated 27.11.2019.
16.	The Environmental Statement for each financial year ending 31 st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules 1986, as amended subsequently, shall also be put on the website of the company along with status of compliance of EC Conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.	<p>Complied.</p> <ul style="list-style-type: none"> • The Environment Statement in Form-V for the Financial Year: 2018-19 is submitted to GPCB vide letter No.: AHPPL/MoEFF&CC 2019-20/002 dated 27.11.2019. & also uploaded on company website at http://www.adaniports.com/ports-downloads.

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APPENDIX-1:

COMPLIANCE TO THE CONDITIONS STIPULATED IN CRZ RECOMMENDATIONS


ISSUED BY FORESTS & ENVIRONMENT DEPARTMENT,

GOVERNMENT OF GUJARAT TO MOEF & CC, NEW DELHI

VIDE LETTER NO.: ENV-10-2012-30-E, DATED 11TH MAY, 2012


FOR MODIFICATION / EXPANSION OF MULTI - CARGO PORT FACILITY AT HAZIRA, DIST. -

SURAT BY M/S. ADANI HAZIRA PORT PVT. LIMITED


	Adani Hazira Port Private Limited	From : October 2019 to March 2020
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Appendix -1: Compliance to the conditions stipulated in CRZ recommendation issued by Forests & Environment Department, Government of Gujarat to MoEF & CC, New Delhi vide letter No.: ENV-10-2012-30-E dated 11th May, 2012 for modification / expansion of Multi-Cargo Port Facility at Hazira, Dist. - Surat by M/s. Adani Hazira Port Pvt. Limited: -

S. No.	Conditions	Compliance Status
A.	Specific Condition	
1.	The provision of CRZ Notification 2011 shall be strictly adhered by M/s. AHPPL. No activity in contradiction to the provision of CRZ Notification shall be carried out by M/s. AHPPL.	Complied. <ul style="list-style-type: none"> Construction activities are as per the provisions of CRZ Notification, 2011. No construction work other than those permitted in CRZ Notification has been done. Development of the port and other ancillary facility is being done as per the approval received under CRZ Notification, 2011 and EIA Notification, 2006 and subsequent amendments.
2.1	M/s. AHPPL shall not construct any storage facilities for material / chemicals in the CRZ area except for those permissible as per Annexure - II of CRZ Notification 2011.	Noted. Only permissible activities being carried out in CRZ area.
2.2	Also for other hazardous chemicals, outside CRZ Areas, the AHPPL shall consult SDMA for Disaster Management Plan.	Complied. Disaster Management Plan has been prepared prior to the commissioning of multi cargo port. <ul style="list-style-type: none"> DMP has been submitted to GSDMA vide letter dated 20.10.2012. Comments were received from authority vide letter no. GSDMA /SM / Ind.safety/ 770560 dated 03.12.2012. Suggestions were incorporated and revised plan was submitted to GSDMA on 23.05.2014. Regular mock drill to ensure the compliance and preparedness is being done. Last Mock Drill (On Site) was on : 16.03.2020 Last Update of ERP & DMP : 30.05.2019 Last submission to Directorate Industrial Safety & Health (DISH) on 30.05.2019
3.	All necessary permissions from different Government Departments / agencies shall be obtained by M/s.	Complied.

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S. No.	Conditions	Compliance Status
	AHPPL before commencing the activities.	<p>All the statutory permissions from the concerned statutory authorities are obtained i.e.: -</p> <ol style="list-style-type: none"> 1. Environment and CRZ Clearance from MoEF & CC, GOI vide order No.: F.No.:11-150/2010-IA-III dated 03.05.2013. 2. PESO License from Chief Controller of Explosive, Nagpur vide order No.: P/HQ/GJ/15/5294 (P270337) renewed and valid till 31.12.2020. 3. License to work a Factory Adani Hazira Port Pvt. Ltd. (Liquid Terminal) from Director of Industrial Safety and Health, Govt. of Gujarat their vide Registration No.: 3502 / 51410 / 2013 and License No.: 18757, Renewed on 03-11-2018, valid till 23rd December, 2023
4.	The AHPPL shall ensure that there shall be no damage to the existing mangrove patches near the site and also ensure the free flow of water to avoid damage to the mangrove.	<p>Noted and complied with.</p> <p>There are no adverse impacts on mangrove as well as flow of water with respect to development activities.</p>
5.	No dredging, reclamation or any other project related activities shall be carried out in CRZ area categorized as CRZ-I (A) and it shall have to be ensured that the mangrove habitats and other ecologically important and significant areas, if any in the region are not affected due to any of the project activities.	<p>Complied.</p> <p>All activities are being carried out as per Environment and CRZ clearance accorded.</p>
6.	The dredging material shall be disposed of at the location already approved by the Ministry of Environment and Forests, Government of India.	<p>Complied.</p> <p>As per communication from MoEF&CC dated 12th November, 2003 bearing letter No.: J-16011/ 11/2003-IA-III conditions states "dumping of dredged spoils should be dumped at the sites A & C as per the following coordinates: -</p> <p>(A) 21°03' to 21°05' N & 72°28' to 72°30' E</p> <p>(C) 21°03' to 21°05' N & 72°30' to 72°32' E</p> <p>No disposal has been done till date. All the dredging material is being utilized for level</p>

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S. No.	Conditions	Compliance Status
		rising, reclamation and apart from the above activity, if any excess material generated will be disposed of at the location already approved by the MoEF&CC.
7.	All the recommendations and suggestions given by M/s. NIO and Cholamandalam MS Risk Services Ltd, Chennai in their EIA reports for conservation / protection and betterment of environment shall be implemented strictly by M/s. AHPPL.	Complied. All the recommendations and suggestions for conservation/protection and betterment of environment are being implemented strictly. Recommendation given in EMP is being complied in letter and spirit. Status of the same is enclosed as <u>Annexure-2</u> .
8.	The construction and operational activities shall be carried out in such a way that there is no negative impact on mangroves, if any and other important coastal / marine / habitats. The construction activities shall be carried out only under the guidance / supervision of reputed institute / organization.	Complied. There are no mangroves and other important coastal / marine / habitats presents within the port area. The Port development work is supervised by Gujarat Maritime Board (GMB).
9.	M/s. AHPPL shall strictly ensure that no creeks or rivers are blocked due to any activity at Shipyard.	Complied. All the activities are carried out as per EC & CRZ clearance and no creeks are blocked due to development activities. Shipyard is not envisaged in our proposal.
10.	The construction debris and / or any other type of waste shall not be disposed of into the sea, creek or in CRZ areas. The debris shall be removed from construction site immediately after the construction is over.	Complied Construction debris removed from construction site immediately after completion of the construction work.
11.	The construction camps shall be located outside the CRZ area and the construction labour shall be provided with the necessary amenities, including sanitation, water supply and fuel and it shall be ensured that the environmental conditions are not deteriorated by construction labours.	Complied. No labour camps are located in Coastal Regulation Zone area. Labours are managed through contractors and they are from surrounding villages and have been provided residential facilities in the surrounding villages.




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12.	M/s. AHPPL shall prepare and regularly update their Local Oil Spill Contingency and Disaster Management Plan in consonance with National Oil Spill and Disaster Contingency Plan and shall submit the same to this department after having it vetted through Indian Coast Guard.	Complied. <ul style="list-style-type: none">Oil Spill Contingency Plan has been prepared and the same was approved/ vetted by Indian Coast Guard (Letter No.: 7563, dated 09.01.2014).Disaster Management Plan has been prepared prior to the commissioning of multi cargo port.DMP has been submitted to GSDMA vide letter dated 20.10.2012.Comments were received from authority vide letter no. GSDMA /SM / Ind.safety/ 770560 dated 03.12.2012.Suggestions were incorporated and revised plan was submitted to GSDMA on 23.05.2014.Regular mock drill to ensure the compliance and preparedness is being done. Last Mock Drill (On Site) was on :16.03.2020 Last Update of ERP & DMP : 30.05.2019 Last submission to Directorate Industrial Safety & Health (DISH) on 31.05.2019
13.	M/s. AHPPL shall bear the cost of external agency that may be appointed by this department for supervision / monitoring of proposed activities and the environment impact of the proposed activities.	Noted and agreeing to bear the cost of external agency, if any that may be appointed by this department.
14.	The jetty and most of the approach would be supported on piles allowing adequate flow of water without significant obstruction.	Complied. Jetty approach is supported by piles allowing adequate flow of water.
15.	The ground water shall not be tapped within the CRZ areas by the AHPPL to meet with the water requirements in any case.	Being Complied Ground water is not being used for any purpose in the Port. The drinking water requirement is being met through 2000KL of treated waste water from M/s. KRIBHCO which is used for industrial purposes and domestic water requirement is met through tanker.
16.	M/s. AHPPL shall take up massive greenbelt development activities in consultation with Forest Dept. / GEER Foundation / Gujarat Ecology Commission. A comprehensive plan for	Being Complied Company has set up dedicated green belt area for plantation at periphery / avenue plantation / landscaping etc. Total greenbelt area

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S. No.	Conditions	Compliance Status
	this purpose has to be submitted to the Forests and Environment Department.	developed so far is approx. 74.30 ha within the port premises.
17.	Mangrove plantation in 200 Ha. shall be carried out in consultation with Gujarat Ecology Commission / Forest Dept. by M/s. AHPPL with in a period of two years from the issuance of CRZ clearance by MoEF, Gol and an action plan in this regard shall be submitted to this Department along with satellite images and GPS readings with Latitudes and Longitudes.	<p>Complied</p> <p>Company has carried out mangrove afforestation in an area of 200 hectares i.e.: 20 hectares in Kantiyajal and 180 hectares in Village Nada-Devla of District - Bharuch and same is completed.</p> <p>Consolidated report on mangrove plantation on an area of 200 hectares at Village: Kantiyajal, Taluka: Hansot and Village: Nada-Devla, Taluka: Jambusar, District: Bharuch (Gujarat) developed by M/s. SAVE Limited, Ahmedabad. Supporting documents of the same submitted to MoEF & CC and other authorities along with the six monthly compliance report dated 20.11.2017 and the present photographs attached as <u>Annexure 10.</u></p>
18.	The AHPPL shall have to take up bio-shielding development programme as part of CSR in consultation with Forest Department / PCCF and action plan in this regard shall have to be submitted to the MoEF - Gol and this Department.	<p>Being Complied</p> <ul style="list-style-type: none"> • Communication has been initiated with PCCF, Forest Dept., GoG vide our letter 29th May, 2012 and District Forest Officer, Surat Forest Range vide our letter dated 05th May, 2014. • AHPPL has developed the development of Bio-Shield Pilot Project at Village - Tankari Bandar, Taluka - Jambusar, District - Bharuch (Gujarat) on an area of 18 hectares with the help of a local NGO SAVE. The recent photographs is attached as Annexure 10.
19.	M/s. AHPPL shall have to contribute financially for taking up the socio-economic upliftment activities in this region in consultation with Forest and Environment Dept. and the District Collector / District Development Officer.	<p>Being Complied</p> <p>CSR activities carried out by Adani Foundation in four verticals i.e.: - (1) Education, (2). Community Health, (3). Sustainable Livelihood and (4). Rural Infrastructure Development.</p> <p>Appropriate financial contribution is being made. Schemes promoted by District Authorities and Forest & Environment Department, GoG are also included. Please refer the <u>Annexure-3</u> for the status of the CSR</p>

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S. No.	Conditions	Compliance Status
		activities planned during the Financial Year: 2019-20.
20.	A separate budget shall be earmarked for environment management and socio-economic activities including green belt development / mangrove plantation and details thereof shall be furnished to this Department as well as the MoEF, Gol. The details with respect to the expenditure from this budget head shall also be furnished along with the compliance report.	Being Complied <ul style="list-style-type: none"> • Environmental Management Plan is in place and the funds earmarked are being utilized for effective implementation of environmental safeguards and environment monitoring. Key components are Environment monitoring, Mangrove plantation, environmental studies etc. • Please refer the Annexure-6 for details of budget and Expenditure for Environment Management for the FY: 2019-20. • CSR activities carried out by Adani Foundation in four verticals i.e.: - (1) Education, (2). Community Health, (3). Sustainable Livelihood and (4). Rural Infrastructure Development. • Please refer the Annexure-3 for the status of the CSR activities planned and carried out during the Financial Year: 2019-20.
21.	A separate Environment Management Cell with qualified personnel shall be created for environmental monitoring and management during construction and operational phases of the project.	Complied. <ul style="list-style-type: none"> • Environment Management Cell has been set up with qualified staff to ensure the effective implementation of environmental safe guards. • In addition to the site Environment Management Cell a well-established corporate environment cell also ensures effective implementation of the environmental safeguards. • Please refer the Annexure-5 for Environment Management Cell Organogram.
22.	Environment Audit Report including the changes, if any, with respect to baseline environmental quality in the coastal and marine environment shall be submitted every year by M/s. AHPPL to this Department as well as MoEF, Gol.	Complied. <ul style="list-style-type: none"> • Regular Environmental Monitoring/ Analysis are being done through M/s. Pollucon Laboratories, Surat (a MoEF&CC and NABL accredited laboratory) and others concerned authorities along with Six Monthly Compliance Report. • No significant changes observed with respect to past monitoring results.
23.	A six monthly report on compliance of the conditions mentioned in this letter shall have to be furnished by M/s. AHPPL on a regular basis to this Department as well as MoEF, Gol.	Noted and complied with. <ul style="list-style-type: none"> • Six monthly compliance reports are being submitted to all the concerned authorities on regular basis.


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S. No.	Conditions	Compliance Status
		<ul style="list-style-type: none"> Last report was submitted vide letter No. AHPPL/MoEFF&CC 2019-20/001 dated 27.11.2019
24.	Any other condition that may be stipulated by this Department / MoEF, Gol from time to time for environment protection / management purpose shall have to be complied with by M/s. AHPPL.	Noted and comply with the additional conditions stipulated by the MoEF & CC, if any.

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ANNEXURE-1:

**ACTION PLAN AND COMPLIANCE STATUS ON THE ISSUES RAISED DURING THE PUBLIC
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Annexure-1: Action plan and compliance status on the issues raised during the public hearing:

S. No	Name	Details of Representation	Response during PH	Status as on 31 st March 2020
1	Rohitbhai Jayantibhai Patel, Sarpanch, Hazira	<p>On behalf of Hazira village, I welcome the expansion project of M/s. Adani Hazira Port Pvt. Ltd. at Hazira. Priority will be given to thousands of people of Hazira and surrounding villages for transport, business and employment opportunities. Company has provided training to the people of Hazira and surrounding villages for crane operation at Mundra and given employment as crane operator at Hazira Port.</p> <p>I believe that company will install latest technology for pollution control. Proposed project will surely care for human life. Due to proposed port Hazira people will surely get water, health and education facilities. I request that company would take required precautions for accident prevention and safety. Adani Foundation has provided required support as and when needed by Hazira village. I request that fishermen's concerns be taken care.</p> <p>I welcome this port as we are getting transport related business opportunities and we hope that same would be continued in future.</p> <p>Please clarify how much priority will be given to people from Hazira and surrounding areas for employment.</p> <p>Forest land is also requested for development of port at Hazira. So kindly clarify for</p>	<p>Rohitbhai, we are happy to note that on behalf of Hazira gram panchayat you have given warm welcome for this project. We whole heartedly thank you for this gesture. We assure you that our Conduct and Approach in managing activities would be in reciprocation to your welcome.</p> <ul style="list-style-type: none"> National Highway –6 is being widened. On completion the constriction and congestion that we see today will be behind us. As mentioned in the EIA in the first 5 years of the multi cargo port maximum number of 1200 trucks is expected to ply in the national highway connecting the port. After the railway line is developed and the trains start plying 60% of the transportation load will be 	<ul style="list-style-type: none"> Closed. Point is about welcoming the project and does not warrant any further action. Widening of the National Highway – 6 is completed. Currently there is no traffic congestion on National Highway – 6. Railway line for transport of cargo is yet to be developed.



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		<p>compensation/afforestation.</p> <p>Please clarify what arrangements have been made by company if calamities like Tsunami, Earthquake or Flood arise after implementation of the proposed project.</p>	<p>conveyed through rail transport only 40% will come on the national highway. That is a moderate load.</p>	
2.	<p>Dharmendra bhai Bhikhubhai Patel,</p> <p>Ex-deputy Sarpanch, Hazira</p>	<p>We welcome this public hearing. It is good that you are giving preference to local affected people and hearing them during public hearing. We don't have any objection against the development of Adani Group along with other industrial development in Hazira leading to development of Gujarat and the Nation. Adani company is complying with the environmental laws promulgated by the State and Union Government. In fact, it is duty of Adani Port to do so. Under their CSR activities Adani Group should provide support for development of Hazira village and employment to unemployed people. All transport businesses should be given to small & big local transporters of Hazira only. Youth from families of affected fishermen should be provided required training and employment. New transport route should be proposed as the present route to take containers is very narrow.</p> <p>We thank Adani Group for giving support for the construction of classrooms for standard 11 & 12 in Navchetan school.</p> <p>I thank you for making me successful in providing compensation to the affected fishermen.</p>	<ul style="list-style-type: none"> This port will have focus on container cargo. Container cargo comes in boxes and is clean by nature. So the question of fugitive dust emission on the road is not expected to be severe for this port. The coal handling will be done taking care that all the trucks are properly covered 	<ul style="list-style-type: none"> Closed. <p>Major cargo handled at the port is container and liquid which do not increase the fugitive dust. AHPPL is monitoring ambient air quality at five locations in and around project through a NABL accredited and MoEF recognized laboratory M/s Pollucon laboratories, Surat. Report confirms that ambient air quality is well within the NAAQS. Copy of the reports are enclosed as Annexure – 4A</p> <ul style="list-style-type: none"> Complying



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		<p>I request for employment to locals people and transport contract to local transporters only. We support the development of Adani Port in our area. We don't have any objection to the project in this public hearing.</p>	<p>so that there is no dust emitted on the road. As you know practically all our transporters are from this area. It is their responsibility to take care of overloading. If transporters do not overload, there would not be any spillage on the roads. It is not only responsibility of GPCB or the company but we all have to collectively work together for spillage free coal transportation.</p>	<p>with.</p> <p>All the trucks carrying coal and other dusty cargo are being covered through tarpaulin. AHPPL also ensures that no truck goes out of the port with overload.</p>
3	<p>Bhagubhai Maniram Patel, Sarpanch, Junagam</p>	<p>As this is biggest port in the South Gujarat and as there is no government land left, we wish that there will not be resettlement of the Junagam village due to this proposed expansion project of Adani Port.</p> <p>There is a fear in the people of the village that they will have to vacate the village in future. So we request collector to give us guarantee in writing that we will be able to live with peace where we are today.</p> <p>Berths will be developed through dredging up to -15 meters. We are getting ground water from the depth of 20 to 65 ft in some of the areas, which we are using for drinking purpose. What will be the impact on the ground water due to dredging upto -15 meters?</p> <p>After construction of liquid berth No.3 which will handle & store 1.95 Million Tones by 2017-18, what emergency steps would be required to save the human life incase just like Bhopal if there will be gas leakage due to Tsunami, Earthquake or terrorist activities.</p> <p>We welcome Adani Port & they require land for the container and coal storage. However, all industries located in the Hazira</p>	<p>• Junagam sarpanchshri expressed apprehension that we will take away government land and lands belonging to farmers in Junagam village. We want to assure you that we do not intend to take any private land of farmers or any house site land. If you carefully see the development plan we have just presented, the map will alleviate your uncalled fears. There would not be any question of</p>	<p>• Closed.</p> <p>There is no displacement of people, houses or fishermen as the port is being developed on reclaimed land and land allotted by Government as there is no acquisition of private land.</p>



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		<p>area have acquired government land and another 2000 acre land is allotted to tourism department. Sir therefore, I request you to declare remaining land of Junagam, Suvali, Damka & Bhatlai as residential area or agricultural zone. This is to ensure that in future we will not be displaced. As the port is to be constructed at the coast line, there are chances of spillage of liquid into sea and impact of solid hazardous waste. In this condition explain plan to mitigate impact on fisher man community.</p> <p>Secondly there is a question of unemployment of the youth of the Hazira area. As told by the company 700 people will be employed, youth from local families presently engaged in farming, animal husbandry and fisheries should be trained. Due to development of the port people from different states of India will come and therefore, there are chances of crime such as gang rape, hooliganism and terrorist attack. Is there any plan to control these potential evils? Training to unemployed women and employment is being planned. In future we and Adani Port would like to work together with full cooperation. On behalf of Jungam village and villagers, I welcome the expansion of the terminal.</p>	<p>rehabilitation of any village. Moreover, we will take care that your property. Your assets and convenience are not jeopardized by our action.</p> <ul style="list-style-type: none"> You talked about vultures; I would like to point out that there is no sanctuary or national park near by the port. In the EIA, we have studied the entire area and we will take due care to preserve the environment. We re-emphasize that we will comply with all the laws and in doing so we would be guided by GPCB and other concerned authorities. Some of you have expressed concern about terrorist activity creating great risk to our chemical terminals with attendant adverse consequences in our neighbourhood. We are going to be ISPS compliant; as 	<ul style="list-style-type: none"> Closed. <p>There is no sanctuary or national park near by the port. In the EIA, we have studied the entire area and we will take due care to preserve the environment.</p> <ul style="list-style-type: none"> Complied. AHPPL is operating the port in compliance with all rules and regulations. Complied. <p>AHPPL security system is in compliance with ISPS. ISPS Statement Number is:</p>
4	Alpeshkumar Thakor – Fisherman, Hazira.	<p>Plantation of the mangroves has been carried out between well numbers 4 to 7. This plantation has been destroyed by dredging and area is filled up.</p> <p>In this area fisherman used to catch prawns, crabs and sustain their livelihood. Through</p>		



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		<p>dredging company has destroyed Mangroves. There are approximately 2500 fishermen, belonging to Halpathi and Koli Patel communities living in the village. These people will be unemployed as fishing activity will be stopped due to dredging up to 20 meter by the company. Is it development or destruction?</p> <p>If fishermen get sand from the river by the boat in the Magdalla area, they have to pay royalty for the same. But why companies are given permission for dredging without royalty? What about approximately 2500 fishermen?</p>	<p>a result of this discipline, only authorized persons and material can enter into the port. More over district administration and police also take precautionary measures to intercept terrorist activities. Coast guards contribute to this effort. In a sense the entire nation is collectively fighting against terrorism.</p>	<p>MMD/KDL/SO C/014 and validity 10/02/2021.</p> <p>AHPPL has access control system in place to avoid unauthorized entry of men and material.</p>
5	Babubhai Aahir (Sarpanch, Suvali)	<p>As our friends have already given suggestion for safety and employment, it is not required to repeat the same. Foundation should provide employment opportunity to the land looser, fisherman, individual engaged in animal husbandry who are above 50 years and uneducated.</p> <p>Unemployed youth of this area should be provided training and given opportunity for the employment. Company should control the pollution arising due to transportation of chemical or coal. Earlier "Shell" company used to avoid overloading. So Adani Port should also not do the overloading to prevent the accidents. There is no medical facility available for treatment in case of emergency. As there is drought this year, company should consider providing drinking water in surrounding area.</p>	<p>• In the context of natural calamities, we have done modeling studies to understand the risk of oil spillage. We have also prepared Disaster Management Plan. This plan is being presented to the District Collector. After his approval it will go to State Disaster Management Authority at Gandhinagar for necessary approval and guidance. During natural calamities all local industrial units and government</p>	<p>• Complied. Regional DMP for the Hazira Peninsula, covering all major industries and the port has been prepared in consultation with District Authorities and same is being implemented.</p> <p>Oil Spill Contingency Plan has been prepared and the same was approved/ vetted by</p>



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6	Divyeshbhai, Hazira	<p><i>(During the representation of the Shri. Divyeshbhai there was a aggressive representation of Shri. Jayesh Patel resident of village Dihen, that he wants to present his questions.</i></p> <p><i>Honourable Collector replied that resident or stakeholders from affected villages should represent first. During this time Shri. Jayesh Patel and other people created disturbance which was controlled by Panel and then representation from Mr. Divyeshbhai continued.)</i></p> <p>Why this public hearing is kept at Junagam even it is of Hazira Village? Now we will talk about the pollution. Lots of dust is observed in the houses of the hazira village during the night hours. As per information particles of dust have been found in the lungs of the woman. If this information proves to be true we will file a pitition in the High Court. During the widening of the National Highway No. 6 land in the surroundings villages will be taken. As National Highway is not passing through Hazira, the villagers need to travel 8 Kilometres extra. Why it is not extended straight? Fishermen are being told that there is no fish in the sea but slags are cast in the corners of the sea due to which some fish die. Dolphin is also found at present in the Hazira area. We welcome the project if the port company is ready to give written assurance regarding employment.</p>	<p>organizations work together to mitigate impacts of natural calamities. In that situation we would work under the guidance of District Collector and police authorities to do the needful. Disaster Management Plan is structured in such a way.</p> <ul style="list-style-type: none"> • In regard to impact on fisherman, I want to point out the real situation that we are not in the river mouth, but just outside of it. The port development is only in a stretch of 4 km of coast line. We have not displaced any fisherman. The surrounding areas are open for fishing, nevertheless we have compensated fisherman who were identified by the Grampanchayat to be active in the areas where we are now operating. As 	<p>Indian Coast Guard (Letter No.: 7563, dated 09.01.2014).</p> <p>In addition, AHPPL has developed and implemented ER & DMP. Regular mock drill to ensure the compliance and preparedness is being done.</p> <p>Last Mock Drill (On Site) was on: 16.03.2020</p> <p>Last Update of ERP & DMP: 30.05.2019</p> <p>Last submission to Directorate Industrial Safety & Health (DISH) on 30.05.2019</p>
7	Jayeshbhai Patel,	I raise my objections against proposed expansion project of AHPPL for which public hearing		



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	<p>Resident of Dihen village and President, Gujarat State Farmers Samaj</p>	<p>is organized and I request that my objections should be included.</p> <p>M/s. Shell India has got environmental clearance in 2003 in which clearance was given for development of three berths. These berths are constructed at places other than shown earlier. So I request collector to remove these three berths.</p> <p>Out of proposed 7 berths for container and 4 for bulk terminal, 3 have been already constructed and port is functional. In this situation, I request to include in this public hearing what actions have been taken by collector against Adani for functioning of port & disposal of coal in Hazira and what actions have been taken by GPCB against company for disposal of coal in open.</p> <p>This project is being developed on the mouth of river Tapi therefore it is my feeling and request that it should not be given Environmental Clearance.</p> <p>EIA study does not include the objections of the report of Sugnyaben Bhatt Commission which was set up by Gujarat Government in 2006 in the aftermath of Surat flood. So it is my request that this public hearing and Environmental Clearance should be cancelled.</p> <p>Hazira is located on the mouth of Mindhola & Tapi river. As per ICMAM report of Tapi river, erosion effect had spread up to Dumas because of filling of Tapi river due to Industrialization in</p>	<p>Susmaben mentioned we will support fisherman by giving them tools, nets etc. and be helpful to them.</p> <p>(At this stage Shri Sheikh and Shri Jayeshbhai started shouting & disturbing the clarification of the project proponent. The chairperson told them repeatedly not to disturb the proceedings)</p> <ul style="list-style-type: none"> • We would help sons and daughters of fisherman to educate them and trained. We would do everything practicable to achieve this end. 	<ul style="list-style-type: none"> • Closed. <p>CSR activities carried out by Adani Foundation in four verticals i.e.: - (1) Education, (2). Community Health, (3). Sustainable Livelihood and (4). Rural Infrastructure Development.</p> <p>Appropriate financial contribution is being made. Schemes promoted by District Authorities and Forest & Environment Department, GoG are also included.</p>
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		<p>this area. Erosion of shore is up to 2500 meter towards Dumas.</p> <p>ICMAM report is not studied. There is no clarity on what steps are required to control the erosion of shore near Dumas, so it is my request that it should not be given Environment Clearance.</p> <p>This area is declared reserved for vultures. As per survey there are about 150 vultures in the forest area. This report does not include what would happen to vultures, where they would go and what would be impact on Environment. So it is my request that it should not be given Environmental Clearance.</p> <p>There are approximately 2500-3000 fishermen families. There will be crisis for their livelihood.</p> <p>There is no clarity for rehabilitation and resettlement from Adani. So it is my feeling and request that it should not be given Environmental Clearance.</p> <p>Routes to sea are almost closed specifically for "Pagadia fishermen", who do fishing on foot. There is a big problem of their livelihood. Due to loss of fishing activities now they will not get thousands of crores of rupees which they were supposed to get due to fishing activities. Rs. 15 lacs is not sufficient compensation for that.</p> <p>This area comes under CRZ-IA. Specific fish called "Levta" grows in the mudflat and fishermen catch that fish in this mud and earn their livelihood. Due to excavation and reclamation there will be damage to biological mud and destruction of marine ecology. EIA report does not have clarity</p>	<ul style="list-style-type: none"> • We are developing the port by reclamation. This cannot any way cause salinity ingress in the ground water. We are going to investigate the quality of ground water every year 	<p>Please refer the <u>Annexure-3</u> for the status of the CSR activities planned during the Financial Year: 2019-20.</p> <ul style="list-style-type: none"> • Complied Proper care is being taken during construction activity to avoid salinity ingress and any degradation of water quality. M/s. AHPPL is monitoring the Ground Water Quality at one location on monthly basis. Results show no significant change in the quality. Ground water quality is being monitored through M/s. Pollucon Laboratories, Surat (a MoEF&CC recognized and NABL accredited laboratory). <p>Please refer the <u>Annexure-4B</u> for the Environmental Monitoring / Analysis Reports for the</p>
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		<p>on what actions are required. So it is my feeling and request that it should be clarified in EIA report or not be given Environmental Clearance.</p> <p>Before Adani came there was mangrove forest in the area of 40 ha. As per survey today mangroves survive in the area of 15 ha only. Due to destruction of mangrove there will be damage to environment and coastal erosion. This study is not covered in EIA so it is my feeling and request that it should not be given Environmental Clearance.</p> <p>Five ports from 15 different companies and two big ports within 5 Km are coming in this area. The cumulative impact on road & rail transport due to operation of both ports Adani & Essar is not studied while preparing the impacts on land environment. Six-lane-road is also not going to be sufficient for this. So I request that Environment clearance should be given only after doing cumulative study.</p> <p>As reported, level of Suspended Solids & Petroleum Hydrocarbon is high as compared to desired levels in water. Level of pollution in the areas of water, air and land is already high as compared to other locations in the country. EIA report does not have clarity on what steps will be taken to bring down the pollution. So it is my feeling and request that it should not be given Environmental Clearance.</p> <p><i>(It is to be noted that Mr. Jayeshbhai Patel belongs to "Dihen village" which is approximately 18 Km away</i></p>	<ul style="list-style-type: none"> • Our EIA has been done by M/s. Cholamandlam MS Risk Service Limited and M/s. National Institute of Oceanography. These are well respected and neutral expert organizations a head quartered outside Gujarat. Their studies have been accepted by Gujarat Coastal Zone Management Authority. Thus we want to work with you and be helpful to you. <p><i>(At this stage some of the individuals asked clarification for employment in the company. Collector Shri directed the company representative to answer it, and advised audience to listen to the representative peacefully.)</i></p> <ul style="list-style-type: none"> • The port has opportunities for both technical and non-technical employment. Moreover indirect employment in transport and other services will also be there. All these 	<p>period October 2019 to March 2020</p> <ul style="list-style-type: none"> • Complied. <p>CSR activities carried out by Adani Foundation in four verticals i.e.: - (1) Education, (2). Community Health, (3). Sustainable Livelihood and (4). Rural Infrastructure Development. Please refer the <u>Annexure-3</u> for the status of the CSR activities planned during the Financial Year: 2019-20.</p> <ul style="list-style-type: none"> • Closed <p>Point does not warrant any further action.</p> <ul style="list-style-type: none"> • Complied. <p>AHPPL has always given employment priority to local qualified persons and in future the same</p>
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		<i>from the port site)</i>		
8	Dhansukhbhai Patel, President Hazira Coastal Area	<p>Employment is given to 30-35 people in the form of contract but we insist that it should be permanent in nature.</p> <p>For this liquid cargo transport, it will be storage of chemicals or processing of chemicals? If it is chemical processing then hazard will increase, so I request to provide information on what measures Adani will take for health and safety?</p> <p>Please provide information if this project has got any clearance from Central Government like what they have got from State Government.</p> <p>Adani has declared only 4-5 villages as affected. Will there not be any impact on Mora, Kawas or Interior of Ichhapur while trucks pass through them?</p> <p>There are 10-12 big companies in this area and they have developed residential township with all facilities for their employees. Is it not possible that each company will take one village from 10-12 villages and also provide them same facilities?</p> <p>For this, MOU is necessary and matters related to self-employment & development of village should be mentioned. We will be benefited in future; only if there will be MOU.</p> <p><i>(It is to be noted that Mr. Dhansukhbhai Patel belongs to Kawas village which does not fall within 10 Km radius of the study area)</i></p>	<p>opportunities may be taken by local residents. To facilitate them to take this opportunity we will provide necessary training to enhance their competence, so that they may not only get employment in Adani port but else were also.</p> <p><i>(At this stage Jayeshbhai and other peoples repeatedly disturbed the hearing and stopped the company representative to elaborate further. Collector repeatedly asked all concerned to maintain calm and listen to the company representative. All major points being over collector concluded the public hearing.)</i></p>	<p>will be continued. As on 31st March 2020 total 207 out of 242</p> <p>On roll employees are from Gujarat.</p>
9	Kamlaben Rohitbhai Patel,	I welcome the expansion project of Adani company. Due to proposed port priority would be		




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	Choryasi Taluka Panchayat, Leader of opposition party	given to Hazira and surrounding area for employment and business. I request that fishermen's concerned would be taken care by this project. Adani Foundation of Adani Company has given commitment for the various activities for the development of village. So I welcome the project and declare my support for the Port of Adani Company at Hazira.		
10	Mohanbhai Ambubhai Patel, Village: Vaswa	<p><i>(Collector informed Mohanbhai to raise those issues only, which were not raised earlier)</i></p> <p>Adani Company has told that 700 people will be employed. Please clarify whether it will be permanent or contractual basis? Thousands of people are working on contractual basis in the surrounding companies but nobody gets permanent employment.</p> <p><i>(Then Regional Officer, GPCB again informed the concerned persons to raise other issues if any. The employment issue will be addressed by the company.)</i></p> <p>As per survey carried out by NIO out of 1600 km of Gujarat coast nearly 25% is already filled due to construction of ports at other places. As a consequence of this, there will be huge damage to agriculture in the surrounding area and there would also be ingress of sea water in the area.</p> <p>Adani Company has decided to pay compensation of Rs. 15 lacs to 40 fishermen but what arrangement company will make for the 4000 fishermen in the surrounding villages?</p> <p>Adani Company is developing their project on 31428 ha of land. Is this land private or</p>		

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		<p>government? If it is on private land then whole Junagam village would be vacated. Survey numbers are also not shown for this land.</p> <p><i>(It is to be noted that Mr. Mohanbhai Patel belongs to Vanswa village which does not fall within 10 Km radius of the study area)</i></p>		
11	Jayantibhai Khalasi President, Fish Progress Union, Hazira	<p>You all will go away after this public hearing but whom should we contact regarding pollution in our area?</p> <p><i>(Then Collector informed him that regarding pollution he may contact GPCB.</i></p> <p><i>Regional Officer, GPCB also informed him that regarding pollution he can submit in writing.)</i></p>		

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DETAILS OF BUDGET EXPENDITURE THE CSR ACTIVITIES CARRIED OUT DURING FY 2019-20

Budget Expenditure 2019-20			
S No	Programs /Project	Budget	Expenditure
1	Education	71.38	58.68
2	Sustainable Livelihood Development	24.53	45.94
3	Community Health	6	5.78
4	Community Infrastructure Development	214.42	143.98
5	Project Utthan	14.2	11.37
		330.53	265.75

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Annexure-2:

Compliance Status of EMP as mentioned in the Integrated EIA Report, 31st March 2020

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Compliance Status of EMP as mentioned in the Integrated EIA Report, Sep., 2012:

S. No.	EMP Conditions	Compliance Status as on 30.09.2019
I.	AS PER TERRESTRIAL ENVIRONMENTAL IMPACT ASSESSMENT REPORT: -	
A	CONSTRUCTION PHASE:-	
1.	Dredged Soils Management Plan: AHPPL has been permitted to dredge about 37 million cubic meter of soil, which shall be reused for backfilling in the project site. The dredged soil samples will be collected and analysed periodically for designated pollutants as per the recommendations of statutory authorities.	Complied. No disposal has been done till date. All the dredging material is being utilized for level raising, reclamation. If any excess material generated will be disposed of at the location already approved by the MoEF&CC.
2.	Air Quality Management: Fugitive dust will be generated during construction phase of the project due to handling of wet dredged and excavated soils. Dust control program will be implemented to reduce the dust generation during construction at project site. Water sprinkling will be adopted on haulage roads and construction site.	Being Complied Water sprinkling is being done on haulage roads on regular basis.
3.	Noise Control Programs: 1. Onsite fabrication activities should be undertaken at a designated location, which should be located away from the office buildings and any other working areas. 2. In case noise emissions from the fabrication activities exceed a level of 85 dB (A) at the fence-line of the fabrication yard, temporary noise barrier can be installed. 3. Portable diesel engine generators and diesel engine driven compressors, if any, should be covered with noise enclosures.	Complied Fabrication activities have been done at a designated location away from the office buildings and working areas. Complied Noise level was below 85 dB(A) during the fabrication. Currently no fabrication activities are going on. Complied. In-built noise enclosures are available in portable diesel engine generators and diesel engine driven compressors to reduce the noise level.
4.	Sewage Management Program: Sewage generated from the construction site will be treated in modular STP and shall be used for green belt development / landscaping after achieving prescribed standards by GPCB.	Being Complied Sewage generated from the construction site is being treated in STP and treated water is being used for greenbelt development.
5.	Solid and Hazardous Waste Management Program: The solid waste generated should be segregated and categorized under various rules such as HWM 2008, SWM 2000, the Batteries Rules 2001 including processing of used oil by authorized recyclers should be carried out by the rules and procedures prescribed by CPCB and also meet the requirements of GPCB.	Being Complied All the wastes are being segregate at source and handled as per applicable rules/ guidelines and disposed off through GPCB approved agency.



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6.	Construction Phase Storm Water Runoff: It has been recommended to adopt soil stabilization plans and storm water sedimentation basins to control the silt before discharging the storm water into sea.	Complied Separate storm water channels have been developed to discharge the storm water.
7.	Sanitation: The facilities presently available with the nearby villages will continued to be used during construction activities and no major sanitation problem is expected during construction period. The workers at the project site will be provided with proper sanitation arrangement.	Complied Proper sanitation arrangements are available for workers at project site.
B.	OPERATION PHASE: -	
1.	Air Quality Management:	
i.	Cargo-Handling Equipment: 1. Retrofitting the old equipment to meet the vehicular emission standards. 2. All the vehicles and equipment will be certified with PUC norms shall be deployed.	Being Complied All the deployed vehicles and equipment are PUC certified.
ii.	Standby Diesel Generators: DG Sets will be operated on clean diesel fuel with sulphur content less than 0.5%. Minimum stack height of 30m will be provided to disperse the gases into the atmosphere as per the guidelines suggested by Central Pollution Control Board.	Being Complied DG Sets are being operated on clean diesel fuel with sulphur content less than 0.5% and provided the adequate stack height are being provided as per CPCB/GPCB norms to disperse the gases into the atmosphere.
iii.	Fugitive Coal Dust Control Program: The management of AHPPL has proposed to adopt the following fugitive coal dust control measures: - a. Dry Fog System - A new, proven and cost effective technique to control dust is "Dry Fog" system to suppress the dust from the air. The name fog is just what it implies small droplets of water injected into the air. Fogging works by releasing very small droplets of water into the air. Airborne dust particles adhere to the water droplet and agglomerate. If the fog is generated in the right way, by using pressurized water, the energy required can be very low between 2 to 3 kW for a system requiring hundreds of nozzles, e.g.: A large stockpile tripper conveyor - giving considerable operating cost savings when compared to other techniques, The sprinkler droplet sizes should be maintained less than 100 microns. b. Sprinklers: Once stockpiled, water can be sprayed on the stockpiles to keep them damped down. Swivelling sprinklers should	Complied. Following control measures are in place and effectively working at port to control fugitive dust: - 1. Transportation of coal from jetty to coal storage yard through 1.7 Km. long conveyor belt with hood. 2. Water sprinklers in the coal yard, 3. Dust Suppression System / Spray Nozzles in Conveyor System and Discharge Chute, 4. Water spray through Water Browsers, 5. Water Mist Canon / Fog System, 6. Wind Brake Shield of 14 meters high and 1200 meters long, 7. Transportation of cargo from port to hinterland is being done through dumpers / trucks covered with tarpaulin, 8. Regular cleaning of the roads through Road Sweeping Machines, and



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	be used along the lengths of the stockpile with caution, however, as the volume of water required can be significant, causing drainage and run-off treatment problems.	9. Company has set up dedicated greenbelt area for plantation at periphery / avenue plantation / landscaping etc. Total greenbelt area developed so far is approx. 74.30 ha within the port premises.
2.	Noise Control Program: The following source noise control plans have been suggested: - <ul style="list-style-type: none"> ➤ Covering of sound intensive components with insulation. ➤ Using noise absorbing building materials if required for housing compressors and diesel generators etc. as per the guidelines suggested by Central Pollution Control Board. ➤ Adopting low noise driving (Eco-driving) ➤ Using silent exhaust pipes for major diesel engine vehicles and heavy trucks operated inside the port. ➤ Planting trees which act as barrier to arrest dispersion of noise levels. ➤ Using electricity powered equipment inside the port instead of diesel powered ones will be explored to the extent possible. 	Complied. <ul style="list-style-type: none"> • All the sound intensive components (DG Set and Compressor) are with acoustic enclosures. • Green belt development is in progress. • All RTGs and Quay Cranes are electricity operated.
3.	Waste Water Management: Port handling operations would generate wastewater from the following sources: - <ol style="list-style-type: none"> 1. Ship ballast water, 2. Ship deck wastewater including sewage, 3. Rejects from desalination plant, 4. Workshop and vehicle maintenance shop wastewater, 5. Leachate from coal stock yard, 6. Floor cleaning and tank cleaning wastewater from the liquid tank farm, 7. Sewage from port facilities. The proposed wastewater treatment and reuse program has been presented hereunder: - <p>A variety of vessels use the waters within the port, including bulk coal ships, tugs and line boats. Discharges from bulk ships are not expected to occur within the port because these large ships normally have on-board storage and sewage treatment plants, allowing discharge of treated effluent at sea as per the provision of MARPOL.</p>	Being Complied <ul style="list-style-type: none"> - AHPPL is not accepting Ballast/ Sewage water from Ships. - Desalination plant not yet installed. - There is no effluent generation from workshop. Vehicle maintenance is not done in port premises. - There is no leachate from dump pond. - Tank cleaning wastewater is being treated into ETP. - Domestic waste water is being treated in the STP and then used for horticulture purpose within the port premises. Complied.



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	<ul style="list-style-type: none"> ➤ Except monsoon, leachate from coal stock yard is not envisaged. However small quantities, if any, will be treated in the effluent treatment plant. Wastewater from vehicle work-shops will also be treated in the proposed onsite effluent treatment plant. ➤ As far as possible all chemical spills at liquid handling facilities will be treated with dry spill absorbing material and water will not be used. Spillage if any occurs will be treated in a dedicated onsite wastewater treatment plant, which consists of an oil removal unit, primary chemical treatment unit and biological treatment units followed by activated carbon unit. Biologically treated wastewater will be further treated in the central sewage treatment plant. Treated wastewater will be used for dust suppression and horticulture applications at the facility. No treated wastewater will be discharged outside the port facilities. 	<p>Dedicated coal dump pond is being provided to collect the runoff (if any) from coal yard and it is further reused for dust suppression purpose into coal yard.</p> <p>Complied with. No spill has occurred till date. If, spills occurred, spilled material/chemical will be treated into ETP and treated waste water will be reused in greenbelt development / plantation purpose.</p>
4.	<p>Storm Water Management Plan:</p> <ul style="list-style-type: none"> ➤ Storm water from the coal stockpile area will be passed through a series of sediment traps to remove the majority of the coal sediment before discharging into the natural drains. It has been proposed to construct a garland drain for all bulk storage facilities to avoid silting into the marine eco-system. ➤ All liquid storage tanks will be provided with dykes to avoid any cross contamination of storm water from chemical spills. Storm water drains shall be designed in order to avoid any flooding of the coal stock yard and liquid chemical tank farm areas. 	<p>Complied Garland drain for all bulk storage facilities are provided to avoid silting into the marine eco-system. Storm water from the coal stockpile area is collected into dump ponds to remove the coal sediment.</p> <p>Complied. All liquid storage tanks are provided with dykes to avoid any cross contamination of storm water from chemical spills. Storm water drains and effluents drains are separate.</p>
5.	<p>Solid and Hazardous Waste Management:</p> <ul style="list-style-type: none"> ➤ Solid wastes generated from the port handling facilities consist of packaging waste such as wood, paper/carton, steel scrap etc. 	<p>Complied.</p> <ul style="list-style-type: none"> - Solid wastes generated during port development i.e.: construction & demolition wastes are reused for level rising of low lying area within the port premises. Kitchen/ Food, Horticulture/Garden wastes are being sent to Organic Waste Converter (OWC) to convert it into compost and reused as manure in greenbelt/plantation. - Packaging materials generated from the cargo handling i.e.: Wood, Paper/Carton, Steel Scrap,



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	<ul style="list-style-type: none"> ➤ All the hazardous wastes and solid wastes such as Oil containing cargo residue, Chemical containing cargo residue and sludge, contaminated cotton waste, spent exchange resin and ETP Sludge, etc. shall be segregated at source and stored at the earmarked area. ➤ Recyclable wastes will be collected and disposed to waste recycling vendors through certified recyclers wherever applicable. ➤ Hazardous wastes include contaminated chemical spills, spent dry adsorbing spill absorbing material used for large marine and onshore chemical spills, used lubricating oils and greases. The chemicals spill inventories and spent dry absorbing material will be stored in a dedicated onsite tank and will be disposed to authorized hazardous waste incinerators. ➤ Spent lube oils and greases will be disposed to authorized used oil recycling vendors. ➤ A dedicated and completely enclosed shed will be identified to store the hazardous wastes in order to avoid any cross contamination from storm water. ➤ All the waste should be segregated, collected, categorized as per the HWM Rules 2008, SWM Rules 2000 and Batteries Rules 2001 prescribed by CPCB under Environmental Protection Act, 1986. 	<p>Plastic/Tarpaulin etc. are collected and sold out to recyclers.</p> <p>Complied. All the wastes are segregated at source and stored at a dedicated Hazardous Waste storage shed/yard.</p> <p>Complied. Recyclable waste is being collected and disposed of through CPCB/GPCB registered recyclers.</p> <p>Complied. No spill has occurred till date.</p> <p>Complied. Recyclable wastes is being collected and disposed of through CPCB/GPCB registered recyclers.</p> <p>Complied. All the wastes are stored at a dedicated hazardous waste storage shed/yard.</p> <p>Being Complied All the wastes are being segregate at source and handled as per applicable rules/ guidelines.</p>
6.	<p>Greenbelt and Plantation:</p> <ul style="list-style-type: none"> ➤ AHPPL will develop thick green belt plantation in and around the proposed project facility covering 81.27 Ha. Efforts will be taken to increase the green cover in and around the project boundary using local species with a view to ameliorating project related disturbances and enhancing the ecological value of the area. Greenbelt would be developed as per the CPCB guidelines. ➤ A capital cost of Rs. 1.62 Crore and an annual recurring budget of Rs. 0.65 Crore will be earmarked for this purpose. 	<p>Complied Company has set up dedicated greenbelt area for plantation at periphery / avenue plantation / landscaping etc. Total greenbelt area developed so far is approx. 74.30 ha till 31st March 2020.</p> <p>Horticulture budget for FY 2019-20 was Rs. 139.57Lakhs.</p>
7.	<p>Community Development Plan: AHPPL has identified focused areas for community development and implement</p>	<p>Complied.</p> <ul style="list-style-type: none"> • CSR activities carried out by Adani Foundation in four verticals i.e.: - (1) Education, (2). Community Health,




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	<p>developmental program. The identified activities under CSR program are as follows: -</p> <ol style="list-style-type: none"> 1. Infrastructure development for educational facilities like building of schools, computer rooms, multipurpose activity halls 2. Supporting education through distribution of stationary, scholarships, science kits, bicycles to children, conducting education camps, competitions. 3. Strengthening the community health by arranging health camps, AID awareness camps, providing financial support to senior citizens and poor people, building dispensaries and mobile dispensaries. 4. Improvement of rural sanitation by conducting mass awareness campaign, helping villagers for constructing and maintaining household toilets, school toilets. 5. Improvement in animal husbandry and agriculture by arranging camps for farmers and cattle owners, conducting programs to use new irrigation technologies, organic farming, and free fodder supply. 6. Organizing need based skill development program to women and youth for their empowerment. 7. Rural infrastructure development by construction of rainwater harvesting ponds, check dams, roads, bus stops, drainage systems, fish landing shed, solar street lamps. AHPPL has committed to spend about Rs. 8.21 Crore in the first five years of the operation towards various rural upliftment and community development programs and tentative budget has been presented in the below table - Budgeted Expenditure for CSR and Community Development Activities:- <table border="1"> <thead> <tr> <th>S. No.</th><th>Descriptions</th><th>Budgeted Amount For 1st 5 year Period (Amount rupees in Crore)</th></tr> </thead> <tbody> <tr> <td>1</td><td>Education</td><td>2.29</td></tr> <tr> <td>2</td><td>Community Health</td><td>1.18</td></tr> <tr> <td>3</td><td>Sustainable Livelihood Activities</td><td>1.43</td></tr> <tr> <td>4</td><td>Rural Infrastructure Development</td><td>2.04</td></tr> <tr> <td>5</td><td>Entry Point Activities</td><td>1.27</td></tr> <tr> <td colspan="2">Total</td><td>8.21</td></tr> </tbody> </table>	S. No.	Descriptions	Budgeted Amount For 1 st 5 year Period (Amount rupees in Crore)	1	Education	2.29	2	Community Health	1.18	3	Sustainable Livelihood Activities	1.43	4	Rural Infrastructure Development	2.04	5	Entry Point Activities	1.27	Total		8.21	<p>(3). Sustainable Livelihood and (4). Rural Infrastructure Development.</p> <ul style="list-style-type: none"> • Detail of the CSR activities along with budgetary provisions and progress are regularly submitted to MoEF & CC as part of six monthly compliance reports. • Please refer the <u>Annexure-2</u> for the status of the CSR activities during the Financial Year: 2019-20.
S. No.	Descriptions	Budgeted Amount For 1 st 5 year Period (Amount rupees in Crore)																					
1	Education	2.29																					
2	Community Health	1.18																					
3	Sustainable Livelihood Activities	1.43																					
4	Rural Infrastructure Development	2.04																					
5	Entry Point Activities	1.27																					
Total		8.21																					
II.	MARINE ENVIRONMENT MANAGEMENT PLAN:																						
A.	CONSTRUCTION PHASE: -	Complied.																					

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	<ul style="list-style-type: none"> ➤ The dredge spoil generated during capital dredging will be used for land reclamation for the port development and associated utilities. ➤ Unused dredged material will be disposed off at approved dump sites to the north of port area including dredged soil generated through maintenance dredging. ➤ Appropriate dredging methodology shall be adopted to control the generation of high levels of suspended solids. If the suspended solids concentration increases, the dredging operation should be stopped till the normal conditions are achieved. ➤ General clean up along the corridor used for construction related activities, adjacent intertidal areas, creeks etc. should be undertaken and all the discarded materials must be removed from the site and aesthetic quality of the surroundings to be restored, once the construction activities are completed. 	<p>No disposal has been done till date. All the dredging material is being utilized for level raising, reclamation.</p> <p>Complied</p> <p>If any excess material generated will be disposed of at the location already approved by the MoEF&CC.</p> <p>Noted & Being Complied</p> <p>Monitoring of turbidity level in the sea water is being done and there is no abnormal increase observed.</p> <p>Being Complied.</p> <p>Cleanup of the area is regularly being done.</p>
B.	<p>OPERATION PHASE: -</p> <p>The following mitigation measures are recommended during port operation: -</p> <ul style="list-style-type: none"> ➤ Sewage generated from the port operations will be treated in sewage treatment plant and treated water shall be used for horticulture and green belt development. ➤ All the solid waste generated from the port will be properly segregated, stored and disposed as per the applicable statutory requirement. ➤ All the structures shall be designed in such a way that it should not restrict the prevailing tidal ingress in the creek and mangrove habitats in the vicinity to ensure good health condition. ➤ Coastline between Suwali Point and Tapti Estuary mouth and around the port area will be periodically surveyed to assess erosion and accretion. Should the need arises the corrective action in terms of shore stabilization shall be undertaken. ➤ All the minor and major spillages of chemicals will be effectively controlled with appropriate tools and equipments. 	<p>Complied.</p> <p>Sewage generated from the port operations is being treated in STP and treated water is being used for horticulture and green belt development.</p> <p>Complied.</p> <p>All the solid waste generated from the port is properly segregated, stored and disposed as per the applicable rules.</p> <p>Being Complied</p> <p>Free flow to the mangrove is not restricted by any of our activity.</p> <p>Complied.</p> <p>Shoreline change study was conducted by NIO, Vizag during the period from November, 2014 to December, 2015. Study confirms that there is no significant change in the nearby shoreline except for the approved layout of the AHPPL. The report did not warrant any mitigation measures.</p> <p>Noted and Being Complied.</p> <p>There is no oil spill till date.</p> <p>Complied.</p>

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	<ul style="list-style-type: none"> ➤ An oil/chemical spill management plan shall be evolved and be in place for tier-1 (100t) and tier-2 (700t) spills in consultation with Gujarat Maritime Board/Coast Guard. ➤ All the marine outfall shall meet the Gujarat Pollution Control Board Effluent Discharge Criteria for Seawater Disposal Standards. ➤ Monitoring of water area of the port and effluent disposal sited shall be studied for pH and Corg, Suspended Solids, DO, BOD in order to identify for deviations if any from the baseline environmental quality. ➤ The mitigation measures suggested for effluent release and maintaining of effluent disposal sites should also be adopted for effluent release by NIKO should be implemented. 	<p>Oil Spill Contingency Plan has been prepared and the same was approved/vetted by Indian Coast Guard (Letter No.: 7563, dated 09.01.2014).</p> <p>Noted and Being Complied</p> <p>No effluent is being discharged.</p> <p>Complied.</p> <p>Please refer the Annexure-4D for the Sea Water Quality Monitoring / Analysis Reports for the period April 2019 to September 2019.</p> <p>Noted,</p> <p>AHPPL is not discharging any effluent outside the port premises.</p>
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ANNEXURE-3

**Details Of The CSR Activities Along With Budgetary Provisions And Expenditures For
The Financial Year: 2019-20.**

Activities under Corporate Social Responsibility FY 2019-20

Corporate Social Responsibility plays an important and significant role in the nation building process, and Adani Foundation's social and developmental initiatives are a step in that direction. At Adani Foundation, we believe that companies should and must wholeheartedly participate in CSR activities and give back to the society. Our main objective is to bring about a positive change in people's lives, whom we impact. We are one of the few global companies in the world who start their CSR initiatives. Adani Foundation is working as a CSR wing of Adani Groups in the four major areas; they are Education, Health, Sustainable Livelihood and Community Infrastructure Development.

At Adani Foundation, the CSR approach is strategic in nature and our CSR approach and it is embedded in our business processes across the entire value chain of the company. The objective of CSR is to improve 'Quality of Life' of the community on a sustainable basis in a pro development inclusive model of growth. For assessing community needs for a realistic and sustainable development a socio-economic survey of the community was conducted. Based on survey results, the CSR interventions have been taken up by adopting a partnership mode with government agencies, community based organizations and the local community. Sustainability of the intervention and its impact are being measured through regular third party audits.

Adani Foundation is working in all aspects of community development which is needful for core villages. This philanthropy thought stand on 4 following pillars:

- ✓ Education
- ✓ Community Health
- ✓ Sustainable Livelihood development
- ✓ Community infrastructure development

I. Education

A. JNV Coaching Classes:-

Adani Foundation, initiated support to Students for Jawahar Navodaya entrance exam coaching from this Year center started in Mora village for Hazira kantha area. Students from 6 village benefited through this coaching classes. We have started coaching classes from the month of Aug 2019. Sh. Mani Lal Lad (CRC Coordinator Mora), Principals from kantha area schools along with 39 students, parents and teachers were present in inaugural function.

We have conducted exposure visit at Borkhadi JNV Center for Parents, teacher and students. The objectives of this visit was to make people aware about facilities available at JNV, curriculum and criteria for getting admission. Fruitful discussion took place during the visit. A Total of 32 student, 4 teacher and 12 parents participated in the visit.

We also provided reading material and note books which are essential materials for their exam preparation. We have provided 3 teacher for this coaching classes for the period of five month. 39 student were enrolled for this 4 month caching classes. 36 out of 39 students appeared in JNV entrance exam on 11th January 2020. 3 students were absent due to migration of their parents.

Uniform Distribution to Navjagruti Vidhya Vihar school Hazira:-

Provided School uniforms and Notebooks to 60 needy students of Nav Jagruti vidhyavihar Hazira School during the year. All students come from marginalized section of society.

Remedial coaching classes for Tribal students of Songadh Block:-

Adani Foundation adopts an integrated approach to improve the quality of education in the poor tribal areas. The education sector is at the forefront of the foundation as it can be the true catalyst to bring change in not just an individual but the entire community as a whole. Increasing enrolment and retention of the students, focus on Priya (Slow Learner) students and promoting girl child education are three main objectives of the foundation to enable quality education. The foundation achieves this by encouraging community participation, increasing teachers' effectiveness and improving school environment.

As a part of the our CSR project, we have designed our program with Gujarat Adivashi Vikas Sangh Songadh based NGOs to strengthen basic skill of learning – Reading, Basic Mathematics and Writing – in lower primary schools in the Songadh block of Tapi District. Our major focus is on Priya students. We humbly believe that functional literacy is a basic skill to learn new things and it has become non-negotiable to become

world citizen. In this program 250 students from 05 schools from 5 villages are being benefited. From next year onward we are planning to implement Utthan project with 10 school from three CRC.

Achievements:

- Improvements in reading, writing and arithmetic skills of students. They have become more vocal and participating in various learning activities in the schools.
- Increased the use of TLMs by teachers and learning became more effective for students.
- Students are taking more interest in science and mathematics. Their knowledge has increased.

Distribution Education materials to government school students:-

Distributed education materials to government school students in presence of DEO Surat and Head of The DIET Surat. Program was conducted at Government high school Village Gabheni, Principal of 22 government school was present there. Distributed education materials will be useful to 762 students for preparing upcoming board examination. DEO Surat and Head DIET Appreciated AF efforts on field of Education.

We have provided financial support to impoverished Ms.Namira usmani for her studies.

Community Health:-

India has a very defined and structured healthcare policy, but with issues related to infrastructural development and people's health seeking behavior, access to quality healthcare services are the challenges, especially in context of rural India. Access to primary healthcare facility to people is also difficult. It is due to the factors like poverty, poor nutrition patterns i.e. food habit and availability of nutritious food, lack of awareness.

AF comprehensive health care program emphasizes on an integrated approach to community health intervention, where in development issues like Drinking water, sanitation, kitchen garden development, livelihood, nutrition and education which determine village health, are given equal attention.

During financial Year 2019-20 Adani Foundation implements a holistic Approach for target villages addressing general and special health needs of communities. We have also focused in de-addiction program which was really needed in the area.

Objective:

Various health camps are organized at Port Area. Objective behind these Camps is to deliver free medical services to migrants and needy people at remote area. The camps also provide timely referral services to the patients for further specialized care also save time and money

B. General Health Camps for Truck Drivers at Port area:-

Adani Hazira Port Private Ltd. has a movement of 3500 trucks in its premises on daily basis. These vulnerable groups of truckers who are from different part of the country are suffering from health problems. To cater these problems on health Adani Foundation have organized series of five free one day eye, dental and general health check-up camp during the year as part of its CSR initiative. The Camp was organized in association with Port security department, doctors from Tri star hospitals for the benefit of truck drivers who received free eye & health check-ups and doctor's consultation. The Company has utilized services of the specialized Doctors and latest equipment available during these camps for the benefit of truck drivers.

■ Drivers were provided special first aid kits during the camp which can be useful to them during their travelling. After check-up free medicines were provided to the truck drivers as per their illness. This initiative was highly appreciated by the truck drivers and claimed that it was very helpful for them as qualified doctors consulted them and treated them. So far around 741 truckers were benefitted thru this initiative. During this camp we have organized awareness program on de addiction for creating awareness among drivers.

De-addiction:-

Team Hazira had organized awareness camp on de-addiction in collaboration with Parivartan trust Surat at village vansva.

Halapati Youth and women had participated in this meeting and learnt trick how to leave addiction of liquor tobacco Gutkha and smoking etc. 14 Member's admitted for de-addiction camp. Total 34 members were participated in village level awareness meeting at Vansva. Awareness on Citizen Chart for various social security schemes available for privileged groups, AF Team supported 12 identified Halpati widow members in filing of widow pension scheme and initiated the application process.

The de-addiction Campaign on anti-social element users Halpati among Halpati Communities turn out in positive way. After 21 days admitted at De addiction Center, Surat 5 out of 14 youths could recover and start a normal life without Alcohol and Tobacco.

Process:-

- Detail investigation of the addicted individual who seeks AF support in changing his life.
- House-hold Survey
- Family verification.
- 21- Days rehabilitation support provided to the addicted individual.
- Visit by AF to the Rehabilitation Center.
- After the completion of course *welcoming of the changed individual*.
- Continuous follow-up of the changed individual.
- Meeting with Young and women for sensitizing

Sustainable livelihood development:-

Barbodhan Centre: - April 2019 to March 2020

• BACKGROUND

As community initiative and rural development through CSR, Adani Foundation, Hazira has assigned responsibility to BAIF Institute for Sustainable Livelihoods and Development- Gujarat to start Cattle Breeding Centre with other need base allied activities at Barbodhan, Tal Choryasi, Dist. Surat to empower village level livestock holding marginalized sections of society.

BISLD-Gujarat is rendering door-to-door cattle breeding facilities in 13 project villages of Adani Foundation along with implementing need base allied activities.

• YEARWISE CALVING STATUS SINCE INCEPTION

Year	Cow			Buffalo			GRAND TOTAL		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
2017-18	0	0	0	0	0	0	0	0	0
2018-19	19	17	36	51	48	99	70	65	135
2019-20	49	50	99	124	124	248	173	174	347

TOTAL	68	67	135	175	172	347	243	239	482
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- Since inception Total 482 calving are reported in project villages out of which 135 are in cows and 347 are in buffaloes.
- Total 135 calving are reported in cows in project villages out of which 68 are Male calves and remaining 67 are Female calves, it does clearly indicates that *Male: Female born ratio in Cows is 50:50*.
- Total 347 calving are reported in Buffaloes in project villages out of which 175 are Male calves and remaining 172 are Female calves, it does clearly indicates that *Male: Female born ratio in buffaloes is 50:50*.
- Overall 482 calving are reported in Buffaloes in project villages out of which 243 are Male calves and remaining 239 are Female calves, it does clearly indicates that *Male: Female born ratio in buffaloes is 50:50*.
- Total 239 female calves are born since inception in project villages out of which 67 are in cows and 172 are in buffaloes.
- In good management practices female calves of cow will become milking cow on an average age of 3 to 3.5 years where as female calves of buffaloes will become milking buffalo on an average age of 4 to 4.5 years.

• Base line Data of Animal Population

Sr. No.	Name of Village	Total Families	Livestock Holding Families	Breedable Cow Population	Cow Population Against Total Breedable Cow & Buff Population	Breedable Buffalo Population	Buff Population Against Total Breedable Cow & Buff Population	Total Breedable Animal Population
1	Barbodhan	785	298	52	11.43	403	88.57	455
2	Malgama	230	175	27	6.35	398	93.65	425
3	Behsan	394	125	14	3.41	397	96.59	411
4	Segvachama	340	260	41	9.69	382	90.31	423
5	Bahandot	288	262	112	17.39	532	82.61	644
6	Deehen	395	230	230	21.14	858	78.86	1088
7	Kuknee	12	85	37	14.	22	85.60	257

		0			40	0		
8	Ambetha	231	170	48	8.6 0	51 0	91.40	558
9	Aryana	15 0	90	23	5.3 7	40 5	94.63	428
1 0	Tunda	50 6	115	12 5	21. 82	44 8	78.18	573
1 1	Khosadiya	173	152	70	15.7 3	37 5	84.27	445
1 2	Pinjrat	36 5	31 0	29 5	26. 43	82 1	73.57	1116
1 3	Tena	10 8	79	21 4	59. 12	14 8	40.88	362
		40 85	23 51	128 8	17.9 3	58 97	82.07	7185

- Highest animal population is in village Deehen i.e. 15.14% against total population of all project villages followed by Bhandut (8.96%), Tunda (7.97%), & Ambetha (7.77%).
- Project villages are dominated by buffaloes i.e. more than 82% population of total breedable population.
- In almost all villages' buffalo population is more than 75% as compare to cow population except in village Tena where buffalo population is 40% and cow population is 60%.
- Highest cow population i.e. above 200 is in village Pinjarat (296), Deehen (230) & Tena (214).
- Lowest Cow population i.e. below 50 is in village Behsan (14), followed by Aryana (23), Kuknee (37), Segvachama (41) and Ambetha (48).
- Highest buffalo population i.e. above 500 is in villages Deehen (858) followed by Pinjarat (821), Bahandot (532) and Ambetha (510).

- FOLLOW UP FOR THE INSEMINATION WORK DONE IVth QUARTER (JAN, FEB, MAR) OF 2019-20 DONE IN 1st QUARTER (APR, MAY, JUN) OF 2019-20**

- Total 195 inseminations were done in IVth Quarter of 2019-20 out of which 180 animals were examined for conformed pregnancy and out of 180 examined animals 108 were cows and 72 were buffaloes.
- In cows 66 inseminations were done in IVth Quarter of 2019-20 & 59 were examined for conformed pregnancy out of which 36 cows were found conform pregnant. It does clearly indicates that conception rate on AI basis & examination basis in Cows is 54.54% & 61.09% respectively.
- In Buffaloes 129 inseminations were done in IVth Quarter of 2019-20 & 121 were examined for conformed pregnancy out of which 72 buffaloes were found conform pregnant. It does clearly indicates that conception rate on AI basis & examination basis in buffaloes is 55.81% & 59.50% respectively.
- Overall Conception rate for the insemination work done in IVth Quarter of 2019-20 on AI basis is 55.38% and 60% on examination basis.
- Highest conception rate on AI basis in Cows is noted for the inseminations done in the months of March 2019 i.e. 69.23%.

Highest conception rate on AI basis in buffaloes is noted for the inseminations done in the months of March i.e. 59.26%.

Breed	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	TOT
COW	14	12	26	20	21	26	16	22	11	10	14	15	207
BUFFALO	21	34	30	50	55	61	50	68	80	56	50	40	593
TOTAL	35	46	56	70	80	87	66	90	91	66	64	55	800

- **SUMMARY OF ARTIFICIAL INSEMINATIONS (AI), EXAMINATIONS & CONFORMED PREGNANCY STATUS w.e.f. APR 2019 to MAR 2020**

- **Month wise inseminations in cows and buffaloes**

- Highest inseminations i.e. above 75 were done in Aug (80), Sept (87), Nov (90) & Dec (91).
- Lowest Artificial Inseminations i.e. below 50 was done Apr (35), May 19 (46).
- Increasing trend of inseminations was seen from Apr 19 to Sept 19.
- Decreasing trend of inseminations was seen from Jan to March 20.
- Total 800 inseminations were done w.e.f. APR 2019 to MAR 2020 out of which 577 animals were examined for conformed pregnancy and out of 577 examined animals 302 were found conformed pregnant.
- Overall conception rate for the artificial inseminations done w.e.f. Apr 2019 to Dec 2019 is 49% i.e. on AI BASIS.
- Lowest conception rate i.e. below 45% was seen in months Aug 19 (41%), Sept 19 (43%)
- Artificial Inseminations done during Jan 20 (66), Feb 20 (64) & Mar 20 (55) will be done in Apr 20, May 20 & Jun 20 respectively.
- Total 207 inseminations were done in cows w.e.f. APR 2019 to March 2020 out of which 149 animals were examined for conformed pregnancy and out of 149 examined animals 81 cows were found conformed pregnant.
- Highest number of inseminations in cows i.e. above 50 was seen in the month of May 19, Jun 19, Nov 19 (50%), Jul 19, Dec 19 (55%).
- Overall conception rate for the artificial inseminations done in cows w.e.f. Apr 2019 to Dec 2019 is 48% i.e. on AI BASIS.
- Lowest conception rate in cows i.e. below 45% was noted in the month Apr 19 (43%), Sept 19 (42%), & Oct 19 (44%)..

- Follow up for conform pregnancy for Artificial inseminations done in cows in the month Jan 20 (10), Feb 20 (14) & Mar 20 (15) will be done in Apr 20, May 20 & Jun 20 respectively.
- Total 207 inseminations were done in cows during APR 2019 to March 2020 out of which 138 inseminations were done in HF cross cows i.e. 66.67% against total inseminations.
- Upgrading of 53 nondescript cows was done i.e. 25.06% against total inseminations in cows by using semen of highly evolved frozen semen.

➤ MONTHWISE CONCEPTION RATE IN COWS:-

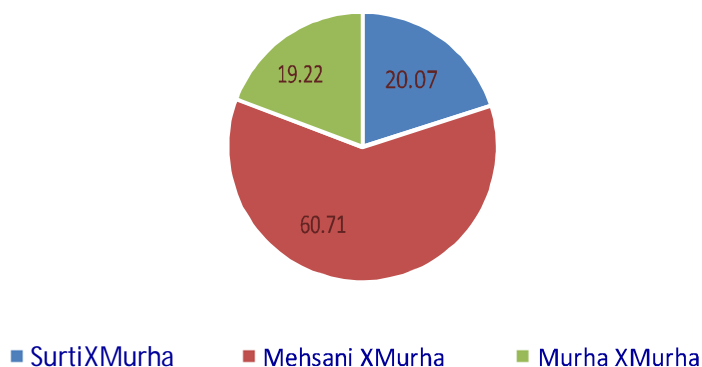
- Total 593 inseminations were done in buffaloes w.e.f. APR 2019 to DEC 2020 out of which 426 animals were examined for conformed pregnancy and out of 426 examined animals 221 buffaloes were found conformed pregnant.
- Increasing trend of inseminations were noted w.e.f. APR 2019 to DEC 2020 i.e. 10 to 45 after December decreasing trend was noted till March 2020 i.e. 21 to 80.
- Highest number of inseminations in buffaloes i.e. above 75 were done in the Dec 19 (80).
- Lowest number of inseminations i.e. below 25 was done in the months of Apr 19 (21).
- Overall conception rate for the artificial inseminations done in buffaloes w.e.f. APR 2019 to DEC 2020 is 49% i.e. on AI BASIS.
- Lowest conception rate in buffaloes i.e. below 45% was noted in the month Apr 19 (43%), Sept 19 (42%) & Oct 19 (44%).
- Follow up for conform pregnancy for Artificial inseminations done in cows in the month Jan 20 (56), Feb 20 (50) & Mar 20 (40) will be done in Apr 20, May 20 & Jun 20 respectively.

• BREEDWISE AI IN BUFFALOES

Month	Surti X Murrah	Mehsani X Murrah	Murrah X Murrah	TOTAL
Apr-19	5	8	8	21

May-19	5	20	9	34
Jun-19	5	21	4	30
Jul-19	8	28	14	50
Aug-19	11	32	16	59
Sep-19	10	33	12	55
Oct-19	7	28	15	50
Nov-19	19	44	5	68
Dec-19	16	56	8	80
Jan-20	10	35	11	56
Feb-20	13	32	5	50
Mar-20	10	23	7	40
TOTAL	119	360	114	593

BREEDWISE AVERAGE AI DONE IN BUFFALOES DURING 2019-20



- Total 593 inseminations were done in buffaloes during APR 2019 to DEC 2020 out of which 360 inseminations were done in Mehsani Buffaloes i.e. 60.71% against total inseminations.
- Upgrading of 119 low milk producing Surti Buffaloes i.e. 13.97% against total inseminations in buffaloes was done by using semen of highly evolved frozen semen of Murrha Buffalo bull.

- **VILLAGEWISE ARTIFICIAL INSEMINATIONS IN COWS (APR 19 to DEC 20), CONFORMED PREGNANCIES (APR 19 to DEC 19) & STATUS OF PENDING FOLLOW UP**

Sr. No.	Name of Village	NO. of AI's done in COWS from Apr 19 to Mar 20	NO. of AI's done in COWS from Apr 19 to Dec 19	No of Animals Examined against AI's Done from Apr 19 to Dec 19	No of Animals Pregnant against AI's Done from Apr 19 to Dec 19	Pending follow-up for the AI's done in Jan 20, Feb 20 & Mar 20
1	Barbodhan	25	20	17	5	5
2	Malgama	4	0	0	0	4
3	Bhesan	8	7	6	3	1
4	Segava Chhcama	16	12	11	8	4
5	Bhandut	20	19	18	8	1
6	Dihen	11	7	5	4	4
7	Kukani	14	7	6	4	7
8	Ambheta	14	13	11	8	1
9	Ariyana	12	9	8	6	3
10	Tunda	0	0	0	0	0
11	Khosadiya	3	3	3	2	0
12	Pinjarat	23	17	16	11	6
13	Tena	57	54	48	22	3
	TOTAL	207	168	149	81	39

- Pending follow up of 39 inseminations done in cows in Jan 20 2019, Feb 20 & Mar 2020 will be done in months APR 2020, MAY 2020 & JUN 2020 respectively.
- Not a single insemination in cows was done in village Malgama & Tunda.

- VILLAGEWISE ARTIFICIAL INSEMINATIONS IN COW + BUFFALOES (APR 19 to DEC 20), CONFORMED PREGNANCIES (APR 19 to DEC 19) & STATUS OF PENDING FOLLOWUP**

Sr. No.	Name of Village	NO.of AI's done in COWS & BUFFALOES from Apr 19 to Mar 20	NO.of AI's done in COWS & BUFFALOES from Apr 19 to Dec 19	No of Animals Examined against AI's Done from Apr 19 to Dec 19	No of Animals Pregnant against AI's Done from Apr 19 to Dec 19	Pending follow up for the AI's done in Jan 20, Feb 20 & Mar 20
1	Barbodhan	81	60	57	25	21
2	Malgama	41	32	32	16	9
3	Bhesan	26	23	19	11	3
4	Segava Chhcama	98	68	65	44	30
5	Bhandut	39	35	33	11	4
6	Dihen	32	22	19	15	10
7	Kukani	67	43	38	27	24
8	Ambheta	27	25	22	9	2
9	Ariyana	49	44	35	20	11
10	Tunda	0	0	0	0	0
11	Khosadiya	27	20	20	14	7
12	Pinjarat	86	60	58	33	26
13	Tena	227	189	177	77	38
	TOTAL	800	621	575	302	185

- Pending follow up of 407 inseminations done in Cows + Buffaloes in Jan 20 2019, Feb 20 & Mar 2020 will be done in months APR 2020, MAY 2020 & JUN 2020 respectively.

Status of Calving:-

- Total 99 calving are reported in cows in project villages w.e.f. April 2019 to March 2020 out of which 50 are female calves and remaining 49 are male calves, it does clearly indicates that Male: Female born ratio in Cows is 50:50.
- Total 248 calving are reported in buffaloes in project villages w.e.f. April 2019 to March 2020 out of which 124 are female calves and remaining 124 are male calves, it does clearly indicates that Male: Female born ratio in Cows is 50:50.
- Total 347 calving are reported in Cows + Buffaloes in project villages w.e.f. April 2019 to March 2020 out of which 174 are female calves and remaining 173 are male calves, it does clearly indicates that Male: Female born ratio in Cows is 50:50.

- CALVES BORN THROUGH CONVENTIONAL SEMEN



- VILLAGEWISE ARTIFICIAL INSEMINATIONS IN COW CONFORMED PREGNANCIES & STATUS OF PENDING FOLLOW UP**

Sr. No.	Name of Village	NO. of AI's done in COWS from Apr 19 to Mar 20	NO. of AI's done in COWS from Apr 19 to Dec 19	No of Animals Examined against AI's Done from Apr 19 to Dec 19	No of Animals Pregnant against AI's Done from Apr 19 to Dec 19	Pending follow up for the AI's done in Jan 20, Feb 20 & Mar 20
1	Barbodhan	3	3	3	1	0
2	Malgama	1	0	0	0	1
3	Bhesan	3	3	3	1	0
4	Segava Chhcama	2	2	2	1	0
5	Bhandut	1	1	1	0	0
6	Dihen	0	0	0	0	0
7	Kukani	2	1	1	1	1
8	Ambheta	2	2	2	1	0
9	Ariyana	0	0	0	0	0
10	Tunda	0	0	0	0	0
11	Khosadiya	0	0	0	0	0
12	Pinjarat	4	2	2	2	2
13	Tena	1	1	1	0	0
	TOTAL	19	15	15	7	4

Pending follow up of 47 inseminations done in cows in Jan 20 2019, Feb 20 & Mar 2020 will be done in months APR 2020, MAY 2020 & JUN 2020 respectively.

- VILLAGEWISE ARTIFICIAL INSEMINATIONS IN BUFFALOES
CONFORMED PREGNANCIES & STATUS OF PENDING FOLLOWUP**

Sr. No.	Name of Village	NO. of AI's done in BUFFALOES from Apr19 to Mar20	NO. of AI's done in BUFFALOES from Apr19 to Dec 19	No of Animals Examined against AI's Done from Apr 19 to Dec 19	No of Animals Pregnant against AI's Done from Apr 19 to Dec 19	Pending follow up for the AI's done in Jan 20, Feb 20 & Mar 20
1	Barbodhan	6	2	2	1	4
2	Malgama	8	8	8	3	0
3	Bhesan	3	3	3	1	0
4	Segava Chhcama	6	4	4	1	2
5	Bhandut	3	3	3	1	0
6	Dihen	1	1	1	0	0
7	Kukani	3	2	2	2	1
8	Ambheta	1	1	1	0	0
9	Ariyana	1	1	1	0	0
10	Tunda	0	0	0	0	0
11	Khosadiya	2	2	2	1	0
12	Pinjarat	3	1	1	1	2
13	Tena	14	13	13	5	1
	TOTAL	51	41	41	16	10

- Pending follow up of 360 inseminations done in Buffaloes in Jan 20 2019, Feb 20 & Mar 2020 will be done in months APR 2020, MAY 2020 & JUN 2020 respectively.



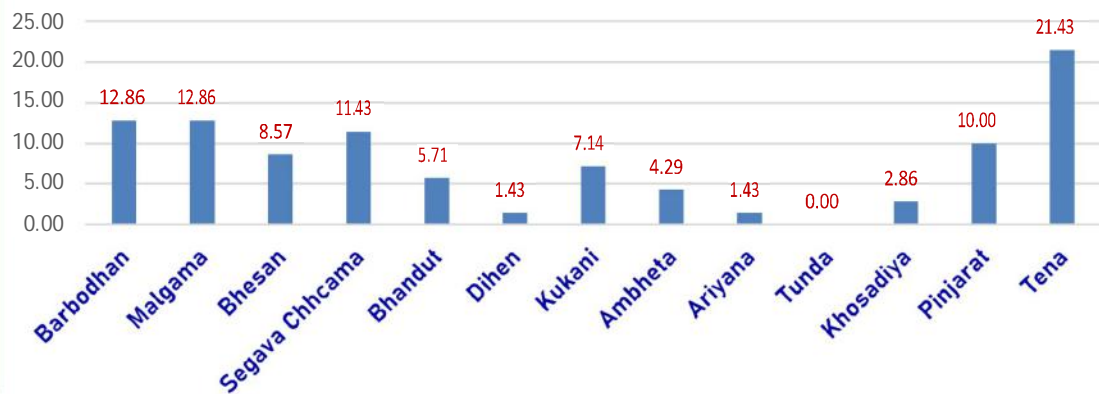
- VILLAGEWISE ARTIFICIAL INSEMINATIONS IN COW + BUFFALOES (APR 19 to DEC 20), CONFORMED PREGNANCIES (APR 19 to DEC 19) & STATUS OF PENDING FOLLOW UP**

Sr. No.	Name of Village	NO. of AI's done in COWS & BUFFALOES from Apr 19 to Mar 20	NO. of AI's done in COWS & BUFFALOES from Apr 19 to Dec 19	No of Animals Examined against AI's Done from Apr 19 to Dec 19	No of Animals Pregnant against AI's Done from Apr 19 to Dec 19	Pending follow up for the AI's done in Jan 20, Feb 20 & Mar 20
1	Barbodhan	9	5	5	2	4
2	Malgama	9	8	8	3	1
3	Bhesan	6	6	6	2	0
4	Segava Chhcama	8	6	6	2	2
5	Bhandut	4	4	4	1	0
6	Dihen	1	1	1	0	0
7	Kukani	5	3	3	3	2
8	Ambheta	3	3	3	1	0
9	Ariyana	1	1	1	0	0
10	Tunda	0	0	0	0	0
11	Khosadiya	2	2	2	1	0
12	Pinjarat	7	3	3	3	4
13	Tena	15	14	14	5	1
	TOTAL	70	56	56	23	14

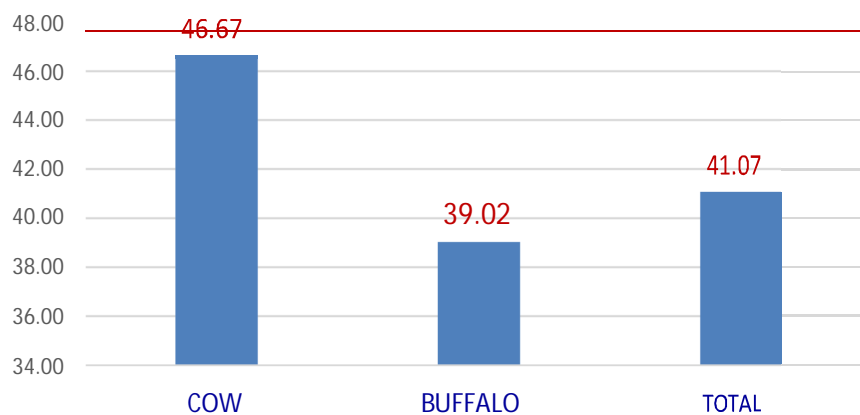
- Pending follow up of 407 inseminations done in Cows + Buffaloes in Jan 20 2019, Feb 20 & Mar 2020 will be done in months APR 2020, MAY 2020 & JUN 2020 respectively.



VILLAGEWISSESSAIWORKDONE(%)w.e.f.Apr2019to
Mar 2020



CONCEPTIONRATE AGAINST SSS AI DONE
DURING APR 2019 to DEC 2019



- **ALLIED ACTIVITIES**

- **ANIMAL HUSBANDRY TRAINING PROGRAMME**

- **OBJECTIVE**

- 1) To provide platform for the dairy farmers to get together and share information about modern scientific practices in Dairy Cattle Management.
- 2) To get feedback from the farmers to get enough relevant materials for policy and programme formulation.
- 3) To promote interaction among dairy farmers.
- 4) To increase awareness among farmers about scientific dairy management practices, training through technical experts is essential. This will be helpful to solve the queries and problems encountered while doing dairy farming also. Training programmes will be organized at individual village level.

Sr. No.	Name of Village	Participants			Animal Holding By Participants			Remark
		Male	Female	Total	Cow	Buffalo	Total	
1	Segva Chham a	20	21	41	30	222	252	
2	Tena	35	12	47	64	199	263	
3	Tena	38	11	49	52	238	290	
4	Malgam a	36	12	48	22	172	194	
5	Ariyana	31	11	42	48	142	190	
6	Ambeth a	35	9	44	62	172	234	Organized for Leading Persons of Project Villages, Sarpanch, Block Head & Progressive farmers of 12 Project Villages
7	Tena	65		65			0	
		260	76	336	278	1145	1423	

- **TOPICS COVERED IN TRAINING PROGRAMME**

- a) Scientific Animal Housing
- b) Breed of Animals
- c) Importance of Artificial Insemination
- d) Balanced Concentrate Formulation
- e) Eradication of Ectoparasites
- f) Importance of Vaccination & Deworming

- g) Calf Rearing
- h) Care of Pregnant Animals
- i) Clean Milk Production
- j) Diseases in Bovines
- k) Importance of Feed Supplements

- Total 7 animal husbandry training programmes were organized in 5 project villages in which 336 farmers were participated out of which 260 were male participants and remaining 76 were female participants.
- More emphasis was given on calf rearing and care and management of pregnant animals and importance of feed supplements to calves, growing and lactating animals.
- Farmers were very much satisfied with information received on balanced concentrate ration which is directly related with milk production and reproduction.



- **OUTPUT/IMPACT**

- 1) Increased awareness among farmers for scientific breeding resulted increased no of insemination.
- 2) Increased awareness for feed supplements resulted gradual increase in production.
- 3) Increased awareness for health care services resulted excellent response for breeding activity & deworming programme.
- 4) Become curious to know innovative technologies helps them to improve status of their animals and production.
- 5) Concentrating on heifer rearing.
- 6) Understands that livestock is a source of self-employment at native place.

- **EXPOSURE VISIT**

Exposure visits are a very important training methodology as it enables the participants from a different setting to interact with and learn from each other, allowing them to view practical/real life situations of successful integration of sustainable practices in the said field. Exposure visits are organized so that people living in one place can visit another to observe and learn from their activities. This would go a long way in ensuring replication of activities in large numbers leading to success of the project.

- **OBJECTIVE**

- 1) To learn about advanced techniques by viewing and interacting with institutions which have expertise.
- 2) To apply the learning to their agrarian activities which would result in increased income from their farms.

- **PLACE OF VISIT**

- **DHARAMPUR UTTAN VAHINI (DHRUVA)**

(DHRUVA) is an Associate Organization of BAIF Development Research Foundation. Since its inception in the year 1995, DHRUVA is striving to achieve the development of tribal and rural communities, residing in remote parts of South Gujarat. With its operational base in tribal predominated districts of South Gujarat and parts of the Union Territory of Dadra and Nagar Haveli. DHRUVA continues to provide professional services and support for the cause of rural and tribal development. DHRUVA has emerged as a dedicated development organization, determined to achieve its mission objectives. Taking a cue from the needs of the people DHRUVA has developed programmes and undertaken multifarious activities.

Farmers got chance to visit at following places in DHRUVA CAMPUS

- Vasundhara (Vasundhara Vriksh Vanwadi Jalsinchan Vikas Sahkari Mandali) Farmers Cooperative mainly involved in processing-Value addition on fruits and vegetable marketing technical Inputs to farmers for horticulture plantation and vegetable cultivation.
- Wadi Model
- Watershed Model:- Soil and Water conservation
- Mango Graft Nursery: - where grafts of Kesar, Rajapuri & Dasheri are maintained for selling. Demonstration on grafting was given to farmers
- Shednet:- Protective agriculture mainly for producing quality Vegetables, for increasing production by reducing pest and disease
- Bamboo Germ Plasma Unit:- where 8 varieties of bamboo are maintained



Sponsored By: - Indian Council of Agriculture Research, Delhi
 Implemented By: - BAIF Development Research Foundation,
 Pune Establishment: - 1992
 Working For: - Farmers of Bharuch District
 Mandates Of KVK:- Training, On Farm Testing, Field Demonstration
 Demonstration Unit:- Cattle Unit, Vermicompost Unit, Horticulture Plantation,
 Nursery.

- DAMODAR GAUSHALA**

- Shree Damodar Trust, At/P Nani Timbadi, Tl. Vapi, Dist. Valsad
- Breed maintained In Gaushala:- Pure Indigenous Gir Cows
- Herd Strength:- 198

DAMODAR GAUSHALA:- Where herd of GIR Cow is maintained by Trust. Here farmers got knowledge of Hydrphonic Fodder Cultivation, Scientific management of indigenous cattle.



- DETAILS OF FARMERS PARTICIPATED IN EXPOSURE VISIT**

Sr. No.	Name of Village	Male	Female	Total
1	Malgama	12		12
	Tena	27	13	40
	Total	39	13	52
2	Ambetha		10	10
	Ariyana	36	4	40
	TOTAL	36	14	50
	GRAND TOTAL	75	27	102

- **OUTPUT/IMPACT**

- 1) Understand importance of scientific animal husbandry practices.
- 2) Increased awareness for fodder cultivation and high yielding fodder crop varieties.
- 3) Increased awareness for hydroponic fodder cultivation which is helpful to meet out green fodder requirement during scarcity of fodder and for those who are landless.
- 4) Understand scientific way of clean milk production.
- 5) Understand management practices for indigenous cows.
- 6) Increased awareness for horticulture crops.
- 7) Understand importance of soil and water conservation.
- 8) Increased awareness for organic farming.

- **INFERTILITY CAMP**

- **OBJECTIVE**

1. To reduce long inter-calving period by early detection of causes of infertility.
2. Unproductive animals become productive.
3. Better health and production by early diagnosis and treatment.

- **BACKGROUND**

Due to negligence among farmers especially feed and fodder, feed supplements, preventive health care animals are suffering from gynecological disorders like anestrus and long inter-calving period. Apart from this farmers are not able to get animal health care services in time from technical experts resulting heavy economic losses by rearing unproductive animals for long duration. If they will get health care services in time problems encountered in their animals will be diagnosed and treated in time.

- ## DETAILS OF ANIMALS TREATED IN CAMPS

- Total 263 animals from 7 villages were presented for treatment.
- Total 157 animals were presented for gynecological disorders out of which 33 animals were treated for Anestrous and 114 animals were treated for problem of Repeat Breeding.
- Silent heat is the major problem in buffaloes due to which farmer is not able to inseminate their animals in time resulted long inter-calving period and farmer has to bear heavy economic losses for rearing nonproductive animals for which mineral mixture is provided as well as awareness among them was created for regular use of minerals to all growing and lactating animals for better productivity.
- Total 106 animals were treated for various clinical disorders and almost all were recovered from disorders.
- Follow up of treated animals is going on for animals presented for gynecological disorders out of 157 animals 89 animals were inseminated after treatment and 63 animals were examined for confirm pregnancy out of 63 examined animals 36 are found confirm pregnant.



- VACCINATION**

Protection of animals against hazardous bacterial and viral diseases like Hemorrhagic Septicemia (HS), Black Quarter (BQ) and Foot & Mouth Disease (FMD) is far more important. These diseases create heavy economic losses in terms of reduced production level and farmer has to bear huge treatment cost as well as threat of animal loss in severely affected cases.

- VILLAGEWISE DETAILS OF VACCINATION**

- HEMORRHAGIC SEPTICEMIA VACCINATION**

Sr. No.	Name of Village	Details of Animals Vaccinated				No of Beneficiary
		Cow	Buffalo	Calves	Total	
1	Malgama	37	232	89	358	46
2	Kukani	45	495	182	722	80
3	Segva	43	286	105	434	50
TOTAL		125	1013	376	1514	176

- FOOT & MOUTH DISEASE VACCINATION**

Sr. No.	Name of Village	Details of Animals Vaccinated				No of Beneficiary
		Cow	Buffalo	Calves	Total	
1	Malgama	51	238	98	387	49
2	Segvachham	75	362	154	591	60
3	Kukani	72	309	147	528	54
TOTAL		198	909	399	1506	163



- **IMPACT/OUTPUT**

1. After vaccination not a single case of morbidity for FMD & HS disease was reported
2. Increased awareness for vaccination

- **DEWORMING**

Livestock productivity is low and genetic potential of the animals is not being fully exploited due to so many factors but worm infestation is the most important one. It is a rife, affects all classes of livestock and constantly hampering the development

Of livestock industry. The animals become unthrifty, prone to other infections and ultimately death occurs especially in young animals.

It is routine practice throughout the world to control worm infestation, maintain the health status and production improvement of the animal through deworming (a management tool). Initially in project villages farmers were showing negligence to do periodic deworming of their animals resulted stunted growth in growing animals, increase age at maturity, long inter calving period, Low productivity, mortality in calves. Project team is taking rigorous efforts to motivate farmers for deworming as routine practice in all animals.

- **OBJECTIVE**

1. To increase awareness among livestock holding families for periodic deworming.
2. To improve health condition of milking animals for increasing productivity.
3. To reduce calf mortality occurred due to heavy endoparasitic infestation.

- VILLAGEWISE DETAILS OF DEWORMING**

Sr. No.	Name of Village	Details of Animals Dewormed				No of Beneficiary
		Cow	Buffalo	Calves	Total	
1	Malgama	3	122	45	170	30
2	Kukani	42	249	95	386	42
3	Ambetha	39	80	66	185	35
4	Tena	162	388	186	736	40
5	Ariyana	35	258	105	398	72
6	Segva	24	226	88	338	48
7	Tena	41	101	215	357	65
8	Bhesan	15	93	166	274	32
TOTAL		361	1517	966	2844	364

- Total 2844 animals of 8 project villages were treated with broad spectrum anthelmintic i.e. Fenbendazole @ 5mg/kg body weight out of 2844 total animals 361 were cows, 1517 buffaloes and remaining 966 were calves below one year.



- **OUTPUT/IMPACT**

1. Shining of skin coat
2. Improvement in Health condition
3. Intermittent encountered problem of foul smelling diarrhea is reduced.
4. Reduced mortality percentage in calves.

- **UREA TREATMENT DEMONSTRATION**

- **BACKGROUND OF PROJECT VILLAGES**

Almost in all project villages all dairy animals mainly thrive on poor quality plant material like paddy straw is used as dry roughages for all types of animals.

Fibrous crop residues play an important role in the ruminant feed as dry fodder. Paddy straw occupy a major portion of ruminants diet in the Olpad block of Surat district. Large ruminants in this area survive on straw as main source of fodder throughout the year. However low nutrient content and poor feeding value are the main constraints in paddy straw. Apart from this because of high lignin content, its digestibility is very poor.

For improving digestibility of this crude plant material urea treatment is the cheapest method which farmers can easily understand and adopt the same. Urea helps to weaken the hard cell wall of paddy straw, allowing better penetration by rumen microorganisms to produce fermentation that is more effective and liberation of nutrients. Because of creating of better rumen environment and microbial protein synthetic activity helps to increase milk production.

- **OBJECTIVE**

1. To increase awareness among livestock holding families for value addition on dry fodder.
2. To reduce wastage of dry fodder.
3. To improve health condition of animals.
4. To reduce costing for milk production.

- VILLAGE WISE DETAILS OF DEMONSTRATIONS**

Sr. No.	Name of Village	No of beneficiary	No of Other Farmers Present at the time of demonstration
1	Kukani	6	10
2	Dihe	7	12
3	Ambetha	6	14
4	Segva	6	8
		25	44

For easy understanding and adoption we tried to do urea treatment demonstration on 100kg Paddy straw for which 35lts water, 4kg urea is used. Beneficiaries are given 20X12 feet tadpatri to cover treated paddy straw.



- FARMERS RESPONSE**

Overall farmers response to this technology was found very positive. Farmers perception and response to urea treatment on paddy straw was collected after 30 days. In general all farmers liked the urea treatment because they strongly felt that animal liked treated straw as when they offered treated straw, animals consume all without wastage. This technology provides an opportunity to utilize these fibrous crop residues more efficiently and will be more beneficial during summer months when they are facing great difficulty due to scarcity of fodder.

- CHAFF CUTTER DEMONSTRATION**

- OBJECTIVE**

1. To increase awareness among livestock holding families for efficient management of dry fodder.
2. To improve health condition of animals

- DETAILS OF DEMONSTRATION**

Sr. No.	Name of Village	Name of Self-help Group (SHG)	No of SHG members	Total No of Animal holding by SHG members
1	Ambetha	Shreeji Mahila Mandal	10	68
2	Segva	Shreehari Mahila Mandal	10	57
			20	125

- **TECHNICAL SPECIFICATION**

Total one electric cutter with 5.0 HP motor is distribute in one villages having below mentioned technical specification

- Steel Body
- Steel Gears
- Capacity 1000kg/hr for green grass & 600kg/hr for dry fodder
- PVC trolley wheel
- Sufficient for 50 animals.



- **OUTPUT/IMPACT**

Use of chaff cutter will helps beneficiaries

- ☐ To save 30% fodder,
- ☐ Increase in milk production up to 6 to 10%
- ☐ Improving health condition of animals.

- **GREEN FODDER DEMONSTRATION**

- **OBJECTIVE**

1. To create awareness among farmers for fodder crop varieties.
2. To reduce the cost of production of milk and dairying profitable.
3. The area under fodder cultivation has to be increased.
4. To make fodder available round the year.

- **FODDER CULTIVATION & PRODUCTION**

- **OUTPUT/IMPACT**

1. Awareness created among farmers for fodder cultivation
2. Adlib availability of green fodder helps to meet out requirement of fodder for growing and milking animals.
3. Health condition of animals improved.
4. Milk production is increased which is always reducing due to scarcity of fodder.
5. Total 17 farmer and 20 Acre land covered under this program
6. 324 MT Green fodder production



- **FARMERS FEEDBACK**

Overall farmer response for this initiative is found very positive. Farmers admitted that after feeding green fodder as per requirement of animals helps to increase milk production and improvement in health condition of animal.

- KITCHEN GARDEN**

Considering the importance of vegetables, to produce our own vegetable requirements in our backyards using the available fresh water as well as the kitchen concept has emerged. This will only facilitate successful production of our own requirement of vegetables. Cultivation in a small area facilitates the methods of controlling pests and diseases through the removal of affected parts and non-use of chemicals. This is a safe practice, which does not cause toxic residues of pesticides in the vegetables produced.

- OBJECTIVE**

To get round the year availability of various vegetables helps to meet out nutritional requirement of family members.

- IMPORTANCE OF VEGETABLES**

- Vegetables occupy an important place in our daily life particularly for vegetarians
- Vegetables are the only source to increase not only the nutritive values of foods but also its palatability.
- For a balanced diet, an adult should have an intake of 85g of fruits and 300g of vegetables per day as per the dietary recommendation of nutrition specialists
- But the present level of production of vegetables in our country can permit a per capita consumption of only 120 g of vegetables per day

- VILLAGEWISE DETAILS OF PARTICIPANTS & INPUTS**

Sr. No.	Name of Village	No of Beneficiary	Details of Saplings Given as input		
			Brinjal	Chilli	Tomato
1	Segva	40	1440	1200	1200
2	Ariyana	50	1800	1500	1500
3	Malgama	40	1440	1200	1200
4	Bhandut	50	1605	1605	1605
5	Khosadiya	20	660	660	660
6	Tena	30	990	990	990
7	Junagam	20	700	700	700
		250	8635	7855	7855



• **OUTPUT/IMPACT**

- Understand importance of backyard kitchen garden as a nutritional garden to produce totally organic vegetables which will help to meet out requirement of seasonal vegetable round the year.
- Other families are also motivated and started to do the same in their backyard.

• **WASTE DECOMPOSTING DEMONSTRATION**

• **OBJECTIVE**

Promotion of organic farming in the project area through technical capacity building of farmers.

• **SOURCE OF TECHNOLOGY**

M/s Sakti Bio Fertilizers is the certified

**manufacturer National Centre of Organic Farming
Department of Agriculture, Cooperation and Farmers
Welfare Ministry of Agriculture and Farmers Welfare
Government of India**

- PRODUCT DESCRIPTION**

- Waste Decomposer is rich in beneficial microorganisms which are prepared from Desi CowDung.
- The mass multiplied liquid-waste decomposer culture is diluted in the ratio of 1:3 with water and applied as a foliar spray to control pest and diseases. It can control all types of soil borne, foliar diseases, insects, and pests.
- Waste decomposer works as Bio fertilizer, Bio control and as well as Soil Health Reviver.
- It can be used in various ways such as quick composting of bio wastes, drip irrigation, foliar spray as bio pesticide against most of the plant diseases for all types of agricultural and horticultural crops.
- An innovative waste management technique to manage bio-degradable waste disposal for municipality, own garden, farmhouse. Convert your kitchen waste to a valuable organic compost and utilize it in your lovely garden in Balcony without throwing anywhere.
- Supply natural nutrients to organic farming to produce healthy products at low cost. It can be used for any or all crops.

- PROCEDURE TO USE**

- ☐ Take one bottle of Waste Decomposer and mix it well in 200 L of water and 2 kg jaggery. Keep the solution for a week.
- ☐ After a week use the solution to spray at your farms/water your land.
- ☐ Demonstration was done on cow dung to prepare good quality organic manure

- DETAILS OF DEMONSTRATION**

Sr. No.	Name of Village	No of beneficiary
1	Segva	9
2	Khosadiya	6
3	Ariyana	7
4	Tena	8
5	Barbodhan	6
		36



• CALF REARING:-

The performance of any individual animal is dependent on its genetic potential and the environment. Proper breeding has increased the yield potential of our cows and buffaloes but many of these animals are unable to express their full potential for milk production due to poor growth and nutrition. Proper management of young calf is prerequisite to the success of any dairy farm. An optimal level of nutrition in early life favors faster growth and early maturity. The health of a calf directly effects the reproductive capacity as well as the milk production. The initial months in a calf's life are of the utmost importance as it forms the foundation for a high milk-yielding animal.

Calves should be reared carefully to obtain optimum gain in body weight, so that they attain about 70-75 percent of mature body weight at puberty. Poor feeding of young calves leads to higher age at first calving and overall loss of productivity in the life span.

Growth phase of the cows & buffaloes is confine to the first two years of its life. It is important that the calf is given nutritious feed in the form of concentrates or fodder right from its 4th month of age. This will ensure good milk yield when the calf

Becomes a cow or buffalo. The age at which feeding starts naturally becomes important and it is recommended that right from the 4th month of age concentrate feed should be made available to the calf. If the animal is introduced into the feeding schedule after the 6 month of age the desired effect may not be to the full extent. On an average it is assumed that the calf will come to puberty around 18 - 20 months of age and will become a cow by calving for the first time around 28 - 29 month of age.

- **OBJECTIVE**

1. To create good replacement stock to be made available to the farmers at reasonable price
2. To reduce calf mortality
3. To induce scientific calf rearing practices among milk producers
4. To reduce age at first calving
5. To increase productive life of animals

- **BENEFITS OF CALF REARING**

- Get their heifers milk sooner: Dairy farmers can increase the herd size with the new replacement cows grown in their farm
- Retain and grow the animals with improved genetics: Dairy farmers will be able to retain good quality genetics in their farm itself. No need to purchase good genetics from outside of their dairy farm.
- Farmers will get higher price for dairy cows and buffaloes due to increased demand for good quality animals.
- If the dairy producers can develop their own animals faster, then the average production per animal can be raised with improved genetics.

7.12. CALF RALLY

Among various activities, calf rally is one of the most effective extension activity which brings farmer from different places to a single platform and showcase their calves. This intern motivates other farmers to learn from their peers and thus learning to raise healthy calves.

Conduct of calf rallies provide the physical inspection and verification of the female calves produced by the field units out of Artificial Insemination. It is also a meeting place for the livestock owners to see for them to improve the management technique adopted by the co-livestock owners and to practically follow the feeding methods to improve the health of their calves.

7.12.1. OBJECTIVE

1. To inculcate in the minds of farmers the need of superior germ plasma for improvement of their dairy animals.
2. To encourage farmers to adopt better calf rearing practices

❑ Venue:- Tena

❑ Date:- 24/01/2020

❑ Dignitaries:-

1. Shri Mukeshbhai Patel, Member of Lower Assembly (MLA), Olpad
2. Shri. Rupesh Jambudi, Head-HSEF, Adani Hazira Port Pvt. Ltd.
3. Dr. N.V. Dave:- Deputy Director, Animal Husbandry, Surat
4. Shri Dhansukhbhai N. Patel, Former MLA, Olpad
5. Himanshu T. Patel, Block Development Officer, Olpad
6. Shri Hemjibhai Patel, Unit CSR Head, Adani Foundation
7. Shri Jayanti R. Mori, Chief Programme Executive, BISLD, Gujarat
8. Shri. Dashrath K. Patel, Dy. CPE, BISLD Gujarat

A large number of dairy farmers from project villages participated in the event with their healthy calves which was organized on 25th Feb 2020. The event was inaugurated by chief guest. Many dairy farmers were awarded for having healthy breeds of calves and the rest were given consolation prizes.



Junagam Center: - April 2019 to March 2020

1. BACKGROUND

As community initiative and rural development through CSR, Adani Foundation, Hazira has assigned responsibility to BAIF Institute for Sustainable Livelihoods and Development-Gujarat to start Cattle Breeding Centre with other need base allied activities at Junagam, Tal Choryasi, Dist. Surat to empower village level livestock holding marginalized sections of society.

BISLD-Gujarat is rendering door-to-door cattle breeding facilities in 8 project villages of Adani Foundation along with implementing need base allied activities.

INAGURATION OF CATTLE BREEDING CENTRE

Date of Inauguration: - 04/07/2019

Dignitaries present at the time of inauguration:-

1. Shri Bhagubhai M. Patel (Sarpanch Junagam)
2. Shri G. M. Borad (Block Development Officer, Choryasi, Surat)
3. (Deputy Director A.H., District Panchayat Surat)
4. Shri Hemjibhai Patel (Unit CSR Head, Adani Foundation, Hazira)
5. Shri D. K. patel (Dy. CPE, BISLD, Gujarat)



2. AT A GLANCE PROGRESS OF CATTLE BREEDING CENTRE SINCE INCEPTION

2.1.1. ACHIEVEMENT AGAINST TARGET

Particular s	Cow	Buffal o	Total
Target of Artificial Insemination	400	200	600
Achievement against Target	471	272	744
Achievement against Target (%)	117.75	136.00	123.83
AI Done During Period Jul 19 To Dec 19	280	158	438
Follow up Of AI Done During Period Jul 19 To Dec 19	233	133	366
Animals Found Pregnant	142	87	229
Conception Rate (%)	51	55	52
Pending Follow up of Inseminations done During Jan 20 To Mar 20	191	114	305

3. BASE LINE DATA

Before start of Cattle Breeding Programme in Project Villages of Adani Foundation base line data of breedable animals was collect.

Sr. No.	Name of Village	Total No Of Families	Livestock Holding Families	Cow Population	Cow Population Against Total Breedable Cow & Buff Population	Buffalo Population	Buff Population Against Total Breedable Cow & Buff Population	Total	Cow Heifers	Buffalo Heifers	Total Heifers
1	Junagam	950	408	3986	66.22	2033	33.41	6019	408	503	911
2	Suvali	487	85	653	58.94	455	38.99	1108	120	160	280
3	Rajgari	410	128	109	10.41	938	88.71	1047	106	203	309
4	Damka	1144	48	58	34.73	109	54.03	167	10	40	50
5	Vasva	1280	93	140	23.81	448	73.23	588	95	117	212
6	Hazira	957	40	120	32.43	250	62.12	370	28	90	118
7	Bhatlai	1995	9	20	30.77	45	46.99	65	3	8	11
8	Mora	659	15	63	36.84	108	51.96	171	40	48	88
	TOTAL	7882	826	5149	54.00	4386	44.62	9535	810	1169	1979

Highest animal population is in village Junagam i.e. 63.13% against total population of all project villages followed by Suvali (11.62%), Rajgari (10.98%).

Lowest animal population is in village Bhatlai i.e. 0.68% against total population of all project villages followed by Damka (1.75%), Rajgari (1.79%).

Project villages are dominated by Cow Population i.e. 54% against total breedable population.

Highest cow population is in Jungam Village i.e. 77.41% against total cow population of CBC.

Highest buffalo population is also in Jungam Village i.e. 46.35% against total Buffalo population of CBC.

4. SUMMARY OF ARTIFICIAL INSEMINATIONS (AI), EXAMINATIONS & CONFORMED PREGNANCY STATUS w.e.f. JUL 2019 to MAR 2020

4.1. Month wise inseminations in cows and buffaloes

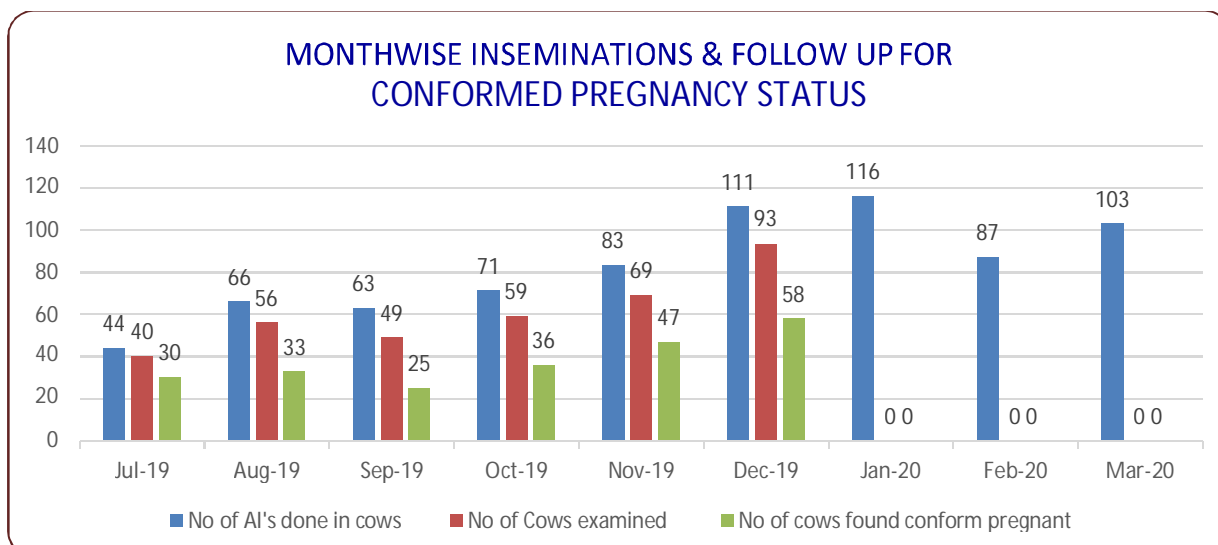
	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	TOT
COW	34	52	44	41	43	66	75	46	70	471
Buffalo	10	14	19	30	40	45	41	41	33	273
TOTAL	44	66	63	71	83	111	116	87	103	744

Highest inseminations i.e. above 100 were done in Jan (116), Dec (111) & March (103).

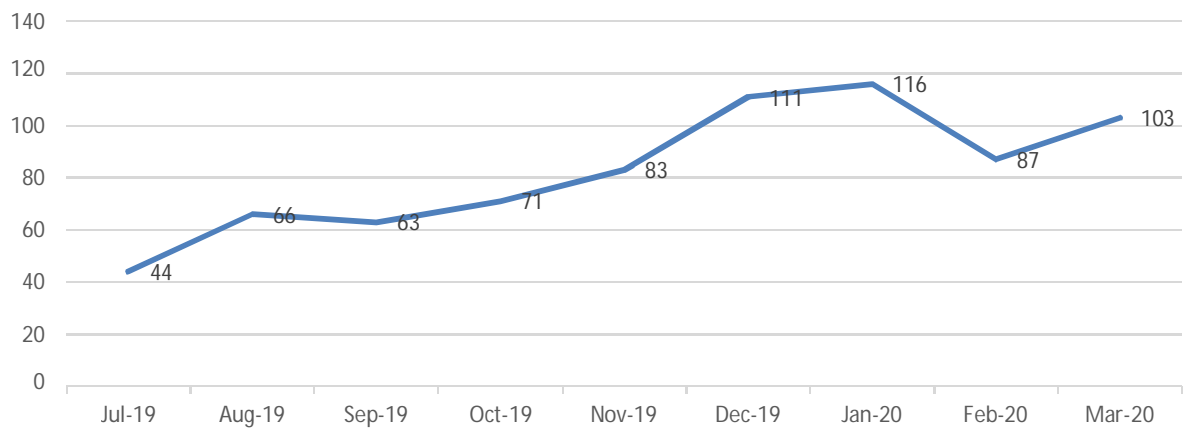
Lowest Artificial Inseminations i.e. below 50 was done Jul 19 (44).

After July 2019 increasing trend of inseminations were done in succeeding months.

4.2. Month wise follow up (OVERALL i.e. COW & BUFFALO) for Pregnancy Diagnosis



OVERALL MONTHWISE CONCEPTION RATE



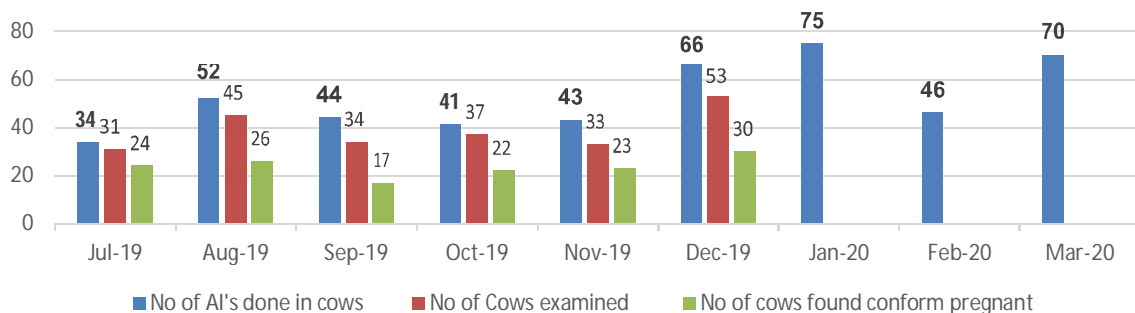
Total 744 inseminations were done w.e.f. July 2019 to Mar 2020 out of which 366 animals were examined for conformed pregnancy and out of 366 examined animals 229 were found conformed pregnant.

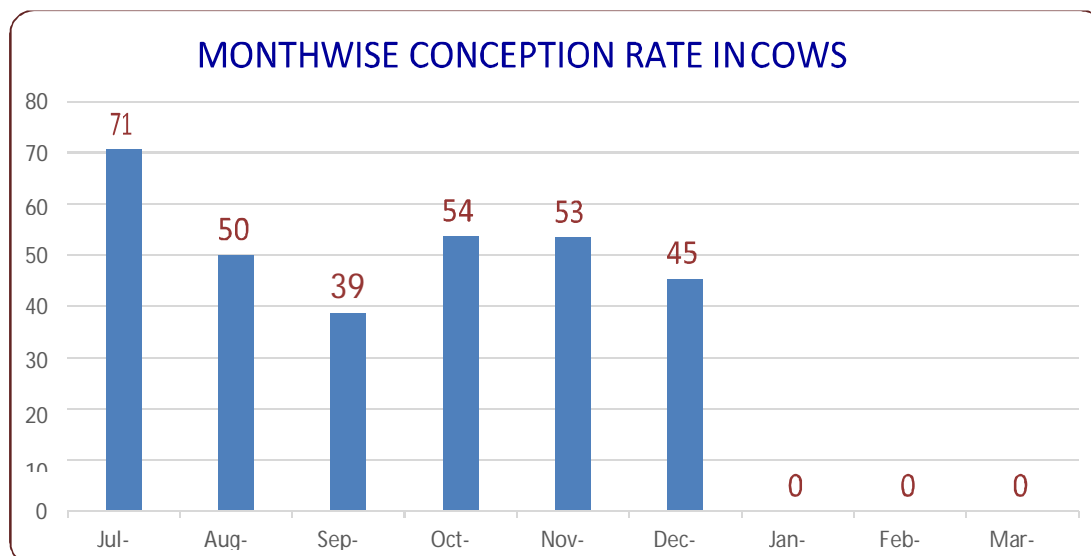
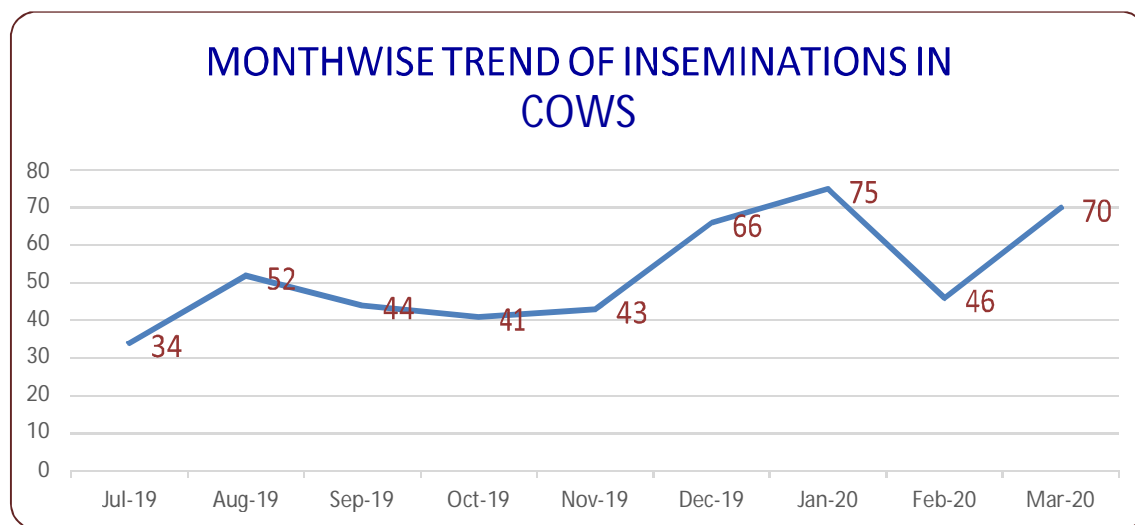
Overall conception rate for the artificial inseminations done w.e.f. July 2019 to Dec 2019 is 52% i.e. on AI BASIS.

Artificial Inseminations done during Jan 20 (116), Feb 20 (87) & Mar 20 (103) will be done in Apr 20, May 20 & Jun 20 respectively.

4.3. MONTHWISE DETAILS OF ARTIFICIAL INSEMINATIONS (AI), EXAMINATIONS & CONFORMED PREGNANCY STATUS IN COWS w.e.f. JULY 2019 to MARCH 2020

MONTHWISEDETAILSOFACTIFICIAL INSEMINATIONS (AI) AND CONFORMED PREGNANCIESINCOWSAGAINSTAI's





Total 471 inseminations were done in cows w.e.f. July 2019 to March 2020 out of which 233 animals were examined for conformed pregnancy and out of 233 examined animals 142 cows were found conformed pregnant.

Highest number of inseminations in cows i.e. above 50 were done in the month of Aug 19 (52), Dec 19 (66), Jan 20 (75) and Mar 20 (70).

Overall conception rate for the artificial inseminations done in cows w.e.f. July 2019 to Dec 2019 is 51% i.e. on AI BASIS.

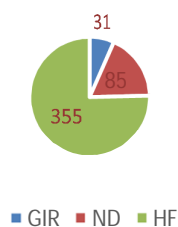
Lowest conception rate in cows i.e. below 45% was noted in the month Sept 2019 i.e. 39%.

Follow up for conform pregnancy for Artificial inseminations done in cows in the month Jan 20 (75), Feb 20 (46) & Mar 20 (70) will be done in Apr 20, May 20 & Jun 20 respectively.

4.4. BREEDWISE AI IN COWS

	COW			
Month	GIR	ND	HF	TOTAL
Jul-19	4	10	20	34
Aug-19	2	8	42	52
Sep-19	4	6	34	44
Oct-19	1	10	30	41
Nov-19	2	14	27	43
Dec-19	6	7	53	66
Jan-20	2	10	63	75
Feb-20	3	7	36	46
Mar-20	7	13	50	70
	31	85	355	471

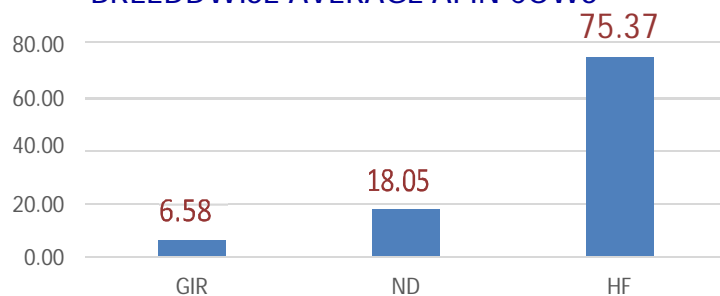
BREEDWISE AI DONE IN COW DURING
2019-20



Total 471 inseminations were done in cows during July 2019 to March 2020 out of which 355 inseminations were done in HF cross cows i.e. 75.37% against total inseminations in cows.

Upgrading of 85 nondescript cows i.e. 18.05% against total inseminations in cows was done by using semen of highly evolved frozen semen.

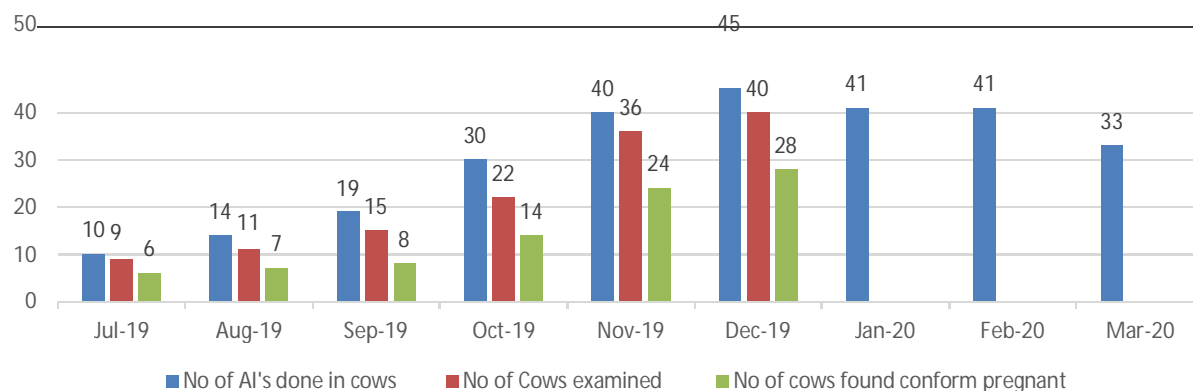
BREEDWISE AVERAGE AI IN COWS



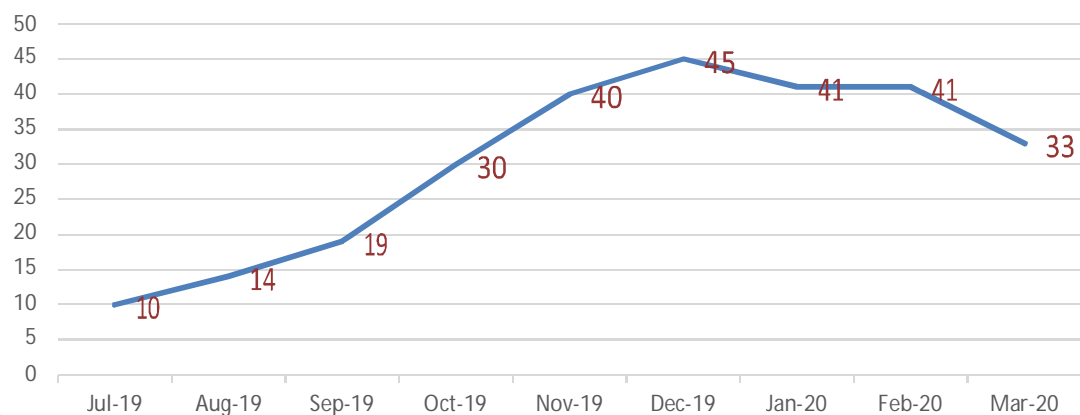
4.5. MONTHWISE DETAILS OF ARTIFICIAL INSEMINATIONS (AI), EXAMINATIONS & CONFORMED PREGNANCY STATUS IN BUFFALOES w.e.f. JULY 2019 to MARCH 2020

BUFFALO	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	TOT
No of AI's done in cows	10	14	19	30	40	45	41	41	33	273
No of Cows examined	9	11	15	22	36	40				133
No of cows found conform pregnant	6	7	8	14	24	28				87

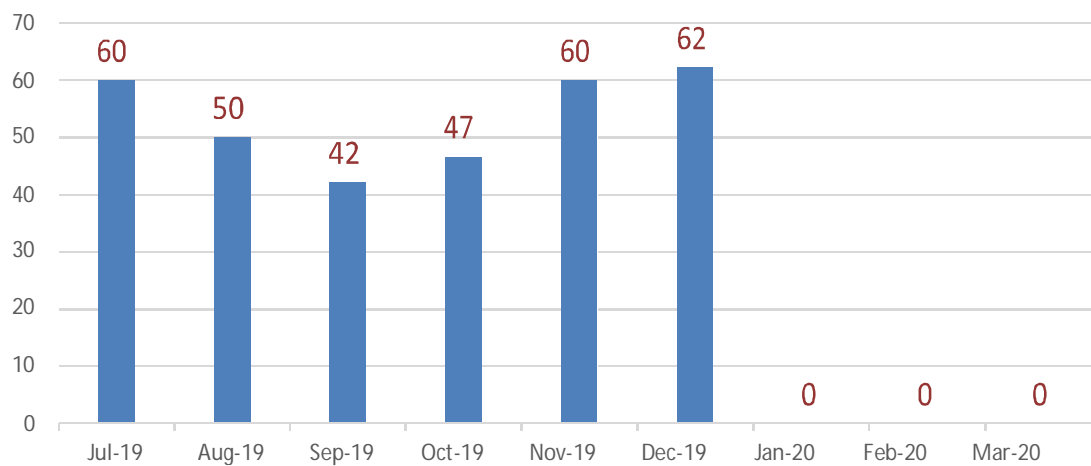
MONTHWISE DETAILS OF ARTIFICIAL INSEMINATIONS (AI) AND CONFORMED PREGNANCIES IN BUFFALOES AGAINST AI's



MONTHWISE TREND OF INSEMINATIONS IN
BUFFALOES



MONTHWISE CONCEPTION RATE IN BUFFALOES



Total 273 inseminations were done in buffaloes w.e.f. Jul 2019 to Dec 2020 out of which 133 animals were examined for conformed pregnancy and out of 133 examined animals 87 Buffaloes were found conformed pregnant.

Increasing trend of inseminations were noted w.e.f. July to Dec 2019 i.e. 10 to 45 after December decreasing trend was noted till March 2020 i.e. 41 to 33.

Highest number of inseminations in buffaloes i.e. above 40 were done in the Nov (40), Dec (45), Jan 20 (41) and Feb 20 (41).

Lowest number of inseminations i.e. below 20 was done in the months of Jul 19 (10), Sept 19 (19).

Overall conception rate for the artificial inseminations done in buffalo w.e.f. July 2019 to Dec 2019 is 55% i.e. on AI BASIS.

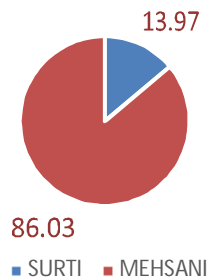
Lowest conception rate in buffaloes i.e. below 45% was noted in the month Sept 2019 i.e. 42%.

Follow up for conform pregnancy for Artificial inseminations done in cows in the month Jan 20 (41), Feb 20 (41) & Mar 20 (33) will be done in Apr 20, May 20 & Jun 20 respectively.

4.6. BREEDWISE AI IN BUFFALOES

	BUFFALO		
	SURTI	MEHSANI	TOTAL
Jul-19		10	10
Aug-19		14	14
Sep-19	2	17	19
Oct-19	5	25	30
Nov-19		40	40
Dec-19	5	40	45
Jan-20	12	28	40
Feb-20	11	30	41
Mar-20	3	30	33
	38	234	272

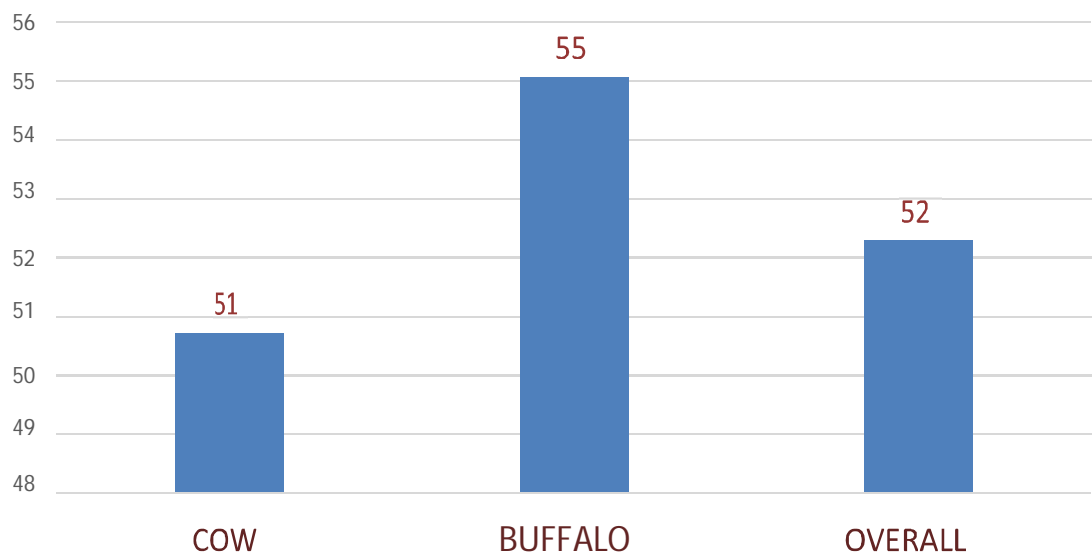
BREEDWISE AI DONE IN BUFFALOES DURING 2019-20



Total 272 inseminations were done in buffaloes during July 2019 to March 2020 out of which 234 inseminations were done in Mehsani Buffaloes i.e. 86.03% against total inseminations.

Upgrading of 38 low milk producing Surti Buffaloes i.e. 13.97% against total inseminations in buffaloes was done by using semen of highly evolved frozen semen of Murrha Buffalo bull.

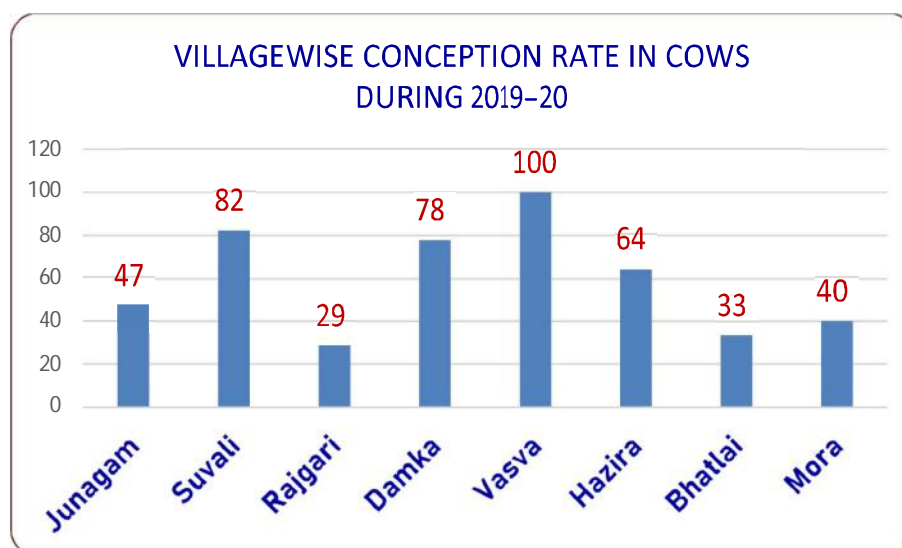
OVERALL CONCEPTION RATE IN COWS & BUFFALOES AGAINST INSEMINATION DONE w.e.f. Jul to Dec 2019



**4.7. VILLAGEWISE ARTIFICIAL INSEMINATIONS IN COWS (JUL 19 to MAR 20),
CONFORMED PREGNANCIES (JUL 19 to DEC
19) & STATUS OF PENDING FOLLOWUP**

Sr. No.	Name of Village	NO. of AI's done in COWS from July 19 to Mar 20	NO. of AI's done in COWS from July 19 to Dec 19	No of Animals Examined against AI's Done from July 19 to Dec 19	No of Animals Pregnant against AI's Done from July 19 to Dec 19	Pending follow-up for the AI's done in Jan 20, Feb 20 & Mar 20
1	Junagam	369	224	183	106	145
2	Suvali	35	17	16	14	18
3	Rajgari	11	7	5	2	4
4	Damka	13	9	9	7	4
5	Vasva	3	1	1	1	2
6	Hazira	20	14	13	9	6
7	Bhatlai	11	3	2	1	8
8	Mora	9	5	4	2	4
	TOTAL	471	280	233	142	191

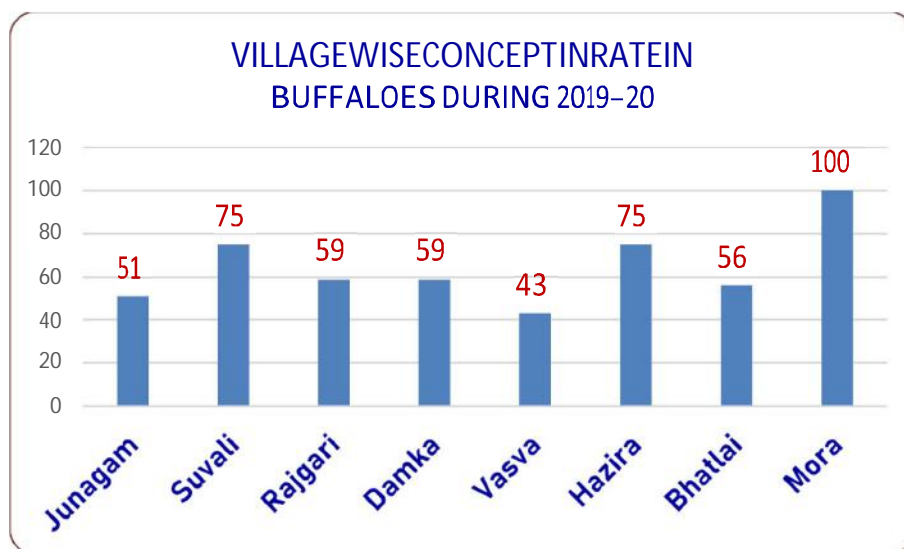
Pending follow up of 191 inseminations done in cows in Jan 2020, Feb 2020 & March 2020 will be done in months April 2020, May 2020 & June 2020 respectively.



**4.8. VILLAGEWISE ARTIFICIAL INSEMINATIONS IN BUFFALOES (JUL 19 to MAR 20),
CONFORMED PREGNANCIES (JUL 19 to DEC 19) & STATUS OF PENDING
FOLLOWUP**

Sr. No.	Name of Village	NO. of AI's done in BUFFALOES from July 19 to Mar 20	NO. of AI's done in BUFFALOES from July 19 to Dec 19	No of Animals Examined against AI's Done from July 19 to Dec 19	No of Animals Pregnant against AI's Done from July 19 to Dec 19	Pending follow up for the AI's done in Jan 20, Feb 20 & Mar 20
1	Junagam	149	91	75	46	58
2	Suvali	15	12	10	9	3
3	Rajgari	31	17	15	10	14
4	Damka	33	17	16	10	16
5	Vasva	9	7	4	3	2
6	Hazira	17	4	4	3	13
7	Bhatlai	17	9	8	5	8
8	Mora	1	1	1	1	0
	TOTAL	272	158	133	87	114

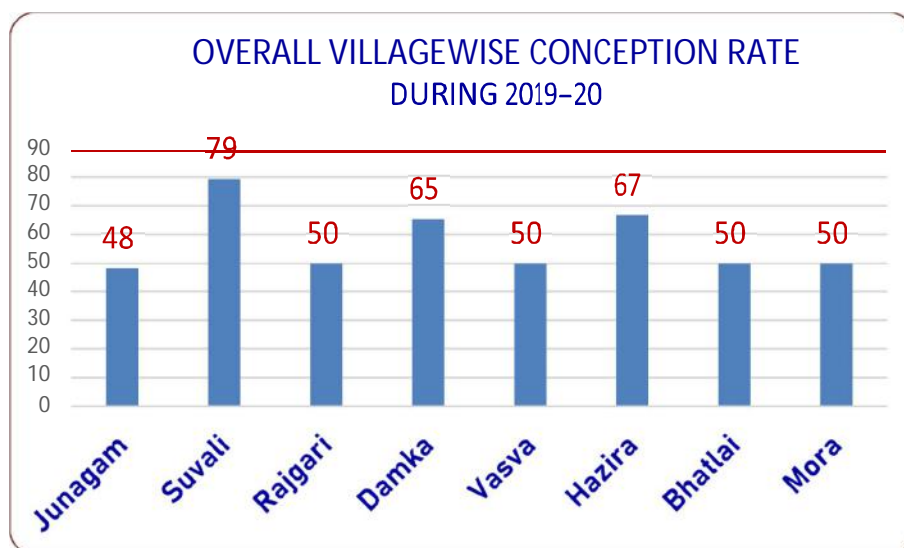
Pending follow up of 114 inseminations done in Buffaloes in Jan 2020, Feb 2020 & March 2020 will be done in months April 2020, May 2020 & June 2020 respectively.



4.9. VILLAGEWISE ARTIFICIAL INSEMINATIONS IN COW + BUFFALOES (JUL 19 to MAR 20), CONFORMED PREGNANCIES (JUL 19 to DEC 19) & STATUS OF PENDING FOLLOWUP

Sr. No.	Name of Village	NO. of AI's done in COWS & BUFFALOES from July 19 to Mar 20	NO. of AI's done in COWS & BUFFALOES from July 19 to Dec 19	No of Animals Examined against AI's Done from July 19 to Dec 19	No of Animals Pregnant against AI's Done from July 19 to Dec 19	Pending follow-up for the AI's done in Jan 20, Feb 20 & Mar 20
1	Junagam	518	315	258	152	203
2	Suvali	50	29	26	23	21
3	Rajgari	42	24	20	12	18
4	Damka	46	26	25	17	20
5	Vasva	12	8	5	4	4
6	Hazira	37	18	17	12	19
7	Bhatlai	28	12	10	6	16
8	Mora	10	6	5	3	4
	TOTAL	743	438	366	229	305

Pending follow up of 305 inseminations done in Cows & Buffaloes in Jan 2020, Feb 2020 & March 2020 will be done in months April 2020, May 2020 & June 2020 respectively.





5. EXTENSION ACTIVITIES

Awareness among livestock holding families is being created regularly for scientific animal husbandry practices on following topics

- 1) Construction and cleaning of animal housing
- 2) Formulation of balanced concentrate ration for maximum productivity of animals.
- 3) Use of feed supplements to minimize mineral and vitamin deficiencies.
- 4) Importance of artificial insemination and exact time of insemination.
- 5) Importance of preventive health care like periodic deworming and vaccination.
- 6) Cultivation of Green fodder to meet out round the year fodder requirement for growing and lactating animals.
- 7) Importance of Calf rearing



DEHORNING OF CROSSBRED CALVES



PROMOTION OF FEED SUPPLEMENTS

Self Help Group:-

Adani Foundation is working with SHGs groups in nearby our peripheral villages (15 villages). Adani foundation currently and continually working with SHGs to empower them and make them self-sustained. In past Adani Foundation has done income generation activity for their sustainable life and improve their living standard.

Self-Help Groups are informal/formal associations of people who choose to come together to find ways to improve their living conditions. They help to build Social Capital among the poor, especially women. The most important functions of a Self-Help Groups are

- (A) To encourage and motivate its members to save,
- (B) To persuade them to make a collective plan for generation of additional income,
- (C) To act as a conduit for formal banking services to reach them. Self-Help Groups have emerged as the most effective mechanism for delivery of micro-finance services to the poor.

The Self Help Groups (SHGs) Guiding Principle stresses on organizing the rural poor into small groups through a process of social mobilization and capacity building through exposures and other trainings.

Importance of exposure visit and training: Training and exposure is very important part in any SHGs to strengthen the members of SHGs. This Year Adani Foundation organizes one Training Basic Information about SHGs Functioning and Entrepreneurship development at village Rajagri.

The Frist is General Training to all SHGs member which covers group Formation and Introduction to linkage methods. This training includes basic literacy, book – keeping, Group formation and Group Dynamics. Thought this Type of Training is geared towards group management, it may impact economic variable as well. All members receive this training which is relatively homogenized.

During the trainings we will provide them knowledge about formation and functioning of SHGs and meeting with successful SHGs members to get motivation. They will interact with GLPC Team and understand economic activity.

Discussed about Panchsutra and importance of Panchsutra

Regular meeting
Regular Saving
Regular inter landing
Regular accounting
Regular Repayment

Team decided to revive four defunct SHG at Village Suvali during this year end of the year finally women members come forward and decided to regular saving and monthly meeting.

Adani Foundation organizes sewing and tailoring training program which help them in enhancing their livelihood and improve their living standard and make them self-reliant. One such three month program was started by AF at malgama village wherein 25 women participated. AF is planning to organize more programs like this in coming future.

AF Provided 5 Tailoring machine to women group in malgama village also provided 1 Cabin to Poor women headed house hold for grocery shop at village Bhatlai.

In support with GLPC and DLM Surat office we have form 1 VO successfully in the Village Rajgari for income generation activity. VO is a Federation level body of 10 SHG member's. GLPC will be Sanction Rs.7 Lakh loan to Rajagri VO for income generation activity.

Organize workshop in collaboration with Securities and Exchange Board of India for SHGs at Rajgari village.

Major Discussion Topic: Savings, Investment, Income Tax, Recovery and Return money from Defaulters. Fix Deposit, Recurring Deposit account, Saving Bank Account, Govt. Scheme like Mudra Yojna, Provident Fund, and Post office Scheme information. 19 women member was participated in the workshop

DLM Mr. Vasava Suggested to VO members for prepare database of needy women of Rajgari village.

25 SHG Member from Rajgari village participating bakery making training course. This course organized by Janshikhan sansthan Surat Based NGO working on skill development program AF Team mobilizing women for bakery making course. This is two month course women is will be attending 2 hours per day for learn this training. This training will be useful to women's for earning extra livelihoods.

Out Come:

- Improve of Living Life Style
- Educated of SHGs Group's functioning in village
- Knowing of the Government Scheme
- Knowing of Quality of Life
- Value of Credit and Saving information in our Routine Life

Impact:

- SHGs impact on its members by increasing their assets, incomes and employment opportunities.
- The borrowers are able to reduce their dependence on informal sources of finance and a certain degree of loyalty towards SHGs, which can work towards permanent or effective inclusion of these borrowers into the formal banking network.
- Impact on Health and Income source generation for Family
- SHGs has led to reduced child mortality, improved maternal health and the ability of the poor to combat disease through better nutrition, housing and health – especially among women and children.

KITCHEN GARDEN:-

Kitchen gardening is a type of gardening in which vegetable plants are grown for getting pure, fresh and cheap meal near the kitchen. The food from the kitchen garden is organic and healthier as compared to that which is bought from the grocery store

In kitchen Garden Activity **20** Household Benefitted in Junagam village.

- Vegetables occupy an important place in our daily life particularly for vegetarians

Vegetables are the only source to increase not only the nutritive values of foods but also its palatability.

- For a balanced diet, an adult should have an intake of 85 g of fruits and 300 g of vegetables per day as per the dietary recommendation of nutrition specialists
- But the present level of production of vegetables in our country can permit a per capita consumption of only 120 g of vegetables per day

BENEFITS OF KITCHEN GARDEN:-

- Families will get pure organic food without dangerous sprays on it.
- The food will be fresh and healthier.
- It will cost less as compared to the one which is bought from the grocery store

OUTPUT/IMPACT:-

- Understand importance of backyard kitchen garden as a nutritional garden to produce totally organic vegetables which will help to meet our requirement of seasonal vegetable round the year.
- Other families are also motivated and started to do the same in their backyard.

Promotion of Frisbee sports:-

- Free coaching on Frisbee program organized in 3 schools of Junagam and Suvali villages of Choryasi block. Training sessions for Frisbee support conducted for students of Navchetan Vidyalaya & primary school, Suvali by Ultimate Sports & Education Trust on regular basis. Total 175 students participated in this sport.

National sports day Celebration:-

Team Hazira celebrated national sports day in collaboration with NYK Surat at village Dihen in olpad block. During the event, we organized Volley ball sports with four teams where 40 players participated in the event. NYK appreciated AF effort for engaging youth in sports. To improve the status of youth in sports, NYK offer all possible support for mobilizing youths in future days.

Adani Rural cricket Tournament:-

Adani rural Cricket Championship tournament 2019-20 was organize in village Junagam at Navchetan cricket ground where total number of 35 teams from 29 villages 525 players participated. Rural youths from across these villages took active participation and played with game spirit to win the tournament. Rs.1, 02,000 contribution received from each team during this year.

During entire season total 3500 people watched live match on cricket ground. Through on line platform in every match average 1240 people watching live score during the match, Such sports events on cricket tournament helped AF in creating positive impact around area especially among youth and communities.

During the inauguration and closing ceremony, District level political leaders and village Sarpanch were present. These leaders have acknowledged the efforts put in by Adam Foundation in building the nation and supporting rural communities through various means. All Leader motivated rural youths to give their best talents and to succeed in life. They also appreciates AF effort on encouraging cricket in rural area as well.

Community infrastructure development:-

Following activities done under CID in 2019-20 year:

Sr. No	Particulars
1	Repairing of 8 House for Halpati community at Suvali (SDG 9)
2	Paver blocks surrounding community hall - 4000 square feet- Junagam. (SDG 9)
3	Emergency Stair case at Navchetan school Junagam (SDG-9)
4	Construction of community hall at Damka village (22X15m.) with sanitation unit (SDG 9)
5	Repairing of 14 House for Halpati community at Hazira village (SDG 9)
6	Paver blocks surrounding community hall - 7000 square feet- Bhatlai. (SDG 9)
7	Village pond renovation at Mora village (SDG-9)
8	Pond deepning at village Damka (SDG-9)

Details of Beneficiary of different programs in FY 2019-20

Details Beneficiaries of Community Infrastructure Development

Sr. No.		Description	No. of Direct Beneficiaries	No of Indirect Beneficiaries	No of Access Beneficiaries
1	Navchetan school	Emergency Stair case at Navchetan school Junagam (SDG-9)	445	0	0
2	House repairing,Community hall etc.	Repairing of 8 House for Halpati community at Suvali (SDG 9)	8	24	0
		Pond deepning at village Damka (SDG-9)	50	150	5000
		Construction of community hall at Damka village (22X15m.) with sanitation unit .(SDG 9)	5604	0	0
		Support for school building at Junapura village in olpad block.(SDG9)	950	0	0
		Repairing of 14 House for Halpati community at Hazira village (SDG 9)	14	42	0
		Paver blocks surrounding community hall - 7000 square feet- Bhatlai. (SDG 9)	4066	0	0
		Total	11137	216	5000

Details Beneficiaries of Education program:

Sr. No.	Description	Units	No. of Direct Beneficiaries	No of Indirect Beneficiaries	No of Access Beneficiaries
1	Utthan Project	10	1456	4368	0
2	Distribution of Education materials	764	764	0	0
3	NVPW Junagam	445	445	1335	0
4	Remadial coaching classes for Halpati students	17	17	51	23
5	Remadial coaching classes for Songadh	257	257	771	0

6	JNV Coaching classes	42	42	126	0
7	Distribtuon of Uniform	60	60	180	0
8	Support for NMSS exam preparation	234	234	702	0
9	Support to Block level Science , maths and environement exhibition(SDG4)	1000	1000	0	0
10	Promotion of sports in schools (SDG-3)	175	175	0	0
Total		3004	4,450	7533	23

Details Beneficiaries of Community Health program:

Sr. No.	Description	Unit	No. of Direct Beneficiaries	No of Indirect Beneficiaries	No of Access Beneficiaries
1	De-addiction (SDG 3)	15	13	39	30
2	Health camp for village community (06 Camps) (SDG 3)	5	741	2223	0
Total		20	754	2262	30

Details Beneficiaries of sustainable Livelihood Development

Sr. No.	Description	Units	No. of Direct Beneficiaries	No of Indirect Beneficiaries
1	Community Engagement Program (SDG 5)	1	525	0
3	Developing and Strengthening SHGs(SDG-5)	20	400	1200
4	Livelihood activity for community (SDG 1)	1	26	78
Total		22	951	1278

Details Beneficiaries of sustainable Livelihood Development- Animal Husbandry:

Sr. No.	Description	Units	No. of Direct Beneficiaries	No of Indirect Beneficiaries	No of Access Beneficiaries
1	Livestock Training /Feramer	7	301	903	189
2	Exposure Visit / Farmar	2	104	312	0
3	Calf Rearing calf/Bags	35	35	105	0

4	Infrtility Treated Animal camp/ Animals	8	256	768	500
5	Foddr Demo Beni./Demo Plot	17	17	51	0
6	ChaffCutter Demo in SHG Member	2	20	60	500
7	Urea Treatment Beni./Treated unit	25	25	75	500
8	Compost Pit Beni/ pit/Westdicoposting	36	36	108	500
9	Kitchen Garden/ Beni	250	250	750	500
10	Calf Really	1	109	327	200
11	Shorted semen	59	59	0	41

Details of CSR Expenditure of FY 2019-20

Adani Foundation – Hazira, Community Infrastructure Development - Proposed
Budget F.Y. 2020-21

Sr. No	Particulars	Budget Approved FY'-19-20			Total Expenditure 2019-20
		Capex	Opex	Total	
1	Repairing of 8 House for Halpati community at Suvali (SDG 9)	0.00	0.00	0.00	21.50
2	Pond deepning at village Damka (SDG-9)	0.00	0.00	0.00	18.09
3	Emergency Stair case at Navchetan school Junagam (SDG-9)	0.00	0.00	0.00	14.00
4	Construction of community hall at Damka village (22X15m.) with sanitation unit .(SDG 9)	0.00	40.00	40.00	35.56
5	Support for school building at Junapura village in olpad block.(SDG9)	0.00	22.00	22.00	4.50
6	Repairing of 14 House for Halpati community at Hazira village (SDG 9)	0.00	18.00	18.00	16.00
7	Paver blocks surrounding community hall - 7000 square feet- Bhatlai. (SDG 9)	0.00	2.41	2.41	2.43
8	Underground water tank at Village Vansva (SDG-9)	0.00	9.00	9.00	0.08
9	Underground water samp for community at Rajgari village (SDG-9)	0.00	0.00	0.00	9.75
10	Overhead water tank Suvali village (SDG-9)	0.00	6.50	6.50	6.13
11	Constrcution of Crematorium at Village hazira (SDG-9)	0.00	13.00	13.00	13.83
12	Pump house room construction at hazira village (SDG-9)	0.00	1.40	1.40	0.00
13	Village pond renovation at mora village (SDG-9)	0.00	2.11	2.11	0.00
14	Sanitation facility for girls and Boyes at village Bhatlai (SDG9)	0.00	0.00	0.00	2.11
	Total- A	0.00	214.41	214.42	143.98

Adani Foundation - Hazira

Community Health - Proposed Budget F.Y. 2020-21

(Amount In Lakhs)

Sr. No	Particulars	Budget FY 2018-19	2019-20		Total Expenditure 2019-20
		Capex	Opex	Total	
1	De-addiction (SDG 3)	0.00	3.00	3.00	3.00
2	Health camp for Truk Driver and Labour (06 Camps) (SDG 3)	0.00	3.00	3.00	2.78
	Total Expense	0.00	6.00	6.00	5.78

Adani Foundation – Hazira

Sustainable Livelihood Development - Proposed Budget F.Y. 2020-21

Sr. No	Particulars	Budget FY-18-19	2019-20		Expenditure 2019-20
		Capex	Opex	Total	
1	Community Engagement Program (SDG 5)	0.00	5.00	5.00	5.00
2	Blood donation camp	0.00	0.00	0.00	0.34
3	Developing and Strengthening SHGs(SDG-5)	0.00	1.00	1.00	0.98

4	Livelihood activity for community (SDG 1)	0.00	1.00	1.00	0.96
5	Animal Husbandary Project with BAIF Barbodhan Center (SDG 15)	0.00	17.53	17.53	17.53
6	Distribution of woolen cloth to tribal community at Narmda district	0.00	0.00	0.00	15.92
7	Animal Husbandary Project with BAIF Junagam Center (SDG 15)	0.00	0.00	0.00	5.21
Total Expense		0.00	24.53	24.53	45.94

Education – Proposed Budget F.Y. 2020-21

Sr. No	Particulars	Budget FY 19-20			Expenditure 2019-20
		Capex	Opex	Total	
1	Coaching class for Jawahar navoday vidyalaya entrance exam preparation (SDG4)	0.00	4.08	4.08	2.16
2	Navchetan Vidhyalaya, Junagam (SDG 4)	0.00	43.18	43.18	43.47
3	Materials support to needy children (SDG4)	0.00	0.00	0.00	4.59
4	Support to Block level Science , maths and environement exhibition(SDG4)	0.00	0.00	0.00	0.30
5	Promotion of sports in schools (SDG-3)	0.00	2.00	2.00	2.00
6	Tribal Community Development (SDG 11)	0.00	7.92	7.92	6.16
Total Expense		0.00	68.88	71.38	58.68

Adani Foundation - Hazira

Utthan – Proposed Budget F.Y. 2020-21

Sr. No	Particulars	Budget FY 19-20			Expenditure 2019-20
		Capex	Opex	Total	
1	Utthan Budget for Hazira kantha area (Both Phases) (10+7 =17 School) (SDG 4)	2.50	11.70	14.20	11.37
	Total Expense	2.50	11.70	14.20	11.37

Summary of CSR Budget and Expenditure

Budget Expenditure 2019-20			
S No	Programs /Project	Budget	Expenditure
1	Education	71.38	58.68
2	Sustainable Livlihhod Development	24.53	45.94
3	Community Health	6	5.78
4	Community Infrastructure Development	214.42	143.98
5	Utthan	14.2	11.37
		330.53	265.75

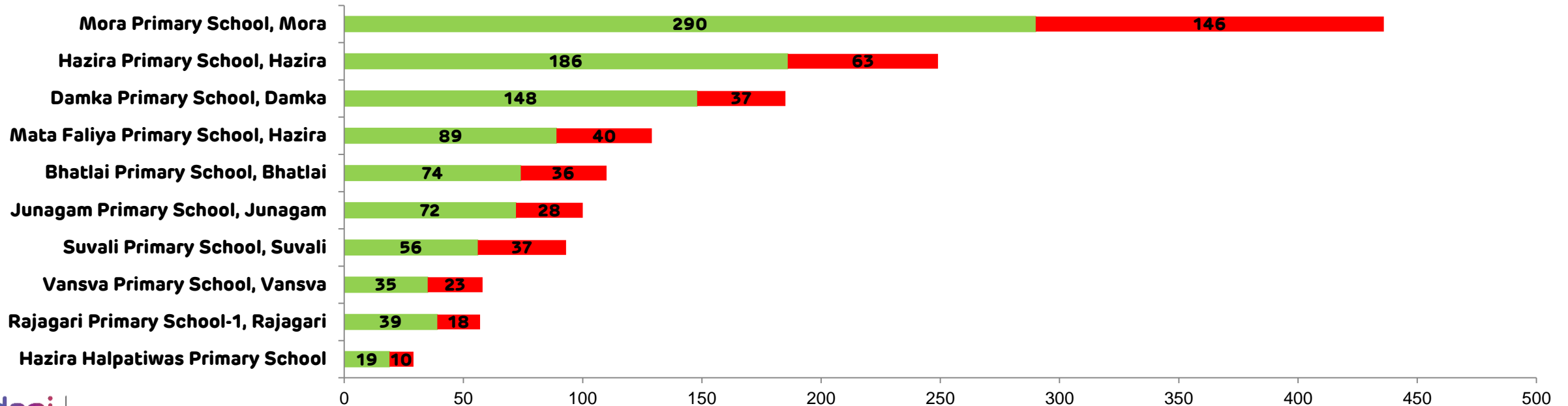


Utthan

Adani Foundation, Hazira
Project starts on : 29/11/2019

Uttan Schools details

Sr. No.	Est. Year	Name of School & Village	Class	Students Strength	Teachers Strength	School Grade	% of PRIYA Stu.	Remarks
1	1886	Mora Primary School, Mora	1 to 8	436	14	B	33.49	65% Migrated
2	1875	Hazira Primary School, Hazira	1 to 8	249	9	B	25.30	--
3	1868	Damka Primary School, Damka	1 to 8	185	7	A	20.00	--
4	1959	Mata Faliya Primary School, Hazira	1 to 5	129	4	C	31.01	93% Migrated
5	1921	Bhatlai Primary School, Bhatlai	1 to 8	110	6	B	32.73	50% Migrated
6	1947	Junagam Primary School, Junagam	1 to 8	100	7	A	28.00	--
7	1862	Suvali Primary School, Suvali	1 to 8	93	6	A	39.78	30% Halpati
8	1942	Vansva Primary School, Vansva	1 to 8	58	4	B	39.66	60% Halpati
9	1955	Rajagari-1 Primary School, Rajagari	1 to 8	57	5	A	31.58	40% Migrated
10	1983	Halpatiwas Primary School, Hazira	1 to 5	29	1	B	34.48	100% Halpati



Support to Utthan Schools



- Well qualified, full time Utthan Sahayak is appointed to each school by Adani Foundation to take care of the Progressive learners & concentrate to teach English subject as third language, Library activities and other curricular as well as Co-curricular activities.

Sr. No	Name	Qualification & Experience	Utthan School	Sr. No	Name	Qualification & Experience	Utthan School
1	Binaben Zaverbhai Patel	M.A., B.Ed. 4 Yrs.	Mora Primary School, Mora	6	Bhartiben Kalpeshkumar Patel	M.A., B.Ed. 2 Yrs.	Junagam Primary School, Junagam
2	Bhavnaben Chiragbhai Patel	B.A., Pre.PTC 10 Yrs.	Hazira Primary School, Hazira	7	Mamtaben Baldevbhai Rabari	M.A., B.Ed. Fresh	Suvali Primary School, Suvali
3	Sudhaben Manilal Lad	PTC 22 Yrs.	Damka Primary School, Damka	8	Bhartiben Atulbhai Patel	M.A., B.Ed. 6 Yrs.	Vansva Primary School, Vansva
4	Mayurikumari Mansingbhai Gamit	M.A. Fresh	Mata Faliya Primary School, Hazira	9	Hinaben Nimeshkumar Tailor	M.A., B.Ed. 1 Yr.	Rajagari-1 Primary School, Rajagari
5	Ansuyaben Aniruddhbhai Patel	B.A. 3 Yrs.	Bhatlai Primary School, Bhatlai	10	Sejal Mahendrabhai Garasia	Dipl. Eng. 11 Yrs.	Halpatiwasi Primary School, Hazira

- Provided different typed 8 notebooks to each and every progressive student of the Utthan schools.
- Provided sports kit containing Lezim, Dumb-bells, Skipping ropes, Badminton set, Volleyball & net, Table top games, Tennis cricket kit, Hula Hoop rings to 10 Utthan schools of Hazira site on 26/01/2020.
- Students of class-VIII of all Utthan schools were taken to Adani Hazira Port Pvt. Ltd. to encourage young minds to develop an interest in all sorts of enterprises as one day exposure visit.
- Iron library cupboard consisting 160+ library books were given to each and every Utthan schools in this academic year.
- 14 magazines for students and teachers were subscribed from Adani foundation to enrich the library and reading purpose.

Highlights

- **Inauguration by DEOsir, Surat.**
- **“Beyond the Black Board” (Activities by Utthan Sahayak)**
- **Developing the habit of Reading**
- **Parents Meeting of the progressive learner**
- **National Science Day celebration**
- **UDAAN visit of Utthan school students**
- **Hardware support to progressive learners as well as school**
- **Meetings with Stake holders & Trainings**
- **Media Coverage**

Inauguration by DEOsir, Surat



- MoU to execute project Uttahan was signed between DEO, Surat and Unit CSR Head, Hazira on 20/11/2019 and inaugural ceremony was held on Friday - 29/11/2019 at Government Primary School, Suvali. Surat District Education Officer, H. H. Rajyaguru grace the occasion with his presence. Uttahan project is started with 10 government primary schools in 8 villages in the Hazira coastal area. H. H. Rajyaguru said, "Educational institutions like school is the place where future of India builds. School, parents and students have to cooperate in such projects.
- After implementing the project Uttahan in 10 Government primary schools of Hazira coastal area. BRC, Dy. DPEO suggested to expand the said project in few more villages. Thus after survey and taking details of other schools, We have identified 07 government primary schools of 04 villages of Choryasi taluka. On 19/03/2020 DPEO, Surat & Unit CSR Head, AF, Hazira signed MoU for 07 schools, 1139 students will be benefited



9. Adani Foundation shall implement in letter and spirit the government schemes/initiatives that are launched from time to time.

10. Branding of the 'project' shall be under the banner of government of Gujarat and Adani Foundation.

11. This initiative of empowering schools under PPP is hereby termed as 'Uttahan'.

12. Either party, if not satisfied with the progress of the schools or on any other reasonable grounds, may give a notice of at least one year (one academic year) for the termination of this agreement.

In witness whereof, the parties hereto have caused this MoU to be executed on the 29 day of March month, 2019. 20

For and on behalf of Adani Foundation.

Signature: [Signature] Date: 11.2.2020

By: M. A. Patel Unit CSR Head, AF, Hazira.

For and on behalf of DPEO, Surat:

Signature: [Signature] Date: 19/03/2020

By: Asutosh Thakkar District Primary Education Officer, District Hazira, Surat.

Witnesses:

1. Asutosh Thakkar (Name and Address) Academic coordinator, A.F. Hazira.

2. [Signature] (Name and Address) District Officer, Surat District, Hazira.

"Beyond the Black Board" (Activities by Utthan Sahayak)



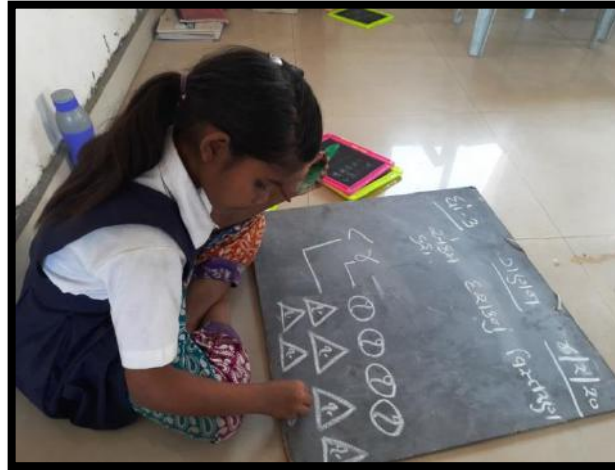
Rapport building with the progressive learner is the first step towards the Utthan project. For that Utthan sahayaks have sang songs, rhymes, Told short stories, played puzzles and intelligent gags played indoor game.



Most of progressive learner do not have power of self control. They get attracted to the distraction of the things going on in the outside world, so Utthan Sahayak helps them to focus from unimportant things to important things regarding studies.

"Beyond the Black Board" (Activities by Utthan Sahayak)

Progressive learners sometimes fear answering questions or taking risks in general class. With caring consideration of Utthan Sahayaks, there is no wrong answer or students do not have to fear being themselves. Individual attention and personal teaching helps Utthan Sahayaks to achieve the goals of Utthan.



"Beyond the Black Board" (Activities by Utthan Sahayak)

In project Uttan we believe that, There are actually different students who respond differently to different methods, teacher has to pay attention to what the students respond to and what they excel at. The perfect method is one that simply WORKS with individual. Thus UA always tries various educational methods.



Developing the habit of Reading

- Psychological studies have shown that improvement in the ability to read also leads to improvement in learning ability as a whole, going far beyond mere reception. To form the habit of reading library activities are planned for the primary students
- Reading is a very good habit that one needs to develop in life. Good books can inform you, enlighten you and lead you in the right direction. There is no better companion than a good book. It is important to read a good book at least for a few minutes each day to develop language skills and vocabulary. Uttaran Assistant ensures that, each student read the book except their textbooks at least half an hour in a day.



Parents Meeting of the progressive learner

Parent is third and important pillar of child education. Active parent can make huge impact on student's achievement. To encourage and reconnect the progressive learners Utthan Sahayaks have arranged several individual and General parents meetings at school and students residence



National Science Day celebration

On 28/02/2020 to celebrate National Science Day, 2 batches of 8-8 students of Class-VII & VIII of Navchetan Vidyalaya, Junagam came with 10-10 working models to the Utthan Schools of Mora and Hazira. Where they have a special assembly of class V to VIII students. NVPW students gave speech on the History and Importance of the day. Then visitor students have demonstrated the Science models to the students.



UDAAN visit of Utthan school students



168 students and 1 teachers of 08 Utthan schools were taken to Adani Hazira Port Pvt. Ltd. From 10th to 13 February 2020 in batches. The major objective behind UDAAN is to encourage young minds to develop an interest in all sorts of enterprises, and to encourage them to dream big in life.



Hardware support to progressive learners as well as school



Utthan project started in December-2019 at Hazira site 10 schools from 8 villages of coastal area of Hazira selected and 1446 students of 10 schools are getting benefits of Utthan. Total 4500 notebooks of 80 pages in 3 different varieties were distributed in first week of January-2020



Hardware support to progressive learners as well as school



Sports kits (Lezims, Dumbbells, Skipping ropes, Rubber rings, Cricket, Badminton, Volleyballs, Table top games, Hoola-hoop rings, Basketballs etc.) were distributed on 26/01/2020 at republic day celebration of and at all Utthan schools of Hazira site. At Primary School, Suvali MLA & TDO, Choryasi were chief guests



Meetings with Stake holders & Training



Meetings with all the stake holders of project Utthan at regular interval of the time is a basic part of the project, It help us for brainstorming, Building Relationships, Sharing ideas and information, Creating Solutions and running the project smoothly in proper direction with expected result in limited time.



Utthan Sahayaks are representatives of the project at school level. Thus they should have crystal clear idea of the project.

Utthan Sahayaks are directly connect with progressive learner. One special day allotted for capacity building with exposure of activity based education, and How to improve acceptance of progressive learners?

Media Section

Media Coverage

DivyaBhaskar,
Surat Edition
Date: 10/02/2020
Page#02

- Utthan project has started in Government primary schools.

Pratap Darpan
Surat Edition
Date: 04/02/2020
Page#06

- Sports equipment distributed to 10 primary schools of Hazira area under project Utthan

પ્રાથમિક શાળાઓમાં 'ઉત્થાન' પ્રોજેક્ટ શરૂ



સુરત | હજીરા કાંઠા વિસ્તારના મોરા CRCની તમામ 10 સરકારી પ્રાથમિક શાળાઓમાં 'ઉત્થાન' પ્રોજેક્ટ શરૂ કરવામાં આવ્યો છે. દરેક શાળામાં પૂર્ણ સમયના ઉત્થાન સહાયકની નિમણૂક કરવામાં આવી છે. જે બાળકોના વાંચન, લેખન, ગણન, કૌશલ્ય કેળવવામાં અને બાળકોને મુખ્ય પ્રવાહમાં લાવવા માટે મદદરૂપ થશે. તદઉપરાંત પ્રાથમિક શાળાઓમાં રમત-ગમતના સાધનોનું વિતરણ પણ કરવામાં આવ્યા હતા. જેમાં લેજમ્સ, ઇમેલ્સ, બેડમિન્ટન, ક્રિકેટ, વોલીબોલ, બાસ્કેટબોલ, હૂલહૂપ રીંગ્સ જેવા 160થી વધુ સાધનોનો સમાવેશ થયો છે.

ઉત્થાન પ્રોજેક્ટ અંતર્ગત

હજીરા કાંઠાની ૧૦ પ્રા.શાળામાં રમત ગમત સાધનોનું વિતરણ

અદાણી

ફાઉન્ડેશને સાધનો

ઉપલબ્ધ કરાવ્યાં

સુરત, તા. ૩

હજીરા કાંઠા વિસ્તારના મોરા CRCની તમામ ૧૦ સરકારી પ્રાથમિક શાળાઓમાં "ઉત્થાન" પ્રોજેક્ટ શરૂ કરવામાં આવ્યો છે. દરેક શાળાઓમાં પૂર્ણ સમયના ઉત્થાન સહાયકની નિમણૂક કરવામાં આવી છે, જે બાળકોના વાંચન, લેખન, ગણન, કૌશલ્ય કેળવવામાં અને પ્રિય બાળકોને મુખ્ય પ્રવાહમાં લાવવા માટે મદદરૂપ થશે.

રૂઢી જાન્યુઆરીએ પ્રજાસત્તાક પર્વની ઉજવણી દરમિયાન અદાણી ફાઉન્ડેશન, હજીરા દ્વારા આ તમામ સરકારી પ્રાથમિક શાળાઓમાં રમત-

ગમતના સાધનોનું વિતરણ જે તે શાળાઓમાં રાષ્ટ્રીય પર્વની ઉજવણીના અવકાશ હેઠળ કરવામાં આવ્યું હતું. જેમાં સુવાલી પ્રાથમિક શાળા ખાતે ચોયાંસી તાલુકાના પારાસભ્ય શ્રીમતી ઝંબનાબેન પટેલના હસ્તે અદાણી પોર્ટની CSR યુનિટના હેડ હેમજીભાઈ પટેલની હાજરીમાં કરવામાં આવ્યું હતું. મોરા પ્રાથમિક શાળા ખાતે તાલુકા પંચાયત ચોયાંસીના પ્રમુખશ્રી દલપતભાઈ પટેલની હાજરીમાં અને અદાણી ફાઉન્ડેશન CSR યુનિટના એકેડેમી કો-ઓર્ડિનેટર ડૉ. આશુતોષ ઠાકરના હસ્તે શાળાના આચાર્યશ્રીઓને અર્પણ કરવામાં આવ્યા. જેમાં લેજમ્સ, ઇમેલ્સ, બેડમિન્ટન, ક્રિકેટ, વોલીબોલ, બાસ્કેટબોલ, હૂલહૂપ રીંગ્સ જેવા ૧૬૦થી વધુ સાધનોનો સમાવેશ થાય છે.

Media Coverage

Samna Times Hindi,
Date: 04/02/2020
Page#06

- Sports equipment under project Utthan

Janadesh
Surat Edition
Date: 04/02/2020
Page#06,

- Sports equipment distributed to 10 primary schools of Hazira area under project Utthan



Media Coverage



**News line,
Sidha Samachar
Date: 04/02/2020
Page#07**

- Sports equipment distributed to 10 primary schools of Hazira area under project Uttan



**Samna Dainik
Surat Edition
Date: 04/02/2020
Page#03**

- Sports equipment distributed under project Uttan



Media Coverage

Gujarat Mitra,
Date: 04/02/2020
Page#08

- Sports equipment distributed to 10 primary schools of Hazira area under project Utthan



Divya Sandesh
Surat Edition
Date: 04/02/2020
Page#12

- Sports equipment distributed under project Utthan





Adani Foundation Sponsored
Navchetan Vidyalaya, Junagam
P.O. Suvali, Ta. Choryasi, Dist. Surat
(Primary Wing)



Annual Report 2019-20

Background: The school is Gujarati medium; GSEB affiliated primary school approved by DPEO, Gujarat. It is established in 2003 by local trust, Navchetan Vikas Mandal, Junagam, to provide quality education to children coming from surrounding rural areas. From 2014, it is sponsored and managed (academically & administratively) by Adani foundation, the students strength of the school rise from 193 students to 424 students from 8 villages, in 2013-14 there were 112 boys and 81 girls enrolled now in 2019-20, 202 boys and 222 girls were there. Students' dropout ratio falls from 6.13% to 1.50%.

School facilities: The school is equipped with Smart Class, Science Laboratory and Computer Laboratory and Activity class, Library and big play ground. The pedagogy includes activity based learning, 'each one teach one' learning method, special remedial classes to slow learners, regular unit tests in school. Adani foundation provides academic materials like School uniform, School bag, Notebooks, Workbooks, Text books and regular brunch to each and every enrolled student for free. Students of standard-3rd to 8th have got chance to learn off campus by exposure visit. "Education is a shared commitment between dedicated teachers, motivated students and enthusiastic parents". The progress of the students' academic achievement depends on the joint effort of parents and teachers, thus 4 Parents Teacher Meetings (PTMs) were arranged to discuss the efforts did by teachers, 2 General PTM (gPTM) and 2 Individual PTM (iPTM) were arranged, average 88% parents remain present in those meetings.

Special Programmes: Values are the most integral part of human overall development. Value Education forms the character. A special 3 days SANSKAROTSAV was arranged for teachers and students to see the good in the near and dear ones, Keep positive approach, keep relationship alive and to understand the power of values. 2 different lectures were conducted on Positive parenting in June and January in this academic year by Dr. Mukul Choksi & Dr. Raees Maniyar well known psychiatric of Gujarat state.

School activities: With regular classroom activities few days were celebrated, because Celebrating events and festivals in schools have become an integral part of learning and building a strong cultural belief in a child, Students will remember an important day only if they are told what the occasion signify, making them aware of the world in a more fun way. World Yoga Day, Independence Day, RAKSHBANDHAN, JANMASHTAMI, Teacher's day, innovatively GANPATI idol POOJA & VISARJAN, Diwali, Christmas, theme based annual function (RASOTSAV), Vegetable Day, Republic day, Sports Day were celebrated during the year, Special sessions were arranged for the students on MR vaccination, Menstrual Hygiene awareness for girls students, Safety measures for crackers, Health of Adolescents Girl, Road safety for life saving and 5 days BAL CHETNA SHIBIR were organized for students. 227 Students from Class V to VIII participated in the International Bookmark Exchange Program and made 223 bookmarks. Students created bookmarks using craft paper, wool string, origami work, stone, etc., based on slogans like "Save the earth", "Save water", "Save trees", "Nurturing the dream, nurturing goodness". Bookmarks were sent to 7 different schools in countries such as Hungary, Portugal, Russia and Croatia. 44 bookmarks received from 2 schools of Portugal, by observing this bookmarks the students tried to speculate about the culture, artwork of Portugal

Special Achievements: 09 Students of school have participated in Science quiz, Engineering tinkering and Model making competitions at state level organized by STEM. Model making team made the model of "Hydraulic Bridge" and secure 1st place among all 07 schools of Gujarat state. In second phase the team perform at the West zone level, where winners of Goa, Maharashtra and Gujarat state participated and secured 4th rank. 7 students of class-VI appeared in Primary Scholarship Examination organized by Govt. of Gujarat among them Isha S. Patel cleared, got position in merit and will get scholarship of Rs. 750/- from Gujarat government. 42 students of school participated in KHELMAHAKUMBH in various categories in Long jump, standing jump, running. Among them 5 players stood first, 4 players stood second and 2 students got third rank. They competed at District level competitions. 11 Student also participated in JUDO competition among them 06 student players won at District level and had represented at state level.

Media coverage: School always prepare a special media report format for newspaper after each and every important activity and send it to print media office; they have published 29 times various activity reports in their newspaper in this academic year.

	Adani Hazira Port Private Limited	From : October 2019 to March 2020
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ANNEXURE-4

**Environmental Monitoring / Analysis Results For The Period From October 2019 to March
2020**

**4A. AMBIENT AIR QUALITY MONITORING (OCTOBER 2019 TO MARCH 2020): -****Table-1.1: Ambient Air Quality Monitoring Results At Near Port Gate No.: 2**

Sr. No.	Date of Sampling	Location-1: Near Port Gate No.: 2 (N 21° 05.426'E 72° 37.739')											
		PM ₁₀	PM _{2.5}	Pb	BaP	As	Ni	CO	C ₆ H ₆	NH ₃	SO ₂	NO _x	O ₃
		µg/m ³	µg/m ³	µg/m ³	ng/m ³	ng/m ³	ng/m ³	mg/m ³	µg/m ³	µg/m ³	µg/m ³	µg/m ³	µg/m ³
1	03/10/2019	84.27	49.65	BDL*	BDL*	BDL*	BDL*	0.81	BDL*	29.46	11.65	29.46	22.37
2	07/10/2019	92.65	54.83	0.55	BDL*	2.38	10.57	0.48	BDL*	33.26	20.62	37.64	26.84
3	10/10/2019	86.36	47.56	BDL*	BDL*	BDL*	BDL*	0.89	BDL*	31.35	13.51	34.34	17.68
4	14/10/2019	78.63	34.55	BDL*	BDL*	BDL*	BDL*	0.93	BDL*	13.51	22.67	30.55	24.35
5	17/10/2019	83.75	44.27	BDL*	BDL*	BDL*	BDL*	0.82	BDL*	36.51	24.52	42.67	27.22
6	21/10/2019	66.34	36.35	0.54	BDL*	2.22	10.67	0.77	BDL*	28.35	14.84	33.46	29.43
7	24/10/2019	87.61	46.30	BDL*	BDL*	BDL*	BDL*	0.52	BDL*	23.74	19.55	28.67	16.17
8	28/10/2019	77.57	37.85	BDL*	BDL*	BDL*	BDL*	0.94	BDL*	32.52	15.24	38.22	25.31
9	31/10/2019	89.24	48.56	0.58	BDL*	2.48	10.34	0.85	BDL*	37.56	23.47	43.52	21.67
10	04/11/2019	77.63	42.62	BDL*	BDL*	BDL*	BDL*	0.74	BDL*	34.52	25.63	42.61	25.46
11	07/11/2019	65.31	37.56	BDL*	BDL*	BDL*	BDL*	0.94	BDL*	17.66	21.67	36.56	19.28
12	11/11/2019	80.43	44.54	BDL*	BDL*	BDL*	BDL*	0.64	BDL*	26.35	17.32	33.62	27.52
13	14/11/2019	89.33	48.35	BDL*	BDL*	2.18	10.21	0.82	BDL*	29.41	23.43	40.27	22.66
14	18/11/2019	75.65	40.36	BDL*	BDL*	BDL*	BDL*	0.96	BDL*	22.42	19.52	39.51	20.32
15	21/11/2019	82.31	49.52	BDL*	BDL*	2.34	10.18	0.85	BDL*	42.53	16.43	32.82	18.63
16	25/11/2019	91.51	53.58	BDL*	BDL*	BDL*	BDL*	0.92	BDL*	37.54	24.65	41.52	26.77
17	28/11/2019	86.36	47.56	BDL*	BDL*	2.52	10.36	0.40	BDL*	40.55	20.26	37.34	28.54
18	02/12/2019	81.61	44.63	BDL*	BDL*	BDL*	BDL*	0.96	BDL*	32.41	12.65	39.51	16.24
19	05/12/2019	88.64	49.56	BDL*	BDL*	BDL*	BDL*	0.78	BDL*	28.77	26.58	29.53	25.39
20	09/12/2019	92.41	46.76	0.76	BDL*	2.54	10.85	0.41	BDL*	36.37	19.30	41.26	18.42
21	12/12/2019	76.37	42.33	BDL*	BDL*	BDL*	BDL*	0.77	BDL*	24.66	24.55	44.22	27.83
22	16/12/2019	90.29	52.33	0.64	BDL*	2.75	10.85	0.71	BDL*	44.54	22.54	33.49	28.34
23	19/12/2019	72.23	33.75	BDL*	BDL*	BDL*	BDL*	0.56	BDL*	38.41	18.56	37.57	24.68
24	23/12/2019	83.32	48.56	BDL*	BDL*	BDL*	BDL*	0.65	BDL*	21.22	13.60	30.63	21.37
25	26/12/2019	93.54	55.34	0.58	BDL*	2.64	10.58	0.84	BDL*	18.36	23.42	35.35	23.56
26	30/12/2019	68.58	29.45	BDL*	BDL*	BDL*	BDL*	0.76	BDL*	34.52	14.84	27.23	20.25

Authorized Signatory

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

"Pollucon House", Plot No.5/6, Opp.Balaji Industrial Society, Old Shantinath Silk Mill Lane, Near Gaytri Farsan Mart,
Navjivan Circle, Udhana Magdalla Road, Surat-395007, Gujarat, India.

Phone : 0261-2635750, 0261-2635751, 0261-2635775, 07016605174, WEB: www.polluconlab.com, E. mail: pollucon@gmail.com, info@polluconlab.com



27	02/01/2020	84.37	47.18	BDL*	BDL*	BDL*	BDL*	0.89	BDL*	26.32	24.53	38.21	19.47
28	06/01/2020	92.63	53.75	0.72	BDL*	2.54	10.77	0.80	BDL*	13.64	22.44	34.56	15.37
29	09/01/2020	87.63	42.24	BDL*	BDL*	BDL*	BDL*	0.38	BDL*	29.57	18.41	40.25	26.59
30	13/01/2020	79.44	36.47	BDL*	BDL*	BDL*	BDL*	0.90	BDL*	36.56	20.66	42.41	21.64
31	16/01/2020	94.27	50.23	0.59	BDL*	2.36	10.52	0.63	BDL*	31.21	23.38	36.32	24.31
32	20/01/2020	83.36	46.26	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	24.22	19.53	39.40	27.54
33	23/01/2020	77.53	37.22	BDL*	BDL*	BDL*	BDL*	0.70	BDL*	39.53	16.80	31.56	20.41
34	27/01/2020	80.63	49.27	BDL*	BDL*	BDL*	BDL*	0.94	BDL*	27.66	21.34	26.45	25.46
35	30/01/2020	93.45	54.33	0.78	BDL*	2.64	10.52	0.55	BDL*	42.44	17.59	29.44	23.75
36	03/02/2020	90.34	48.56	0.62	BDL*	2.45	10.63	0.74	BDL*	34.53	22.67	42.56	23.33
37	06/02/2020	83.56	45.38	BDL*	BDL*	BDL*	BDL*	0.50	BDL*	29.45	19.68	32.58	28.46
38	10/02/2020	79.56	37.39	BDL*	BDL*	BDL*	BDL*	0.79	BDL*	38.53	16.81	36.55	25.89
39	13/02/2020	86.36	49.23	BDL*	BDL*	BDL*	BDL*	0.52	BDL*	44.51	21.65	39.53	22.61
40	17/02/2020	95.37	54.22	0.78	BDL*	2.68	10.29	0.85	BDL*	32.54	25.30	45.23	27.56
41	20/02/2020	75.62	38.44	BDL*	BDL*	BDL*	BDL*	0.93	BDL*	48.56	17.60	31.33	20.33
42	24/02/2020	89.94	47.51	0.56	BDL*	2.22	10.52	0.57	BDL*	27.32	20.51	38.26	24.33
43	27/02/2020	78.32	43.62	BDL*	BDL*	BDL*	BDL*	0.76	BDL*	35.57	11.90	33.46	15.36
44	02/03/2020	94.25	53.45	0.62	BDL*	2.76	10.36	0.97	BDL*	37.41	18.33	36.25	21.37
45	05/03/2020	79.27	40.25	BDL*	BDL*	BDL*	BDL*	0.65	BDL*	31.55	24.35	31.54	24.56
46	09/03/2020	86.34	51.22	0.52	BDL*	2.52	10.14	0.86	BDL*	42.45	19.24	29.42	22.41
47	12/03/2020	77.54	39.36	BDL*	BDL*	BDL*	BDL*	0.77	BDL*	15.52	22.48	35.44	26.27
48	16/03/2020	84.36	47.86	BDL*	BDL*	BDL*	BDL*	0.98	BDL*	33.44	20.55	38.45	28.59
49	19/03/2020	91.64	54.22	0.56	BDL*	2.69	10.47	0.85	BDL*	38.22	23.42	41.22	17.65

Observation: Above given Result are within the norms Specified Limit as per CPCB Notification NoB-29016/20/90/PCI-Idt: 18/11/2009 National Ambient Air Quality Standards, New Delhi , for 24 hourly or 8 hourly or 1 hourly monitored values

BDL*: - Below Detection Limit - Lead as Pb ($\mu\text{g}/\text{m}^3$): 0.5

BDL*: - Below Detection Limit - Carbon Monoxide as CO (mg/m^3): 0.01

BDL*: - Below Detection Limit - Benzene as C_6H_6 ($\mu\text{g}/\text{m}^3$): 2

BDL*: - Below Detection Limit - Benzo (a) Pyrene (BaP) - Particulate Phase only (ng/m^3): 0.5

BDL*: - Below Detection Limit - Arsenic as As (ng/m^3): 2

BDL*: - Below Detection Limit - Nickel as Ni (ng/m^3): 5

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● GPCB approved schedule II auditor

● ISO 14001 : 2004 ● OHSAS 18001 : 2007 ● ISO 9001 : 2008

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Table-1.2: Ambient Air Quality Monitoring Results at HSE Building Terrace

Sr. No.	Date of Sampling	Location-2: HSE Building Terrace (N 21° 05.043' E 72° 38.491')											
		PM ₁₀	PM _{2.5}	Pb	BaP	As	Ni	CO	C ₆ H ₆	NH ₃	SO ₂	NO _x	O ₃
		µg/m ³	µg/m ³	µg/m ³	ng/m ³	ng/m ³	ng/m ³	mg/m ³	µg/m ³	µg/m ³	µg/m ³	µg/m ³	µg/m ³
1	03/10/2019	69.57	32.64	BDL*	BDL*	BDL*	BDL*	0.34	BDL*	24.27	13.28	36.45	16.55
2	07/10/2019	84.67	46.56	BDL*	BDL*	BDL*	BDL*	0.15	BDL*	15.65	17.32	21.64	18.28
3	10/10/2019	67.25	30.54	BDL*	BDL*	BDL*	BDL*	0.33	BDL*	19.21	9.54	24.56	22.22
4	14/10/2019	83.62	49.54	BDL*	BDL*	BDL*	BDL*	0.32	BDL*	23.53	19.46	27.53	11.26
5	17/10/2019	62.57	24.67	BDL*	BDL*	BDL*	BDL*	0.38	BDL*	16.32	20.58	38.66	17.53
6	21/10/2019	77.82	39.56	BDL*	BDL*	BDL*	BDL*	0.58	BDL*	14.56	16.15	20.61	24.53
7	24/10/2019	50.75	28.31	BDL*	BDL*	BDL*	BDL*	0.36	BDL*	18.21	14.20	15.66	26.57
8	28/10/2019	70.36	33.56	BDL*	BDL*	BDL*	BDL*	0.61	BDL*	10.56	7.28	30.65	15.23
9	31/10/2019	82.36	45.30	0.52	BDL*	2.16	10.14	0.26	BDL*	26.46	18.62	35.63	20.22
10	04/11/2019	67.55	30.41	BDL*	BDL*	BDL*	BDL*	0.26	BDL*	23.64	20.76	37.52	13.54
11	07/11/2019	54.61	26.43	BDL*	BDL*	BDL*	BDL*	0.45	BDL*	14.51	15.65	23.35	16.47
12	11/11/2019	74.65	38.34	BDL*	BDL*	BDL*	BDL*	0.50	BDL*	21.57	13.29	27.62	25.37
13	14/11/2019	84.36	31.59	BDL*	BDL*	BDL*	BDL*	0.90	BDL*	17.84	9.64	19.53	18.47
14	18/11/2019	66.46	36.54	BDL*	BDL*	BDL*	BDL*	0.41	BDL*	10.51	22.61	36.31	14.28
15	21/11/2019	76.67	28.48	BDL*	BDL*	BDL*	BDL*	0.66	BDL*	32.45	12.32	25.62	21.35
16	25/11/2019	63.67	34.23	BDL*	BDL*	BDL*	BDL*	0.48	BDL*	24.57	18.52	28.65	24.26
17	28/11/2019	80.24	43.42	BDL*	BDL*	BDL*	BDL*	0.49	BDL*	12.32	11.51	32.55	26.62
18	02/12/2019	71.53	38.51	BDL*	BDL*	BDL*	BDL*	0.58	BDL*	27.52	10.60	33.50	24.24
19	05/12/2019	69.39	35.66	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	10.55	19.61	20.29	28.22
20	09/12/2019	86.54	43.33	0.54	BDL*	2.36	10.38	0.22	BDL*	22.64	12.73	25.34	23.64
21	12/12/2019	61.26	32.43	BDL*	BDL*	BDL*	BDL*	0.54	BDL*	18.28	20.22	32.38	20.73
22	16/12/2019	73.45	39.60	BDL*	BDL*	BDL*	BDL*	0.16	BDL*	25.37	14.15	24.54	26.73
23	19/12/2019	82.49	46.90	BDL*	BDL*	BDL*	BDL*	0.46	BDL*	28.68	9.66	21.66	13.56
24	23/12/2019	60.27	33.73	BDL*	BDL*	BDL*	BDL*	0.23	BDL*	19.41	11.57	26.62	16.35
25	26/12/2019	76.56	40.77	BDL*	BDL*	BDL*	BDL*	0.37	BDL*	32.53	21.52	23.45	21.24
26	30/12/2019	57.65	26.55	BDL*	BDL*	BDL*	BDL*	0.48	BDL*	17.23	16.23	36.46	17.03
27	02/01/2020	72.46	37.50	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	10.63	18.40	31.85	11.24
28	06/01/2020	86.55	48.13	BDL*	BDL*	BDL*	BDL*	0.60	BDL*	19.23	14.57	24.52	17.56



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29	09/01/2020	78.52	35.46	BDL*	BDL*	BDL*	BDL*	0.49	BDL*	14.35	11.86	20.22	15.23
30	13/01/2020	67.63	28.35	BDL*	BDL*	BDL*	BDL*	0.62	BDL*	29.31	17.49	33.26	13.58
31	16/01/2020	88.23	44.36	BDL*	BDL*	BDL*	BDL*	0.24	BDL*	22.87	20.53	29.25	21.25
32	20/01/2020	74.63	40.55	BDL*	BDL*	BDL*	BDL*	0.30	BDL*	12.43	16.54	30.21	18.27
33	23/01/2020	84.25	49.23	BDL*	BDL*	BDL*	BDL*	0.53	BDL*	35.43	12.38	36.26	12.39
34	27/01/2020	64.56	30.55	BDL*	BDL*	BDL*	BDL*	0.65	BDL*	16.84	19.68	19.31	16.42
35	30/01/2020	85.53	47.62	BDL*	BDL*	BDL*	BDL*	0.52	BDL*	33.22	15.18	34.35	20.57
36	03/02/2020	84.23	42.67	BDL*	BDL*	BDL*	BDL*	0.24	BDL*	22.37	12.55	26.33	15.62
37	06/02/2020	79.37	34.28	BDL*	BDL*	BDL*	BDL*	0.44	BDL*	25.65	10.23	18.57	21.63
38	10/02/2020	64.53	29.28	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	20.51	14.25	31.56	12.64
39	13/02/2020	74.27	41.52	BDL*	BDL*	BDL*	BDL*	0.26	BDL*	35.21	16.34	23.42	19.20
40	17/02/2020	80.26	46.23	BDL*	BDL*	BDL*	BDL*	0.63	BDL*	28.46	19.41	35.51	25.76
41	20/02/2020	57.67	24.53	BDL*	BDL*	BDL*	BDL*	0.71	BDL*	40.21	21.58	27.26	16.31
42	24/02/2020	83.25	19.58	BDL*	BDL*	BDL*	BDL*	0.37	BDL*	17.54	15.58	32.43	26.27
43	27/02/2020	66.85	33.51	BDL*	BDL*	BDL*	BDL*	0.47	BDL*	26.36	8.53	25.68	22.26
44	02/03/2020	78.65	44.21	BDL*	BDL*	BDL*	BDL*	0.64	BDL*	23.66	13.57	24.32	16.34
45	05/03/2020	50.82	23.46	BDL*	BDL*	BDL*	BDL*	0.70	BDL*	18.45	16.29	29.52	19.55
46	09/03/2020	68.62	36.26	BDL*	BDL*	BDL*	BDL*	0.58	BDL*	34.32	10.58	22.68	26.74
47	12/03/2020	57.16	26.22	BDL*	BDL*	BDL*	BDL*	0.50	BDL*	31.21	12.41	26.82	21.56
48	16/03/2020	66.56	39.27	BDL*	BDL*	BDL*	BDL*	0.32	BDL*	20.63	14.47	34.57	18.39
49	19/03/2020	76.22	35.47	BDL*	BDL*	BDL*	BDL*	0.53	BDL*	32.84	19.53	20.55	15.11

Observation: Above given Result are within the norms Specified Limit as per CPCB Notification NoB-29016/20/90/PCI-Idt: 18/11/2009 National Ambient Air Quality Standards, New Delhi , for 24 hourly or 8 hourly or 1 hourly monitored values

BDL*: - Below Detection Limit - Lead as Pb ($\mu\text{g}/\text{m}^3$): 0.5

BDL*: - Below Detection Limit - Carbon Monoxide as CO (mg/m^3): 0.01

BDL*: - Below Detection Limit - Benzene as C_6H_6 ($\mu\text{g}/\text{m}^3$): 2

BDL*: - Below Detection Limit - Benzo (a) Pyrene (BaP) - Particulate Phase only (ng/m^3): 0.5

BDL*: - Below Detection Limit - Arsenic as As (ng/m^3): 2

BDL*: - Below Detection Limit - Nickel as Ni (ng/m^3): 5

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Table-1.3: Ambient Air Quality Monitoring Results at Central Water Pump House

Sr. No.	Date of Sampling	Location-3: Central Water Pump House (N 21° 04.697'E 72° 38.420')											
		PM ₁₀	PM _{2.5}	Pb	BaP	As	Ni	CO	C ₆ H ₆	NH ₃	SO ₂	NO _x	O ₃
		µg/m ³	µg/m ³	µg/m ³	ng/m ³	ng/m ³	ng/m ³	mg/m ³	µg/m ³	µg/m ³	µg/m ³	µg/m ³	µg/m ³
1	03/10/2019	57.67	24.56	BDL*	BDL*	BDL*	BDL*	0.37	BDL*	16.51	9.67	22.63	19.31
2	07/10/2019	68.24	35.35	BDL*	BDL*	BDL*	BDL*	0.18	BDL*	10.22	11.32	29.21	15.64
3	10/10/2019	55.85	21.59	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	13.43	7.67	30.23	21.56
4	14/10/2019	65.52	31.59	BDL*	BDL*	BDL*	BDL*	0.54	BDL*	17.84	10.20	24.26	16.60
5	17/10/2019	56.34	34.24	BDL*	BDL*	BDL*	BDL*	0.25	BDL*	30.23	13.64	20.27	14.34
6	21/10/2019	61.62	29.22	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	23.21	8.58	17.25	22.55
7	24/10/2019	75.36	36.53	BDL*	BDL*	BDL*	BDL*	0.42	BDL*	14.65	18.23	21.55	20.59
8	28/10/2019	66.54	27.66	BDL*	BDL*	BDL*	BDL*	0.31	BDL*	25.31	12.66	15.75	23.62
9	31/10/2019	72.65	33.75	BDL*	BDL*	BDL*	BDL*	0.17	BDL*	21.55	15.57	31.57	17.22
10	04/11/2019	60.34	33.54	BDL*	BDL*	BDL*	BDL*	0.46	BDL*	18.34	18.66	29.44	16.33
11	07/11/2019	49.63	20.23	BDL*	BDL*	BDL*	BDL*	0.73	BDL*	11.52	13.43	17.36	12.68
12	11/11/2019	64.51	28.36	BDL*	BDL*	BDL*	BDL*	0.30	BDL*	15.31	9.23	20.21	18.34
13	14/11/2019	70.31	24.35	BDL*	BDL*	BDL*	BDL*	0.65	BDL*	12.73	15.31	23.64	14.67
14	18/11/2019	55.45	19.50	BDL*	BDL*	BDL*	BDL*	0.44	BDL*	13.31	16.56	26.74	11.58
15	21/11/2019	63.56	34.57	BDL*	BDL*	BDL*	BDL*	0.27	BDL*	24.34	6.80	16.53	23.77
16	25/11/2019	80.34	40.25	BDL*	BDL*	BDL*	BDL*	0.54	BDL*	22.62	12.75	25.46	19.53
17	28/11/2019	71.67	35.31	BDL*	BDL*	BDL*	BDL*	0.18	BDL*	30.21	17.63	22.67	24.61
18	02/12/2019	51.54	28.70	BDL*	BDL*	BDL*	BDL*	0.26	BDL*	20.97	8.62	30.50	18.61
19	05/12/2019	77.56	43.31	BDL*	BDL*	BDL*	BDL*	0.21	BDL*	32.84	14.73	23.67	20.34
20	09/12/2019	59.31	32.47	BDL*	BDL*	BDL*	BDL*	0.52	BDL*	26.57	10.28	27.52	16.55
21	12/12/2019	68.63	36.56	BDL*	BDL*	BDL*	BDL*	0.42	BDL*	15.63	16.85	37.26	11.27
22	16/12/2019	54.27	31.25	BDL*	BDL*	BDL*	BDL*	0.64	BDL*	19.32	9.46	21.34	24.20
23	19/12/2019	66.79	38.24	BDL*	BDL*	BDL*	BDL*	0.49	BDL*	25.47	11.20	26.37	15.56
24	23/12/2019	52.34	27.31	BDL*	BDL*	BDL*	BDL*	0.34	BDL*	12.51	6.57	18.62	10.56
25	26/12/2019	69.51	34.26	BDL*	BDL*	BDL*	BDL*	0.29	BDL*	23.61	15.55	28.53	13.45
26	30/12/2019	50.37	17.61	BDL*	BDL*	BDL*	BDL*	0.38	BDL*	28.42	12.22	15.24	12.35
27	02/01/2020	66.32	31.51	BDL*	BDL*	BDL*	BDL*	0.31	BDL*	13.56	16.60	22.38	14.57
28	06/01/2020	56.74	26.44	BDL*	BDL*	BDL*	BDL*	0.46	BDL*	16.22	11.26	18.48	10.53



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29	09/01/2020	71.53	30.42	BDL*	BDL*	BDL*	BDL*	0.26	BDL*	23.42	14.25	28.46	12.45
30	13/01/2020	57.55	25.48	BDL*	BDL*	BDL*	BDL*	0.37	BDL*	19.41	6.53	30.46	20.40
31	16/01/2020	76.63	37.57	BDL*	BDL*	BDL*	BDL*	0.17	BDL*	26.42	15.43	23.75	19.32
32	20/01/2020	60.41	32.41	BDL*	BDL*	BDL*	BDL*	0.36	BDL*	22.63	13.45	24.30	22.37
33	23/01/2020	59.95	24.25	BDL*	BDL*	BDL*	BDL*	0.27	BDL*	31.54	7.52	14.51	18.43
34	27/01/2020	70.24	38.50	BDL*	BDL*	BDL*	BDL*	0.54	BDL*	10.62	12.57	17.52	17.63
35	30/01/2020	68.77	34.53	BDL*	BDL*	BDL*	BDL*	0.21	BDL*	25.27	9.65	25.36	25.34
36	03/02/2020	76.54	37.55	BDL*	BDL*	BDL*	BDL*	0.49	BDL*	16.53	10.88	20.22	20.23
37	06/02/2020	66.53	29.45	BDL*	BDL*	BDL*	BDL*	0.34	BDL*	19.54	12.58	24.21	15.26
38	10/02/2020	56.32	25.35	BDL*	BDL*	BDL*	BDL*	0.30	BDL*	34.25	7.57	17.51	17.51
39	13/02/2020	69.42	35.42	BDL*	BDL*	BDL*	BDL*	0.21	BDL*	29.35	14.58	21.51	13.51
40	17/02/2020	58.54	28.52	BDL*	BDL*	BDL*	BDL*	0.38	BDL*	12.62	17.22	30.22	16.48
41	20/02/2020	64.32	30.43	BDL*	BDL*	BDL*	BDL*	0.61	BDL*	30.22	6.37	23.67	11.55
42	24/02/2020	57.81	26.39	BDL*	BDL*	BDL*	BDL*	0.42	BDL*	23.62	11.24	19.57	19.41
43	27/02/2020	60.26	24.38	BDL*	BDL*	BDL*	BDL*	0.60	BDL*	20.52	13.41	22.52	12.51
44	02/03/2020	70.52	38.32	BDL*	BDL*	BDL*	BDL*	0.27	BDL*	20.57	6.26	30.24	24.23
45	05/03/2020	58.32	30.28	BDL*	BDL*	BDL*	BDL*	0.24	BDL*	12.57	8.21	17.20	14.25
46	09/03/2020	80.66	47.50	BDL*	BDL*	BDL*	BDL*	0.46	BDL*	21.51	12.64	25.31	19.23
47	12/03/2020	72.67	32.34	BDL*	BDL*	BDL*	BDL*	0.54	BDL*	22.56	16.31	31.63	23.51
48	16/03/2020	59.65	35.53	BDL*	BDL*	BDL*	BDL*	0.63	BDL*	14.54	10.42	14.52	12.23
49	19/03/2020	69.52	39.54	BDL*	BDL*	BDL*	BDL*	0.49	BDL*	18.66	14.22	26.32	18.22

Observation: Above given Result are within the norms Specified Limit as per CPCB Notification NoB-29016/20/90/PCI-Idt: 18/11/2009 National Ambient Air Quality Standards, New Delhi , for 24 hourly or 8 hourly or 1 hourly monitored values

BDL*: - Below Detection Limit - Lead as Pb ($\mu\text{g}/\text{m}^3$): 0.5

BDL*: - Below Detection Limit - Carbon Monoxide as CO (mg/m^3): 0.01

BDL*: - Below Detection Limit - Benzene as C_6H_6 ($\mu\text{g}/\text{m}^3$): 2

BDL*: - Below Detection Limit - Benzo (a) Pyrene (BaP) - Particulate Phase only (ng/m^3): 0.5

BDL*: - Below Detection Limit - Arsenic as As (ng/m^3): 2

BDL*: - Below Detection Limit - Nickel as Ni (ng/m^3): 5

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Table-1.4: Ambient Air Quality Monitoring Results at Container Terminal

Sr. No.	Date of Sampling	Location-4: Container Terminal (N 21° 05.187'E 72° 37.774)											
		PM ₁₀	PM _{2.5}	Pb	BaP	As	Ni	CO	C ₆ H ₆	NH ₃	SO ₂	NO _x	O ₃
		µg/m ³	µg/m ³	µg/m ³	ng/m ³	ng/m ³	ng/m ³	mg/m ³	µg/m ³	µg/m ³	µg/m ³	µg/m ³	µg/m ³
1	03/10/2019	50.24	43.46	BDL*	BDL*	BDL*	BDL*	0.53	BDL*	14.87	6.54	18.56	24.25
2	07/10/2019	74.21	29.45	BDL*	BDL*	BDL*	BDL*	0.22	BDL*	22.61	9.25	25.62	22.66
3	10/10/2019	80.61	33.67	BDL*	BDL*	BDL*	BDL*	0.60	BDL*	25.53	11.53	22.31	12.67
4	14/10/2019	71.61	41.33	BDL*	BDL*	BDL*	BDL*	0.27	BDL*	28.63	14.55	19.51	14.58
5	17/10/2019	68.56	37.56	BDL*	BDL*	BDL*	BDL*	0.57	BDL*	20.53	17.55	26.53	21.21
6	21/10/2019	72.34	32.46	BDL*	BDL*	BDL*	BDL*	0.30	BDL*	18.67	10.55	23.57	16.26
7	24/10/2019	56.43	24.32	BDL*	BDL*	BDL*	BDL*	0.23	BDL*	27.54	15.41	17.56	19.52
8	28/10/2019	60.24	26.56	BDL*	BDL*	BDL*	BDL*	0.16	BDL*	15.73	13.84	21.73	13.54
9	31/10/2019	51.26	28.53	BDL*	BDL*	BDL*	BDL*	0.21	BDL*	29.57	7.33	27.43	15.11
10	04/11/2019	55.37	21.33	BDL*	BDL*	BDL*	BDL*	0.69	BDL*	13.45	11.86	26.32	21.57
11	07/11/2019	60.47	23.69	BDL*	BDL*	BDL*	BDL*	0.62	BDL*	20.34	19.35	33.57	10.59
12	11/11/2019	69.21	35.22	BDL*	BDL*	BDL*	BDL*	0.39	BDL*	12.66	6.35	24.53	20.57
13	14/11/2019	76.54	42.46	BDL*	BDL*	BDL*	BDL*	0.31	BDL*	21.62	12.26	27.53	24.55
14	18/11/2019	61.21	29.36	BDL*	BDL*	BDL*	BDL*	0.25	BDL*	25.43	10.30	23.74	16.66
15	21/11/2019	71.21	31.41	BDL*	BDL*	BDL*	BDL*	0.56	BDL*	28.51	8.62	20.36	25.26
16	25/11/2019	68.36	37.64	BDL*	BDL*	BDL*	BDL*	0.36	BDL*	15.43	16.71	31.74	15.21
17	28/11/2019	77.42	40.62	BDL*	BDL*	BDL*	BDL*	0.47	BDL*	22.84	14.56	18.63	17.64
18	02/12/2019	66.65	33.51	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	18.55	14.26	36.50	12.25
19	05/12/2019	82.68	40.28	BDL*	BDL*	BDL*	BDL*	0.55	BDL*	35.61	12.13	16.59	18.22
20	09/12/2019	78.66	38.57	BDL*	BDL*	BDL*	BDL*	0.27	BDL*	19.53	15.66	33.68	13.27
21	12/12/2019	55.69	25.47	BDL*	BDL*	BDL*	BDL*	0.62	BDL*	30.27	9.50	26.30	17.38
22	16/12/2019	79.37	43.63	BDL*	BDL*	BDL*	BDL*	0.44	BDL*	22.73	6.28	30.28	20.86
23	19/12/2019	60.69	27.65	BDL*	BDL*	BDL*	BDL*	0.25	BDL*	34.54	13.40	18.56	19.20
24	23/12/2019	71.22	36.76	BDL*	BDL*	BDL*	BDL*	0.57	BDL*	17.56	8.59	21.55	14.53
25	26/12/2019	57.22	30.28	BDL*	BDL*	BDL*	BDL*	0.50	BDL*	29.58	18.20	32.58	16.49
26	30/12/2019	62.42	20.58	BDL*	BDL*	BDL*	BDL*	0.31	BDL*	24.26	10.44	20.07	11.53
27	02/01/2020	60.37	27.65	BDL*	BDL*	BDL*	BDL*	0.34	BDL*	17.51	12.79	27.51	16.35
28	06/01/2020	72.62	39.23	BDL*	BDL*	BDL*	BDL*	0.25	BDL*	10.22	16.38	30.11	19.52



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29	09/01/2020	65.46	29.41	BDL*	BDL*	BDL*	BDL*	0.45	BDL*	26.57	10.31	23.42	23.45
30	13/01/2020	73.33	31.25	BDL*	BDL*	BDL*	BDL*	0.22	BDL*	23.51	8.67	25.63	18.62
31	16/01/2020	59.34	24.51	BDL*	BDL*	BDL*	BDL*	0.33	BDL*	16.54	13.20	18.24	14.21
32	20/01/2020	66.56	35.76	BDL*	BDL*	BDL*	BDL*	0.18	BDL*	19.51	11.52	21.54	20.64
33	23/01/2020	52.65	22.47	BDL*	BDL*	BDL*	BDL*	0.44	BDL*	27.23	9.28	15.63	13.22
34	27/01/2020	76.32	42.50	BDL*	BDL*	BDL*	BDL*	0.32	BDL*	20.56	15.16	22.62	22.52
35	30/01/2020	61.24	30.66	BDL*	BDL*	BDL*	BDL*	0.14	BDL*	30.46	6.37	19.63	27.20
36	03/02/2020	68.24	34.55	BDL*	BDL*	BDL*	BDL*	0.55	BDL*	12.32	19.20	39.23	18.58
37	06/02/2020	74.36	37.64	BDL*	BDL*	BDL*	BDL*	0.40	BDL*	16.33	6.54	15.52	23.41
38	10/02/2020	69.55	32.54	BDL*	BDL*	BDL*	BDL*	0.17	BDL*	29.55	9.83	34.56	14.54
39	13/02/2020	57.51	26.56	BDL*	BDL*	BDL*	BDL*	0.31	BDL*	18.53	12.82	27.54	16.71
40	17/02/2020	63.67	33.42	BDL*	BDL*	BDL*	BDL*	0.22	BDL*	23.45	15.51	21.62	19.38
41	20/02/2020	70.66	36.27	BDL*	BDL*	BDL*	BDL*	0.32	BDL*	35.43	8.28	17.64	13.43
42	24/02/2020	66.21	45.24	BDL*	BDL*	BDL*	BDL*	0.25	BDL*	10.21	11.52	23.84	22.45
43	27/02/2020	54.27	28.24	BDL*	BDL*	BDL*	BDL*	0.18	BDL*	15.12	14.33	29.24	17.62
44	02/03/2020	82.45	47.27	BDL*	BDL*	BDL*	BDL*	0.61	BDL*	28.22	16.46	33.68	19.43
45	05/03/2020	68.33	32.43	BDL*	BDL*	BDL*	BDL*	0.36	BDL*	15.35	10.30	26.23	22.35
46	09/03/2020	74.55	43.79	BDL*	BDL*	BDL*	BDL*	0.52	BDL*	25.32	6.58	18.53	15.35
47	12/03/2020	66.32	29.36	BDL*	BDL*	BDL*	BDL*	0.45	BDL*	27.87	14.33	24.24	11.27
48	16/03/2020	72.45	41.52	BDL*	BDL*	BDL*	BDL*	0.18	BDL*	10.51	12.19	23.60	25.55
49	19/03/2020	81.53	44.33	BDL*	BDL*	BDL*	BDL*	0.25	BDL*	38.37	7.50	30.43	14.31

Observation: Above given Result are within the norms Specified Limit as per CPCB Notification NoB-29016/20/90/PCI-Idt: 18/11/2009 National Ambient Air Quality Standards, New Delhi , for 24 hourly or 8 hourly or 1 hourly monitored values

BDL*: - Below Detection Limit - Lead as Pb ($\mu\text{g}/\text{m}^3$): 0.5

BDL*: - Below Detection Limit - Carbon Monoxide as CO (mg/m^3): 0.01

BDL*: - Below Detection Limit - Benzene as C_6H_6 ($\mu\text{g}/\text{m}^3$): 2

BDL*: - Below Detection Limit - Benzo (a) Pyrene (BaP) - Particulate Phase only (ng/m^3): 0.5

BDL*: - Below Detection Limit - Arsenic as As (ng/m^3): 2

BDL*: - Below Detection Limit - Nickel as Ni (ng/m^3): 5

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Table-1.5: Ambient Air Quality Monitoring Results at Hazira Village

Sr. No.	Date of Sampling	Location-5: Hazira Village (N 21° 05.44' E 72° 38.44')											
		PM ₁₀	PM _{2.5}	Pb	BaP	As	Ni	CO	C ₆ H ₆	NH ₃	SO ₂	NO _x	O ₃
		µg/m ³	µg/m ³	µg/m ³	ng/m ³	ng/m ³	ng/m ³	mg/m ³	µg/m ³	µg/m ³	µg/m ³	µg/m ³	µg/m ³
1	03/10/2019	78.56	36.84	BDL*	BDL*	BDL*	BDL*	0.84	BDL*	19.55	19.25	40.21	26.22
2	07/10/2019	89.66	39.25	0.64	BDL*	2.22	10.35	0.90	BDL*	26.85	14.36	34.53	27.57
3	10/10/2019	94.22	52.34	BDL*	BDL*	BDL*	BDL*	0.78	BDL*	34.23	16.45	41.27	22.94
4	14/10/2019	88.55	45.67	BDL*	BDL*	BDL*	BDL*	0.62	BDL*	31.25	17.68	36.54	18.82
5	17/10/2019	74.83	40.28	BDL*	BDL*	BDL*	BDL*	0.55	BDL*	44.57	26.59	45.61	24.63
6	21/10/2019	84.24	43.56	0.60	BDL*	2.62	10.17	0.86	BDL*	32.47	18.57	42.37	14.23
7	24/10/2019	68.31	31.29	BDL*	BDL*	BDL*	BDL*	0.45	BDL*	39.52	23.52	37.56	21.77
8	28/10/2019	86.21	41.57	BDL*	BDL*	BDL*	BDL*	0.88	BDL*	35.64	25.59	25.42	17.85
9	31/10/2019	93.31	50.56	0.74	BDL*	2.64	10.53	0.63	BDL*	33.44	22.34	39.53	28.57
10	04/11/2019	82.64	39.62	BDL*	BDL*	BDL*	BDL*	0.93	BDL*	29.33	23.55	34.26	23.67
11	07/11/2019	79.62	34.27	BDL*	BDL*	BDL*	BDL*	0.87	BDL*	23.44	17.55	30.57	21.62
12	11/11/2019	88.63	47.66	BDL*	BDL*	BDL*	BDL*	0.60	BDL*	19.34	20.41	38.21	16.55
13	14/11/2019	94.55	52.43	BDL*	BDL*	2.34	10.46	0.78	BDL*	25.36	19.25	33.37	26.35
14	18/11/2019	71.32	33.24	BDL*	BDL*	BDL*	BDL*	0.68	BDL*	28.67	25.38	43.45	18.51
15	21/11/2019	90.23	46.54	BDL*	BDL*	2.46	10.53	0.79	BDL*	48.33	14.25	29.36	28.95
16	25/11/2019	85.44	43.51	BDL*	BDL*	BDL*	BDL*	1.03	BDL*	27.84	21.55	35.66	22.43
17	28/11/2019	92.41	51.51	BDL*	BDL*	2.76	10.68	0.57	BDL*	34.34	24.55	42.92	20.45
18	02/12/2019	88.31	47.58	BDL*	BDL*	BDL*	BDL*	0.74	BDL*	23.46	16.53	42.43	21.68
19	05/12/2019	93.67	53.63	BDL*	BDL*	BDL*	BDL*	0.60	BDL*	20.54	12.37	26.45	24.34
20	09/12/2019	73.58	35.77	0.68	BDL*	2.46	10.89	0.36	BDL*	31.39	22.68	36.53	20.69
21	12/12/2019	86.53	46.58	BDL*	BDL*	BDL*	BDL*	0.85	BDL*	36.52	14.38	29.43	19.56
22	16/12/2019	95.31	55.74	0.82	BDL*	2.58	10.70	1.02	BDL*	33.47	17.31	38.26	22.37
23	19/12/2019	78.32	42.81	BDL*	BDL*	BDL*	BDL*	0.68	BDL*	45.26	20.68	30.48	17.53
24	23/12/2019	90.45	40.32	BDL*	BDL*	BDL*	BDL*	0.69	BDL*	25.23	15.28	34.59	27.50
25	26/12/2019	81.95	45.21	0.52	BDL*	2.32	10.29	0.61	BDL*	38.66	26.37	39.98	25.23
26	30/12/2019	75.21	33.28	BDL*	BDL*	BDL*	BDL*	0.70	BDL*	41.49	19.45	23.22	23.49
27	02/01/2020	79.32	42.64	BDL*	BDL*	BDL*	BDL*	0.66	BDL*	22.47	22.31	35.33	22.43
28	06/01/2020	80.47	45.55	0.66	BDL*	2.34	10.41	0.74	BDL*	28.67	18.31	38.45	20.23



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29	09/01/2020	92.64	48.53	BDL*	BDL*	BDL*	BDL*	0.50	BDL*	18.22	24.79	30.52	28.42
30	13/01/2020	84.34	39.45	BDL*	BDL*	BDL*	BDL*	0.69	BDL*	32.53	15.28	36.43	24.57
31	16/01/2020	77.96	32.53	0.54	BDL*	2.72	10.29	0.76	BDL*	38.53	19.28	32.42	26.35
32	20/01/2020	89.31	51.22	BDL*	BDL*	BDL*	BDL*	0.82	BDL*	27.55	21.26	28.25	25.70
33	23/01/2020	93.65	55.33	BDL*	BDL*	BDL*	BDL*	0.87	BDL*	43.54	20.48	39.25	21.58
34	27/01/2020	88.61	46.46	BDL*	BDL*	BDL*	BDL*	0.48	BDL*	33.57	23.63	31.21	18.34
35	30/01/2020	74.54	38.46	0.60	BDL*	2.46	10.09	0.29	BDL*	48.43	12.47	37.55	29.22
36	03/02/2020	95.62	52.43	0.76	BDL*	2.24	10.41	0.82	BDL*	19.42	15.34	33.72	28.21
37	06/02/2020	89.33	48.20	BDL*	BDL*	BDL*	BDL*	0.56	BDL*	34.63	17.55	28.23	26.56
38	10/02/2020	74.57	42.56	BDL*	BDL*	BDL*	BDL*	0.89	BDL*	42.61	12.33	26.52	21.86
39	13/02/2020	81.53	45.88	BDL*	BDL*	BDL*	BDL*	0.77	BDL*	31.52	18.24	35.41	25.22
40	17/02/2020	90.52	50.27	0.62	BDL*	2.34	10.46	0.86	BDL*	35.75	13.71	42.66	29.21
41	20/02/2020	62.67	33.24	BDL*	BDL*	BDL*	BDL*	0.78	BDL*	44.25	19.50	34.24	18.23
42	24/02/2020	94.55	53.42	0.83	BDL*	2.46	10.65	0.53	BDL*	24.24	16.29	29.54	16.24
43	27/02/2020	84.63	38.58	BDL*	BDL*	BDL*	BDL*	0.70	BDL*	30.55	21.28	36.22	24.20
44	02/03/2020	88.33	50.40	0.58	BDL*	2.64	10.46	1.01	BDL*	32.42	21.27	39.25	27.56
45	05/03/2020	73.41	36.56	BDL*	BDL*	BDL*	BDL*	0.87	BDL*	26.36	14.88	35.68	17.51
46	09/03/2020	94.35	54.37	0.76	BDL*	2.72	10.46	0.66	BDL*	30.41	16.60	32.52	20.63
47	12/03/2020	85.34	37.82	BDL*	BDL*	BDL*	BDL*	0.57	BDL*	38.47	24.19	40.22	28.28
48	16/03/2020	79.33	51.52	BDL*	BDL*	BDL*	BDL*	0.92	BDL*	28.31	22.72	29.36	22.68
49	19/03/2020	86.54	47.64	0.64	BDL*	2.43	10.36	0.69	BDL*	41.55	17.57	37.57	24.63

Observation: Above given Result are within the norms Specified Limit as per CPCB Notification NoB-29016/20/90/PCI-Idt: 18/11/2009 National Ambient Air Quality Standards, New Delhi , for 24 hourly or 8 hourly or 1 hourly monitored values

BDL*: - Below Detection Limit - Lead as Pb ($\mu\text{g}/\text{m}^3$): 0.5

BDL*: - Below Detection Limit - Carbon Monoxide as CO (mg/m^3): 0.01

BDL*: - Below Detection Limit - Benzene as C_6H_6 ($\mu\text{g}/\text{m}^3$): 2

BDL*: - Below Detection Limit - Benzo (a) Pyrene (BaP) - Particulate Phase only (ng/m^3): 0.5

BDL*: - Below Detection Limit - Arsenic as As (ng/m^3): 2

BDL*: - Below Detection Limit - Nickel as Ni (ng/m^3): 5

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4B. GROUND WATER QUALITY MONITORING: -

Table-1.6: Ground Water Quality Results for the period: Oct, 2019 to March, 2020

Sr. NO.	TEST PARAMETERS	UNIT	GROUND WATER OPEN WELL					
			OCT-19	NOV-19	DEC-19	JAN-20	FEB-20	MARCH-20
			12/10/2019	09/11/2019	23/12/2019	25/01/2020	21/02/2020	06/03/2020
1	Colour	Hazen	1	1	1	1	2	2
2	Odour	--	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Taste	--	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Turbidity	NTU	0.034	0.056	0.044	0.032	0.03	0.04
5	pH Value	--	7.63	7.98	7.62	7.84	7.68	7.74
6	Total Hardness as CaCO ₃	mg/L	256	340	360	320	330	380
7	Iron as Fe	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	0.068	0.061
8	Chloride as Cl	mg/L	219	185	196	184	190	180
9	Residual Free Chlorine	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
10	Fluoride as F	mg/L	0.17	0.13	0.1	Not Detected	0.056	0.06
11	Total Dissolved Solids	mg/L	1630	1470	1612	1570	1620	1718
12	Calcium as Ca	mg/L	29.76	43.2	46.4	42	69.6	74
13	Magnesium as Mg	mg/L	31.68	55.68	58.56	51.6	37.44	46.8
14	Copper as Cu	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
15	Manganese as Mn	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
16	Sulphate as SO ₄	mg/L	31	33	28	33	37	42
17	Nitrate Nitrogen as NO ₃	mg/L	0.28	0.3	0.24	0.28	0.39	0.4
18	Phenolic compounds as C ₆ H ₅ OH	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
19	Mercury as Hg	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
20	Cadmium as Cd	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
21	Selenium as Se	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
22	Arsenic as As	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
23	Cyanide as CN	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
24	Lead as Pb	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
25	Zinc as Zn	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
26	Anionic Detergents as MBAS	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
27	Chromium as Cr ⁺⁶	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
28	Mineral Oil	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
29	Alkalinity	mg/L	379	403	388	356	316	290
30	Aluminum as Al	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
31	Boron as B	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
32	Pesticides							
32.1	Alachor	µg/l	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
32.2	Atrazine	µg/l	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
32.3	Aldrin/Dieldrine	µg/l	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
32.4	Alpha HCH	µg/l	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
32.5	Beta HCH	µg/l	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

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Sr. NO.	TEST PARAMETERS	UNIT	GROUND WATER OPEN WELL					
			OCT-19	NOV-19	DEC-19	JAN-20	FEB-20	MARCH-20
			12/10/2019	09/11/2019	23/12/2019	25/01/2020	21/02/2020	06/03/2020
32.6	Butachlor	µg/l	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
32.7	Chlorpyrifos	µg/l	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
32.8	Delta HCH	µg/l	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
32.9	2,4- Dichlorophenoxy acetic acid	µg/l	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
32.10	DDT (o,p&p,p-Isomers of DDT, DDE & DDD	µg/l	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
32.11	Endosulfan (alpha, beta, and sulphate)	µg/l	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
32.12	Ethion	µg/l	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
32.13	Gamma – HCH (Lindane)	µg/l	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
32.14	Isoproturon	µg/l	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
32.15	Malathion	µg/l	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
32.16	Methyl Parathion	µg/l	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
32.17	Monocrotophos	µg/l	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
32.18	Phorate	µg/l	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
33	Coliform	/100 ml	Present	Present	Present	Absent	Absent	Absent
34	E-Coli	/100 ml	Absent	Absent	Absent	Absent	Absent	Absent

Observation: From the above results it is concluded that there is No Significant Changes in the Quality of Ground Water.

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4C. SURFACE WATER QUALITY MONITORING: -

Table-1.7: Surface Water (Pond) Quality Results for the period: Oct, 2019 to March, 2020

Sr. No.	Parameters	Unit	At Mora Village (Surface Water – Pond)					
			OCT-19	NOV-19	DEC-19	JAN-20	FEB-20	MARCH-20
			12/10/2019	09/11/2019	23/12/2019	25/01/2020	25/02/2020	06/03/2020
1	Odour	--	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
2	Colour	Hazen	1	1	1	1	2	2
3	Taste	--	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	pH Value	--	8.16	8.09	7.23	7.18	7.3	7.41
5	Turbidity	NTU	1.9	1.74	1.14	1.1	1.29	1.19
6	Total Dissolved Solids	mg/L	1034	736	698	658	670	698
7	Total Hardness as CaCO ₃	mg/L	90	96	88	78	82	380
8	Chloride as Cl	mg/L	316	256	232	204	209	174
9	Fluoride as F	mg/L	0.09	0.08	0.06	0.08	0.07	0.089
10	Iron as Fe	mg/L	0.084	0.07	0.088	0.056	0.062	0.072
11	Coliform	/100 ml	Present	Present	Present	Present	Present	Present
12	E-Coli	/100 ml	Absent	Absent	Present	Present	Present	Absent

Observation: From the above results it is concluded that there is No Significant Changes in the Quality of Surface Water.



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4D. SEA WATER QUALITY MONITORING: -

Table-1.8: Sea Water Quality Analysis Results of CB2 South End towards Landside from the Sea Basin for the period: Oct, 2019 to March, 2020

S. N O.	TEST PARAMETERS	UNIT	RESULTS OF SEA WATER QUALITY ANALYSIS CB2 SOUTH END TOWARDS LANDSIDE FROM SEA BASIN(N 21° 5'1.92", E 72°37'56.58")											
			OCT-19		NOV-19		DEC-19		JAN-20		FEB-20		MARCH-20	
			Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
1	pH	--	8.26	8.19	7.97	7.88	8.13	7.97	8.25	8.15	8.23	8.17	8.2	8.16
2	Temperature	°C	30	29.7	29.9	29.6	29.8	29.5	29.7	30.2	30	29.8	31.3	31
3	Total Suspended Solids	mg/L	338	356	176	187	206	223	184	203	218	178	276	256
4	BOD (3 Days @ 27 °C)	mg/L	4.9	Not Detected	5.6	Not Detected	4.6	Not Detected	5.2	Not Detected	4.2	Not Detected	4.8	Not Detected
5	Dissolved Oxygen	mg/L	5.9	5.7	5.8	6	6	5.9	5.6	5.8	5.7	5.4	5.8	5.6
6	Salinity	ppt	29.4	29.9	29.9	31.8	30.5	31.9	30.7	31.6	30.6	31.5	31.6	31.4
7	Oil & Grease	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
8	Nitrate as NO ₃	μmol/L	11.3	9	13	11.6	7.32	6.12	8.16	7.37	7.74	7.28	4.16	3.9
9	Nitrite as NO ₂	μmol/L	0.42	0.31	2.6	2.17	2.16	1.94	1.27	1	1.58	1.19	1.28	1.1
10	Ammonical Nitrogen NH ₃	μmol/L	2.16	2.64	4.76	3.1	3.56	3.62	5.26	4.94	4.83	4.27	3.2	3.18
11	Phosphates as PO ₄	μmol/L	2.4	2.58	3.35	3.1	2.92	3.18	2.64	2.83	2.34	2.1	2.76	2.4
12	Total Nitrogen	μmol/L	13.88	11.95	20.36	16.87	13.04	11.68	14.69	13.31	14.15	12.74	8.64	8.18
13	Petroleum Hydrocarbon	μg/L	11.6	Not Detected	15.2	Not Detected	10.7	Not Detected	16.3	Not Detected	19.2	10.8	18	11
14	Total Dissolved Solids	mg/L	32670	33110	33893	34184	32946	33970	32994	33518	32810	32916	33378	32916
15	COD	mg/L	19.6	Not Detected	23	19	27	16	28	19	23	17	25	19.4
A Flora and Fauna														
16.1	Primary Productivity	mgC/L/day	7.65	6.39	13.9	9.8	12.15	8.82	15.75	12.6	16.74	11.7	17.1	13.68
B Phytoplankton														
17.1	Chlorophyll	mg/m ³	3.26	2.99	2.78	2.61	2.46	2.08	3.63	3.2	3.79	3.63	2.94	2.29
17.2	Phaeophytin	mg/m ³	1.15	2.69	0.77	2.32	1.32	1.77	1.34	1.58	0.99	0.85	1.55	1.52
17.3	Cell Count	No.x 10 ³ /L	136	58	142	70	158	64	138	76	118	84	98	76
17.4	Name of Group Number and name of group species of each group	--	Thallasiosira sp. Nitzschia sp. Gyrosigma sp. Closterium sp.	Nitzschia sp. Navicula sp. Fragillaria sp. --	Nitzschia sp. Rhizolenia sp. Cosmarium sp. Closterium sp.	Synedra sp. Navicula sp. Fragillaria sp. --	Thallasiosira sp. Ankistrodesmus sp. Nitzschia sp. Scenedesmus sp.	Navicula sp. Fragillaria sp. Oscillatoria sp. --	Thallasiosira sp. Scenedesmus sp. Pleurosigma sp. Ankistrodesmus sp. Nitzschia sp.	Navicula sp. Fragillaria sp. Nitzschia sp. Melosira sp. --	Scenedesmus sp. Thallasiosira sp. Ankistrodesmus sp. Navicula sp.	Nitzschia sp. Fragillaria sp. Navicula sp. --	Navicula sp. Oscillatoria sp. Thalassiosira sp. Closterium sp. Nitzschia sp.	Navicula sp. Fragillaria sp. Melosira sp. --

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S. NO.	TEST PARAMETERS	UNIT	RESULTS OF SEA WATER QUALITY ANALYSIS CB2 SOUTH END TOWARDS LANDSIDE FROM SEA BASIN(N 21° 5'1.92", E 72°37'56.58")											
			OCT-19		NOV-19		DEC-19		JAN-20		FEB-20		MARCH-20	
			Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
C	Zooplanktons													
18.1	Abundance (Population)	Nox103/100m3	40		43		48		41		58		45	
18.2	Name of Group Number and name of group species of each group	--	Amphipods Gastropods Copepods		Copepods Polychaetes Nematodes		Copepods Amphipods Gastropods		Gastropods Isopods Foraminiferans		Copepods Gastropods Decapods		Copepods Decapods Mysids	
18.3	Total Biomass	ml/100 m³	2.6		2.95		3.15		3		4.8		3.8	
D	Microbiological Parameters													
19.1	Total Bacterial Count	CFU/ml	1920		1820		1750		2250		2240		1980	
19.2	Total Coliform	/ml	Absent		Absent		Absent		Absent		Absent		Absent	
19.3	E.coli	/ml	Absent		Absent		Absent		Absent		Absent		Absent	
19.4	Enterococcus species	/ml	Absent		Absent		Absent		Absent		Absent		Absent	
19.5	Salmonella species	/ml	Absent		Absent		Absent		Absent		Absent		Absent	
19.6	Shigella species	/ml	Absent		Absent		Absent		Absent		Absent		Absent	
19.7	Vibrio species	/ml	Absent		Absent		Absent		Absent		Absent		Absent	

Observation: From the above results it is concluded that there is No Significant Changes in the Quality of Sea Water.


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Table-1.9: Sea Water Quality Analysis Results of MP1 West End towards Channel from the Sea Basin for the period: Oct, 2019 to March, 2020

S. N. O.	TEST PARAMETERS	UNIT	RESULTS OF SEA WATER QUALITY ANALYSIS											
			MP1 WEST END TOWARDS CHANNEL FROM SEA BASIN(N 21° 5'9.78", E 72°37'24.48")											
			OCT-19		NOV-19		DEC-19		JAN-20		FEB-20		MARCH-20	
			Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
1	pH	--	8.3	8.21	7.8	7.71	8.05	7.9	8.27	8.13	8.2	8.14	8.25	8.2
2	Temperature	oC	30	29.8	29.8	29.5	29.9	29.5	29.8	29.4	30	29.9	31.4	31.1
3	Total Suspended Solids	mg/L	352	371	168	181	213	232	172	196	209	231	230	216
4	BOD (3 Days @ 27 °C)	mg/L	4.2	Not Detected	5	Not Detected	3.2	Not Detected	5	Not Detected	4.1	Not Detected	4.4	Not Detected
5	Dissolved Oxygen	mg/L	5.9	5.7	5.8	6	5.6	5.9	5.5	5.9	5.7	5.5	5.7	5.5
6	Salinity	ppt	29.6	29.9	30.7	31.6	30.4	30.9	30.6	31.4	30.4	30.9	31.4	31.2
7	Oil & Grease	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
8	Nitrate as NO ₃	μmol/L	9.16	8.1	13.4	10.3	7.13	6.27	8.13	7.3	7.46	7.26	4.58	4.3
9	Nitrite as NO ₂	μmol/L	0.52	0.4	3.94	2.76	2.64	2.1	1.46	1.1	1.3	1.19	1.4	1.29
10	Ammonical Nitrogen as NH ₃	μmol/L	2.48	2.76	4.98	3.63	3.52	3.63	2.69	2.94	4.76	4.3	3.19	3
11	Phosphates as PO ₄	μmol/L	2.16	2.35	3.57	3.17	2.84	3.1	2.4	2.65	2.4	2.16	2.56	2.3
12	Total Nitrogen	μmol/L	12.16	11.26	22.32	16.69	13.29	12	12.28	11.34	13.52	12.75	9.17	8.58
13	Petroleum Hydrocarbon	μg/L	10	Not Detected	13	Not Detected	15	Not Detected	18	Not Detected	21.6	10.2	20	15
14	Total Dissolved Solids	mg/L	32748	33370	34983	35870	32384	32890	32494	33418	31870	32768	32970	32768
15	COD	mg/L	20.4	Not Detected	27	20	23	17	28	20	25	18	21	16
A Flora and Fauna														
16.1	Primary Productivity	mgC/L/day	7.2	6.72	12.9	9.1	14.3	9.27	15	12.8	16.83	13.41	18.09	12.96
B Phytoplankton														
17.1	Chlorophyll	mg/m ³	3.25	2.83	2.56	2.24	2.83	2.56	3.57	3.2	3.84	3.31	2.93	2.45
17.2	Phaeophytin	mg/m ³	0.63	2.1	0.76	1.35	1.09	1.21	1.21	1.73	0.64	1.55	2	1.76
17.3	Cell Count	No.x10 ³ /L	146	60	138	64	172	62	130	84	126	78	106	64
17.4	Name of Group Number and name of group species of each group	--	Thallasiosira sp. Closterium sp. Pleurosigma sp. Nitzschia sp.	Navicula sp. Fragillaria sp. Cheatoceus sp. --	Navicula sp. Nitzschia sp. Biddulphia sp. Rhizolenia sp.	Navicula sp. Fragillaria sp. Synedra sp. --	Thallasiosira sp. Nitzschia sp. Scenedesmus sp. Navicula sp.	Melosira sp. Navicula sp. Fragillaria sp. --	Nitzschia sp. Closterium sp. Thallasiosira sp. Coscinodiscus	Nitzschia sp. Navicula sp. Oscillaria sp. --	Navicula sp. Thallasiosira sp. Melosira sp. Cheatoceus sp.	Navicula sp. Fragillaria sp. Gyrodinium sp. --	Pediatrum sp. Navicula sp. Skeletonema sp. Oscillaria sp. Biddulphia sp.	Navicula sp. Nitzschia sp. Melosira sp. --

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S. NO.	TEST PARAMETERS	UNIT	RESULTS OF SEA WATER QUALITY ANALYSIS MP1 WEST END TOWARDS CHANNEL FROM SEA BASIN(N 21° 5'9.78",E 72°37'24.48")											
			OCT-19		NOV-19		DEC-19		JAN-20		FEB-20		MARCH-20	
			Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
C	Zooplanktons													
18.1	Abundance (Population)	Nox103 / 100m3	40		46		49		41		51		47	
18.2	Name of Group Number and name of group species of each group	--	Copepods Chaetognathes Amphipods		Polychaetes Bivalves Copepods		Gastropods Crustaceans Copepods		Gastropods Copepods Polychaetes		Copepods Ostracods Amphipods		Polychaetes Ostracods Amphipods	
19.3	Total Biomass	ml/100 m³	2.65		2.6		3.1		2.55		4.5		4.2	
D	Microbiological Parameters													
19.1	Total Bacterial Count	CFU/ml	1950		1750		1880		1980		2290		1850	
19.2	Total Coliform	/ml	Absent		Absent		Absent		Absent		Absent		Absent	
19.3	E.coli	/ml	Absent		Absent		Absent		Absent		Absent		Absent	
19.4	Enterococcus species	/ml	Absent		Absent		Absent		Absent		Absent		Absent	
19.5	Salmonella species	/ml	Absent		Absent		Absent		Absent		Absent		Absent	
19.6	Shigella species	/ml	Absent		Absent		Absent		Absent		Absent		Absent	
19.7	Vibrio species	/ml	Absent		Absent		Absent		Absent		Absent		Absent	

Observation: From the above results it is concluded that there is No Significant Changes in the Quality of Sea Water.

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Table-1.10: Sea Water Quality Analysis Results of CB1 End towards Channel from the Sea Basin for the period: Oct, 2019 to March, 2020

S. N. O.	TEST PARAMETERS	UNIT	RESULTS OF SEA WATER QUALITY ANALYSIS											
			CB1 END TOWARDS CHANNEL FROM SEA BASIN (N 21° 5'14.67" , E 72°37'40.14")											
			OCT-19		NOV-19		DEC-19		JAN-20		FEB-20		MARCH-20	
			Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
1	pH	--	8.27	8.21	7.13	7.86	8.07	8	8.24	8.13	8.23	8.17	8.28	8.24
2	Temperature	oC	30	29.7	29.8	29.5	29.8	29.4	29.9	29.6	30	29.8	31.3	31.1
3	Total Suspended Solids	mg/L	339	358	170	189	202	216	172	203	211	228	239	226
4	BOD (3 Days @ 27 °C)	mg/L	4.4	Not Detected	5	Not Detected	4	Not Detected	4.8	Not Detected	4.2	Not Detected	4	Not Detected
5	Dissolved Oxygen	mg/L	5.9	5.7	5.8	5.5	5.5	5.8	5.6	5.8	5.9	5.8	5.8	5.6
6	Salinity	ppt	29.3	29.8	31.6	32	30.5	31.4	30.7	31.6	30.4	31.1	31.5	31.3
7	Oil & Grease	mg/L	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
8	Nitrate as NO ₃	μmol /L	9.13	7.26	12.4	10	6.28	5.94	8.26	7.43	7.56	7.12	4.27	4.13
9	Nitrite as NO ₂	μmol /L	0.47	0.59	3.86	2.64	2.74	2.12	1.3	1.18	1.49	1.28	1.3	1.19
10	Ammonical Nitrogen as NH ₃	μmol /L	2.76	2.5	4.9	3.72	3.63	3.46	3.34	3.76	4.18	3.9	3.21	3.14
11	Phosphates as PO ₄	μmol /L	2.31	2.68	4.7	3.4	2.7	3.24	2.56	2.17	2.28	2.14	2.41	2.32
12	Total Nitrogen	μmol /L	12.36	10.35	21.16	16.36	12.65	11.52	12.9	12.37	13.23	12.3	8.78	8.46
13	Petroleum Hydrocarbon	μg/L	11.2	Not Detected	16	Not Detected	14.3	Not Detected	17.3	Not Detected	17.2	8.6	18.6	13
14	Total Dissolved Solids	mg/L	33516	34215	35490	35910	32496	33394	32410	33456	31824	32586	32984	32840
15	COD	mg/L	21.2	Not Detected	23	17	26	19	25	19	22	18	23	16.8
A Flora and Fauna														
16.1	Primary Productivity	mgC/L/day	7.11	6.39	13	9	13.4	9.54	15.5	14.8	17.14	14.13	16.24	14.17
B Phytoplankton														
17.1	Chlorophyll	mg/ m ³	3.15	2.72	2.77	2.29	2.61	2.13	3.15	3.09	3.68	3.41	2.99	2.83
17.2	Phaeophytin	mg/ m ³	1.3	1.05	0.92	1.14	1.46	1.79	1.86	1.69	0.95	1.14	2.13	2.14
17.3	Cell Count	No.x 10 ³ /L	138	54	150	68	164	76	136	80	116	70	96	62
17.4	Name of Group Number and name of group species of each group	--	Ankistrodesmus sp. Thalassiosira sp. Nitzschia sp. Closterium sp.	Nitzschia sp. Fragillaria sp. Chaetognaths sp. --	Thalassiosira sp. Rhizosolenia sp. Skeletonema sp. Synedra sp.	Navicula sp. Biddulphia sp. Nitzschia sp. --	Thalassiosira sp. Melosira sp. Navicula sp. Scenedesmus sp.	Fragillaria sp. Navicula sp. Cheatoceus sp. --	Navicula sp. Closterium sp. Thalassiosira sp. Melosira sp.	Ankistrodesmus sp. Pleurosigma sp. Nitzschia sp. Synedra sp.	Oscillatoria sp. Gyrodinium sp. Nitzschia sp. Navicula sp.	Thalassiosira sp. Navicula sp. Cheatoceus sp. --	Pediastrum sp. Navicula sp. Closterium sp. Oscillatoria sp. Biddulphia sp.	Navicula sp. Skeletonema sp. Bacillaria sp. --

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S. NO.	TEST PARAMETERS	UNIT	RESULTS OF SEA WATER QUALITY ANALYSIS CB1 END TOWARDS CHANNEL FROM SEA BASIN (N 21° 5'14.67" , E 72°37'40.14")											
			OCT-19		NOV-19		DEC-19		JAN-20		FEB-20		MARCH-20	
			Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom
C	Zooplanktons													
18.1	Abundance (Population)	Nox103 / 100m3	46		51		54		40		54		49	
18.2	Name of Group Number and name of group species of each group	--	Copepods Polychaetes Decapods		Copepods Polychaetes --		Ostracods Copepods Gastropods		Copepods Isopods Gastropods		Copepods Gastropods Decapods		Copepods Polychaetes Gastropods	
18.3	Total Biomass	ml/100 m³	2.95		2.65		2.9		2.6		4.45		4.35	
D	Microbiological Parameters													
19.1	Total Bacterial Count	CFU/ml	1860		1780		1840		1920		2150		1990	
19.2	Total Coliform	/ml	Absent		Absent		Absent		Absent		Absent		Absent	
19.3	E.coli	/ml	Absent		Absent		Absent		Absent		Absent		Absent	
19.4	Enterococcus species	/ml	Absent		Absent		Absent		Absent		Absent		Absent	
19.5	Salmonella species	/ml	Absent		Absent		Absent		Absent		Absent		Absent	
19.6	Shigella species	/ml	Absent		Absent		Absent		Absent		Absent		Absent	
19.7	Vibrio species	/ml	Absent		Absent		Absent		Absent		Absent		Absent	

Detection Limit, BOD: 1.0 mg/L, Oil & Grease: 2.0 mg/L, Petroleum Hydrocarbon: 1 µg/L, Nitrite as NO₂: 0.002 mg/L, Pheophytin: 0.1 mg/m³

Observation: From the above results it is concluded that there is No Significant Changes in the Quality of Sea Water.

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4E. DUMP POND DISCHARGE WATER QUALITY MONITORING: -

Table-1.11: Dump Pond Water Quality Analysis Results for the Period: Oct, 2019 to March, 2020

Sr. No.	Parameters	Unit	09/11/2019	09/11/2019	25/02/2020
			OLD COAL YARD	PET COCK	OLD COAL YARD
1	pH	--	7.6	7.85	7.42
2	Total Dissolved Solids	mg/L	1730	2841	1923
3	Total Suspended Solids	mg/L	36	95	48
4	Turbidity	NTU	14.3	9.4	17.1
5	BOD (3 Days @ 27 °C)	mg/L	53	30	48
6	Dissolved Oxygen	mg/L	5.6	6.5	5.8
7	COD	mg/L	204	120	184
8	Salinity	ppt	1.69	1.7	1.99
9	Oil & Grease	mg/L	Not Detected	Not Detected	Not Detected
10	Total Hardness as CaCO ₃	mg/L	106	140	123
11	Fluoride as F	mg/L	0.43	0.35	0.58
12	Chloride as Cl	mg/L	1099	948	1081
13	Zinc as Zn	mg/L	0.64	0.012	0.44
14	Cadmium as Cd	mg/L	Not Detected	Not Detected	Not Detected
15	Lead as Pb	mg/L	Not Detected	Not Detected	Not Detected
16	Mercury as Hg	mg/L	Not Detected	Not Detected	Not Detected

Detection Limit, Mercury as Hg: 0.00025 mg/L, Oil & Grease: 2.0 mg/L, Cadmium as Cd: 0.001 mg/L, Lead as Pb: 0.005 mg/L, Fluoride: 0.01 mg/L.

Observation: From the above results it is concluded that there is No Significant Changes in the Quality of Dump Pond Discharge Water.



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4F. AMBIENT NOISE LEVEL MONITORING: -

Table-1.12: Ambient Noise Level Monitoring Results during the Day Time in Leq. dB(A) for the period: Oct, 2019 to March, 2020 At Near Port Gate No.: 2

Sampling Location	1 - Near Port Gate No.: 2					
Longitude Latitude	N 21° 05.426'E 72°37.739'					
Date of Monitoring	04/10/2019	05/11/2019	03/12/2019	02/01/2020	06/02/2020	03/03/2020
6:00-7:00	45.6	47.6	46.1	48.3	44.8	47.5
7:00-8:00	48.2	50.7	48.4	49.5	47.6	48.4
8:00-9:00	46.8	49.2	50.6	47.1	48.6	46.1
9:00-10:00	55.3	57.5	52.7	54.9	55.7	53.5
10:00-11:00	51.1	56.8	53.8	55.1	54.3	56.6
11:00-12:00	53.3	55.8	55.4	51.9	53.2	52.6
12:00-13:00	50.8	53.3	56.1	52.1	55.5	54.8
13:00-14:00	57.3	59.5	58.4	54.8	56.8	55.7
14:00-15:00	52.2	54.7	54.6	53.4	51.8	54.6
15:00-16:00	56.9	59.4	60.5	51.2	58.3	56.9
16:00-17:00	59.8	62.1	62.5	56.6	57.6	55.4
17:00-18:00	53.7	55.7	63.2	55.2	61.3	58.8
18:00-19:00	56.8	59.8	56.6	57.4	58.4	56.1
19:00-20:00	55.1	57.4	54.7	52.6	53.6	51.9
20:00-21:00	54.9	56.9	57.6	53.7	52.3	54.3
21:00-22:00	51.4	53.9	54.2	50.1	55.8	53.4
#dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.						
Day Time shall mean from 6:00 am to 10:00 pm						

Table-1.13: Noise Level Monitoring Results during the Night Time in Leq. dB(A) for the period: Oct, 2019 to March, 2020 At Near Port Gate No.: 2

Sampling Location	1 - Near Port Gate No.: 2					
Longitude Latitude	N 21° 05.426'E 72°37.739'					
Date of Monitoring	04/10/2019 & 05/10/2019	05/11/2019 & 06/11/2019	03/12/2019 & 04/12/2019	02/01/2020 & 03/01/2020	06/02/2020 & 07/02/2020	03/03/2020 & 04/03/2020
22:00-23:00	48.5	52.8	55.9	46.3	47.8	45.3
23:00-00:00	45.6	47.1	49.5	48.5	48.5	43.4
00:00-01:00	43.1	50.1	51.5	47.3	42.9	44.1
01:00-02:00	41.8	43.6	47.3	49.8	42.6	47.6
02:00-03:00	42.5	44.4	46.7	46.2	45.8	43.3
03:00-04:00	40.9	42.6	45.2	45.8	41.5	42.6
04:00-05:00	43.7	45.7	49.8	47.7	44.6	45.5
05:00-06:00	44.3	46.6	45.7	48.1	47.4	46.9
#dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.						
Night Time shall mean from 10:00 pm to 06:00 am.						

Observation: Above given Results are within the specified norms as per The Noise Pollution (Regulation and Control) Rules 2000.



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Table-1.14: Ambient Noise Level Monitoring Results during the Day Time in Leq. dB(A) for the period: Oct, 2019 to March, 2020 At HSE Building Terrace

Sampling Location	2 - HSE Building Terrace					
Longitude Latitude	N 21° 05.043' E 72° 38.491'					
Date of Monitoring	08/10/2019	08/11/2019	06/12/2019	06/01/2020	10/02/2020	06/03/2020
6:00-7:00	48.1	50.8	48.8	49.6	51.6	50.6
7:00-8:00	45.5	47.2	49.2	48.2	55.4	52.3
8:00-9:00	49.9	52.1	53.4	50.7	57.5	53.7
9:00-10:00	52.8	54.9	56.3	53.5	56.9	54.2
10:00-11:00	54.4	56.6	58.2	52.2	56.4	55.8
11:00-12:00	51.8	53.4	58.7	52.4	60.3	57.3
12:00-13:00	55.2	57.2	55.3	57.1	52.7	56.4
13:00-14:00	57.4	59.6	61.5	56.2	59.8	57.1
14:00-15:00	50.9	53.2	57.3	58.1	53.4	56.8
15:00-16:00	53.8	56.2	60.3	51.6	60.1	57.5
16:00-17:00	56.1	58.3	52.4	52.7	60.2	59.1
17:00-18:00	59.7	61.9	62.7	58.3	56.2	57.8
18:00-19:00	54.2	56.7	57.8	61.9	54.4	54.9
19:00-20:00	58.7	60.9	61.3	55.8	57.3	56.3
20:00-21:00	51.2	53.6	60.4	56.7	60.4	57.2
21:00-22:00	53.4	55.4	56.8	52.9	46.2	51.0
#dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.						
Day Time shall mean from 6:00 am to 10:00 pm						

Table-1.15: Noise Level Monitoring Results during the Night Time in Leq. dB(A) for the period: Oct, 2019 to March, 2020 At HSE Building Terrace

Sampling Location	2 - HSE Building Terrace					
Longitude Latitude	N 21° 05.043' E 72° 38.491'					
Date of Monitoring	08/10/2019 & 09/10/2019	08/11/2019 & 09/11/2019	06/12/2019 & 07/12/2019	06/01/2020 & 07/01/2020	10/02/2020 & 11/02/2020	06/03/2020 & 07/03/2020
22:00-23:00	50.1	51.8	54.3	42.1	52.8	48.3
23:00-00:00	46.6	48.6	50.2	44.7	45.2	46.1
00:00-01:00	49.8	51.3	49.4	46.8	50.3	48.6
01:00-02:00	47.2	48.9	48.7	43.9	46.5	45.4
02:00-03:00	45.1	46.7	45.4	45.7	44.2	47.2
03:00-04:00	48.9	50.6	47.7	47.9	46.8	43.7
04:00-05:00	46.2	48.2	44.8	49.3	45.6	47.9
05:00-06:00	41.2	43.1	45.1	46.1	42.8	43.2
#dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.						
Night Time shall mean from 10:00 pm to 06:00 am.						

Observation: Above given Results are within the specified norms as per The Noise Pollution (Regulation and Control) Rules 2000.



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Table-1.16: Ambient Noise Level Monitoring Results during the Day Time in Leq. dB(A) for the period: Oct, 2019 to March, 2020 At Central Water Pump House

Sampling Location	3 - Central Water Pump House					
Longitude Latitude	N 21° 04.697' E 72° 38.420'					
Date of Monitoring	11/10/2019	12/11/2019	10/12/2019	09/01/2020	13/02/2020	17/03/2020
6:00-7:00	59.6	61.8	64.7	60.2	62.3	61.4
7:00-8:00	56.5	58.9	60.2	58.7	57.4	56.2
8:00-9:00	58.2	60.7	67.3	57.6	66.1	60.3
9:00-10:00	61.5	63.8	61.2	54.1	57.8	55.1
10:00-11:00	64.8	67.5	63.7	56.3	62.7	59.4
11:00-12:00	68.8	71.8	66.8	65.8	70.4	68.4
12:00-13:00	62.3	64.5	68.3	64.2	67.6	63.7
13:00-14:00	65.9	68.1	60.7	62.8	66.5	64.2
14:00-15:00	60.2	62.4	67.8	61.1	63.7	62.6
15:00-16:00	66.9	69.4	66.1	67.8	65.4	66.8
16:00-17:00	61.8	64.2	59.3	68.9	67.5	65.3
17:00-18:00	57.7	60.4	63.8	66.5	62.5	63.1
18:00-19:00	55.7	58.4	64.5	62.4	60.8	61.9
19:00-20:00	63.2	65.7	65.8	65.3	64.9	62.8
20:00-21:00	60.8	63.5	60.8	60.9	62.8	61.7
21:00-22:00	58	60.3	58.1	58.4	59.1	57.4
#dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.						
Day Time shall mean from 6:00 am to 10:00 pm.						

Table-1.17: Noise Level Monitoring Results during the Night Time in Leq. dB(A) for the period: Oct, 2019 to March, 2020 At Central Water Pump House

Sampling Location	3 - Central Water Pump House					
Longitude Latitude	N 21° 04.697' E 72° 38.420'					
Date of Monitoring	11/10/2019 & 12/10/2019	12/11/2019 & 13/11/2019	10/12/2019 & 11/12/2019	09/01/2020 & 10/01/2020	13/02/2020 & 14/02/2020	17/03/2020 & 18/03/2020
22:00-23:00	58.2	60.4	58.3	50.6	53.3	51.2
23:00-00:00	51.1	52.6	54.2	52.9	52.6	50.4
00:00-01:00	54.8	56.5	60.1	55.4	56.3	53.6
01:00-02:00	50.2	51.9	55.3	53.8	53.5	52.5
02:00-03:00	52.2	53.9	52.2	51.9	51.6	49.9
03:00-04:00	48.6	50.3	50.6	56.7	47.5	50.1
04:00-05:00	53.8	55.3	55.4	52.8	51.9	53.4
05:00-06:00	57.1	58.9	57.2	54.2	55.8	53.8
#dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.						
Night Time shall mean from 10:00 pm to 06:00 am.						

Observation: Above given Results are within the specified norms as per The Noise Pollution (Regulation and Control) Rules 2000.



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Table-1.18: Ambient Noise Level Monitoring Results during the Day Time in Leq. dB(A) for the period: Oct, 2019 to March, 2020 At Container Terminal

Sampling Location	4 - Container Terminal					
Longitude Latitude	N 21° 05.187' E 72° 37.774'					
Date of Monitoring	15/10/2019	15/11/2019	13/12/2019	13/01/2020	17/02/2020	13/03/2020
6:00-7:00	61.3	63.3	61.1	58.9	62.6	60.9
7:00-8:00	59.4	61.4	63.3	55.6	56.1	54.7
8:00-9:00	62.8	64.8	61.8	57.2	63.5	61.1
9:00-10:00	59.5	61.5	65.7	56.8	63.4	58.6
10:00-11:00	61.2	63.6	58.5	60.3	62.9	61.5
11:00-12:00	65.8	67.8	66.7	62.3	63.9	64.4
12:00-13:00	64.3	64.6	62.8	65.7	61.9	62.2
13:00-14:00	60.6	62.9	64.3	61.8	59.5	60.4
14:00-15:00	57.1	59.1	58.8	66.1	60.7	65.1
15:00-16:00	63.3	65.4	65.3	68.5	64.4	67.1
16:00-17:00	66.8	69.1	68.4	65.4	67.8	66.2
17:00-18:00	64.4	66.9	62.3	63.1	65.6	64.3
18:00-19:00	68.2	70.4	65.4	61.4	63.8	62.3
19:00-20:00	62.5	63.9	64.9	59.8	60.5	62.7
20:00-21:00	69.2	69.2	66.2	62.9	68.5	64.6
21:00-22:00	57.9	60.2	62.4	68.4	61.7	63.3
*dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.						
Day Time shall mean from 6:00 am to 10:00 pm.						

Table-1.19: Noise Level Monitoring Results during the Night Time in Leq. dB(A) for the period: Oct, 2019 to March, 2020 At Container Terminal

Sampling Location	4 - Container Terminal					
Longitude Latitude	N 21° 05.187' E 72° 37.774'					
Date of Monitoring	15/10/2019 & 16/10/2019	15/11/2019 & 16/11/2019	13/12/2019 & 14/12/2019	13/01/2020 & 14/01/2020	17/02/2020 & 18/02/2020	13/03/2020 & 14/03/2020
22:00-23:00	62.8	64.4	60.2	62.9	63.8	61.6
23:00-00:00	58.1	59.6	58.4	64.2	62.1	63.2
00:00-01:00	61.2	62.7	64.3	58.2	60.5	59.4
01:00-02:00	59.7	61.4	60.8	60.8	62.4	61.7
02:00-03:00	56.2	58.2	56.8	61.5	59.2	60.3
03:00-04:00	57.3	60.5	61.2	63.4	62.9	61.2
04:00-05:00	55.1	56.9	57.5	60.2	58.7	59.1
05:00-06:00	59.4	61.5	60.3	55.1	58.9	56.6
*dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.						
Night Time shall mean from 10:00 pm to 06:00 am.						

Observation: Above given Results are within the specified norms as per The Noise Pollution (Regulation and Control) Rules 2000.



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Table-1.20: Ambient Noise Level Monitoring Results during the Day Time in Leq. dB(A) for the period: Oct, 2019 to March, 2020 At Hazira Village

Sampling Location	5 - Hazira Village					
Longitude Latitude	N 21° 05.44' E 72° 38.44'					
Date of Monitoring	18/10/2019	19/11/2019	17/12/2019	16/01/2020	20/02/2020	10/03/2020
6:00-7:00	43.8	46.1	44.4	45.2	42.8	44.3
7:00-8:00	40.2	42.6	43.3	43.1	41.4	42.5
8:00-9:00	42.8	45.1	45.4	48.7	46.5	47.4
9:00-10:00	45.7	48.9	50.7	46.8	47.5	45.7
10:00-11:00	48.3	50.5	48.3	49.9	46.4	48.6
11:00-12:00	50.1	52.3	47.8	51.8	48.4	50.4
12:00-13:00	52.5	54.8	52.3	47.6	53.5	51.1
13:00-14:00	47.1	49.3	54.8	45.7	52.6	47.3
14:00-15:00	44.9	47.5	49.1	50.8	46.6	49.9
15:00-16:00	49.2	51.7	48.2	53.9	50.3	51.6
16:00-17:00	46.5	48.5	54.4	52.3	47.7	49.2
17:00-18:00	51.3	53.7	51.3	49.4	52.8	51.5
18:00-19:00	50.6	52.6	53.2	47.5	51.3	46.3
19:00-20:00	42.3	44.3	50.1	46.7	45.6	47.2
20:00-21:00	45.8	47.9	44.8	45.5	46.8	44.8
21:00-22:00	44.4	46.8	46.3	42.6	45.5	43.6

#dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

Day Time shall mean from 6:00 am to 10:00 pm.

Table-1.21: Noise Level Monitoring Results during the Night Time in Leq. dB(A) for the period: Oct, 2019 to March, 2020 At Hazira Village

Sampling Location	5 - Hazira Village					
Longitude Latitude	N 21° 05.44' E 72° 38.44'					
Date of Monitoring	18/10/2019 & 19/10/2019	19/11/2019 & 20/11/2019	17/12/2019 & 18/12/2019	16/01/2020 & 17/01/2020	20/02/2020 & 21/02/2020	10/03/2020 & 11/03/2020
22:00-23:00	49.7	51.2	48.5	49.5	50.4	48.7
23:00-00:00	46.1	48.1	47.2	47.2	45.4	46.3
00:00-01:00	48.8	50.7	46.4	44.8	45.7	43.8
01:00-02:00	45.4	47.2	48.3	46.7	44.3	45.2
02:00-03:00	39.7	41.5	49.2	42.9	45.1	43.5
03:00-04:00	42.1	43.7	42.8	43.3	44.5	42.9
04:00-05:00	44.9	46.8	44.1	41.8	45.9	43.6
05:00-06:00	48.4	50.4	45.8	49.2	44.8	46.4

#dB(A) Leq. denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

Night Time shall mean from 10:00 pm to 06:00 am.

Observation: Above given Results are within the specified norms as per The Noise Pollution (Regulation and Control) Rules 2000

Note: The Noise Level of Hazira Village is compare with the Industrial area Norms as Hazira Village is Surround By Numbers of industries.



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4G. DG SETS STACK EMISSION AND NOISE LEVEL MONITORING: -

Table-1.22: DG Sets Stack Monitoring Results for the period: Oct, 2019 to March, 2020

Table-1.22 (a): DG Sets Stack Monitoring Results:

Sr. No.	Parameters	Unit	DG SET TOYO DENKI -1		DG SET TOYO DENKI -2		DG SET TOYO DENKI -3	
			NOV-19	FEB-20	NOV-19	FEB-20	NOV-19	FEB-20
1	Particulate Matter	mg/Nm ³	25.82	20.81	19.81	23.74	22.57	18.61
2	Sulphur Dioxide	ppm	8.49	7.5	5.24	6.56	6.86	5.8
3	Oxide of Nitrogen	ppm	34.83	38.55	39.54	36.74	36.94	30.7
4	Carbon Monoxide (CO)	mg/m ³	13.09	14.94	10.69	16.83	14.38	16.08
5	Non Methyl Hydro Carbon (NMHC)	mg/m ³	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

Table-1.22 (b): DG Sets Stack Monitoring Results:

Sr. No.	Parameters	Unit	SS-1 LT DG -320 KVA		SS3 -DG -200 KVA		LT Phase -1 (625 KVA)	
			NOV-19	FEB-20	NOV-19	FEB-20	NOV-19	FEB-20
1	Particulate Matter	mg/Nm ³	19.53	22.74	22.51	18.52	21.26	16.56
2	Sulphur Dioxide	ppm	5.66	6.18	4.5	5.27	4.08	3.39
3	Oxide of Nitrogen	ppm	32.51	34.69	30.34	34.55	29.35	34.34
4	Carbon Monoxide (CO)	mg/m ³	11.45	16.03	10.31	11.45	3.44	5.73
5	Non Methyl Hydro Carbon (NMHC)	mg/m ³	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected

Table-1.22 (c): DG Sets Stack Monitoring Results:

Sr. No.	Parameters	Unit	LT Phase -2 (750 KVA)		ER-1 (100 KVA)	
			NOV-19	FEB-20	NOV-19	FEB-20
1	Particulate Matter	mg/Nm ³	16.5	12.65	25.61	23.28
2	Sulphur Dioxide	ppm	5.74	6.68	3.4	5.75
3	Oxide of Nitrogen	ppm	37.53	29.31	27.87	30.87
4	Carbon Monoxide (CO)	mg/m ³	8.02	6.87	5.73	4.58
5	Non Methyl Hydro Carbon (NMHC)	mg/m ³	Not Detected	Not Detected	Not Detected	Not Detected



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Table-1.22 (d): DG Sets Stack Monitoring Results:

Sr. No.	Parameters	Unit	NDG Building (380 KVA)		Custom Building (320 KVA)	
			NOV-19	FEB-20	NOV-19	FEB-20
1	Particulate Matter	mg/Nm ³	13.47	16.84	15.67	20.41
2	Sulphur Dioxide	ppm	3.19	4.54	4.57	5.43
3	Oxide of Nitrogen	ppm	26.55	28.36	28.63	30.58
4	Carbon Monoxide (CO)	mg/m ³	6.87	9.39	9.16	13.74
5	Non Methyl Hydro Carbon (NMHC)	mg/m ³	Not Detected	Not Detected	Not Detected	Not Detected

Table-1.23: DG Sets Noise Level Monitoring Results for the period: Oct, 2019 to March, 2020

Sr. No.	DG Set Average Noise Level In Leq. dB(A)		
	Sampling Location	At 1 M Distance From The Enclosure	
		NOV-19	FEB-20
	Sampling Date		
1.	DG SET TOYO DENKI - 1	69.7	66.6
2.	DG SET TOYO DENKI - 2	72.4	67.2
3.	DG SET TOYO DENKI -3	68.4	67.8
4.	SS-1 LT DG -320 KVA	67.6	65.6
5.	SS3 -DG -200 KVA	66.9	64.4
6.	LT PHASE -1 (625 KVA)	71.2	70.8
7.	LT PHASE -2 (750 KVA)	64.5	63.9
8.	ER-1 (100 KVA)	70.8	69.5
9.	NDG BUILDING (380 KVA)	68.5	67.4
10.	CUSTOM BUILDING (320 KVA)	69.4	68.5


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4H. SEA SEDIMENT QUALITY MONITORING: -

Table-1.25: Sea Sediment Quality Results of CB2 South End towards Landside for the period: Oct, 2019 to March, 2020

S. NO	PARAMETERS	UNIT	CB2 SOUTH END TOWARDS LANDSIDE FROM SEA BASIN (N 21° 5'1.92", E 72°37'56.58")					
			OCT-19	NOV-19	DEC-19	JAN-20	FEB-20	MARCH-20
1	Organic Matter	%	0.84	0.67	0.75	0.58	0.65	0.72
2	Phosphorus as P	µg/g	570	618	740	768	708	679
3	Texture	--	Sandy Silt	Sandy Silt	Sandy Silt	Sandy Silt	Sandy Silt	Sandy Silt
4	Petroleum Hydrocarbon	µg/g	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
5	Heavy Metals							
5.1	Aluminum as Al	%	4.84	4.65	5.19	4.7	4.83	4.98
5.2	Total Chromium as Cr ⁺³	µg/g	197	203	163	264	180	192
5.3	Manganese as Mn	µg/g	1128	983	1038	953	920	958
5.4	Iron as Fe	%	4.9	4.9	5.2	4.98	5.02	5.14
5.5	Nickel as Ni	µg/g	32	35	43	53	39	48
5.6	Copper as Cu	µg/g	28	47	58	41	52	32
5.7	Zinc as Zn	µg/g	201	278	205	190	179	192
5.8	Lead as Pb	µg/g	1.64	3.6	1.53	1.84	1.63	2.18
5.9	Mercury as Hg	µg/g	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
6	Benthic Organisms							
6.1	Macrobenthos (No and name of groups present, No and name of species of each group present)	--	Bryozoans Isopods Gastropods	Isopods Gastropods Polychaetes	Bivalves Branchyurans Crustaceans	Gastropods Polychaetes Crustaceans	Gastropods Bivalves Crustaceans	Gastropods Bivalves Polychaete worms
6.2	MeioBenthos (No and name of groups present, No and name of species of each group present)	--	--	--	--	Foraminiferans --	Nematodes	--
6.3	Population	No./m ²	762	704	690	794	676	471

Observation: From the above results it is concluded that there is No Significant Changes in the Quality of Sea Sediment.

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Table-1.26: Sea Sediment Quality Results of MP1 West End towards Channel of Sea Basin for the period: Oct, 2019 to March, 2020

S. NO	PARAMETERS	UNIT	MP1 WEST END TOWARDS CHANNEL OF SEA BASIN (N 21° 5'9.78", E 72°37'24.48")					
			OCT-19	NOV-19	DEC-19	JAN-20	FEB-20	MARCH-20
1	Organic Matter	%	0.63	0.73	0.65	0.74	0.85	0.69
2	Phosphorus as P	µg/g	520	656	712	696	612	658
3	Texture	--	Sandy Silt	Sandy Silt	Sandy Silt	Sandy Silt	Sandy Silt	Sandy Silt
4	Petroleum Hydrocarbon	µg/g	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
5	Heavy Metals							
5.1	Aluminum as Al	%	4.5	4.56	5.08	4.84	4.76	4.84
5.2	Total Chromium as Cr ⁺³	µg/g	184	253	150	238	171	180
5.3	Manganese as Mn	µg/g	1176	1041	1116	964	927	939
5.4	Iron as Fe	%	4.85	4.78	5.25	4.92	4.99	5.18
5.5	Nickel as Ni	µg/g	37	32	42	50	64	52
5.6	Copper as Cu	µg/g	25	45	57	43	28	39
5.7	Zinc as Zn	µg/g	218	250	201	196	218	188
5.8	Lead as Pb	µg/g	1.99	3.1	1.32	1.73	1.6	2.26
5.9	Mercury as Hg	µg/g	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
6	Benthic Organisms							
6.1	Macrobenthos (No and name of groups present, No and name of species of each group present)	--	Isopods Gastropods Crustaceans	Polychaetes Gastropods	Isopods Polychaetes Branchyurans	Polychaetes Gastropods Crustaceans	Gastropods Crustaceans Bivalves	Gastropods Crustaceans Amphipods
6.2	MeioBenthos (No and name of groups present, No and name of species of each group present)	--	--	Nematodes --	--	Foraminiferans --	--	Foraminiferans
6.3	Population	No./m ²	733	645	676	735	618	441

Observation: From the above results it is concluded that there is No Significant Changes in the Quality of Sea Sediment.



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Table-1.27: Sea Sediment Quality Results of CB1 End towards Channel for the period: Oct, 2019 to March, 2020

S. NO	PARAMETERS	UNIT	CB1 WEST END TOWARDS CHANNEL OF SEA BASIN (N 21° 5'14.67" , E 72°37'40.14")					
			OCT-19	NOV-19	DEC-19	JAN-20	FEB-20	MARCH-20
1	Organic Matter	%	0.75	0.7	0.82	0.64	0.72	0.68
2	Phosphorus as P	µg/g	598	603	763	753	716	693
3	Texture	--	Sandy Silt	Sandy Silt	Sandy Silt	Sandy Silt	Sandy Silt	Sandy Silt
4	Petroleum Hydrocarbon	µg/g	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
5	Heavy Metals							
5.1	Aluminum as Al	%	4.79	4.7	4.9	4.9	4.68	4.79
5.2	Total Chromium as Cr ⁺³	µg/g	183	208	139	246	176	188
5.3	Manganese as Mn	µg/g	1140	1014	1068	913	958	968
5.4	Iron as Fe	%	9.45	5.36	5.08	5.1	4.9	5.1
5.5	Nickel as Ni	µg/g	28	37	49	52	33	41
5.6	Copper as Cu	µg/g	24	49	53	46	27	35
5.7	Zinc as Zn	µg/g	173	261	210	193	184	180
5.8	Lead as Pb	µg/g	1.59	2.76	1.46	1.84	1.53	2.3
5.9	Mercury as Hg	µg/g	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
6	Benthic Organisms							
6.1	Macrobenthos (No and name of groups present, No and name of species of each group present)	--	Polychaetes Crustaceans Decapods	Polychaetes Crustaceans	Polychaetes Gastropods Amphipods	Polychaetes Crustaceans --	Crustacns Gastropods Bivalves	Crustaceans Polychaete Bivalves
6.2	MeioBenthos (No and name of groups present, No and name of species of each group present)	--	--	Nematodes --	Foraminiferans --	Nematodes Foraminiferans	Nematodes	--
6.3	Population	No./m ²	738	674	706	765	588	382

Observation: From the above results it is concluded that there is No Significant Changes in the Quality of Sea Sediment.



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4I. SOIL QUALITY MONITROING: -

Table-1.28A : Soil Quality Testing Results for the period: Oct, 2019 to March, 2020

SR. NO.	PARAMETERS	UNIT	NEAR LT CANTEEN PARKING	
			23/12/2019	14/03/2020
1	Type	--	Clay	Clay
Grain Size Analysis				
2	Gravel	%	2	2
3	Coarse Sand	%	6	4
4	Medium Sand	%	24	23
5	Fine Sand	%	42	41
6	Total Sand	%	74	70
7	Silt + Clay	%	26	30
8	pH (1:5)	--	8.34	8.3
9	Electricity Conductivity	µmho/cm	1260	1318
10	Alkali matter	mg/kg	580	592
11	Cation Exchange Capacity	meq/100 gm	18	15.6
12	Sodium Absorption Ratio	--	10.6	11.2
13	Organic Matter	mg/kg	0.54	0.62
14	Available Nitrogen	meq/100 gm	0.4	0.5
15	Available Potassium	mg/kg	2	2.3
16	Available Phosphorus	mg/kg	0.36	0.42
17	Available Sodium	mg/kg	1.2	1.3
18	Permeability	cm/sec	3.1 x 10 ⁻⁵	3.2 x 10 ⁻⁵

Observation: From the above results it is concluded that there is No Significant Changes in the Quality of Soil Quality.



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Table-1.28B: Soil Quality Testing Results for the period: Oct, 2019 to March, 2020

SR. NO.	PARAMETERS	UNIT	NEAR PORT GATE NO. 2	
			23/12/2019	14/03/2020
1	Type	--	Clay	Clay
Grain Size Analysis				
2	Gravel	%	1	2
3	Coarse Sand	%	3	3
4	Medium Sand	%	32	30
5	Fine Sand	%	48	47
6	Total Sand	%	84	82
7	Silt + Clay	%	16	18
8	pH (1:5)	--	8.46	8.41
9	Electricity Conductivity	µmho/cm	1290	1320
10	Alkali matter	mg/kg	596	582
11	Cation Exchange Capacity	meq/100 gm	26	24.2
12	Sodium Absorption Ratio	--	11.8	11.6
13	Organic Matter	mg/kg	0.52	0.68
14	Available Nitrogen	meq/100 gm	0.44	0.54
15	Available Potassium	mg/kg	2.2	2.56
16	Available Phosphorus	mg/kg	0.5	0.5
17	Available Sodium	mg/kg	1.42	1.4
18	Permeability	cm/sec	3.7×10^{-5}	3.5×10^{-5}

Observation: From the above results it is concluded that there is No Significant Changes in the Quality of Soil Quality.



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	Adani Hazira Port Private Limited	From : October 2019 to March 2020
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ANNEXURE-5

DETAILS OF ENVIRONMENTAL MANAGEMENT CELL

PRANAV CHOUDHARY
CEO - AHPPL

RUPESH JAMBUDI
Head - HSEF
(DIS & Diploma In Civil)

Yagnesh Dalal
HOS - Health, Safety & Fire
Senior Manager - HSE
(B.Sc, PDIS, NEBOSH)

Nandan Kumar
Dy. Manager - HSE
(M.Sc Environmental Science)

JAYDIPSINH GOHIL
Incharge - Safety (LT, DC) &
Occupational Health
Associate Manager
(DIS, B.Sc.)

CHETAN PATEL
Incharge - Safety (ES, CT, CFS)
Deputy Manager
(PGDIS & B.Sc.)

DUSHYANT JAVIYA
Incharge - Fire
Deputy Manager
(Dip. In Fire & Safety, BA)

Dhrumit Pithva
STP & ETP- Supervisor

STP & ETP - Operators & Helpers
(08Nos.)

Prateek Smart
Ast. Manager
(PDIS, M.Sc)

ATUL KHAMKAR
Shift Officer-Saf. & Fire
Sr. Officer
(PDIS, M.Sc.)

M. JAVID A.PATHAN
Shift Officer-Saf. & Fire
Sr. Officer
(PGDIS, B.Sc.)

YOGENDRA SOLANKI
Officer - Fire (LT)
Sr. Officer
(SFO, BA)

ANSHUMAN SHARMA
Sr. Officer
(B.E. - Fire & Safety)


Shift Fire
Officers
04Nos.

Fire Crew
56Nos.

HSE – Marshals 16

Annexure 6

Details of Environment Budget & Expenditure for FY 2019-20

	Adani Hazira Port Private Limited	From : October 2019 to March 2020
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Environment Budget & Expenditure details 2019-20

Sr No	Activities	Budget (In Lacs)	Expenditure (In Lacs)
1	Salary of Environmental Professionals	17.00	12.85
2	Environmental Study/Audit/Survey/Consultancy Services	21.0	23.8
3	Legal and Statutory Charges	4.00	6.0
4	Environmental Monitoring Services	16.31	14.04
5	Mangrove Afforestation/Plantation and Bio-shielding Pilot Project	4.00	3.973
6	Hazardous Waste Management	31.23	18.763
7	Horticulture Development –Greenery and Plantation	139.57	137.00
8	O&M of Sewage Treatment Plant and Effluent Treatment Plant	19.66	10.75
9	Environment Day Celebration	2.00	2.00
10	Treatment & Disposal of Bio medical Waste	0.72	0.84
11	Construction of additional Hazardous Waste storage Area	43.00	43.00
12	Sprinkling of water in dust suppression	60.00	51.00
13	Miscellaneous Environmental Initiatives	5.31	2.75
	Total	363.80	326.766

	Adani Hazira Port Private Limited	From : October 2019 to March 2020
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ANNEXURE-7:

Copy of renewed PESO Licence

प्ररूप XV
(प्रथम अनुसूची का अनुच्छेद 6 देखिए)
FORM XV
(see Article 6 of the First Schedule)



अधिष्ठापनों में पेट्रोलियम के आयात और भंडारण के लिए अनुज्ञप्ति
LICENCE TO IMPORT AND STORE PETROLEUM IN AN INSTALLATION

अनुज्ञप्ति सं. (Licence No.): P/HQ/GJ/15/5294(P270337)

फीस रूप (Fee Rs.) 50000/- per year

M/s. Adani Hazira Ports Pvt Ltd, At & Post Hazira, Taluka: Choriyasi, District: SURAT, State: Gujarat, PIN: 394270 को केवल इसमें यथा विनिर्दिष्ट वर्ग और मात्राओं में पेट्रोलियम 235900.00 KL आयात करने के लिए और उसका, नीचे वर्णित और अनुमोदित नक्शा संख्या P/HQ/GJ/15/5294 (P270337) तारीख 29/01/2016 जो कि इससे उपाबद्ध हैं, में दिखाए गए स्थान पर भण्डारण के लिए पेट्रोलियम अधिनियम, 1934 के उपबंधों या उसके अधीन बनाए गए नियमों तथा इस अनुज्ञप्ति की अतिरिक्त शर्तों के अधीन रहते हुए, यह अनुज्ञप्ति अनुदत्त की जाती है।

Licence is hereby granted to M/s. Adani Hazira Ports Pvt Ltd, At & Post Hazira, Taluka: Choriyasi, District: SURAT, State: Gujarat, PIN: 394270 valid only for the importation and storage of 235900.00 KL Petroleum of the class and quantities as herein specified and storage thereof in the place described below and shown on the approved plan No P/HQ/GJ/15/5294(P270337) dated 29/01/2016 attached hereto subject to the provisions of the Petroleum Act, 1934 and the rule made thereunder and to the further conditions of this Licence.

यह अनुज्ञप्ति 31st day of December 2019 तक प्रवृत्त रहेगी।
The Licence shall remain in force till the 31st day of December 2019

पेट्रोलियम का विवरण /Description of Petroleum

अनुज्ञप्त मात्रा (किलोलीटरों में) /Quantity licenced in KL

वर्ग क प्रपुंज पेट्रोलियम /Petroleum Class A in bulk
वर्ग क प्रपुंज पेट्रोलियम से भिन्न /Petroleum Class A, otherwise than in bulk
वर्ग ख प्रपुंज पेट्रोलियम /Petroleum Class B in bulk
वर्ग ख प्रपुंज पेट्रोलियम से भिन्न /Petroleum Class B, otherwise than in bulk
वर्ग ग प्रपुंज पेट्रोलियम /Petroleum Class C in bulk
वर्ग ग प्रपुंज पेट्रोलियम से भिन्न /Petroleum Class C, otherwise than in bulk

235900.00 KL

NIL

NIL

NIL

NIL

NIL

NIL

कुल क्षमता /Total Capacity

235900.00 KL

379900.00 KL

October 31, 2013

- 1). Amendment dated - 14/11/2013
- 2). Amendment dated - 24/01/2014
- 3). Amendment dated - 03/07/2014
- 4). Amendment dated - 16/09/2014
- 5). Amendment dated - 02/11/2015
- 6). Amendment dated - 11/12/2015

अनुज्ञप्त परिसरों का विवरण और अवस्थान

DESCRIPTION AND LOCATION OF THE LICENSED PREMISES

अनुज्ञप्त परिसर जिसकी विन्यास सीमाएं अन्य विशिष्टां संलग्न अनुमोदित नक्शों में दिखाई गई हैं Plot No: -, Hazira Port, Hazira, Taluka: Choriyasi, District: SURAT, State: Gujarat, PIN: 394270 स्थान पर अवस्थित है तथा उसमें निम्नलिखित 108 Above Ground tank(s) for CLASS A, सम्मिलित हैं।

The licensed premises, the layout, boundaries and other particulars of which are shown in the attached approved plan are situated at Plot No: -, Hazira Port, Hazira, Taluka: Choriyasi, District: SURAT, State: Gujarat, PIN: 394270 and consists of 108 Above Ground tank(s) for CLASS A, together with connected facilities.

Renewed upto 31/12/2020

R. Gan
कृते उप मुख्य विस्फोटक नियंत्रक
बड़ौदा

148
उप मुख्य विस्फोटक नियंत्रक, बड़ौदा
UP. CHIEF CONTROLLER OF EXPLOSIVES, VADODARA

नवीनीकरण के पृष्ठांकन के लिए स्थान
SPACE FOR ENDORSEMENT OF RENEWALS




पेट्रोलियम अधिनियम, १९३४ के उपबन्धों या उनके अधीन बनाए गए नियमों या इस अनुज्ञप्ति की शर्तों का उल्लंघन न होने की दशा में यह अनुज्ञप्ति फ़िस में बिना किसी छूट के दस वर्ष तक नवीकृत की जा सकेगी।
This licence shall be renewable without any concession in fee for ten years in the absence of contravention of any provisions of the Petroleum Act, 1934 or of the rules framed thereunder or of any of the conditions of this licence.

- | | | | |
|-----|------------|------------|---|
| 1). | 17/12/2015 | 31/12/2018 | Sd/-
Shivchandra D. Mishra
Controller of Explosives
For Dy. Chief Controller of Explosives
Vadodara |
| 2). | 04/01/2019 | 31/12/2019 | Sanjay Kumar
Controller of Explosives
For Dy. Chief Controller of Explosives
Vadodara |

उप मुख्य विस्फोटक नियंत्रक, वडोदरा
DY. CHIEF CONTROLLER OF EXPLOSIVES, VADODRA


यदि अनुज्ञप्ति परिसर इसमें उपाबद्ध विवरण और शर्तों के अनुरूप नहीं पाए जाते हैं और जिन नियमों और शर्तों के अधीन यह अनुज्ञप्ति मंजूर की गई है उनमें से किसी का उल्लंघन होने की दशा में यह अनुज्ञप्ति रद्द की जा सकती है और अनुज्ञप्तिधारी प्रथम अपराध के लिए साधारण कारावास से, जो एक मास तक हो सकता है, या जुर्माने से, जो एक हजार रुपये तक हो सकता है, या दोनों से, और प्रत्येक पश्चात्तवर्ती अपराध के लिए साधारण कारावास से जो तीन मास तक हो सकता है, या जुर्माने से, जो पांच हजार रुपये तक हो सकता है, या दोनों से, दण्डनीय होगा।

This licence is liable to be cancelled if the licensed premises are not found conforming to the description given on the approved plan attached hereto and contravention of any of the rules and conditions under which this licence is granted and the holder of this licence is also punishable for the first offence with simple imprisonment which may be extend to one month, or with fine which may extend to one thousand rupees, or with both and for every subsequent offence with simple imprisonment which may extend to three months, or with fine which may extend to five thousand rupees or with both.

	Adani Hazira Port Private Limited	From : October 2019 to March 2020
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Annexure 8

**Details of Liquid/Wastes Collection & Disposed off from Vessels by GPCB Approved Third Party
During period April 2019 to September 2019**


	Adani Hazira Port Private Limited	From : October 2019 to March 2020
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Annexure 8

Details of Liquid/Wastes Collection & Disposed off from Vessels by GPCB Approved Third Party During period October 2019 to March 2020

S NO	Date	Name of Vessel	Agency	Quantity
1	01.10.2019	MV.GIOVANNI BOTTIGLIRI	CHITRAKUT TRADING AND IND	3 CBM
2	02.10.2019	MT.EVERRICH1	CHITRAKUT TRADING AND IND	2.61 CBM
3	20.10.2019	MT. CELSIUS MESSINA	CHITRAKUT TRADING AND IND	3.2 CBM
4	24.10.2019	MV.MEGHNA	CHITRAKUT TRADING AND IND	3 CBM

Note: The data of waste collected from Vessel by GPCB authorized agency is not updated up to March 2020 due to COVID 19 pandemic. The updated data shall be submitted along with next EC compliance report.

	Adani Hazira Port Private Limited	From : October 2019 to March 2020
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Annexure 9

Copy of ISO 9001:2015, 14001:2015, 48001:2018, 50001:2018 Certificates



Adani Hazira Port Private Limited

From : October 2019
to March 2020



CERTIFICATE OF APPROVAL

Issued by Indian Register Quality Systems
(A Division of IRCLASS Systems and Solutions Private Limited)

This is to certify that the Quality Management Systems of

Organisation: Adani Hazira Port Private Limited

Address: P.O. Hazira, Tal: Choryashi,
Dist. Surat - 394 270

has been assessed and found conforming to the following requirement

Standard: ISO 9001:2015

Scope: Providing Port Facilities for
Handling and Storage of Bulk,
Liquid and Containerized Cargo

Certificate No.: IRQS/ 190100705

Original Certification Date : 28/10/2013

Current Date of Granting : 23/09/2019

Expiry Date : 26/10/2022



Shashi Nath Mishra
Head IRQS

This approval is subject to continued satisfactory maintenance of the Quality Management Systems of the organization to the above standard, which will be monitored by IRQS. The use of the Accreditation Mark indicates accreditation with respect to activities covered by the certificate with accreditation no. Co71. Condition Overleaf

COA/IRQS/RwA/QMS/Rev 00

Head Office: 52A, Adi Shankaracharya Marg, Opp. Powai Lake, Powai, Mumbai - 400 072, India.



Adani Hazira Port Private Limited

From : October 2019
to March 2020



CERTIFICATE OF APPROVAL

Issued by Indian Register Quality Systems
(A Division of IRCLASS Systems and Solutions Private Limited)

This is to certify that the Environmental Management Systems of

Organisation: Adani Hazira Port Private Limited

Address: P.O. Hazira, Tal: Choryashi,
Dist. Surat - 394 270

has been assessed and found conforming to the following requirement

Standard: ISO 14001:2015

Scope: Providing Port Facilities for
Handling and Storage of Bulk,
Liquid and Containerized Cargo

Certificate No.: IRQS/ 190300706

Original Certification Date : 28/10/2013

Current Date of Granting : 23/09/2019

Expiry Date : 26/10/2022



Shashi Nath Mishra
Head IRQS

This approval is subject to continued satisfactory maintenance of the Environmental Management Systems of the organization to the above standard, which will be monitored by IRQS. The use of the Accreditation Mark indicates accreditation with respect to activities covered by the certificate with accreditation no. CD71 Condition Overleaf

CQA/IRQS/RxA/EMS/Rev 00

Head Office: 52A, Adi Shankaracharya Marg, Opp. Powai Lake, Powai, Mumbai - 400 072, India.



Adani Hazira Port Private Limited

From : October 2019
to March 2020



CERTIFICATE OF APPROVAL

Issued by Indian Register Quality Systems
(A Division of IRCLASS Systems and Solutions Private Limited)

This is to certify that the Occupational Health & Safety Management Systems of

Organisation: Adani Hazira Port Private Limited

Address: P.O. Hazira, Tal: Choryashi,
Dist. Surat - 394 270

has been assessed and found conforming to the following requirement

Standard: ISO 45001:2018

Scope: Providing Port Facilities for
Handling and Storage of Bulk,
Liquid and Containerized Cargo

Certificate No.: IRQS/ 190400707

Original Certification Date : 28/10/2013
(unaccredited)

Current Date of Granting : 23/09/2019


Expiry Date : 26/10/2022



Shashi Nath Mishra
Head IRQS

This approval is subject to continued satisfactory maintenance of the Occupational Health and Safety Management Systems of the organization to the above standard, which will be monitored by IRQS. The use of the Accreditation Mark indicates accreditation with respect to activities covered by the certificate with accreditation no. OHSMS 007. Condition Overleaf: COA/IRQS/NABCB/OHSMS/Rev 00

Head Office: 52A, Adi Shankaracharya Marg, Opp. Powai Lake, Powai, Mumbai - 400 072, India.

	Adani Hazira Port Private Limited	From : October 2019 to March 2020
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Annexure 10

Recent Photographs of Bioshield showing present status



Adani Hazira Port Private Limited

**From : October 2019
to March 2020**

Photographs of Bioshield at Tankari





Adani Hazira Port Private Limited

**From : October 2019
to March 2020**

