

Power

Ref: APL/APJL/EMD/EC/MoEFCC/285/05/24. Date- 23/05/2024.

To,

Additional Principal Chief Conservator of Forest
Ministry of Environment, Forest and Climate Change
Integrated Regional Office, East Central Region
Second Floor, Headquarter-Jharkhand State Housing Board,
Harmu Chowk, Ranchi- 834 002, Jharkhand

Sub: Six Monthly Compliance Status of Environment Clearances for Godda Thermal Power Plant at Motia, Patwa & Adjacent Villages. Godda Tehsil, Godda District in Jharkhand.

Ref: Environment Clearance Letter no: **J-13012/01/2016-IA.I (T)**, Dated: **31.08.2017** & Amendment dated 03.09.2019 & 27.02.2020.

Dear Sir,

With reference to above subject, please find enclosed herewith Six-Monthly Environment Clearances (EC) compliance status report along with Environmental monitoring results like Ambient Air Quality, Noise level, Water Quality & CSR report etc. for the period of October'2023 to March'2024 in soft (e-mail).

This is for your kind information & record please.

Thanking You, Yours faithfully,

for Adani Power (Jharkhand) Limited

(Santosh Kumar Singh)

Head - AESG Encl: as above

CC:

Member Secretary

Central Pollution control Board
Pariyesh Bhayan, Fast Ariun Nagar

Parivesh Bhavan, East Arjun Nagar New Delhi- 110 032.

Member Secretary,

Jharkhand Pollution Control Board

TA Division Building (Ground Floor), HEC, Dhurwa, Ranchi-834 004 (JH)

The Regional Officer,

Jharkhand Pollution Control Board,

Dumka, Jharkhand

## SIX MONTHLY COMPLIANCE REPORT OF ENVIRONMENTAL CLEARANCE (EC)

1600 (2×800) MW THERMAL POWER PLANT

At

## GODDA TALUKA, GODDA DISTRICT JHARKHAND

#### Submitted to:

Integrated Regional Office, Ranchi
Ministry of Environment, Forest & Climate Change,
Central Pollution Control Board, New Delhi &
Jharkhand State Pollution Control Board, Ranchi



Submitted By:

Environment Management Department

Adani Power (Jharkhand) Limited

Motia, Patwa & Adjacent Village,

Godda Taluka, Godda District

Jharkhand

Period: October'2023 - March'2024

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#### Introduction

Adani Power (Jharkhand) Ltd. AP(J)L, a wholly owned company of Adani Power Limited has established 1600 (2x800) MW Coal-based Ultra Supercritical Thermal Power Plant at Village Motia, Patwa and adjacent villages of Godda & Poraiyahaat Blocks of Godda District in Jharkhand. The power plant is based on ultra-supercritical, energy efficient & environment friendly technology.

AP(J)L has been granted Environmental Clearances & Consent to Establish (CTE/NOC) followed by Consent to Operate (CTO) by Ministry of Environment & Forest and Jharkhand state Pollution Control Board respectively and AP(J)L has also obtained all necessary statutory / mandatory clearance respectively.

**India and Bangladesh** desire to enhance traditional ties of friendship, through economic cooperation. Realizing the ever-increasing demand of electricity for the socio-economic development and progress, the Government of India (GoI) and Government of Bangladesh (GoB) have signed a Memorandum of Understanding (MoU) on 11 January' 2010.

As provided in the MoU, GoB and GoI shall inter-alia undertake to encourage and facilitate joint co-operation between the parties in Power generation, transmission, energy efficiency and development of various types of renewable energy.

Accordingly, Adani Power Limited (APL) on 11.08.2015 signed a MoU with Bangladesh Power Development Board (BPDB), to develop a 2x800 MW thermal power plant on BOO basis in India and supply the entire power generated to Bangladesh Power Development Board (BPDB) through a dedicated Transmission Line.

#### **Status of the Project:**

AP(J)L has been granted Environment Clearances (EC) vide Letter no: J13012/01/2016-IA.I (T) dated: 31.08.2017 and amendment in EC vide letter dated 03.09.2019 for changing the source of water form Chir River to Ganga River. AP(J)L has also been granted amended EC vide Letter No: J-13012/01/2016-IA.I (T) dated 27.02.2020 to incorporate sector specific Special Economic Zone for Power under SL.No.7(C) of Schedule as mentioned in EIA Notification, 2006.

"Consent to Operate" has been renewed from Jharkhand State Pollution Control Board vide letter no. JSPCB/HO/RNC/CTO- 16603125/2023/1463 dated 19.08.2023.

Unit 1 & 2 (2 x 800MW) has been successfully achieved COD on 00:00hrs on 6th April 2023 (midnight of 5th April 2023) and 23:30 Hrs on 25th June 2023 respectively. Now, both units are operational.

## Compliance status of Environmental Clearance

1600 MW (2×800 MW) Godda Thermal Power Plant

Environment Clearance Letter no: J-13012/01/2016-IA.I (T) dated: 31.08.2017 & Its Subsequent Amendment Letter no. J-13012/01/2016-IA.I (T) dated 03.09.2019 and 27.02.2020

C:	05.09.2019 and 27.02.2020		
SI. No.	Specific Conditions	Compliance Status	
(i)	Total Ash and Sulphur content in the imported coal shall not exceed 25% and 0.5% respectively.	Information towards change in Coal Source is being submitted regularly to MoEFCC, CPCB & JSPCB. Intimation letter is enclosed as <b>Annexure - X</b> COD of 1st Unit (800 MW) achieved on 00:00 Hrs of 6th April 2023 (mid night of 5th April 2023) and unit 2 on 23:30 Hrs of 25th June 2023.	
(ii)	Land acquisition shall be carried out by the State Govt. in accordance with Santhal Pargana Tenancy Act, 1949, Right of Fair Compensation and Transparency in the Land Acquisition, Rehabilitation Act, 2013 and other prevailing laws. Documents in support of land acquisition after completion acquisition process shall be submitted to this Ministry as well as concerned Regional Office.	Complied.  Land already acquired & Land possession documents has already been submitted.	
(iii)	As per the Revised Tariff Policy notified by Minister of Power vide dated 28.01.2016, project proponent shall explore the use of treated sewage water from the Sewage treatment plant of Municipality / local / similar organization located within 50 km radius of the proposed power project to minimize the water drawl from surface water bodies.	There are no STPs of municipality/local bodies within 50 KM of the site.	
(iv)	Compliance of EC conditions, E(P) Act 1986, Rules and MoEF&CC Notifications issued time to time shall be achieved by a qualified environment officer to be nominated by the Project Head of the company who shall be responsible for implementation and necessary compliance.	Complied  We have already established Environment Management Division with Senior Management at Corporate level as well as Qualified Environment Officer at Site.	
(v)	MoEF&CC Notification S.O. 3305 (E) dated 07.12.2015 and subsequent notifications issued time to time shall be implemented with respect to specific water consumption, zero liquid discharge and revised emission standards. The PM, SO <sub>2</sub> , NOx and Hg emissions shall not exceed 30 mg/Nm <sup>3</sup> , 100 mg/Nm <sup>3</sup> , 100 mg/Nm <sup>3</sup> and 0.03 mg/Nm <sup>3</sup> respectively. The specific water consumption exceed shall not exceed 2.5	Being complied.  High efficiency Electrostatic Precipitators (ESP) are installed and operational to meet emission standard of <30 mg/ Nm³ for PM.  We have installed wet limestone based FGD system to control SO <sub>2</sub> and provided SCR to limit NOx emission well within the stipulated norms.	

	m <sup>3</sup> /MWh and zero wastewater discharge shall be achieved.	Specific Water consumption for FY 2023- 24 is 2.12 m3/MWh which is well within the limit i.e., < 2.5 m³/MWh and Zero Liquid discharge (ZLD) implemented.
(vi)	MoEF&CC Notifications on Fly ash utilization S.O. 763(E) dated 14.09.1999, S.O. 979(E) dated 27.08.2003, S.O. 2804 (E) dated 3.11.2009, S.O. 254(E) dated 25.01.2016 and subsequent amendments shall be complied with.	Being complied. COD of 1st Unit (800 MW) achieved on 00:00 Hrs of 6th April 2023 (mid night of 5th April 2023) and 2nd Unit on 23:30 Hrs of 25th June 2023. Implementation status of fly ash utilization is enclosed herewith as <b>Annexure V</b>
(vii)	Separate Environmental Clearance may be obtained for the proposed Township as applicable under EIA notification 2006.	Complied  Separate Environment Clearance has been granted by SEIAA; Jharkhand for Residential Township vide letter No. EC/SEIAA/2017-18/2070/2017/207 dated 31/08/2018.
(viii)	Solar rooftops shall be installed in the surrounding villages as part of CSR activities.	Being complied.  Fifteen (15) Nos. of Solar Street Lights installed in 12 remote villages and Road-side points in 3 blocks namely Borio, Mandro and Sahebganj which benefiting more than 10,000 rural population.
(ix)	Skill mapping of the Project affected people (PAF) be carried out on a long-term basis for their livelihood generation. A report is to be submitted within 3 months to the Ministry from the date of issuance of environmental clearance.	Complied.  Skill Mapping Report prepared by M/s Indian Institute of Social Welfare & Business Management (IISWBM) Kolkata has already been submitted to your good office along with compliance report.
		Skill Development Centre's are operational and till FY 22-23 total 4600 candidates are trained under different trades viz. Welder, Fitter, Mason and Bar bender, General Duty assistant, Hospitality, Electrical, industrial Sewing Machine Operator, and Digital Literacy classes. In the last FY i.e., 23-24, 498 trainees enrolled and benefited in various trades. Detailed CSR report is attached as <b>Annexure – VIII.</b>
(x)	Modern methods of agriculture organic forming, compost / vermiculture making and utilization, drip/direct to root irrigation to be promoted in and around the Project area.	Being complied.  Vermicomposting program enables farmers to uplift their socio-economic condition in more than 13 villages. Since FY 22-23, over 68 small and marginal farmers were supported with 83 units of Vermi bed along with organic farming training to 350 new farmers.  So far 700 small & marginal farmers were supported to install 457 Vermicompost units.

		Detailed CSR report is enclosed <b>as Annexure- VIII.</b>
(xi)	While implementing CSR,	Being Complied.
	<ul> <li>Women empowerment is important. Therefore, proper skill-based training/long term livelihood revenue generation be created for all of them.</li> <li>Computer facilities may be provided in the school along with a trained computer teacher to inculcate computer skill among the youths.</li> <li>Water supply provisions shall be made for all the bio-toilets under Swachh Bharat Abhiyan.</li> <li>Preventive health programme may be preferred than the curative health programme such as nutrition development of small children and around the project.</li> </ul>	<ul> <li>Adani Foundation supported the Women Self Group- Phoolo Jhano Saksham Sakhi Mandal (PJSASM) in accomplishment of 1,16,713 Flags assigned by district administration under the National Campaign "Har Ghar Tiranga". More than 200 women earned income from Flag stitching work. Also, one-year vocational training program on (a) Sewing Technology and (b). Fashion Design &amp; Technology operational which covers 35 students.</li> <li>Adani Foundation in partnership with District Administration launched Gyanodaya project to promote e-learning through Smart Classes. Gyanodaya bagged "Indian Chamber of Commerce (ICC) Social Impact Award -Promoting Education" for providing quality education in remotest and untapped villages of Godda district through smart learning among more than 8000 students of 316 government schools.</li> <li>Digital Literacy classes are operational which benefited 4600 candidates.</li> <li>We have constructed model bathrooms with soak pit in various villages towards creating awareness for cleanliness and hygiene by our program named "SWACCHAGRIH".</li> <li>Curative health program being taken care under "SuPoshan" program.</li> <li>Detailed CSR report is attached as Annexure</li> </ul>
(xii)	Vision document specifying prospective plan for the site shall be formulated and submitted to the Regional Office of the Ministry within six months.	VIII.  Complied.  Vision document has already been submitted along with compliance report.
(xiii)	Harnessing solar power within the premises of	Noted and compliance assured.
be carried out and the status of imple including actual generation of solar p	the plant particularly at available roof tops shall be carried out and the status of implementation including actual generation of solar power shall be submitted along with half yearly monitoring	It is proposed to utilize the roof tops of buildings which are feasible for installation of solar panels.
	report.	6 Nos. of Solar streetlights are installed at plant premises and 100 additional Solar Street Lights shall be installed in this FY.

(xiv)	A long term study of radio activity and heavy	Being complied.
	metals content on coal to be used shall be carried out through a reputed institute and results thereof analyzed every two year and reported along with monitoring reports.  Thereafter mechanism for an in-built continuous monitoring for radio activity and heavy metals in	Radioactivity testing result/report of two Coal samples (testing done by Board of Radiation and Isotope technology, Mumbai) from the source area already submitted along with EIA Report.
	coal and fly ash (including bottom ash) shall be put in place.	Further, Radioactivity Test and Heavy Metal study report of Coal is enclosed as <b>Annexure – XI</b> .
		Heavy metal analysis of Fly ash and bottom ash is enclosed as <b>Annexure – VII</b> .
		The technology and monitoring instruments for an in-built continuous monitoring is not available with the suppliers in the country and is not feasible to continuously monitor for radioactivity and heavy metal in coal and fly ash.
		There is no proven technology to monitor radioactivity at plant level on continuous basis. Periodic test report will be submitted.
(xv)	Online continuous monitoring system for stack emission, ambient air and effluent shall be installed.	Complied.  AP(J)L has already installed Online Continuous Emission Monitoring (CEMS) System (both stack) to monitor Stack Emission & Continuous Ambient Air Quality Monitoring Stations – 3 Nos. at three different locations within the plant premises (close to the boundary wall) and Effluent Quality monitoring System at ETP.  Continuous emission monitoring (CEMS) & Continuous Ambient Air Quality monitoring (CAAQMS) report is enclosed as Annexure II & III respectively.
(xvi)	High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that a particulate emission does not exceed 30 mg/Nm³ as would be notified by the Ministry, whichever is stringent. Adequate dust extraction system such as cyclones/bag filters and water spray system in dusty areas such as in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided along with an environment friendly sludge disposal system.	Complied.  High efficiency Electrostatic Precipitators (ESP) has been installed in each boiler to meet PM emission of less than 30 mg/Nm³.  Dust extraction system (Cyclone followed by bag filters) in coal crusher and coal transfer area (JNTs), rain gun type dust suppression system in coal yard and dry fog type dust suppression system in belt conveyor have been installed.

(xvii)	Adequate dust extraction system such as cyclones / bag filters and water spray system in dusty areas in coal handling and ash handling points, transfer areas and other vulnerable dusty areas shall be provided.	Complied  Dust extraction system with Bag filter in Crusher House and wagon tippler has been installed. Pneumatic ash handling system with bag filters for ash handling & rain gun type water sprinkling system provided and operational in Coal yard.
(xviii)	Monitoring of surface water quantity and quality shall be regularly conducted and records maintained shall be submitted to the Ministry regularly. Further, monitoring system shall be placed between the plant and drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall also be undertaken and results/findings submitted along with half yearly monitoring report.	Being complied.  Baseline data was collected during EIA study & Regular monitoring of Air, Water (surface & ground) is being carried out. Environmental Parameters monitoring results (including monitoring of Heavy Metals in Ground water) are being submitted periodically to RO, MoEFCC Ranchi, MS JSPCB- Ranchi & RO JSPCB at Dumka. Environmental monitoring reports are enclosed as <b>Annexure – I</b> .
(xix)	A well-designed rainwater harvesting system shall be put in place within six months, which shall comprise of rain water collection from the built up and open area in the plant premises and detailed report kept of the quantity of water harvested every year and its use.	Complied.  Rainwater Harvesting (RWH) implemented and photographic evidence of the same submitted to Jharkhand State Pollution Control Board vide letter no. APJL/ENV/JSPCB/CTO/22 dated 31.10.2022.
(xx)	No water bodies including natural drainage system in the area shall be distributed due to activities associated with the setting up/operation of the power plant.	Noted & compliance assured.  There are some first order streams, which is altered. The drainage profile maintained from SE to NW direction along the natural drainage profile.  There is an unlined (kachcha) canal passing through the site, which is diverted along the Project boundary without disturbing flow and natural drainage pattern.
(xxi)	Additional soil for leveling of the proposed site shall be generated within the sites (to the extent possible) so that natural drainage system of the area is protected and improved.	Being Complied  Excavated Soil being utilized within the plant site to the extent possible for levelling and horticulture activities.
(xxii)	Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Mercury and other heavy metals (As, Hg, Cr, Pb, etc.) shall be monitored in the bottom ash. No ash shall be disposed off in low lying area.	Being Complied  Monitoring of Mercury and other heavy metals in Fly Ash & bottom ash being carried out and analysis report is enclosed as <b>Annexure - VII</b> Dry Ash collection, pneumatic conveying and storage (silos) facilities are established.  Unutilized ash being disposed off in the ash dyke through HCSD.

		No ash being disposed off in low lying area.  Prior approval shall be obtained from JSPCB if the same is required in future.
(xxiii)	No mine void filling will be undertaken as an option for ash utilization without adequate lining of mine with suitable media such that no leachate shall take place at any point of time. In case, the option of mine void filling is to be adopted, prior detailed study of soil characteristics of the mine area shall be undertaken from an institute of repute and adequate clay lining shall be ascertained by the state pollution control board and implementation done in close co-ordinate with the State Pollution Control Board.	Noted & Compliance assured.  In case of mine void filling option undertaken, detailed study from reputed institute shall be undertaken, adequate lining will be done, and pollution control board shall be consulted.
(xxiv)	Fugitive emission of fly ash (dry and wet) shall be controlled such that no agricultural or non-agricultural land is affected. Damage to any land shall be mitigated and suitable compensation provided with the local Panchayats.	Being complied.  To control fugitive emission, Bag filters are installed at Silo. Conditioned (moist) ash loading is being ensured from fly ash silo.  TPP will provide suitable compensation if any
(xxv)	Green belt consisting of three tiers of plantation of native species all around plant and at least 50 m width shall be raised. Wherever 50 m width is not feasible a 20 m width shall be raised and adequate justification shall be submitted to the Ministry. Tree density shall not be less than 2500 per ha with survival rate not less than 80%.	damage in future.  Being complied.  Green belt development / plantation and landscaping completed in 82.77-acre area consist of more than 1.2 lacs plantation and rest area is under progress.  In addition to plant area, 25000 Plantation has been done in reporting period in nearby village are through CSR activities.  Our efforts are being made to develop more greenery in & around the plant with survival rate of more than 80%.  Green Belt Development details are enclosed as Annexure – IV.
(xxvi)	Green belt shall also be developed around the Ash Pond over and above the Green Belt around the plant boundary.	Complied. Green Belt (as Dense plantation) has been developed in ash pond area. Green Belt Development details are enclosed as <b>Annexure – IV</b> .
(xxvii)	The project proponent shall formulate a well laid Corporate Environment Policy and identify and designate responsible officers at all levels of its hierarchy for ensuring adherence to the policy and compliance with the conditions stipulated in this clearance letter and other applicable environmental laws and regulations.	Corporate HSE policy is placed & signed by the Chairman.  IMS implementation & certification for the project will be implemented during plant operation.

(xxviii	CSR schemes identified based on need	Being complied.
)	assessment shall be implemented in consultation with the village Panchayat and the District Administration starting from the development of project itself. As part of CSR prior identification of local employable youth and eventual	CSR activities are implemented in consultation and collaboration with the community & community leaders as well as District Administration.
	employment in the project after imparting relevant training shall be also undertaken. Company shall provide separate budget for company development activities and income.	Regular community meetings are organized in all the villages to understand the issues of community.
	community development activities and income generating programmes.	Social development activities have been carried out for Need Based families under the CSR activities by <b>Adani Foundation</b> .
		Need Based Assessment Study and Development of CSR report has already been submitted along with compliance report. Detailed CSR report is enclosed as <b>Annexure-VIII.</b>
(xxix)	For proper and periodic monitoring of CSR activities, a CSR committee or a Social Audit committee or a suitable external agency shall be appointed. CSR activates shall be evaluated by an independent external agency. This evaluation shall be both concurrent and final.	Social development activities have been carried out for Need Based families under the CSR activities by <b>Adani Foundation</b> . Evaluation of CSR activities (outcome assessment) is being carried out by third party and assessment report shall be submitted
		along with upcoming compliance report.
S.N	General Conditions:	along with upcoming compliance report.  Compliance Status
<b>S.N</b> (i)	General Conditions:  The treated effluents conforming to the prescribed standards only shall be re-circulated and reused within the plant. Arrangements shall be made that effluents and storm water do not get mixed.	Compliance Status Compliance Status Complied. Generated effluent is being treated in ETP and treated effluent conforming to the prescribed standard being reused within the plant.
	The treated effluents conforming to the prescribed standards only shall be re-circulated and reused within the plant. Arrangements shall be made that effluents and storm water do not	Compliance Status  Complied.  Generated effluent is being treated in ETP and treated effluent conforming to the prescribed
(i)	The treated effluents conforming to the prescribed standards only shall be re-circulated and reused within the plant. Arrangements shall be made that effluents and storm water do not get mixed.  A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising greenbelt/plantation.	Compliance Status  Complied.  Generated effluent is being treated in ETP and treated effluent conforming to the prescribed standard being reused within the plant.  Separate Storm Water Drainage has been established.  Complied  Sewage Treatment Plants having capacity 2 x 10 m3/h provided and treated water being reuse suitably within the plant premises for green belt development/land scaping.
(i)	The treated effluents conforming to the prescribed standards only shall be re-circulated and reused within the plant. Arrangements shall be made that effluents and storm water do not get mixed.  A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used	Compliance Status  Complied.  Generated effluent is being treated in ETP and treated effluent conforming to the prescribed standard being reused within the plant.  Separate Storm Water Drainage has been established.  Complied  Sewage Treatment Plants having capacity 2 x 10 m3/h provided and treated water being reuse suitably within the plant premises for

	Nagpur. Sulphur content in the liquid fuel will not exceed 0.5%. Disaster Management Plan shall be prepared to meet any eventuality in case of an accident taking place due to storage of oil.	LDO has been properly stored within plant premises and license for storage of LDO has been obtained from Petroleum and Explosive Organization (PESO).
		License of the same is already submitted along with previous compliance report.  DMP already submitted with compliance report of October 2018 to March 2019.
(v)	First aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	Complied.  First aid facilities, drinking water facility, Sanitation facility, Wastewater disposal, solid wastes management and primary health facilities are being ensured at site.
(vi)	Noise levels emanating from turbine shall be so controlled such that the noise in the work zone shall be limited to 85 dB(A) from source. For people working in the high noise area, requisite personal protective equipment like earplugs / earmuffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc shall periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to nonnoisy/less noisy areas.	Complied  Necessary action/prevention measures have been taken care in design to maintain noise level within 85 dBA at source.  High Noise areas are identified. Safety signage Boards has been provided with mandatory Personnel Protective Equipment (PPE's) at designated locations. A complete medical check-up with audiometric test of workers & employees is being carried out prior their joining in the organization.
(vii)	Regular monitoring of ambient air ground level concentration of SO <sub>2</sub> , NOx, PM <sub>2.5</sub> and PM <sub>10</sub> and Hg shall be carried out in the impact zone and records maintained. If at any stage these levels are found to exceed the prescribed limit, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be decided in consultation with SPCB. Periodic reports shall be submitted to the regional office of this ministry. The data shall also be put on the website of the company.	Being complied.  Regular monitoring of ground level concentration of Ambient Air for SO2, NOx, PM2.5 and PM10 and Hg is being carried out and monthly reports are being submitted to the MS, SEIAA & JSPCB Ranchi & RO JSPCB, Dumka.  For selection of monitoring location and monitoring frequency in consultation with JSPCB, intimation letter also been submitted to the board vide our letter no. APJL/ENV/JSPCB/RO/0308 dated 31.08.2022.  Monitoring frequencies are as below:  • Ambient Air Quality twice in a week, • Stack Emission Monitoring- Once a month. • Water, wastewater quality & Noise once in Month and

		<ul> <li>Soil Quality once in a season (Except Monsoon).</li> </ul>
(viii)	Utilization of 100 % Fly ash generated shall be	Periodic Environmental monitoring report is enclosed, please refer <b>Annexure- I</b> . EC compliance report is uploaded on the company's website, <a href="https://www.adanipower.com">www.adanipower.com</a> Being Complied.
(0)	made from 4 <sup>th</sup> year of operation. Status of implementation shall be reported to the regional office of the Ministry from time to time.	As COD of 1 <sup>st</sup> Unit (800 MW) achieved on 00:00 Hrs of 6th April 2023 (mid night of 5th April 2023) and 2 <sup>nd</sup> Unit on 23:00 Hrs of 25 <sup>th</sup> June 2023. Fly ash generation and utilization Status enclosed as <b>Annexure - V</b>
(ix)	Provision shall be made for housing of the construction labour (as applicable) within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets. Mobile STPs, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the construction of the project.	Complied  Required hutment, drinking water, Mobile Toilets. Mobile STPs, Safe Drinking Water & Medical health care facilities, medical health care facilities, Fuel for cooking and other infrastructure has been arranged on temporary basis during plant construction.
		Local manpower were preferred during Construction phase & hence, less necessity to build housing for the construction labour.
(x)	The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned within seven days from the date of this clearance letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board/Committee and may also be seen at Website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a>	Complied.  Advertisement in 10 Local News Papers was published in Hindi & English. Copy of News Paper cutting already submitted along with Oct'17 to March'2018 compliance report.
(xi)	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad / Municipal Corporation, urban local Body and the Local NGO, if any, from whom suggestions/representations, if any, received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	Complied.  A copy of the Environment Clearance letter was provided to Panchayats, Zila Parisad and local Body. Acknowledgement already submitted along with compliance report. The clearance letter has been uploaded on the company website <a href="http://www.adanipower.com/">http://www.adanipower.com/</a>
(xii)	The proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and shall update	Being complied. Six monthly compliance status reports are being submitted to MoEF&CC, CPCB & JSPCB.

	the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutants levels namely SPM, RSPM (PM <sub>2.5</sub> & PM <sub>10</sub> ), SO <sub>2</sub> , NO <sub>x</sub> (ambient levels as well as stack emissions shall be displayed at a convenient location near the main gate of the company in the public domain photographs.	Last compliance report submitted for the period of April'23- Sepcetmber'2023 vide letter no. APL/APJL/EMD/EC/MoEFCC/206/11/23 dated 24.11.2023. Compliance status uploaded on Company's website. Digital display board installed at the main gate of the power plant to display environmental monitoring parameters. Environmental monitoring report is enclosed as Annexure- I.
(xiii)	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of the Minister by email.	Complied. Consent to Operate renewed by Jharkhand State Pollution Control Board vide letter no. JSPCB/HO/RNC/CTO- 16603125/2023/1463 dated 19.08.2023. Environment statement for the FY 2022 – 23, submitted to JSPCB vide our letter no. APJL/ENV/ES/JSPCB/0925 dated 25.09.2023 and copy of the same already submitted along with previous compliance report.
(xiv)	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Central Pollution Control Board and State Pollution Control Board. The project: proponent shall upload the status of compliance of the environment of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by e-mail to the Regional Office, Ministry of Environment and Forests.	Being Complied Six monthly compliance status reports are regularly submitted to MoEF&CC, CPCB & JSPCB. The same is sent by email also. Last six-monthly compliance report for the period of April'23 to Sepcetmber'2023 vide letter no. APL/APJL/EMD/EC/MoEFCC/206/11/23 dated 24.11.2023.  Compliance status updated on Company's website. <a href="https://www.adanipower.com">https://www.adanipower.com</a>
(xv)	The progress of the project shall be submitted to CEA on six monthly basis.	Report Submission to CEA is not applicable as Project is dedicated to Bangladesh Govt. and it is not connected to Indian Grid.  However, both units i.e., unit 1 & 2 (2 x 800MW) has been successfully achieved COD on 00:00hrs on 6 <sup>th</sup> April 2023 (midnight of 5 <sup>th</sup> April 2023) and 23:30 Hrs on 25 <sup>th</sup> June 2023 respectively. Now, both units are operational.
(xvi)	Regional Office of the MoEF&CC will monitor the implementation of the stipulated conditions. A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information submitted from time to	Complied.  Copies of Environment Impact Assessment report (EIA) with Environment Management Plan already sent to Regional Office, Ranchi,

	time shall be forwarded to the Regional Office	vide our letter no. APJL/ENV/EC/SMR/175
	for their reference during monitoring. Criteria pollutants levels including $NO_{x}$ (from stack &	/05/2018, dated-14.05.2018. Digital display board installed at the main gate
	ambient air) shall be displayed at the main gate of the power plant.	of the power plant to display environmental monitoring parameters.
(xvii)	Separate funds shall be allocated for	Complied
(,,,,	implementation of environmental protection measures along with item-wise break-up. This cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purposes and year-wise expenditure	Separate budget has been already allocated for Environmental protection measures.  Fund for Environment management: Capital Cost: Rs. 2,225.68 Crores  Expenditure for the period of April'23 –
	should be reported to the Ministry.	March'24 enclosed as <b>Annexure - IX</b>
(xviii)	The project authorities shall inform the Regional	Complied
	Office as well as the Ministry regarding the date of financial closure and final approval of the project by the concerned authorities and the dates of start of land development work and commissioning of plant.	Financial closures have been achieved and disclosed. Construction works are completed. COD of 1st Unit (800 MW) achieved on 00:00 Hrs of 6th April 2023 (mid night of 5th April 2023) and unit 2 on 23:30 Hrs of 25th June 2023. Consent to Operate renewed by Jharkhand State Pollution Control Board vide letter no. JSPCB/HO/RNC/CTO- 16603125/2023/1463 dated 19.08.2023.
(xix)	Full cooperation shall be extended to the	Noted.
	Scientists / Officers from the Ministry / Regional Office of the Ministry at Bangalore / CPCB / SPCB who would be monitoring the compliance of environmental status.	Full co-operation shall be extended all time.
Cond	tions of EC Amendment	
(i)	Stage-I Forest Clearance for diversion of 13.3293 ha for laying pipeline shall be submitted. As per	The copy of stage – I submitted before amendment.
	Ministry's guidelines, a formal amendment will be issued after furnishing the Stage-I Clearance.	This condition stands deleted as per amended EC Vide No. J -13012/01/2016-I.A.I (T) dated 27.02.2020.
(ii)	In line with Ministry's OM dated 11.3.2010 in regard to Oil and Gas pipelines, in a similar manner, 10 trees to be planted for every tree cut in the nonforest area.	Noted.  We have consulted Divisional Forest Officer (DFO), Godda vide our letter no. AP(J)L/FC/ENV/227/05/20 date 28.05.2020 to provide plantation scheme with demand note for proposed plantation.  Compliance of Stage – I has already been submitted and verified by nodal officer, MoEFCC and issued the Stage – II FC approval on 29.01.2021.

(iii)	There will be storage reservoirs for storing 15 MCM	Noted and agreed.
(iv)	water to cater during lean season.  Daily quantity (Average, minimum and maximum)	Noted & being followed.
	of fresh water withdrawn from Ganga River near Sahebganj for the Power Plant shall be recorded and data base be preserved to ensure permissible drawl of fresh water from Ganga River. The source sustainability reports for withdrawal of water from Chir River and from the Ganga River shall be placed in the public domain by the proponent, either by uploading to the PARIVESH portal or its own website.	Source sustainability reports for withdrawal of water from Chir River and from the Ganga River has been uploaded and is already available on <a href="https://parivesh.nic.in/">https://parivesh.nic.in/</a>
(v)	As per the original EC, 33% greenbelt of plant area	Being complied.
	shall be developed. In case of any shortage of land, additional land shall be acquired to meet the condition.	Green belt development / plantation and landscaping completed in 82.77acre area consist of more than 1.2 lacs plantation and rest area is under progress.
		In addition to plant area, 25000 Plantation has been done in reporting period in nearby villages through CSR activities.
		Our efforts are being made to develop more greenery in & around the plant with survival rate of more than 80%. Green Belt Development details are enclosed as <b>Annexure</b> – IV.
(vi)	The conditions specified in the In-Principle (Stage-I) Forest Clearance dated 28.6.2019 shall be complied with. A compliance to these conditions shall also be submitted along with Six monthly	Compliance of conditions mentioned in the In- Principal approval (Stage-I) Forest Clearance dated 28.06.2019 has been uploaded on https://parivesh.nic.in/.
	compliance report. Further, copy of Formal (Stage-II) Approval shall be submitted as and when it is obtained.	Compliance report of Stage - I Forest Clearance submitted along with EC compliance report for the period of Oct'19 to Mar'20.
		Stage II has already been granted vide letter no. FP/JH/Others/32772/2018/4489 dated 29.01.2021. Copy of the same already submitted vide our previous compliance report for the period of October'20 – March'2021.
(vii)	The total project area has now been reduced to 558 acres from 1255 acres. The remaining area (if acquired) shall be developed as greenbelt.	Noted.  Power plant facilities have been reworked and total project area has now been optimized to 558 acres from 1255 acres.
(viii)	All the conditions prescribed in the permission	Noted, agreed and Compliance assured.
	granted by National Mission for Clean Ganga	

	(NMCG), Ministry of Water Resources, River Development & Ganga Rejuvenation vide their letters dated 8.8.2018 and 16.11.2018 for withdrawal of 36 MCM of water from River Ganga during June to December, shall be complied with.	
Addit	ional Conditions (EC Amendment)	
(i)	The area of 7.7 acres (originally proposed 558 acres & Notified SEZ land: 550.23 acres) shall be developed with greenbelt. Demarcation of this land with co-ordinates and progress of greenbelt is to be submitted in the compliance report.  In para 5 of amended EC dated 03.09.2019, the period of '6 months' be read as '07 months'.	Noted  Green belt development / plantation and landscaping is in progress and efforts will be made to develop more greenery in & around the plant with survival rate of more than 80%.  Noted.

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# HALF YEARLY ENVIRONMENTAL MONITORING REPORT

## (PERIOD- OCTOBER' 2023 TO MARCH' 2024)

## Submitted TO:

## ADANI POWER (JHARKHAND) LTD.

2X800 MW GODDA THERMAL POWER PLANT

VILLAGE: MOTIA, DISTRICT-GODDA, JHARKHAND



## **PREPARED BY:**

M/s Vibrant Techno Lab Pvt. Ltd.
Add: SC-40, 3<sup>rd</sup> Floor, Narayan Vihar S, Ajmer Road
Jaipur (Rajasthan)

(Recognized by MoEF & CC, NABL Government of India)

2 X 800 MW Godda Thermal Power Plant Located at village: Motia, District-Godda, Jharkhand

Environmental Monitoring Report (October'2023 to March'2024)

#### **FOREWORD**

Electric Power scenario has occupied a significant place in the development program of the country. The growing concern for environment protection and enforcement of stringent environmental legislations have increased the responsibilities of both the governing bodies as well as the industries. Hence environmental protection plays a crucial role in maintaining the local environment quality for any industry, throughout their production processes. Hence compliance of the statutory requirements becomes very important to conserve the ecological balance within and surrounding the plant area. Therefore, environmental protection is becoming a prerequisite for sustainable development.

However, the prerequisite for sustainable development is judicious planning of environmental status, likely impacts of the approach adopted on the environment including inhabitants of the locality, availability of the eco-friendly technology, emerging waste disposal and waste utilization processes, techniques of land reclamation for the restoration of aesthetic beauty and adoption of cleaner technologies for power generation.

Adani Power (Jharkhand) Ltd. is a 2x800 MW Godda Thermal Power Plant Located at Village: Motia, District-Godda, Jharkhand, India, has engaged **M/s Vibrant Techno lab Pvt. Ltd. (Raj.)** to provide Environmental Monitoring Services for ambient air quality monitoring, stack emission monitoring, noise level monitoring & Sampling and Analysis of ground water quality, surface water quality, treated effluent, sewage, waste water from ETP, and soil Quality as per prevalent quidelines notified by MoEF & CC an CPCB time to time.

This report presents a summary of the monitoring and analysis data generated for the period from Oct 2023 to Mar 2024 i.e., for  $2^{nd}$  half of the FY' 23-24.

During the entire monitoring work for the above task, the staff and management of Adani Power (Jharkhand) Ltd. were extremely co-operative. We are grateful to them for their invaluable support and assistance rendered to us during the course of the sampling and monitoring.

Date: 12.04.2024

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#### **SECTION 1: LIST OF EQUIPMENTS**

The list of Equipments used in the project is delineated in the table as below.

SR. No.	NAME OF EQUIPMENTS	MAKE/MODEL
1	Descisable Duet Comples	Fourier Instruments FI 142
1.	Respirable Dust Sampler	Enviro Instruments El-142
2.	Fine Particulate Sampler	Enviro Instruments EI-133
3.	Gaseous Sampling Attachment	Enviro Instruments El-061
4.	Sound Level Meter	Mextech
5.	Stack Monitoring kit	Enviro Instruments El-106
6.	Combo Sampler	Enviro Instruments El-205
7.	Digital Balance	Dig. Thermo Hygrometer
8.	UV Visible Spectrophotometer	Systronics.,117
9.	Hot Air Oven	Smita Scientific, Cat. No. SHAO-2S/G
10.	Bacteriological Incubator	Smita Scientific, Cat. No. SLBI-2
11.	pH Meter	Systronics.,361
12.	Dissolved Oxygen Test Kit	Lutron
13.	Autoclave Automatic	Smita Scientific, Cat. No. SAUV-2
14.	Horizontal Laminar Air Flow	Smita Scientific, Cat. No. SHLF-1 SG
15.	Muffie Furnace	Smita Scientific, Cat. No. SMFF-3S/G
16.	Conductivity Meter	Systronics, 304
17.	Phase Contrast Microscope	Kane International
18.	COD Digester	Smita Scientific, Cat. No. SCOD-3

2 X 800 MW Godda Thermal Power Plant Located at village: Motia, District-Godda, Jharkhand

Environmental Monitoring Report (October'2023 to March'2024)

#### **SECTION 2: LIST OF PROJECT PERSONNEL**

S.No.	Name	Qualification	Experience	Designation
			(Yrs.)	
1.	Rajkumar	MSc. Agriculture	14.5	Lab Incharge QM
	Yadav			
2.	Raja Manish	MSc. Organic	3.0	Senior Analyst
		Chemistry		
3.	Rajiv Kumar	BSc. Chemistry	2.0	Senior Field
	Das			Analyst
4.	Umesh Sharma	MSc. Pharmaceutical	12.5	Technical
		Chemistry		Manager

2 X 800 MW Godda Thermal Power Plant Located at village: Motia, District-Godda, Jharkhand

Environmental Monitoring Report (October'2023 to March'2024)

#### **SECTION 3: EXECUTIVE SUMMARY**

Adani Power (Jharkhand) Ltd. is a 2x800 MW Godda Thermal Power Plant Located at Village: Motia, District-Godda, Jharkhand, India, has engaged M/s Vibrant Techno lab Pvt. Ltd. (Raj.) to provide Environmental Monitoring Services for ambient air quality monitoring, stack emission monitoring, noise level monitoring & Sampling and Analysis of ground water quality, surface water quality, treated effluent, sewage, waste water from ETP, and soil Quality as per prevalent guidelines notified by MoEF & CC an CPCB time to time.

As per the guidelines, 03 locations have been fixed for Ambient Air Quality Monitoring. Monitoring has been done as per NAAQS 2009 standards and reports are summarized for the period Oct 2023 to Mar 2024. The brief has been discussed in Section-7 of the report. (Analysis report attached as annexure-3A). Stack monitoring and analysis summary has also been presented for the mentioned period and reports are attached. The brief has been discussed in Section-11 of the report. (Analysis report attached as annexure - 3B).

Ground water samples at 04 locations & Surface water sample at 01 location on Quarterly basis. The brief has been discussed in Section-8 of the report (Report attached as Annexure-3C & 3D). Wastewater STP & ETP samples on monthly basis were collected and analyzed to understand the overall water quality of the project area. The brief has been discussed in Section-10 of the report. (Analysis report attached as annexure -3E).

Ambient Noise Monitoring has been performed at 10 locations for day & night which is also within limit. The Summary of the result is presented in Section -09 (Monitoring report attached as annexure -3E).

#### **SECTION 4: CONCEPT & METHODOLOGY**

#### 4. Methodology

In the present study the following are the standard methods used for collection, analysis & interpretation of data:

**AAQM Sampling & analysis:** "Indian Standards (IS 5182)" "Guidelines for the measurement of Ambient Air Pollutants, Vol-I, CPCB" & "USEPA" methods were used for Ambient Air sampling and analysis for overall air quality status of the plant as well as surrounding area.

PARAMETERS OF AAQM	STANDARDS METHODS
PM10	IS 5182 (P-24):2019
PM2.5	IS: 5182 (P-23), 2006
Nitrogen dioxide (NO <sub>2</sub> )	IS: 5182 (P-6), 2006
Sulphur dioxide (SO <sub>2</sub> )	IS: 5182 (P-2), 2001
Carbon Monoxide	IS: 5182 (P-10)1999
Ammonia	3rd ed., 1988 Method No.401
Lead	IS: 5182 (P-22): 2004
Benzene	IS: 5182 (P-11), 2006
Benzo-α-pyrene	IS: 5182(P-12), 2004
03	IS: 5182(P-9):1974
Nickel	USEPA Compendium IO -3.2, 1999
Arsenic	3rd ed.,1988 Method No.302
Mercury	VTL/STP/02

PARAMETERS OF STACK MONITORING	STANDARDS METHODS
Particulate Matter (PM)	IS: 11255 (P-1): 1985, RA 2019
Oxide of Nitrogen (as NOx)	IS- 11255 (P-7);2005, RA- 2017
Sulphur Dioxide (as SO <sub>2</sub> )	IS: 11255(P- 2): 1985, RA 2019
Mercury (Hg)	USEPA 29::1996

Water Sampling & analysis: Similarly, "Indian Standards (IS 3025)", "USEPA" and "APHA 23rd Edition were used for water sample collection and analysis.

PARAMETERS OF WATER SAMPLE	STANDARD METHODS
рН (at 25 °C)	IS 3025 (P-11): 2022
Colour	IS 3025(P-4): 2021
Turbidity	IS 3025 (P-10): 1984, RA: 2017
Odour	IS 3025 (P-5)1983
Taste	IS 3025(P-8) 1984
Total Hardness as CaCO₃	IS: 3025 (P-21): 2009, RA: 2019
Calcium as Ca	IS: 3025 (P-40): 1991, RA: 2019
Alkalinity as CaCO₃	IS: 3025 (P-23): 1986, RA: 2019
Chloride as Cl	IS: 3025(Part 32):1988, RA:2019
Cyanide as CN	IS: 3025 (P-27)1986
Magnesium as Mg	IS: 3025 (P-46): 1994, RA: 2019
Total Dissolved Solids	IS 3025 (P-16): 1984RA: 2017
Sulphate as SO <sub>4</sub>	IS: 3025 (P-24): 1986 Sec.1 RA: 2022
Fluoride as F	APHA (23rd Edition), 4500FD:2017
Nitrate as NO <sub>3</sub>	IS: 3025 (P-34): 1988, (Chromotropic
	Method) RA: 2022
Iron as Fe	APHA (23rd Edition),3113B: 2017
Aluminum as Al	IS 3025 (P-55):2003, RA: 2019
Boron	APHA (23rd Edition) 4500B: 2017
Total Silica	IS: 3025 (P-35):1888,RA: 2003
Phenolic Compounds	APHA 23rd Edition,2017, 5530 C
Anionic Detergents as MBAS	APHA 23rd Edition,2017, 5530 C
Zinc as Zn	APHA (23rd Edition), 3030D,3113B: 2017
Copper as Cu	APHA (23rd Edition),3113B: 2017
Manganese as Mn	APHA (23rd Edition)3030D,3113B: 2017
Cadmium as Cd	APHA (23rd Edition)3030D,3113B: 2017
Lead as Pb	APHA (23rd Edition)3030D,3113B: 2017
Selenium as Se	APHA (23rd Edition)3114C,2017
Arsenic as As	APHA (23rd Edition),3114C,2017
Mercury as Hg	APHA (23rd Edition)3114C,2017
Hexa Valent Chromium	APHA (23rd Edition)3500 Cr B:2017
Residual Free Chlorine	IS :3025(P-26): 2021
Temperature	IS :3025(P-9):1984, RA:2017
Total Coliform	IS:15185: 2016
E. coli	IS:15185: 2016

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2 X 800 MW Godda Thermal Power Plant Located at village: Motia, District-Godda, Jharkhand

Environmental Monitoring Report (October'2023 to March'2024)

PARAMETERS OF STP TREATED &	STANDARD METHODS
UNTREATED WATER	
pH (at 25 °C)	IS 3025 (P-11): 2022
Total Dissolved Solids	IS 3025 (P-16): 1984RA: 2017
Total Suspended Solids	IS 3025 (P-17): 2022
Oil &Grease	IS 3025 (P-39):2021
BOD (3days at 27 °C)	IS 3025(P-44):1984, RA:2019
COD	IS: 3025 (P-58): 2006, RA: 2017

**Noise Level Monitoring**: "Protocol for Ambient Level Noise Monitoring, IS 9989: RA 2001" was followed to monitor the Ambient Noise level surrounding the Power Plant.

PARAMETERS	STANDARD METHODS
Leq	IS 9989-1981 RA: 2020

A brief account of the methodologies and matrices followed in the present study is given under different headings. All the methods were structured for the identification, collection and organization of environmental impacts data. The information, thus gathered, had been analyzed and presented in the form of a number of visual formats for easy interpretation and decision making.

2 X 800 MW Godda Thermal Power Plant Located at village: Motia, District-Godda, Jharkhand

Environmental Monitoring Report (October'2023 to March'2024)

#### **SECTION 5: PLAN FOR SAMPLING LOCATIONS**

The scenario of the Ambient Air Quality in the study region has been assessed through a network of O3 locations of Ambient Air Quality Monitoring. The design of monitoring network in the air quality surveillance program was based on the following considerations.

- Topography / Terrain of the study area.
- Human Settlements
- Wind pattern.
- Health status
- Representation of regional Background levels.
- Accessibility of monitoring site.
- Resource availability.

A synopsis about the locations is as follows:

#### **AAQM LOCATION**

- Near Nayabad Village (Close to plant boundary)
- Near Mali Village (Close to plant boundary)
- Near Motia Village (Close to plant boundary)

#### STACK MONITORING LOCATION

- Unit-01
- Unit-02
- D.G Set Plant
- D.G Set Township

#### **GROUND WATER SAMPLE'S LOCATION (Quartely)**

- Mali Village
- Motiya Village
- Naya Bad Village
- Patwa Village

#### SURFACE WATER SAMPLE (Quarterly)

Ganga Water

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2 X 800 MW Godda Thermal Power Plant Located at village: Motia, District-Godda, Jharkhand

Environmental Monitoring Report (October'2023 to March'2024)

#### WASTE WATER SAMPLING LOCATION

- STP Outlet (Township)
- STP Outlet (Plant)
- STP Inlet (Township)-Quarterly
- STP Inlet (Plant)- Quarterly
- ETP Outlet
- ETP Inlet- Quarterly

2 X 800 MW Godda Thermal Power Plant Located at village: Motia, District-Godda, Jharkhand

Environmental Monitoring Report (October'2023 to March'2024)

#### **SECTION-6: METEOROLOGICAL DATA**

Weather monitoring would help in keeping track of different parameters like temperature, humidity, rainfall, wind direction, wind speed & barometric pressure. Real time meteorological data is used to support a number of programs including public aviation, agricultural activity, disaster management etc.

Weather monitoring station is installed at APJL, Godda and six months data has been compiled from the online platform of the weather monitoring station installed inside the power plant with the help of Environment Department and average data on monthly basis for ambient temperature, relative humidity, windspeed, barometric pressure, rainfall etc. are presented below.

#### Meteorological Data (Oct-2023 to Mar-2024)

Month	Wind Speed (m/s)		Temperature (°C)			Humidity (%)			Barometric Pressure (mmHg)	Rainfall (mm)	
	Max.	Avg.	Max	Min	Avg.	Max	Min	Avg	(Average)		
Oct'23	11.0	1.4	34.8	19.2	26.5	98.4	42.2	78.6	749.8	94.8	
Nov'23	7.6	1.3	31.9	15.8	23.5	95.8	31.8	72.3	752.9	0.4	
Dec'23	13.1	1.4	29.6	11.7	19.3	97.1	32.1	71.7	753.9	13.4	
Jan'24	8.2	1.3	24.8	6.4	14.8	97.7	36.4	80.2	754.6	1.4	
Feb'24	14.3	1.7	29.6	10.4	19.6	100.0	23.0	65.9	753.6	14.4	
Mar'24	15.20	1.85	38.16	14.85	24.55	94.96	21.28	57.85	750.86	31.40	

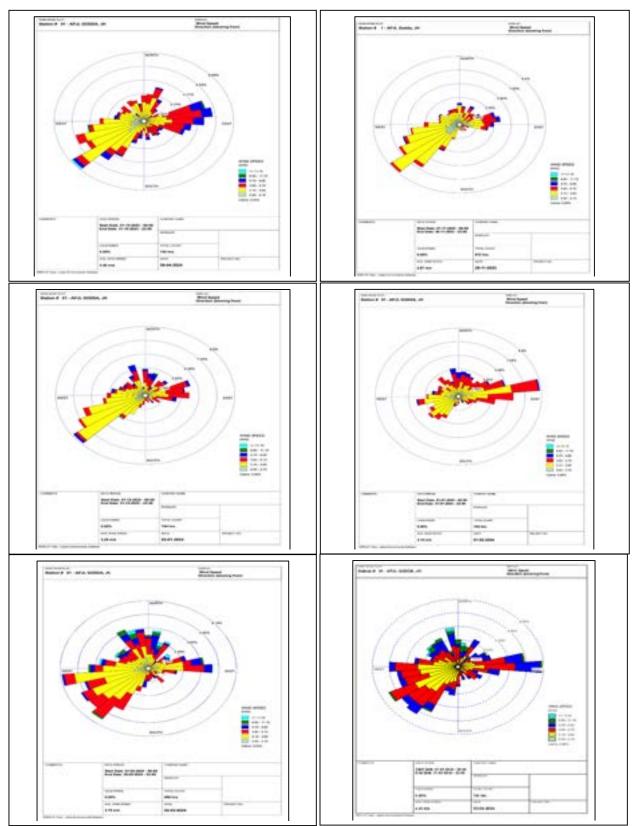


Fig 1: Wind Rose Diagram from Oct 2023 to Mar 2024

#### **SECTION 8: AMBIENT AIR MONITORING REPORT**

#### 7.1 Concept & Scope

Ambient Air Quality monitoring encompasses the results and statistical evaluation of the data monitored at O3 different locations.

Different parameters like  $PM_{10}$ ,  $PM_{2.5}$ , Oxides of Sulphur, Oxides of Nitrogen and Mercury are monitored for representing the ambient air quality within the study area.

#### 7.2 Frequency of Sampling

The frequency of the sampling for AAQM was as follows:

PARAMETERS	FREQUENCY OF EACH LOCATIONS
PM <sub>10</sub> , PM <sub>2.5</sub> , Sulphur dioxide, Nitrogen	Twice in a week
dioxides	
12 parameters as per NAAQS in	Quarterly
addition to Mercury	
Mercury	Once in a month

#### 7.3 SAMPLING DURATION AS PER NAAQS 2009

S. No.	Parameters	Sampling Duration (Hr.)				
1.	Particulate Matter	24				
	(PM <sub>10</sub> )					
2.	Particulate Matter	24				
	(PM <sub>2.5</sub> )					
3.	Sulphur dioxide (SO <sub>2</sub> )	24				
4.	Nitrogen dioxide (NO <sub>2</sub> )	24				
5.	Mercury	24				

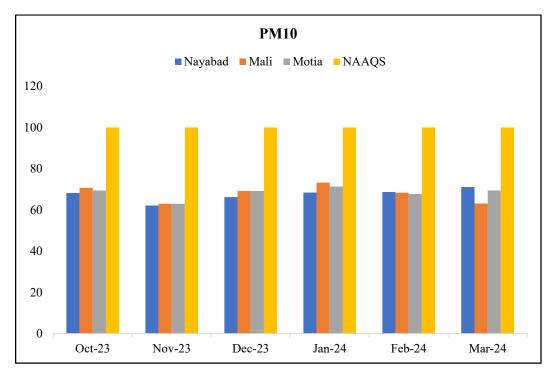
#### 7.4 Ambient Air Quality Monitoring METHODOLOGY

PARAMETERS	METHODOLOGY/PRINCIPLE
Particulate Matter (PM <sub>10</sub> )	Air is drawn through a size-selective inlet and through a 20.3 X 25.4 cm (8 X 10 in) filter at a flow rate, which is typically 1132 L/min. Particles with aerodynamic diameter less than the cut-point of the inlet are collected, by the filter. The mass of these particles is determined by the difference in filter weights prior to and after sampling. The Concentration of $PM_{10}$ in the designated

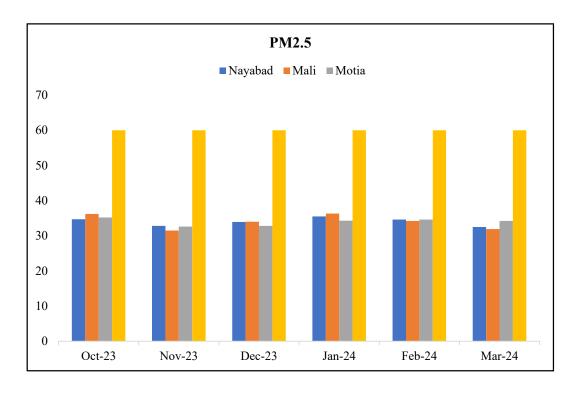
M/s Vibrant Techno Lab Pvt. Ltd. (Rajasthan)

	size range is calculated by dividing the weight gain of the filter							
	by the volume of air sampled.							
Particulate Matter	An electrically powered air sampler draws ambient air at a							
(PM <sub>2.5</sub> )	An electrically powered air sampler draws ambient air at a constant volumetric flow rate (16.7 lpm) maintained by a mass flow volumetric flow controller coupled to a microprocessor into specially designed inertial particle-size separator (i.e., cyclones or impactors) where the suspended particulate matter in the PM 2.5 size ranges is separated for collection on a 47 mm polytetrafluoroethylene (PTFE) filter over a specified sampling period. Each filter is weighed before and after sample collection to determine the net gain due to the particulate matter. The mass concentration in the ambient air is Computed as the total mass of collected particles in the PM <sub>2.5</sub> Size ranges divided by the actual volume of air sampled and is expressed in ug/m <sup>3</sup> . The microprocessor reads averages and stores five-							
	minute averages of ambient temperature, ambient pressure,							
	filter temperature and volumetric flow rate.							
Sulphur Dioxide (SO <sub>2</sub> )  Nitrogen Dioxide	Sulphur dioxide from air is absorbed in a solution of potassium tetrachloromercurate (TCM). The impingers setup for the absorbance of Sulphur Dioxide from air is shown in Figure 15. A dichlorosulphitomercurate complex, which resists oxidation by the Oxygen in the air, is formed. Once formed, this complex is stable to strong Oxidants such as ozone and oxides of nitrogen and therefore, the absorber solution may be stored for some time prior to analysis. The complex is made to react with pararosaniline and formaldehyde to form the intensely colored pararosaniline methyl sulphonic acid. The absorbance of the solution is measured by means of a suitable spectrophotometer.							
_	through a solution of sodium hydroxide and sodium Arsenite.							
(NO₂)	The concentration of nitrite ion (NO) produced during sampling is determined calorimetrically by reacting the nitrite ion with phosphoric acid, sulfanilamide, and N-(1-naphthyl)-ethylenediamine dihydrochloride (NEDA) and measuring the absorbance of the highly colored azo dye at 540 nm.							

#### 7.5 Graphical Representation

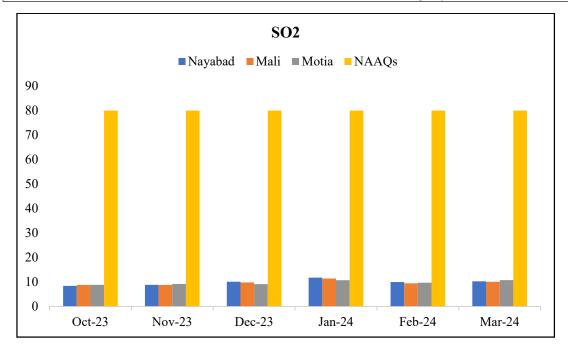


Graph 1: Particulate Matter (PM<sub>10</sub>)

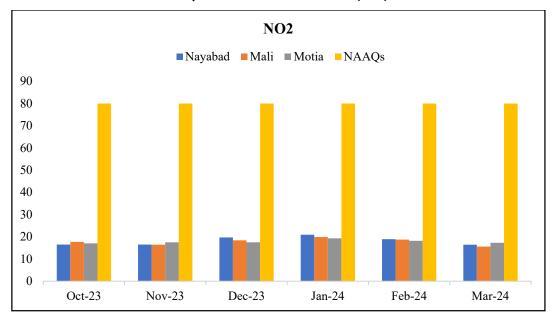


Graph 2: Particulate Matter (PM<sub>2.5</sub>)

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Graph 3: Particulate Matter (SO<sub>2</sub>)



Graph 4: Particulate Matter (NO<sub>2</sub>)

#### 7.6 Summary

From all the above graphical representation it is clearly interpreted that all the values of  $PM_{10}$ ,  $PM_{2.5}$ ,

SO<sub>2</sub> and NOx were lower than the prescribed limits for all the stated locations.

2 X 800 MW Godda Thermal Power Plant Located at village: Motia, District-Godda, Jharkhand

Environmental Monitoring Report (October'2023 to March'2024)

#### SECTION 8: GROUND WATER & SURFACE WATER ANALYSIS

Ground water Sample was collected for Four Location & One Surface water Sample Location.

#### Analysis results of ground water reveal the following:

- pH- 7.32 to 7.47
- TDS- 322 to 425 mg/l
- Fluoride (F) 0.26 to 0.62 mg/l
- Total Hardness as CaCO3 173 to 245 mg/l
- Chlorides- 25.3 to 38.8 mg/l
- Nitrates 19.5 to 34.5 mg/l
- Iron 0.19 to 0.28 mg/l

#### Analysis results of Surface Water reveal the following:

- pH 7.29 to 7.37
- Total Hardness 128 to 148 mg/L.
- Total Dissolved Solids 245 to 328 mg/L.
- Chlorides 35.1 to 39.4 mg/L
- Fluoride 0.30 to 0.33 mg /L
- Nitrate 5.58 to 6.68 mg L
- Iron 0.19 to 0.24 mg/L
  - Ground & surface water sample were found to be slightly Neutral to basic in nature at all location.
  - In study area, water quality has been observed to vary considerably between the sampling locations. Mostly the parameters fall within the permissible limits of drinking water standards (IS 10500:2012).

#### **SECTION 9: AMBIENT NOISE MONITORING**

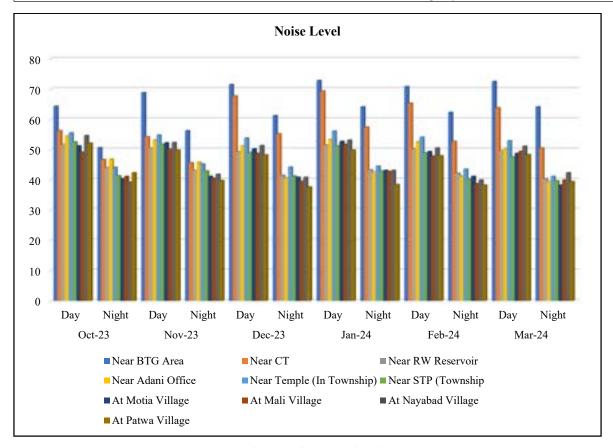
#### Summary Report from Oct-2023 to Mar-2024

S.NO	Location	Oct- 2023		Nov - 2023		Dec - 2023		Jan - 2024		Feb-2024		March-2024	
		Day (db)	Night (db)	Day (db)	Night (db)	Day (db)	Night (db)	Day (db)	Night (db)	Day (db)	Night (db)	Day (db)	Night (db)
1.	Near BTG Area	64.3	50.6	68.8	56. 2	71.5	61.2	72.8	64.1	70.8	62.3	72.5	64.1
2.	Near CT	56.2	46.7	54.2	45.6	67.7	55.2	69.4	57.4	65.3	52.7	63.8	50.5
3.	Near RW Reservoir	51.7	44.1	50.5	43.1	49.3	41.5	51.5	43.3	50.2	42.1	49.6	40.3
4.	Near Adani Office	54.5	46.8	53.1	45.8	51.2	40.6	53.3	42.5	52.6	41.2	50.3	39.4
5.	Near Temple (In Township)	55.5	44.1	54.8	45.2	53.8	44.2	56.1	44.5	54.1	43.5	52.9	41.1
6.	Near STP (Township	52.5	41.3	51.7	42.9	49.0	41.2	51.2	42.9	48.9	40.2	47.5	39.6
7.	At Motia Village	51.2	40.3	52.2	41.1	50.2	40.8	52.7	43.1	49.3	41.1	48.7	38.2
8.	At Mali Village	49.1	41.1	50.1	40.5	48.7	39.5	51.7	42.7	47.8	38.7	49.4	39.9
9.	At Nayabad Village	54.6	39.2	52.3	41.8	51.3	40.8	53.1	43.1	50.5	39.9	51.1	42.3
10.	At Patwa Village	52.1	42.3	49.8	39.7	48.2	37.6	49.8	38.4	47.9	38.2	48.3	39.4

#### Interpretation

- The (Leq) noise levels at all sites are found to be 47.5 to 72.8 Leq. (dB) A for day and 37.6 to 64.1 Leq. (dB) A night time respectively. The values are found to be fairly low w.r.t. Industrial.
- The noise levels at all location are well below the NAAQS standards w.r.t noise.

Environmental Monitoring Report (October'2023 to March'2024)



Graph 5: Ambient Noise Monitoring data

Category of Zones	The State of the Land	Leq in dB (A)					
	Day	Night					
Industrial	phonon 75 The linin	nadinante 70					
Commercial	65	55					
Residential	55	45					
Silence Zone	50	40					
crackers is banned in these zones.	0.00 PM to 6.00 AM. up to 100 m around premises of Hospitals, Educati	ional and Courts. Use of vehicle horn, Loudspeaker and bursting s by the competent Authority and the corresponding standards s					

Fig 3: Ambient Noise Standards

Environmental Monitoring Report (October'2023 to March'2024)

#### **SECTION 10: WASTEWATER ANALYSIS**

#### Summary Report from Oct-2023 to Mar-2024

S.NO.	Parameter	Oct. 2023				Nov. 2023			Dec. 2023		
		STP Outle (Townshi		STP Inlet (Township	STP Inlet (Plant)	STP Outle (Townshi		ETP Outle	STP Outlet (Township)	STP Outle (Plant)	ETP Outlet
1.	рН	7.36	7.25	7.58	7.12	7.39	7.29	7.42	7.36	7.32	7.48
2.	TDS	762.4	675.2	719.0	645.1	785.2	689.2	720.0	820.0	672.0	748.0
3.	TSS	28.0	17.6	55.5	53.7	29.8	18.0	15.1	30.0	19.0	16.0
4.	Oil &Grease	5.8	4.1	8.7	7.2	5.8	2.1	*BLQ (**LOQ 4.0)	6.3	3.2	*BLQ (**LOQ 4.0)
5.	BOD	25.3	17.2	55.2	43.7	24.5	18.6	6.7	25.0	19.0	7.2
6.	COD	95.2	62.7	262.1	248.0	98.1	73.4	42.2	110.0	82.0	45.0

			Jan. 2024					Feb. 2024			March 2024		
S.NO. Para	Parameter	ETP Outlet	ETP Inlet	STP Outl (Townshi	STP Outlet (Plant)	STP Inle (Townsh p)		ETP Outlet	STP Outlet (Townsh )	STP Outlet (Plant)	ETP Outlet	STP Outlet (Township)	STP Outlet (Plant)
1.	рН	7.49	7.29	7.41	7.39	7.62	7.26	7.52	7.39	7.35	7.49	7.37	7.33
2.	TDS	792.0	653.0	852.0	742.0	754.0	685.3	768.0	845.0	689.0	755.0	821.0	678.0
3.	TSS	19.0	55.8	34.0	24.0	58.8	68.9	16.8	32.0	20.0	15.6	30.0	22.0
4.	Oil & Grease	*BLQ (**LO Q 4.0)	*BLQ(** LOQ 4.0)	4.6	4.9	10.3	8.6	*BLQ (**LO Q 4.0)	6.8	3.7	*BLQ (**LO Q 4.0)	6.3	4.2
5.	BOD	9.3	17.5	23.0	21.0	65.8	72.4	7.9	26.0	21.0	8.2	24.0	19.0
6.	COD	51.0	87.8	92.0	89.0	292.1	284.0	49.0	125.0	85.0	55.0	120.0	80.0

### Interpretation

After treating wastewater all the parameters of Outlets are within limit.

Project Name: Adani Power (Jharkhand) Ltd.

2 X 800 MW Godda Thermal Power Plant Located at village: Motia, District-Godda, Jharkhand

Environmental Monitoring Report (October'2023 to March'2024)

#### **SECTION 11: STACK MONITORING ANALYSIS**

#### Summary Report from Oct-2023 to Mar-2024

S.NO.	Month		Unit -I mg/Nm3 PM NOx SO2 Hg					Unit -II mg/Nm3				
		PM	NOx	S02	PM	NOx	S02	Hg				
1.	Oct. 2023	17.22	44.26	52.89	BLQ	18.44	56.93	74.82	BLQ			
2.	Nov. 2023	18.20	46.12	55.68	BLQ	19.12	58.43	76.48	BLQ			
3.	Dec. 2023	19.14	52.00	63.00	BLQ	20.58	64.00	79.14	BLQ			
4.	Jan 2024	22.65	39.72	47.80	BLQ	19.10	48.25	33.50	BLQ			
5.	Feb. 2024	13.24	42.40	49.30	BLQ	12.54	68.92	57.12	BLQ			
6.	March 2024	12.87	67.80	47.21	BLQ	14.10	58.34	72.56	BLQ			

#### Half Yearly DG set Monitoring and analysis Report

S.NO.	Month			G Set Plant gm/kw-hr			DG Set Township gm/kw-hr				
		PM	NOX	S02	НС	СО	PM	NOX	S02	НС	СО
1.	March 2024	0.010	0.17	0.42	0.9	0.23	0.012	0.19	0.45	0.10	0.29

From all the above stack monitoring results, it is clearly interpreted that all the values of PM,  $SO_2$ ,  $NO_2$ , Hg, HC, CO were lower than the prescribed limits for all the stated locations.



Name & Address of

M/s Adani Power Jharkhand Ltd. 2 × 800 MW Thermal Power Plant, Format No.: Party Reference No.: 7.8 F 02

the Party

Village: Motia, Dist: Godda, Jharkhand IS-5182 & CPCB Guidelines

Period of Analysis:

Oct. 2023 To March 2024

**Analysis Protocol:** Parameter Required:

As per work order

Sample Description:

**Ambient Air Quality Monitoring** 

Month	PM2.5 μg/m3	PM10 µg/m3	NO2 μg/m3	SO2 μg/m3
	IS 5182 (P-24):2019	IS: 5182 (P-23), 2006	IS: 5182(P-6),2006	IS: 5182(P-2),2001
Near Nayabad Village (Close t		T		
02-03 / 10/2023	20.1	44.8	10.8	5.12
05-06 / 10/2023	22.4	46.2	12.3	6.53
09-10 / 10/2023	34.7	68.2	16.5	8.45
12-13 / 10/2023	32.9	65.4	14.3	7.08
16-17 / 10/2023	29.7	58.9	13.8	6.90
19-20/10/2023	30.0	60.5	15.0	7.11
23-24 10/2023	28.7	59.6	14.2	7.00
26-27 / 10/2023	32.1	64.2	14.0	6.58
30-31 / 10/2023	33.2	65.7	16.0	8.00
01-02/11/2023	26.4	52.8	14.7	7.18
. 03-04/11/2023	28.1	54.8	15.8	7.85
06-07/11/2023	25.2	50.4	13.6	6.11
09-10/11/2023	30.5	59.9	15.0	8.86
13-14/11/2023	26.6	53.2	13.9	6.43
16-17/11/2023	28.3	55.8	14.2	7.10
20-21/11/2023	26.7	51.1	12.1	6.24
23-24/11/2023	29.4	58.8	14.2	7.89
27-28/11/2023	31.2	60.3	15.7	7.99
29-30/11/2023	32.8	62.1	16.5	8.20
01-02/12/2023	27.4	53.8	15.1	7.58
04-05/12/2023	29.1	67.2	17.5	9.21
07-08/12/2023	26.3	51.9	14.8	7.64
11-12/12/2023	31.5	66.2	16.2	9.18
14-15/12/2023	27.3	55.3	15.5	7.78
18-19/12/2023	29.7	58.1	16.3	8.75
21-22/12/2023	27.1	52.9	17.4	9.10
25-26/12/2023	31.4	61.4	18.9	9.58
28-29/12/2023	33.9	64.5	19.7	10.12
01-02/01/2024	28.8	54.7	16.3	8.76
04-05/01/2024	31.2	68.4	18.8	10.29
08-09/01/2024	27.8	53.1	16.1	8.84
11-12/01/2024	32.8	68.1	18.1	11.18
15-16/01/2024	28.5	57.2	17.3	9.21
18-19/01/2024	30.9	59.8	18.1	10.55
22-23/01/2024	28.8	54.1	19.2	11.30
25-26/01/2024	32.9	63.1	20.2	10.78
29-30/01/2024	35.5	66.2	20.9	11.82
01-02/02/2024	26.2	52.8	14.9	7.86
	28.4	65.3	16.2	8.73
05-06/02/2024	28.4	02.3	10.2	8./3



08-09/02/2024

15.1

RK Yadav Lab Incharge (Authorized Signatory)

Approved & Certified EPA 1986 Recognized, ISO:9001 and On-45001 Certified

27.5

Vibrant Techno Lab Pvt. Ltd.

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9929108691, 9810205356, 8005707098, 9549956601

**2** 0141-2954638

≥ bd@vibranttechnolab.com

8.12



12-13/02/2024	33.8	68.7	18.9	10.00
15-16/02/2024	28.1	57.4	14.2	7.45
19-20/02/2024	31.4	60.1	17.8	9.24
22-23/02/2024	21.6	41.3	12.3	6.29
26-27/02/2024	32.0	63.5	16.8	8.68
28-29/02/2024	34.6	67.0	18.2	9.10
01-02/03/2024	25.4	50.2	12.8	8.1
04-05/03/2024	27.6	54.7	13.9	8.8
07-08/03/2024	26.3	52.0	13.3	8.3
11-12/03/2024	29.1	57.6	14.7	9.2
14-15/03/2024	28.6	56.5	14.4	9.1
18-19/03/2024	32.5	71.1	16.4	10.3
21-22/03/2024	31.5	62.3	15.9	10.0
28-29/03/2024	26.7	53.0	13.5	8.5
Min.	20.1	41.3	10.8	5.12
Max.	35.5	71.1	20.9	11.82
Avg.	29.28	58.44	15.71	8.45

Month	PM2.5 μg/m3	PM10 μg/m3	NO2 μg/m3	SO2 μg/m3
Month	IS 5182 (P-24):201	IS: 5182 (P-23), 2006	IS: 5182(P-6),2006	IS: 5182(P-2),2001
Near Near Mali Village (Close	to plant boundary)		- B	
02/03 10/2023	18.9	36.9	9.7	5.04
05-06/10/2023	21.3	43.5	10.8	5.85
09-10/10/2023	34.4	67.9	16.4	8.02
12-13/ 10/2023	33.6	65.2	15.2	7.07
16-17/10/2023	36.2	70.7	16.9	8.85
19-20/10/2023	35.1	68.4	15.4	7.09
23-24/10/2023	34.9	66.2	14.6	7.11
26-27/10/2023	35.2	68.6	17.7	8.74
30-31/10/2023	33.1	66.0	16.0	8.00
01-02/11/2023	27.8	53.3	14.1	7.18
03-04/11/2023	28.7	55.9	15.2	8.85
06-07/11/2023	26.3	52.6	14.1	7.11
09-10/11/2023	31.4	60.9	16.4	8.82
13-14/11/2023	25.7	52.7	12.8	6.12
16-17/11/2023	27.3	58.1	13.5	7.65
20-21/11/2023	31.4	62.0	16.2	8.10
23-24/11/2023	27.1	56.1	14.5	7.48
27-28/11/2023	30.2	61.8	15.0	7.75
29-30/11/2023	31.5	63.0	16.2	8.81
01-02/12/2023	28.3	55.1	14.5	7.85
04-05/12/2023	30.0	59.6	16.1	8.12
07-08/12/2023	27.5	53.4	13.9	6.98
11-12/12/2023	32.0	71.0	15.2	8.69
14-15/12/2023	28.1	56.3	13.8	7.10
18-19/12/2023	30.0	59.8	15.0	8.23
21-22/12/2023	26.7	602	13.5	7.15
25-26/12/2023	32.6	THO LAPSON	16.7	8.78



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28-29/12/2023	34.0	65.0	18.4	9.86
01-02/01/2024	29.9	57.1	16.2	9.25
04-05/01/2024	32.1	61.2	18.1	9.82
08-09/01/2024	28.8	55.1	15.2	10.98
11-12/01/2024	33.9	73.2	16.7	9.89
15-16/01/2024	29.4	57.9	15.2	8.90
18-19/01/2024	32.1	60.8	16.8	9.83
22-23/01/2024	28.2	70.5	14.7	8.95
25-26/01/2024	34.2	64.1	18.2	9.98
29-30/01/2024	36.3	67.2	19.9	11.46
01-02/02/2024	26.1	50.4	13.5	7.11
05-06/02/2024	28.6	56.9	15.3	8.68
08-09/02/2024	26.4	51.7	12.9	6.95
12-13/02/2024	34.2	68.3	18.7	9.48
15-16/02/2024	26.9	53.4	12.9	7.19
19-20/02/2024	31.6	60.0	16.3	8.11
22-23/02/2024	22.9	45.3	13.7	7.10
26-27/02/2024	29.4	59.2	14.1	7.20
28-29/02/2024	32.6	66.3	17.8	8.75
01-02/03/2024	24.7	48.9	12.5	7.8
04-05/03/2024	27.0	53.4	13.6	8.6
07-08/03/2024	25.6	50.7	12.9	8.1
11-12/03/2024	28.4	56.3	14.4	9.0
14-15/03/2024	27.9	55.2	14.1	8.9
18-19/03/2024	31.9	63.1	16.1	10.1
21-22/03/2024	30.8	61.0	15.6	9.8
28-29/03/2024	26.1	51.7	13.2	8.3
Min.	18.9	36.9	9.7	5.04
Max.	36.3	73.2	19.9	11.46
Avg.	29.73	59.27	15.12	8.27

PM2.5 μg/m3	PM10 μg/m3	NO2 μg/m3	SO2 μg/m3
IS 5182 (P-24):201	IS: 5182 (P-23), 2006	IS: 5182(P-6),2006	IS: 5182(P-2),200
int boundary)			
17.8	38.6	10.0	5.25
19.2	40.3	11.9	6.10
33.1	66.4	16.2	8.50
31.7	62.8	15.5	7.86
35.2	68.5	16.0	8.04
33.4	66.2 16.0		7.01
32.1	64.5 15.1		8.20
35.0	69.4	17.0	8.87
32.9	65.2	16.2	8.12
26.3	55.2	13.5	6.98
29.6	58.1	14.2	7.37
25.7	51.9	12.8	6.42
30.1	61.2	15.4	7.85
27.5	55.0	13.3	7.12
30.0	597.0 LAB	15.0	7.38
	IS 5182 (P-24):201 ant boundary)  17.8  19.2  33.1  31.7  35.2  33.4  32.1  35.0  32.9  26.3  29.6  25.7  30.1  27.5	IS 5182 (P-24):201 IS: 5182 (P-23), 2006 ant boundary)  17.8 38.6 19.2 40.3 33.1 66.4 31.7 62.8 35.2 68.5 33.4 66.2 32.1 64.5 35.0 69.4 32.9 65.2 26.3 55.2 29.6 58.1 25.7 51.9 30.1 61.2 27.5 55.0	IS 5182 (P-24):201   IS: 5182 (P-23), 2006   IS: 5182 (P-6),2006     IS 5182 (P-24):201   IS: 5182 (P-23), 2006     IS 5182 (P-6),2006     IS 5182 (P-6),2006



(Authorized Signatory)

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- 9929108691, 9810205356, 8005707098, 9549956601

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20-21/11/2023	32.6	63.0	17.1	8.95
23-24/11/2023	26.1	53.2	13.4	7.18
27-28/11/2023	30.5	59.4	16.2	8.73
29-30/11/2023	32.2	62.1	17.5	9.25
01-02/12/2023	26.3	51.9	14.2	7.18
04-05/12/2023	28.2	55.6	16.0	8.58
07-08/12/2023	25.5	50.2	13.8	6.87
11-12/12/2023	29.4	69.2	15.1	8.56
14-15/12/2023	26.7	53.6	14.5	7.59
18-19/12/2023	28.4	57.7	13.2	7.10
21-22/12/2023	26.1	51.2	12.8	6.48
25-26/12/2023	30.2	60.9	15.0	8.78
28-29/12/2023	32.8	62.7	17.5	9.16
01-02/01/2024	27.9	53.5	15.7	8.98
04-05/01/2024	29.9	57.3	17.3	9.88
08-09/01/2024	27.1	52.2	15.4	8.27
11-12/01/2024	30.8	71.3	16.9	9.86
15-16/01/2024	28.1	55.2	15.7	8.79
18-19/01/2024	29.8	59.1	14.9	9.10
22-23/01/2024	27.6	52.8	14.3	7.88
25-26/01/2024	32.4	61.9	16.8	10.28
29-30/01/2024	34.3	64.1	19.3	10.76
01-02/02/2024	28.7	55.6	15.1	8.12
05-06/02/2024	29.1	58.9	13.9	7.23
08-09/02/2024	26.5	52.3	14.5	7.89
12-13/02/2024	34.6	67.7	18.2	9.58
15-16/02/2024	27.8	54.1	13.5	7.62
19-20/02/2024	30.0	59.4	14.7	8.11
22-23/02/2024	21.3	44.1	12.0	6.41
26-27/02/2024	32.1	62.7	16.8	8.88
28-29/02/2024	33.9	65.3	18.0	9.75
01-02/03/2024	27.0	53.4	13.6	8.6
04-05/03/2024	29.2	57.9	14.8	9.3
07-08/03/2024	27.9	55.2	14.1	8.9
11-12/03/2024	30.7	60.8	15.5	9.8
14-15/03/2024	30.2	59.7	15.2	9.6
18-19/03/2024	34.2	69.4	17.3	10.8
21-22/03/2024	33.1	65.5	16.7	10.5
28-29/03/2024	28.4	56.2	14.3	9.0
Min.	17.8	38.6	10.0	5.25
Max.	35.2	71.3	19.3	10.8
Avg.	29.39	58.51	15.16	8.32





RK Yadav Lab Incharge (Authorized Signatory)

Approved & Certified EPA 1986 Recognized, ISO:9001 and OHSAS:45001 Certified

### Vibrant Techno Lab Pvt. Ltd.

- SC-40, 3rd Floor, Narayan Vihar S, Ajmer Road, Jaipur Raj. 302020
- 9929108691, 9810205356, 8005707098, 9549956601

**2** 0141-2954638

bd@vibranttechnolab.com



Name & Address of

the Party

M/s Adani Power Jharkhand Ltd.

2 × 800 MW Thermal Power Plant,

Village: Motia, Dist: Godda, Jharkhand IS-11255 & USEPA

**Analysis Protocol:** Parameter Required: Sample Description:

As per work order

**Stack Emission Monitoring** 

Format No.:

Party Reference No.:

Period of Analysis: Report Date

7.8 F 03 NIL

Oct.2023 To March 2024

05.04.2024

S.NO.	Month		Unit -I mg/Nm3					Unit -II mg/Nm3				
		PM	NO2	S02	Hg	PM	NO2	S02	Hg			
1.	Oct. 2023	17.22	44.26	52.89	BLQ	18.44	56.93	74.82	BLQ			
2.	Nov. 2023	18.20	46.12	55.68	BLQ	19.12	58.43	76.48	BLQ			
3.	Dec. 2023	19.14	52.00	63.00	BLQ	20.58	64.00	79.14	BLQ			
4.	Jan 2024	22.65	39.72	47.80	BLQ	19.10	48.25	33.50	BLQ			
5.	Feb. 2024	13.24	42.40	49.30	BLQ	12.54	68.92	57.12	BLQ			
6.	March 2024	12.87	67.80	47.21	BLQ	14.10	58.34	72.56	BLQ			

**Summary Reports** 

s.no.	Month		DG Set Plant gm/kw-hr						DG Set Township gm/kw-hr						
		PM	NOX	S02	НС	СО	PM	NOX	S02	нс	СО				
1.	Oct. 2023	100	_ 8		35.6	_ 8		-							
2.	Nov. 2023	- E	DELK.	PACE	THE E	i <u>u</u> imi	I <u>J</u> HUL	N <u>e</u>							
3.	Dec. 2023	-	-												
4.	Jan 2024	( <b></b>													
5.	Feb. 2024														
6.	March 2024	0.010	0.17	0.42	0.9	0.23	0.012	0.19	0.45	0.10	0.29				



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**3** 0141-2954638

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Name & Address of Party:

M/s Adani Power Jharkhand Ltd.

2 × 800 MW Thermal Power Plant,

Village: Motia, Dist: Godda, Jharkhand

Format No.:

7.8 F 01

Party Reference No.: Report Date:

Na

Period of Analysis:

05.04.2024 Oct.2023 To March 2024

Sample Description::

Sampling & Analysis Protocol:

**Ground Water** IS-10500-2012

**Test Results** 

S.			Mali	Motiya	Naya Bad	Patwa		IS: 10	500-2012
No.	Parameter	Test Method	Village Oct23	Village Oct23	Village Oct23	Village. Oct23	Unit	Acceptab le Limit	Permissible Limit
1.	pH (at 25 °C)	IS 3025 (P-11): 2022	7.36	7.32	7.38	7.33		6.5 to 8.5	No Relaxation
2.	Colour	IS 3025(P-4): 2021	*BLQ(**LOQ -5.0)	*BLQ(**LO Q-5.0)	*BLQ(**LOQ -5.0)	*BLQ(**LO Q-5.0)	Hazen	5	15
3.	Turbidity	IS 3025 (P-10): 1984,RA: 2017	*BDL(**LOQ -1.0)	*BDL(**LO Q-1.0)	*BDL(**LOQ -1.0)	*BDL(**LO Q-1.0)	NTU	1	.5
4.	Odour	IS 3025 (P-5)1983	Agreeable	Agreeabl e	Agreeable	Agreeabl e		Agreea ble	Agreeable
5.	Taste	IS 3025(P-8) 1984	Agreeable	Agreeabl e	Agreeable	Agreeabl e		Agreea ble	Agreeable
6.	Total Hardness as CaCO <sub>3</sub>	IS: 3025 (P-21): 2009,RA: 2019	211.0	187.0	220.0	173.0	mg/l	200	600
7.	Calcium as Ca	IS: 3025 (P-40): 1991, RA: 2019	57.0	48.0	62.4	51.0	mg/l	75	200
8.	Alkalinity as CaCO <sub>3</sub>	IS: 3025 (P-23): 1986,RA: 2019	171.0	152.0	182.0	159.0	mg/l	200	600
9.	Chloride as Cl	IS: 3025(Part 32):1988, RA:2019	29.8	25.3	32.1	28.7	mg/l	250	1000
10.	Cyanide as CN	IS: 3025 (P-27)1986	*BLQ(**LO Q-0.02)	*BLQ(**L OQ-0.02)	*BLQ(**LO Q-0.02)	*BLQ(**L OQ-0.02)	mg/l	0.05	No Relaxation
11.	Magnesium as Mg	IS: 3025 (P-46): 1994, RA: 2019	16.71	16.34	15.63	11.12	mg/l	30	100
12.	Total Dissolved Solids	IS 3025 (P-16): 1984RA: 2017	347.0	328.0	375.0	322.0	mg/l	500	2000
13.	Sulphate as SO <sub>4</sub>	IS: 3025 (P-24): 1986 Sec.1 RA: 2022	62.1	53.9	66.5	56.2	mg/l	200	400
14.	Fluoride as F	APHA (23rd Edition), 4500FD:2017	0.29	0.26	0.31	0.28	mg/l	1.0	1.5
15.	Nitrate as NO <sub>3</sub>	IS: 3025 (P-34): 1988,(Chromotropic Method) RA: 2022	23.7	19.5	25.9	20.4	mg/l	45	No Relaxation
16.	Iron as Fe	APHA (23 <sup>rd</sup> Edition),3113B: 2017	0.29	0.25 O LAB PA	0.28	0.24	mg/l	0.3	No Relaxation



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17.	Aluminium as Al	IS 3025 (P- 55):2003,RA: 2019	*BLQ(**LO Q-0.03)	*BLQ(**L OQ-0.03)	*BLQ(**LO Q-0.03)	*BLQ(**L OQ-0.03)	mg/l	0.03	0.2
18.	Boron	APHA (23 <sup>rd</sup> Edition) 4500B: 2017	*BLQ(**LO Q-0.2)	*BLQ(**L OQ-0.2)	*BLQ(**LO Q-0.2)	*BLQ(**L OQ-0.2)	mg/l	0.5	1.0
19.	Total Silica	IS: 3025 ( P-35 ):1888,RA: 2003	3.11	2.85	3.89	3.11	mg/l		
20.	Phenolic Compounds	APHA 23 <sup>rd</sup> Edition,2017, 5530 C	*BLQ(**LO Q-0.001)	*BLQ(**L OQ- 0.001)	*BLQ(**LO Q-0.001)	*BLQ(**L OQ- 0.001)	mg/l	0.001	0.002
21.	Anionic Detergents as MBAS	APHA 23 <sup>rd</sup> Edition,2017, 5530 C	*BLQ(**LO Q-0.02)	*BLQ(**L OQ-0.02)	*BLQ(**LO Q-0.02)	*BLQ(**L OQ-0.02)	mg/l	0.2	1.0
22.	Zinc as Zn	APHA (23rd Edition), 3030D,3113B: 2017	0.31	0.25	0.35	0.29	mg/l	5.0	15.0
23.	Copper as Cu	APHA (23 <sup>rd</sup> Edition),3113B: 2017	*BLQ(**LO Q-0.02)	*BLQ(**L OQ-0.02)	*BLQ(**LO Q-0.02)	*BLQ(**L OQ-0.02)	mg/l	0.05	1.5
24.	Manganese as Mn	APHA (23 <sup>rd</sup> Edition)3030D,3113 B: 2017	*BLQ(**LO Q-0.05)	*BLQ(**L OQ-0.05)	*BLQ(**LO Q-0.05)	*BLQ(**L OQ-0.05)	mg/l	0.1	0.3
25.	Cadmium as Cd	APHA (23 <sup>rd</sup> Edition)3030D,3113 B: 2017	*BLQ(**LO Q-0.002)	*BLQ(**L OQ- 0.002)	*BLQ(**LO Q-0.002)	*BLQ(**L OQ- 0.002)	mg/l	0.003	No Relaxation
26.	Lead as Pb	APHA (23 <sup>rd</sup> Edition)3030D,3113 B: 2017	*BLQ(**LO Q-0.005)	*BLQ(**L OQ- 0.005)	*BLQ(**LO Q-0.005)	*BLQ(**L OQ- 0.005)	mg/l	0.01	No Relaxation
27.	Selenium as Se	APHA (23rd Edition)3114C,2017	*BLQ(**LO Q-0.005)	*BLQ(**L OQ- 0.005)	*BLQ(**LO Q-0.005)	*BLQ(**L OQ- 0.005)	mg/l	0.01	No Relaxation
28.	Arsenic as As	APHA (23 <sup>rd</sup> Edition),3114C,2017	*BLQ(**LO Q-0.005)	*BLQ(**L OQ- 0.005)	*BLQ(**LO Q-0.005)	*BLQ(**L OQ- 0.005)	mg/l	0.01	0.05
29.	Mercury as Hg	APHA (23 <sup>rd</sup> Edition)3114C,2017	*BLQ(**LO Q-0.001)	*BLQ(**L OQ- 0.001)	*BLQ(**LO Q-0.001)	*BLQ(**L OQ- 0.001)	mg/l	0.001	No Relaxation
30.	Hexa Valent Chromium	APHA (23 <sup>rd</sup> Edition)3500 Cr B:2017	*BLQ(**LO Q-0.01)	*BLQ(**L OQ-0.01)	*BLQ(**LO Q-0.01)	*BLQ(**L OQ-0.01)	mg/l		
31.	Residual Free Chloren	IS:3025(P-26): 2021	*BLQ(**LO Q-0.2)	*BLQ(**L OQ-0.2)	*BLQ(**LO Q-0.2)	*BLQ(**L OQ-0.2)	mg/l		
32.	Temperatur e	IS :3025(P- 9):1984,RA:2017	25.4	25.3	25.3	25.4	°C		
33.	Total Coliform	IS:15185: 2016	Absent	Absent	Absent	Absent	Per 100 ml		be detectable 00 ml sample
34.	E.Coli	IS:15185: 2016	Absent	Absent	Absent	Absent	Per 100 ml	Shall not detectab ml samp	le in any 100

Note: - \*BLQ-Below Limit Quantification, \*LOQ- Limit of Quantification



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### Vibrant Techno Lab Pvt. Ltd.

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**2** 0141-2954638

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Name & Address of Party:

M/s Adani Power Jharkhand Ltd.

2 × 800 MW Thermal Power Plant,

Village: Motia, Dist: Godda, Jharkhand

Format No.:

7.8 F 01

Party Reference No.: Report Date: Na 05.04.2024

Period of Analysis:

Oct.2023 To March 2024

Sample Description:: Sampling & Analysis Protocol: Ground Water IS-10500-2012

#### **Test Results**

S.			Mali	Motiya	Naya Bad	Patwa		IS: 10	500-2012
No.	Parameter	Test Method	Village Jan -24	Village Jan -24	Village Jan -24	Village. Jan -24	Unit	Acceptab le Limit	Permissible Limit
1.	pH (at 25 °C)	IS 3025 (P-11): 2022	7.41	7.39	7.39	7.47		6.5 to 8.5	No Relaxation
2.	Colour	IS 3025(P-4): 2021	*BLQ(**LOQ -5.0)	*BLQ(**LO Q-5.0)	*BLQ(**LOQ -5.0)	*BLQ(**LO Q-5.0)	Hazen	5	15
3.	Turbidity	IS 3025 (P-10): 1984,RA: 2017	*BDL(**LOQ -1.0)	*BDL(**LO Q-1.0)	*BDL(**LOQ -1.0)	*BDL(**LO Q-1.0)	NTU	1	5
4.	Odour	IS 3025 (P-5)1983	Agreeable	Agreeabl e	Agreeable	Agreeabl e	1	Agreea ble	Agreeable
5.	Taste	IS 3025(P-8) 1984	Agreeable	Agreeabl e	Agreeable	Agreeabl e		Agreea ble	Agreeable
6.	Total Hardness as CaCO <sub>3</sub>	IS: 3025 (P-21): 2009,RA: 2019	242.0	201.0	245.0	203.0	mg/l	200	600
7.	Calcium as Ca	IS: 3025 (P-40): 1991, RA: 2019	68.0	59.0	73.5	68.0	mg/l	75	200
8.	Alkalinity as CaCO <sub>3</sub>	IS: 3025 (P-23): 1986,RA: 2019	196.0	188.0	198.0	174.0	mg/l	200	600
9.	Chloride as Cl	IS: 3025(Part 32):1988, RA:2019	34.7	29.8	38.8	36.8	mg/l	250	1000
10.	Cyanide as CN	IS: 3025 (P-27)1986	*BLQ(**L0 Q-0.02)	*BLQ(**L OQ-0.02)	*BLQ(**LO Q-0.02)	*BLQ(**L OQ-0.02)	mg/l	0.05	No Relaxation
11.	Magnesium as Mg	IS: 3025 (P-46): 1994, RA: 2019	17.57	13.05	15.27	8.10	mg/l	30	100
12.	Total Dissolved Solids	IS 3025 (P-16): 1984RA: 2017	382.0	392.0	425.0	351.0	mg/l	500	2000
13.	Sulphate as SO <sub>4</sub>	IS: 3025 (P-24): 1986 Sec.1 RA: 2022	48.1	39.6	46.20	33.4	mg/l	200	400
14.	Fluoride as	APHA (23rd Edition), 4500FD:2017	0.62	0.49	0.46	0.38	mg/l	1.0	1.5
15.	Nitrate as NO <sub>3</sub>	IS: 3025 (P-34): 1988,(Chromotropic Method) RA: 2022	34.5	26.7	31.5	24.2	mg/l	45	No Relaxation
16.	Iron as Fe	APHA (23 <sup>rd</sup> Edition),3113B: 2017	0.19	0.21	0.25	0.23	mg/l	0.3	No Relaxation

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17.	Aluminium as Al	IS 3025 (P- 55):2003,RA: 2019	*BLQ(**LO Q-0.03)	*BLQ(**L 0Q-0.03)	*BLQ(**LO Q-0.03)	*BLQ(**L OQ-0.03)	mg/l	0.03	0.2
18.	Boron	APHA (23 <sup>rd</sup> Edition) 4500B: 2017	*BLQ(**LO Q-0.2)	*BLQ(**L 0Q-0.2)	*BLQ(**LO Q-0.2)	*BLQ(**L OQ-0.2)	mg/l	0.5	1.0
19.	Total Silica	IS: 3025 ( P-35 ):1888,RA: 2003	4.36	4.16	4.20	3.92	mg/l		
20.	Phenolic Compounds	APHA 23 <sup>rd</sup> Edition,2017, 5530 C	*BLQ(**LO Q-0.001)	*BLQ(**L OQ- 0.001)	*BLQ(**LO Q-0.001)	*BLQ(**L OQ- 0.001)	mg/l	0.001	0.002
21.	Anionic Detergents as MBAS	APHA 23rd Edition,2017, 5530 C	*BLQ(**LO Q-0.02)	*BLQ(**L OQ-0.02)	*BLQ(**LO Q-0.02)	*BLQ(**L OQ-0.02)	mg/l	0.2	1.0
22.	Zinc as Zn	APHA (23rd Edition), 3030D,3113B: 2017	0.39	0.35	0.41	0.33	mg/l	5.0	15.0
23.	Copper as Cu	APHA (23 <sup>rd</sup> Edition),3113B: 2017	*BLQ(**LO Q-0.02)	*BLQ(**L OQ-0.02)	*BLQ(**LO Q-0.02)	*BLQ(**L OQ-0.02)	mg/l	0.05	1.5
24.	Manganese as Mn	APHA (23 <sup>rd</sup> Edition)3030D,3113 B: 2017	*BLQ(**LO Q-0.05)	*BLQ(**L OQ-0.05)	*BLQ(**LO Q-0.05)	*BLQ(**L OQ-0.05)	mg/l	0.1	0.3
25.	Cadmium as Cd	APHA (23 <sup>rd</sup> Edition)3030D,3113 B: 2017	*BLQ(**LO Q-0.002)	*BLQ(**L OQ- 0.002)	*BLQ(**LO Q-0.002)	*BLQ(**L OQ- 0.002)	mg/l	0.003	No Relaxation
26.	Lead as Pb	APHA (23 <sup>rd</sup> Edition)3030D,3113 B: 2017	*BLQ(**LO Q-0.005)	*BLQ(**L OQ- 0.005)	*BLQ(**LO Q-0.005)	*BLQ(**L OQ- 0.005)	mg/l	0.01	No Relaxation
27.	Selenium as Se	APHA (23 <sup>rd</sup> Edition)3114C,2017	*BLQ(**LO Q-0.005)	*BLQ(**L OQ- 0.005)	*BLQ(**LO Q-0.005)	*BLQ(**L OQ- 0.005)	mg/l	0.01	No Relaxation
28.	Arsenic as As	APHA (23 <sup>rd</sup> Edition),3114C,2017	*BLQ(**LO Q-0.005)	*BLQ(**L OQ- 0.005)	*BLQ(**LO Q-0.005)	*BLQ(**L OQ- 0.005)	mg/l	0.01	0.05
29.	Mercury as Hg	APHA (23 <sup>rd</sup> Edition)3114C,2017	*BLQ(**LO Q-0.001)	*BLQ(**L OQ- 0.001)	*BLQ(**LO Q-0.001)	*BLQ(**L OQ- 0.001)	mg/l	0.001	No Relaxation
30.	Hexa Valent Chromium	APHA (23 <sup>rd</sup> Edition)3500 Cr B:2017	*BLQ(**LO Q-0.01)	*BLQ(**L OQ-0.01)	*BLQ(**LO Q-0.01)	*BLQ(**L OQ-0.01)	mg/l		
31.	Residual Free Chloren	IS:3025(P-26): 2021	*BLQ(**LO Q-0.2)	*BLQ(**L OQ-0.2)	*BLQ(**LO Q-0.2)	*BLQ(**L OQ-0.2)	mg/l		,
32.	Temperatur e	IS :3025(P- 9):1984,RA:2017	24.8	25.9	25.8	26.1	°C		
33.	Total Coliform	IS:15185: 2016	Absent	Absent	Absent	Absent	Per 100 ml		be detectable 00 ml sample
34.	E.Coli	IS:15185: 2016	Absent	Absent	Absent	Absent	Per 100 ml	Shall not detectab ml samp	le in any 100

Note: - \*BLQ-Below Limit Quantification, \*LOQ- Limit of Quantification

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Name & Address of Party:

M/s Adani Power Jharkhand Ltd.

2 × 800 MW Thermal Power Plant, Village: Motia, Dist: Godda, Jharkhand Format No.:

7.8 F 01

Party Reference No.:

Na 05.04.2024

Report Date: Period of Analysis:

Oct.2023 To March 2024

Sample Description::

**Sruface Water** 

IS-3025 Sampling & Analysis Protocol:

S. No.	Parameter	Test Method	Ganga River Oct. 2023	Ganga River Jan. 2024	Unit
1.	pH (at 25 °C)	IS 3025 (P-11): 2022	7.29	7.37	°C
2.	Colour	IS 3025(P-4): 2021	*BLQ(**LOQ-5.0)	*BLQ(**LOQ-5.0)	Hazen
3.	Turbidity	IS 3025 (P-10): 1984,RA: 2017	2.1	2.6	NTU
4.	Odour	IS 3025 (P-5)1983	Agreeable	Agreeable	
5.	Taste	IS 3025(P-8) 1984	Agreeable	Agreeable	
6.	Total Hardness as CaCO <sub>3</sub>	IS: 3025 (P-21): 2009,RA: 2019	128.0	148.0	mg/l
7.	Calcium as Ca	IS: 3025 (P-40): 1991, RA: 2019	38.0	46.0	mg/l
8.	Alkalinity as CaCO3	IS: 3025 (P-23): 1986,RA: 2019	142.0	157.0	mg/l
9.	Chloride as Cl	IS: 3025(Part 32):1988, RA:2019	35.1	39.4	mg/l
10.	Cyanide as CN	IS: 3025 (P-27)1986	*BLQ(**LOQ-0.02)	*BLQ(**LOQ-0.02)	mg/l
11.	100 C	IS: 3025 (P-46): 1994, RA: 2019	8.06	8.07	mg/l
12.	100 - D1001 - D1002	IS 3025 (P-16): 1984RA: 2017	245.0	328.0	mg/l
13.		IS: 3025 (P-24): 1986 Sec.1 RA: 2022	29.4	32.3	mg/l
14.	Fluoride as F	APHA (23rd Edition), 4500FD:2017	0.30	0.33	mg/l
15.	Nitrate as NO <sub>3</sub>	IS: 3025 (P-34): 1988,(Chromotropic Method) RA: 2022	5.58	6.68	mg/l
16.	Iron as Fe	APHA (23rd Edition),3113B: 2017	0.19	0.24	mg/l
17.		IS 3025 (P-55):2003,RA: 2019	*BLQ(**LOQ-0.03)	*BLQ(**LOQ-0.03)	mg/l
18.	Boron	APHA (23rd Edition) 4500B: 2017	*BLQ(**LOQ-0.2)	*BLQ(**LOQ-0.2)	mg/l
19.		IS: 3025 (P-35):1888,RA: 2003	4.95	6.12	mg/
20.		APHA 23rd Edition,2017, 5530 C	*BLQ(**LOQ-0.001)	*BLQ(**LOQ-0.001)	mg/l
21		APHA 23rd Edition,2017, 5530 C	*BLQ(**LOQ-0.02)	*BLQ(**LOQ-0.02)	mg/l
22		APHA (23 <sup>rd</sup> Edition), 3030D,3113B: 2017	0.21	0.29	mg/
23	. Copper as Cu	APHA (23rd Edition),3113B: 2017	*BLQ(**LOQ-0.02)	*BLQ(**LOQ-0.02)	mg/
24		APHA (23 <sup>rd</sup> Edition)3030D,3113B: 2017	*BLQ(**LOQ-0.05)	*BLQ(**LOQ-0.05)	mg/
25	. Cadmium as Cd	APHA (23rd Edition)3030D,3113B: 2017	*BLQ(**LOQ-0.002)	*BLQ(**LOQ-0.002)	mg/
26	. Lead as Pb	APHA (23 AB Edition) 3030 D 3113B: 2017	*BLQ(**LOQ-0.005)	*BLQ(**LOQ-0.005)	mg/

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RK Yadav Lab Incharge (Authorized Signatory)

Vibrant Techno Lab Pvt. Ltd.

SC-40, 3rd Floor, Narayan Vihar S, Ajmer Road, Jaipur Raj. 302020

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**2** 0141-2954638

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27.	Selenium as Se	APHA (23rd Edition)3114C,2017	*BLQ(**LOQ-0.005)	*BLQ(**LOQ-0.005)	mg/l
28.	Arsenic as As	APHA (23rd Edition),3114C,2017	*BLQ(**LOQ-0.005)	*BLQ(**LOQ-0.005)	mg/l
29.	Mercury as Hg	APHA (23rd Edition)3114C,2017	*BLQ(**LOQ-0.001)	*BLQ(**LOQ-0.001)	mg/l
30.	Hexa Valent Chromium	APHA (23rd Edition)3500 Cr B:2017	*BLQ(**LOQ-0.01)	*BLQ(**LOQ-0.01)	mg/l
31.	Residual Free Chloren	IS:3025(P-26):2021	*BLQ(**LOQ-0.2)	*BLQ(**LOQ-0.2)	mg/l
32.	Temperature	IS:3025(P-9):1984,RA:2017	25.2	25.7	°C
33.	Total Coliform	IS:15185: 2016	Present	Present	Per 100
34.	E.Coli	IS:15185: 2016	Present	Present	ml

Note: - \*BLQ-Below Limit Quantification, \*LOQ- Limit of Quantification





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9 SC-40, 3rd Floor, Narayan Vihar S, Ajmer Road, Jaipur Raj. 302020

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**2** 0141-2954638

M bd@vibranttechnolab.com



Name & Address of

**Analysis Protocol:** 

the Party

M/s Adani Power Jharkhand Ltd.

2 × 800 MW Thermal Power Plant,

Village: Motia, Dist: Godda, Jharkhand

Parameter Required: Sample Description:

As per work order

**Waste Water** 

IS-3025

Format No.:

Party Reference No.:

7.8 F 01 NIL

Period of Analysis: **Report Date** 

Oct.2023 To March 2024

05.04.2024

#### **Summary Reports**

S.N	Parame			0	ct. 2023			Nov. 2023			Dec. 2023			
	r	STP Outle (Townshi	STP Outle (Plant)	STP Inlet (Townshi	STP Inlet (Plant)	ETP Outle	ETP Inlet	STP Outlet (Township	STP Outlet (Plant)	ETP Outlet	STP Outlet (Township)	STP Outlet (Plant)	ETP Outlet	
1.	РН	7.36	7.25	7.58	7.12	7.40	7.18	7.39	7.29	7.42	7.36	7.32	7.48	
2.	TDS mg/l	762.4	675.2	719.0	645.1	692.0	592.0	785.2	689.2	720.0	820.0	672.0	748.0	
3.	TSS mg/l	28.0	17.6	55.5	53.7	14.5	53.7	29.8	18.0	15.1	30.0	19.0	16.0	
4.	O&G mg/l	5.8	4.1	8.7	7.2	*BLQ (**LO Q 4.0)	*BLQ (**L0 Q 4.0)	5.8	2.1	*BLQ (**LOQ 4.0)	6.3	3.2	*BLQ (**LOQ 4.0)	
5.	BOD mg/l	25.3	17.2	55.2	43.7	6.2	11.9	24.5	18.6	6.7	25.0	19.0	7.2	
6.	COD mg/l	95.2	62.7	262.1	248.0	39.4	75.3	98.1	73.4	42.2	110.0	82.0	45.0	

	Parameter			Jan.	2024				Feb. 20	24	March 2024			
		ETP Outle	ETP Inlet	STP Outlet (Township	STP Outle (Plant)	STP Inlet (Townshi	STP Inlet (Plant)	ETP Outle	STP Outle (Townshi	STP Outlet (Plant)	ETP Outle	STP Outlet (Township)	STP Outle (Plant)	
1.	РН	7.49	7.29	7.41	7.39	7.62	7.26	7.52	7.39	7.35	7.49	7.37	7.33	
2.	TDS mg/l	792.0	653.0	852.0	742.0	754.0	685.3	768.0	845.0	689.0	755.0	821.0	678.0	
3.	TSS mg/l	19.0	55.8	34.0	24.0	58.8	68.9	16.8	32.0	20.0	15.6	30.0	22.0	
4.	0&G mg/l	*BLQ (**LO Q 4.0)	*BLQ(* *LOQ 4.0)	4.6	4.9	10.3	8.6	*BLQ (**LO Q 4.0)	6.8	3.7	*BLQ (**LO Q 4.0)	6.3	4.2	
5.	BOD mg/l	9.3	17.5	23.0	21.0	65.8	72.4	7.9	26.0	21.0	8.2	24.0	19.0	
6.	cod mg/l	51.0	87.8	92.0	89.0	292.1	284.0	49.0	125.0	85.0	55.0	120.0	80.0	





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Vibrant Techno Lab Pvt. Ltd.

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9929108691, 9810205356, 8005707098, 9549956601

**2** 0141-2954638

bd@vibranttechnolab.com



Name & Address of

**Analysis Protocol:** 

the Party

M/s Adani Power Jharkhand Ltd. 2 × 800 MW Thermal Power Plant,

Village: Motia, Dist: Godda, Jharkhand

IS-9989 & CPCB Guidelines

Parameter Required: As per work order **Ambient Noise Level Monitoring** 

Sample Description:

Format No.: Party Reference No.:

Period of Analysis:

**Report Date** 

7.8 F 04 NIL

Oct. 2023 To March 2024

05.04.2024

Summary	Reports

S.NO.	Location	100000000000000000000000000000000000000	ct- 2023 eq (dB)	Nov - 2023 Leq (dB)			c - 2023 eq (dB)		n - 2024 Leq (dB)	No. of the last of	eb-2024 eq (dB)	March-2024 Leq (dB)	
		Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
1.	Near BTG Area	64.3	50.6	68.8	56.2	71.5	61.2	72.8	64.1	70.8	62.3	72.5	64.1
2.	Near CT	56.2	46.7	54.2	45.6	67.7	55.2	69.4	57.4	65.3	52.7	63.8	50.5
3.	Near RW Reservoir	51.7	44.1	50.5	43.1	49.3	41.5	51.5	43.3	50.2	42.1	49.6	40.3
4.	Near Adani Office	54.5	46.8	53.1	45.8	51.2	40.6	53.3	42.5	52.6	41.2	50.3	39.4
5.	Near Temple (In Township)	55.5	44.1	54.8	45.2	53.8	44.2	56.1	44.5	54.1	43.5	52.9	41.1
6.	Near STP (Township	52.5	41.3	51.7	42.9	49.0	41.2	51.2	42.9	48.9	40.2	47.5	39.6
7.	At Motia Village	51.2	40.3	52.2	41.1	50.2	40.8	52.7	43.1	49.3	41.1	48.7	38.2
8.	At Mali Village	49.1	41.1	50.1	40.5	48.7	39.5	51.7	42.7	47.8	38.7	49.4	39.9
9.	At Nayabad Village	54.6	39.2	52.3	41.8	51.3	40.8	53.1	43.1	50.5	39.9	51.1	42.3
10.	At Patwa Village	52.1	42.3	49.8	39.7	48.2	37.6	49.8	38.4	47.9	38.2	48.3	39.4





RK Yadav Lab Incharge (Authorized Signatory)

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Vibrant Techno Lab Pvt. Ltd.

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**2** 0141-2954638

bd@vibranttechnolab.com



Sample Number:

Name & Address of

Sample Description:

Sample Collected by:

Method of Sampling:

the Project:

VTL/S0/01-03

SOIL

VTL Team

IS 2720 & USDA

M/s Adani Power Jharkhand Ltd.

2 × 800 MW Thermal Power Plant, Village:

Motia, Dist: Godda, Jharkhand

Report No.:

VTL/S0/2312140001-03

Format No.: 7.8 F-01

Party Reference No.: Report Date:

NIL 20/12/2023

Receipt Date:

14/12/2023

Periodof Analysis:

11-14/12/2023

Sampling Date:

11/12/2023

Type of Sampling: Sampling Quantity: Composite 2.0 Kg

Depth of Sampling:

30 cm

**Packing Status:** 

Temp Sealed

Soil Quality Analysis Results

Sr	Parameter	Village- Motia	Village- Mali	Village- Patwa	Unit
1.	рН	7.81	7.69	7.89	
2.	Conductivity	0.302	0.278	0.369	mS/cm
3.	Chloride as Cl	219.10	192.12	342.85	mg/kg
4.	Calcium as Ca	392.02	361.21	421.02	mg/kg
5.	Sodium as Na	43.41	39.62	48.92	mg/kg
6.	Potassium as K	159.01	124.1	182.61	kg/hec
7.	Organic Matter	0.73	0.64	0.79	%
8.	Magnesium as Mg	149.0	96.84	168.51	mg/kg
9.	Available Nitrogen as N	259.53	204.18	293.25	kg/hec.
10.	Available Phosphorus	26.01	21.85	30.14	kg/hec.

Lab Incharge

Rajkumar Yadav (Authorized Signatory)

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S.No.	Date	SPM mg/Nm3 (Avg)	Sox mg/Nm3 (Avg)	Nox mg/Nm3 (Avg)
1	1-Oct-23	16.33	53.92	56.12
2	2-0ct-23	13.34	50.93	45.13
3	3-Oct-23	12.45	45.02	35.22
4	4-Oct-23	22.10	54.62	53.82
5	5-Oct-23	12.27	33.04	59.24
6	6-Oct-23	11.49	27.26	46.46
7	7-Oct-23	11.70	53.47	58.67
8	8-Oct-23			
9	9-Oct-23			
10	10-Oct-23			
11	11-Oct-23			
12	12-Oct-23			
13	13-Oct-23			
14	14-Oct-23			
15	15-Oct-23	Uı	nit under Shutdov	۷N
16	16-Oct-23			
17	17-Oct-23			
18	18-Oct-23			
19	19-Oct-23			
20	20-Oct-23			
21	21-Oct-23			
22	22-Oct-23			
23	23-Oct-23	19.20	37.70	74.19
24	24-Oct-23	16.77	42.24	72.91
25	25-Oct-23	18.64	43.60	80.96
26	26-Oct-23	19.30	48.23	76.92
27	27-Oct-23	21.41	45.13	77.51
28	28-Oct-23	21.21	33.27	60.44
29	29-Oct-23	21.11	36.55	62.39
30	30-Oct-23	23.13	24.79	54.81
31	31-Oct-23	27.01	37	59.21



S.No.	Date	SPM	Sox	Nox
		mg/Nm3 (Avg)	mg/Nm3 (Avg)	mg/Nm3 (Avg)
1	1-Oct-23	12.81	56.79	41.99
2	2-Oct-23	10.48	45.81	54.96
3	3-0ct-23	8.22	33.75	52.06
4	4-Oct-23	12.51	32.68	49.01
5	5-Oct-23	14.36	37.72	51.00
6	6-Oct-23	14.80	41.69	54.96
7	7-Oct-23	14.64	41.84	51.00
8	8-Oct-23	17.20	37.72	52.06
9	9-Oct-23	16.70	45.81	45.04
10	10-Oct-23	14.44	69.92	91.28
11	11-Oct-23	12.97	53.74	54.96
12	12-Oct-23	12.03	28.72	66.10
13	13-Oct-23	9.42	22.61	52.06
14	14-Oct-23	8.59	21.70	66.43
15	15-Oct-23	18.92	16.66	72.11
16	16-Oct-23	26.22	29.20	60.29
17	17-Oct-23	21.09	32.22	66.98
18	18-Oct-23	19.08	40.18	73.51
19	19-Oct-23	12.89	19.96	33.76
20	20-Oct-23	20.68	27.51	57.51
21	21-Oct-23	16.18	35.86	48.16
22	22-Oct-23	17.43	34.90	48.10
23	23-Oct-23	16.23	49.06	68.86
24	24-Oct-23	12.29	60.05	72.15
25	25-Oct-23	18.58	62.49	74.59
26	26-Oct-23	14.43	58.44	70.54
27	27-Oct-23	16.25	54.39	66.49
28	28-Oct-23	16.67	56.11	68.21
29	29-Oct-23	24.91	33.30	47.30
30	30-Oct-23	17.83	41.10	46.30
31	31-Oct-23	19.93	38.2	66.1



S.No.	Date	SPM	Sox	Nox
3.110.	Date	mg/Nm3 (Avg)	mg/Nm3 (Avg)	mg/Nm3 (Avg)
1	1-Nov-23	17.70	40.72	74.25
2	2-Nov-23	15.83	42.64	76.86
3	3-Nov-23	22.60	43.09	77.05
4	4-Nov-23	18.83	31.70	77.47
5	5-Nov-23	15.60	32.43	77.49
6	6-Nov-23	10.90	31.42	72.33
7	7-Nov-23	19.60	45.50	78.14
8	8-Nov-23	16.60	94.30	82.00
9	9-Nov-23	12.92	57.42	71.02
10	10-Nov-23	12.94	6.34	75.96
11	11-Nov-23	13.93	84.23	76.25
12	12-Nov-23	19.04	36.42	71.64
13	13-Nov-23	19.27	38.74	52.19
14	14-Nov-23	10.64	38.07	80.52
15	15-Nov-23	16.24	32.08	76.16
16	16-Nov-23	11.04	38.98	81.32
17	17-Nov-23	24.04	43.08	84.64
18	18-Nov-23	19.16	32.74	83.00
19	19-Nov-23	9.38	62.87	78.81
20	20-Nov-23	9.04	28.34	72.94
21	21-Nov-23	11.23	23.30	64.59
22	22-Nov-23	23.82	50.32	77.42
23	23-Nov-23	16.48	36.19	49.40
24	24-Nov-23	17.26	32.51	26.86
25	25-Nov-23	19.48	74.64	34.95
26	26-Nov-23	12.48	21.45	43.16
27	27-Nov-23	11.38	32.41	45.93
28	28-Nov-23	21.24	49.41	74.80
29	29-Nov-23	17.48	38.98	64.60
30	30-Nov-23	18.04	54.07	80.65



S.No.	Date	SPM mg/Nm3 (Avg)	Sox mg/Nm3 (Avg)	Nox mg/Nm3 (Avg)
1	1-Nov-23	19.83	31.30	63.00
2	2-Nov-23	22.15	33.31	63.19
3	3-Nov-23	18.99	31.22	64.00
4	4-Nov-23	20.94	28.87	61.29
5	5-Nov-23	16.29	20.00	59.04
6	6-Nov-23	14.40	24.06	58.16
7	7-Nov-23	21.20	41.53	67.06
8	8-Nov-23	21.20	34.08	61.01
9	9-Nov-23	11.52	21.97	52.22
10	10-Nov-23	15.22	29.64	61.30
11	11-Nov-23	9.23	66.51	59.33
12	12-Nov-23	14.74	62.29	63.50
13	13-Nov-23	18.07	67.07	52.71
14	14-Nov-23	17.84	32.84	45.12
15	15-Nov-23	14.04	27.82	39.36
16	16-Nov-23	16.84	32.76	55.13
17	17-Nov-23	20.94	31.18	52.28
18	18-Nov-23	20.06	21.66	46.28
19	19-Nov-23	17.28	26.74	50.59
20	20-Nov-23	11.20	44.32	68.36
21	21-Nov-23	12.33	66.65	50.41
22	22-Nov-23	12.98	33.07	39.94
23	23-Nov-23	17.48	29.28	45.78
24	24-Nov-23	19.26	68.94	64.72
25	25-Nov-23	16.31	63.83	71.93
26	26-Nov-23	13.20	53.38	61.37
27	27-Nov-23	25.55	21.28	52.22
28	28-Nov-23	19.23	38.92	78.62
29	29-Nov-23	7.97	23.30	70.39
30	30-Nov-23	21.02	35.28	47.20



		SPM	Sox	Nox
S.No.	Date	mg/Nm3 (Avg)	mg/Nm3 (Avg)	mg/Nm3 (Avg)
1	1-Dec-23	7.28	62.69	14.97
2	2-Dec-23	10.15	16.33	27.88
3	3-Dec-23	21.38	56.10	63.00
4	4-Dec-23	21.15	44.20	63.00
5	5-Dec-23	22.56	53.00	61.60
6	6-Dec-23	22.53	59.80	63.00
7	7-Dec-23	23.50	32.20	62.93
8	8-Dec-23	22.99	49.20	61.18
9	9-Dec-23	22.96	43.54	59.00
10	10-Dec-23	24.15	34.25	59.89
11	11-Dec-23	23.57	50.23	61.09
12	12-Dec-23	24.61	15.12	61.73
13	13-Dec-23	27.94	15.83	61.50
14	14-Dec-23	26.43	19.94	58.08
15	15-Dec-23			
16	16-Dec-23			
17	17-Dec-23			
18	18-Dec-23			
19	19-Dec-23			
20	20-Dec-23			
21	21-Dec-23			
22	22-Dec-23			
23	23-Dec-23		Unit Under Shutdown	
24	24-Dec-23			
25	25-Dec-23			
26	26-Dec-23			
27	27-Dec-23			
28	28-Dec-23			
29	29-Dec-23			
30	30-Dec-23			
31	31-Dec-23			



S.No.	Date	SPM mg/Nm3 (Avg)	Sox mg/Nm3 (Avg)	Nox mg/Nm3 (Avg)	
1	1-Dec-23	11.34	6.92	47.31	
2	2-Dec-23				
3	3-Dec-23				
4	4-Dec-23				
5	5-Dec-23				
6	6-Dec-23				
7	7-Dec-23	1	Unit under Shutdown		
8	8-Dec-23	•	Jilit dilder Sildtdowi	1	
9	9-Dec-23				
10	10-Dec-23				
11	11-Dec-23				
12	12-Dec-23				
13	13-Dec-23				
14	14-Dec-23	20.44	14.13	60.22	
15	15-Dec-23	14.24	13.14	55.87	
16	16-Dec-23	13.02	8.25	56.87	
17	17-Dec-23	12.74	11.52	56.61	
18	18-Dec-23	12.27	6.71	58.89	
19	19-Dec-23	13.10	9.72	56.11	
20	20-Dec-23	13.92	15.33	60.04	
21	21-Dec-23	14.08	12.07	47.76	
22	22-Dec-23	13.28	50.35	33.84	
23	23-Dec-23	14.68	65.71	42.30	
24	24-Dec-23	14.08	75.37	33.77	
25	25-Dec-23	16.62	77.30	36.09	
26	26-Dec-23	14.47	76.51	30.82	
27	27-Dec-23	15.17	75.27	27.64	
28	28-Dec-23	13.93	75.98	31.76	
29	29-Dec-23	12.89	76.34	23.61	
30	30-Dec-23	14.01	76.67	31.08	
31	31-Dec-23	12.92	11.10	30.77	



S.No.	Date	SPM	Sox	Nox	
5.110.	Date	mg/Nm3 (Avg)	mg/Nm3 (Avg)	mg/Nm3 (Avg)	
1	1-Jan-24				
2	2-Jan-24				
3	3-Jan-24				
4	4-Jan-24				
5	5-Jan-24				
6	6-Jan-24				
7	7-Jan-24		Unit under Shutdowr		
8	8-Jan-24	•	Offic drider Stidedown	1	
9	9-Jan-24				
10	10-Jan-24				
11	11-Jan-24				
12	12-Jan-24				
13	13-Jan-24				
14	14-Jan-24				
15	15-Jan-24	-	17.13	61.96	
16	16-Jan-24	14.89	30.35	47.26	
17	17-Jan-24	14.90	55.06	44.01	
18	18-Jan-24	14.05	54.33	40.78	
19	19-Jan-24	13.97	53.22	38.53	
20	20-Jan-24	14.41	67.70	34.67	
21	21-Jan-24	13.88	54.57	43.12	
22	22-Jan-24	13.29	40.35	42.87	
23	23-Jan-24	12.93	46.32	40.99	
24	24-Jan-24	13.45	46.64	38.72	
25	25-Jan-24	13.12	43.70	33.89	
26	26-Jan-24	12.82	46.65	36.38	
27	27-Jan-24	12.53	45.35	42.57	
28	28-Jan-24	12.04	44.72	36.19	
29	29-Jan-24	11.65	47.90	38.95	
30	30-Jan-24	12.30	46.42	36.05	
31	31-Jan-24	13.28	50.78	34.59	



CNo	Dobo	SPM	Sox	Nox
S.No.	Date	mg/Nm3 (Avg)	mg/Nm3 (Avg)	mg/Nm3 (Avg)
1	1-Jan-24	13.75	11.80	30.60
2	2-Jan-24	13.86	11.46	33.06
3	3-Jan-24	13.82	11.87	32.55
4	4-Jan-24	14.04	11.49	28.85
5	5-Jan-24	13.47	13.80	29.65
6	6-Jan-24	13.46	36.54	29.68
7	7-Jan-24	13.25	63.90	45.20
8	8-Jan-24	13.01	57.77	31.59
9	9-Jan-24	13.25	69.06	29.02
10	10-Jan-24	13.68	72.51	32.94
11	11-Jan-24	13.88	63.60	27.42
12	12-Jan-24	14.16	71.83	33.75
13	13-Jan-24	15.59	65.87	32.35
14	14-Jan-24	13.83	65.33	32.86
15	15-Jan-24	14.46	63.12	29.85
16	16-Jan-24	13.53	62.41	33.30
17	17-Jan-24	13.33	63.42	36.07
18	18-Jan-24	12.44	22.95	30.30
19	19-Jan-24	12.15	44.42	32.78
20	20-Jan-24	14.60	76.25	42.38
21	21-Jan-24	13.41	71.62	37.62
22	22-Jan-24	12.98	57.90	35.61
23	23-Jan-24	14.13	58.59	34.67
24	24-Jan-24	12.38	35.02	34.82
25	25-Jan-24	12.79	46.44	36.02
26	26-Jan-24	13.07	58.84	35.76
27	27-Jan-24	13.49	59.91	37.52
28	28-Jan-24	13.98	55.87	34.00
29	29-Jan-24	14.24	59.93	38.16
30	30-Jan-24	15.13	61.40	38.33
31	31-Jan-24	14.37	58.19	41.46



S.No.	Date	SPM mg/Nm3 (Avg)	Sox mg/Nm3 (Avg)	Nox mg/Nm3 (Avg)
1	1-Feb-24	11.66	49.83	34.45
2	2-Feb-24	11.94	49.53	33.26
3	3-Feb-24	11.81	44.95	35.63
4	4-Feb-24	12.35	33.74	41.13
5	5-Feb-24	12.58	10.40	36.88
6	6-Feb-24	12.75	9.15	33,59
7	7-Feb-24	12.33	7.57	33,39
8	8-Feb-24	13.10	8.45	36.41
9	9-Feb-24	13.07	9.19	36.45
10	10-Feb-24	11.97	12.45	60.51
11	11-Feb-24	12.30	12.26	49.23
12	12-Feb-24	12.38	12.88	43.44
13	13-Feb-24	12.29	19.34	46.37
14	14-Feb-24	12.83	69.61	75.93
15	15-Feb-24	12,53	67.75	77.03
16	16-Feb-24	11.64	77.46	74.15
17	17-Feb-24	12.22	74.03	74.67
18	18-Feb-24	12.09	75.96	74.32
19	19-Feb-24	12.30	74.83	73.27
20	20-Feb-24	12.05	73.05	81.77
21	21-Feb-24	11.97	74.95	81.35
22	22-Feb-24	12.14	61.56	82.27
23	23-Feb-24	12.19	46.77	78.16
24	24-Feb-24	12.21	61.30	76.31
25	25-Feb-24	12.26	53.01	70.27
26	26-Feb-24	11.31	50.24	65.02
27	27-Feb-24	11.15	62.22	79.00
28	28-Feb-24	11.78	64.71	72.09
29	29-Feb-24	12.20	60.74	72.49



S.No.	Date	SPM	Sox	Nox
3.140.	Date	mg/Nm3 (Avg)	mg/Nm3 (Avg)	mg/Nm3 (Avg)
1	1-Feb-24			
2	2-Feb-24			
3	3-Feb-24			
4	4-Feb-24	l	Unit under Shutdowi	n
5	5-Feb-24			
6	6-Feb-24			
7	7-Feb-24			
8	8-Feb-24	7.53	29.06	24.10
9	9-Feb-24	13.57	62.77	34.42
10	10-Feb-24	11.70	58.81	43.97
11	11-Feb-24	12.08	57.80	38.09
12	12-Feb-24	12.06	69.86	33.53
13	13-Feb-24	12.29	67.93	40.32
14	14-Feb-24	12.95	69.66	76.53
15	15-Feb-24	12.16	73.38	72.84
16	16-Feb-24	12.43	71.77	72.80
17	17-Feb-24	12.59	70.76	76.67
18	18-Feb-24	12.04	70.19	81.60
19	19-Feb-24	12.32	70.69	80.16
20	20-Feb-24	12.61	67.05	80.62
21	21-Feb-24	16.86	69.92	82.33
22	22-Feb-24	19.78	68.59	77.38
23	23-Feb-24	12.06	61.20	73.15
24	24-Feb-24	11.36	61.04	76.78
25	25-Feb-24	11.55	64.91	74.91
26	26-Feb-24	10.40	53.64	68.83
27	27-Feb-24	10.26	33.77	75.20
28	28-Feb-24	10.62	48.99	72.06
29	29-Feb-24	10.47	57.63	74.60



S.No.	Date	SPM mg/Nm3 (Avg)	Sox mg/Nm3 (Avg)	Nox mg/Nm3 (Avg)
1	1-Mar-24	12.00	61.54	77.33
2	2-Mar-24	12.18	60.92	76.22
3	3-Mar-24	12.12	63.30	78.32
4	4-Mar-24	12.22	62.28	71.99
5	5-Mar-24	11.69	69.81	75.54
6	6-Mar-24	11.64	68.85	75.39
7	7-Mar-24	11.83	65.97	75.39
8	8-Mar-24	11.86	58.33	72.31
9	9-Mar-24	12.25	52.56	73.15
10	10-Mar-24	12.27	50.93	71.25
11	11-Mar-24	12.26	52.61	69.39
12	12-Mar-24	11.75	68.80	71.36
13	13-Mar-24	11.82	64.11	68.00
14	14-Mar-24	11.66	61.85	70.33
15	15-Mar-24	11.67	57.11	78.62
16	16-Mar-24	11.80	43.56	78.24
17	17-Mar-24	11.74	70.04	73.82
18	18-Mar-24	11.61	69.60	74.75
19	19-Mar-24	11.55	68.56	76.70
20	20-Mar-24	11.40	49.07	77.30
21	21-Mar-24	11.40	53.58	81.11
22	22-Mar-24	11.28	57.02	79.79
23	23-Mar-24	10.75	62.07	78.22
24	24-Mar-24	11.30	60.48	78.07
25	25-Mar-24	11.32	61.87	77.61
26	26-Mar-24	11.22	67.00	77.97
27	27-Mar-24	10.78	65.55	78.57
28	28-Mar-24	11.05	61.81	79.00
29	29-Mar-24	10.70	68.34	78.41
30	30-Mar-24	10.82	69.06	77.65
31	31-Mar-24	10.41	68.90	76.11



S.No.	Date	SPM	Sox	Nox
3.110.	<b>2000</b>	mg/Nm3 (Avg)	mg/Nm3 (Avg)	mg/Nm3 (Avg)
1	1-Mar-24	10.47	49.74	65.68
2	2-Mar-24	10.78	48.66	71.89
3	3-Mar-24	10.63	45.39	73.65
4	4-Mar-24	10.48	44.24	71.60
5	5-Mar-24	10.85	66.25	66.70
6	6-Mar-24	10.67	62.96	74.26
7	7-Mar-24	10.56	44.48	77.26
8	8-Mar-24	10.83	51.55	72.57
9	9-Mar-24	10.55	33.59	72.61
10	10-Mar-24	10.73	38.76	67.31
11	11-Mar-24	10.68	5.34	68.66
12	12-Mar-24	11.16	43.56	58.36
13	13-Mar-24	11.65	68.57	67.27
14	14-Mar-24	12.38	66.32	63.14
15	15-Mar-24	12.07	67.23	47.59
16	16-Mar-24	12.18	69.40	47.61
17	17-Mar-24	11.96	73.29	44.42
18	18-Mar-24	11.91	72.87	61.73
19	19-Mar-24	12.24	73.49	44.14
20	20-Mar-24	12.20	72.39	51.56
21	21-Mar-24	12.04	71.55	69.02
22	22-Mar-24	11.88	69.55	73.84
23	23-Mar-24	11.75	72.68	78.71
24	24-Mar-24	12.13	69.17	79.38
25	25-Mar-24	11.93	70.71	74.08
26	26-Mar-24	13.34	71.78	74.71
27	27-Mar-24	12.94	71.16	76.81
28	28-Mar-24	12.77	69.27	74.68
29	29-Mar-24	13.14	70.01	67.93
30	30-Mar-24	13.22	71.06	72.06
31	31-Mar-24	12.56	71.16	62.86

## Annexure - III

# Adani Power (Jharkhand) Limited, Godda

Summary of Continuous Ambient Air Quality Monitoring System Reports (October'2023 to March'2024)

		CAAQMS	1: Near R	esidentia		CAAQMS	2: Near C	Cooling To	wer	CAAQMS	3:Near R	aw Water	Reservoir
Parameters		PM10	PM2.5	S02	NO2	PM10	PM2.5	S02	S02	PM10	PM2.5	S02	NO2
UNIT		ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³	ug/m³
MONTH	CPCB LIMIT	100	60	80	80	100	60	80	80	100	60	80	80
	Minimum	18.6	11.6	6.5	10.1	19.0	10.4	7.8	8.8	17.8	11.6	5.8	9.8
Oct'23	Maximum	77.8	34.1	16.9	22.1	79.4	35.9	17.1	19.6	74.0	33.8	15.6	19.6
	Average	60.5	26.7	11.6	14.6	58.3	25.6	12.4	13.4	54.5	24.0	9.8	14.1
	Minimum	50.5	24.7	16.9	1.1	44.8	21.7	17.5	35.0	46.9	22.9	17.6	18.4
Nov'23	Maximum	77.6	43.8	19.4	3.9	67.7	33.5	20.1	58.1	64.9	38.4	20.2	19.0
	Average	63.9	33.8	18.2	1.3	59.6	29.6	18.9	44.1	55.9	27.5	19.0	18.6
	Minimum	13.2	5.2	2.5	1.1	29.3	9.8	3.7	21.1	23.7	6.8	3.9	0.9
Dec'23	Maximum	68.0	33.0	20.2	31.1	55.7	25.2	21.0	57.0	55.6	27.0	21.2	18.9
	Average	46.6	20.7	11.2	13.3	42.0	19.1	12.6	39.0	41.6	20.2	12.9	15.0
	Minimum	16.3	5.9	1.5	14.2	14.6	8.4	2.3	23.7	11.7	5.0	4.6	16.7
Jan'24	Maximum	81.5	25.8	9.7	52.1	45.0	24.2	36.6	65.8	43.2	69.2	29.6	19.2
	Average	49.5	13.7	4.3	26.2	32.3	14.7	16.9	46.8	20.3	19.8	11.8	17.5
Feb'24	Minimum	17.9	4.2	2.6	12.4	11.3	4.5	4.6	37.7	11.3	0.0	4.6	17.4
	Maximum	53.0	29.0	17.0	87.4	97.4	78.9	18.8	77.1	72.5	53.8	14.8	24.9
	Average	32.2	9.2	9.6	53.4	42.1	17.8	11.8	58.5	18.0	20.2	8.5	18.5
Mar'24	Minimum	17.0	4.9	1.7	6.9	19.6	8.5	11.0	28.5	11.5	21.7	2.6	17.6
	Maximum	99.3	90.8	27.0	83.5	98.2	65.3	19.1	85.7	57.1	55.3	9.1	19.4
	Average	47.3	19.2	10.6	20.3	61.7	30.3	15.9	54.9	31.3	33.3	3.5	18.5



### **Green Belt Development Details**

Annexure - IV

### **Greenbelt Details:**

Green belt Area developed (Acre)	82.77	
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#### PLANTED SPECIES IN AND AROUND PLANT PREMISES

	PLANTED SPECIES IN AND AROUNI	
Sr. No.	Scientific Name	Common Name
	Tress	
1	Alstonia scholaris	Saptparni
2	Albizia lebbeck	Siris
3	Annona reticulata	Custard Apple
4	Acasia	Babool
5	Artocarpus heterophyllus	Jack fruit
6	Azadirachta indica	Neem
7	Bambusa vulgaris	Bamboo
8	Bambusa ventricosa	Bamboo
9	Bauhinia variegata	kachnar
10	Bismarckia Nobils	Bismarck palm
11	Butea monosperma	Palash
12	Callistemon viminalis	Bottle brush
13	Cascabela thevetia	Kaner
14	Cassia fistula	Amaltas
15	Casuarina equisetifolia	Saru
16	Cestrum nocturnum	Jasmine
17	Coco nucifera	Coconut
18	Conocarpus erectus	Conocarpus
19	Cordia dichotoma	Indian Cherry
20	Dalbergia sissoo	Shisham
21	Dypsis lutescens	Areca palms
22	Eucalyptus	Nilgiri Taila
23	Ficus benghalensis	Banyan tree
24	Ficus Benjamina	Weeping fig
25	Ficus religiosa	Peepal tree
26	Filicium decipiens	Fern Tree
27	Caryota	Fishtail palm
28	Gmelina arborea	Gamhar tree
29	Hyophorbe lagenicaulis	Bottle palm
30	Roystonea regia	Royal palm
31	Jatropha curcas	Jatropha
32	Lagerstroemia speciosa	Pride of India
33	Magnolia champaca	Swarn Champa
34	Mangifera indica	Mango tree
35	Manilkara zapota	Sapota
36	Mimusops elengi	Spanish cherry



Annexure - IV

## **Green Belt Development Details**

37	Musa paradisiaca	Banana
38	Neolamarckia cadamba	Kadam
39	Nyctanthes arbor-tristis	Harshringar
40	Peltophorum pterocarpum	Yellow gulmohar
41	Phoenix dactylifera	Date palm
42	Plumeria alba	Indian Jasmine
43	Pongamia pinnata	Karanj
44	Prunus avium	Sweet Cherry
45	Psidium guajava	Guava
46	Putranjiva roxburghii	Putranjiva
47	Rubus fruticosus	Common Black Berry
48	Spathodea campanulata	African tulip tree
49	Swietenia mahagoni	Mahogany
50	Syzygium cumini	Jamun
51	Tamarindus indica	lmli
52	Terminalia arjuna	Arjuna
53	Terminalia catappa	Indian Almond
54	Thespesia populnea	Indian Tulip tree
55	Thuja orientalis	Morpankhi
56	Washingtonia robusta	Fan Palm
57	Wodyetia bifurcata	Foxtail Palm
	Shrubs	
58	Allamanda	Yellow Bell
59	Bougainvillea spectabilis	Bougainvillea/ Booganbel
60	Clerodendrum inerme	Wild Jasmine
61	Cycas circinalis	Cycas
62	Euphorbia milii	Christ Thorn
63	Hymenocallis caroliniana	Spider Lily
64	Ixora hybrida	Ixora
65	Jasminum molle	Jui
66	Jatropha curcas	Ratanjyot,
67	Nerium indicum	Kaner
68	Nerium odoratum	Kaner
69	Plumeria alba	Champa
70	Tecoma	Yellow Trumpetbush



## **Green Belt Development Details**









Green Belt Development Details









## **Green Belt Development Details**









# Green Belt Development Details









# ADANI POWER (JHARKHAND) LIMITED

2X800 MW GODDA THERMAL POWER PLANT

**ANNEXURE-V** 

Ash Generation, Utilization and Disposal Details

## October'2023 to March'2024

	Ash Generation			Ash Utilization					
Month	Total Ash Generation (MT)	Fly Ash (MT)	Bottom Ash (MT)	Cement Plant (MT)	Road Project (MT)	Brick Plant (MT)	Other (RMC) (MT)	Total Ash Utilization	Ash Utilization %
October'23	98715	78972	19743	49556	18796	1209	0	69561	70.47
November'23	109240	87392	21848	71028	20016	921	38	92003	84.22
December'23	63854	51083	12771	55049	22908	1742	793	80491	126.06
January'24	117502	94001	23500	70719	42375	2454	2837	118385	100.75
February'24	131462	105169	26292	74466	61471	3668	1945	141550	107.67
March'24	158342	126674	31668	88616	51354	3072	6038	149080	94.15
Total	679114	543291	135823	409434	216919	13066	11651	651070	95.87



#### Power

Ref: APJL/ENV/FLYASH/514/24

Date: 13.01.2024

# To, Additional Principal Chief Conservator of Forest Ministry of Environment, Forest & Climate Change

Integrated Regional Office East Central Region Bungalow No- A-2, Shyamali Colony, Doranda Ranchi- 834 002. Jharkhand

**Sub:** Advisory regarding implementation of Notification No. G.S.R. 02 (E) dated 2<sup>nd</sup> January 2014 and subsequent amendment in 21.05.2020 for supply and use of Coal with ash content-regarding.

Ref: File No. L-11011/21/2014-IA, I (T), dated: 13.04.2015.

Dear Sir,

With reference to above subject matter, we are submitting herewith the compliance of said Notification for **Quarterly Average Ash Content** in the Coal for the period of **October'2023 to December'2023**.

Quarter 3	Coal Consumption (in Metric Tonne)	% Ash content in Coal
October'2023 to December'2023	966469	27.9 %

#### Total Capacity of TPP: 1600 (2x800) MW

This is for your kind information and record please.

Thanking You,

Yours faithfully,

for Adani Power (Jharkhand) Limited

(R N Shukla)

Head- Environment & Forest

Encl.: As above



Power

Ref: APJL/ENV/FLYASH/582/24

Date: 15.04.2024

# To, Additional Principal Chief Conservator of Forest Ministry of Environment, Forest & Climate Change

Integrated Regional Office East Central Region Bungalow No- A-2, Shyamali Colony, Doranda Ranchi- 834 002, Jharkhand

**Sub**: Advisory regarding implementation of Notification No. G.S.R. 02 (E) dated 2<sup>nd</sup> January 2014 and subsequent amendment in 21.05.2020 for supply and use of coal with ash content-regarding.

Ref: File No. L-11011/21/2014-IA, I (T), dated: 13.04.2015.

Dear Sir,

With reference to above subject matter, we are submitting herewith the compliance of said notification for **Quarterly Average Ash Content** in the Coal for the period of **January'2024 to March'2024**.

Quarter - 4	Coal Consumption (MT)	Ash Content in Coal (%)
January'2024 to March'2024	1229483	33.0

#### Total Capacity of TPP: 1600 (2x800) MW

This is for your kind information and record please.

Thanking You,

Yours faithfully,

for Adani Power (Jharkhand) Limited

(R N Shukla)

Authorized Signatory

# **TEST REPORT**



Name & Address of the

**Sampling Description:** 

Party:

VTL/BA/01

**BOTTOM ASH** 

M/s Adani Power Jharkhand Ltd.

2 × 800 MW Thermal Power Plant, Village:

Motia, Dist: Godda, Jharkhand

Report No.:

VTL/BA/2403260001/B

Format No.:

7.8 F-01

Party Reference No.:

Report Date:

29/03/2024

NIL

Receipt Date:

26-29/03/2024

Sampling Date:

22/03/2024

#### **TEST RESULTS**

S. No.	Parameter	Result
1.	Arsenic as As (mg/kg)	BDL
2.	Lead as Pb (mg/kg)	1.80
3.	Mercury as Hg (mg/kg)	BDI.
4.	Chromium as Cr (mg/kg)	0.81





**RK Yadav** 

Lab Incharge Authorized Signator

Approved & Certified EPA 1986 Recognised, ISO:9001 and OHSAS:45001 Certified

#### **TEST REPORT**



Name & Address of the

Sampling Description:

Party:

VTL/FA/01

M/s Adani Power Jharkhand Ltd.

2 × 800 MW Thermal Power Plant, Village: Motia, Party Reference No.:

Dist: Godda, Jharkhand

**FLY ASH** 

Report No.:

VTL/FA/2403260001/B

Format No.:

NIL

Report Date:

29/03/2024

7.8 F-01

Receipt Date:

26-29/03/2024

Sampling Date:

22/03/2024

#### TEST RESULTS

S. No.	Parameter	Result
1.	Arsenic as As (mg/kg)	BDL
2.	Lead as Pb (mg/kg)	0.92
3.	Mercury as Hg (mg/kg)	BDL
4.	Chromium as Cr (mg/kg)	0.75





**RK Yadav** 

Lab Incharge **Authorized Signatory** 

Approved & Certified EPA 1986 Recognised, ISO:9001 and OHSAS:45001 Certified

# **ANNUAL REPORT 2023-24**

# (APRIL 2023- MARCH 2024)

#### INTRODUCTION

The Adani Foundation, the CSR arm of Adani Group of Companies, executes Corporate Social Responsibility projects for Thermal Power Plant, Motia in four main core areas—Education, Community Health, Sustainable Livelihood Development and Community Infrastructure Development. With a people centric approach, the Foundation responds towards the emerging needs at the grass roots level aligning its activities with the 'Sustainable Development Goals (SDGs)' with a vision to end poverty, protect and preserve planet and bring solidarity and peace among all individuals and society. Adani Foundation aims to walk with the communities, empower people to look ahead by making the right choices and securing a bright and beautiful future, together. The population of Godda district is 13.13 lakhs, out of which population of our intervention villages is 90000 approximately. We have been able to benefit 3 lakh people directly and 7.65 lakh people indirectly across the stretch of 91 Kms ranged from Godda district to Sahebganj district passing through more than hundreds of projects affected villages by organizing various community development activities in Education, Community Health, Sustainable Livelihood and Rural Infrastructure Development verticals.

Gyanodaya, a digital learning program swiftly met the needs of spreading the light of education which has transformed lives of over 90,000 students of 338 Govt. Schools of Godda district to continue building their career in a new normal. The Godda district stood at 13<sup>th</sup> rank in 2023 as compared to 21<sup>st</sup> rank (2018) in Class 10<sup>th</sup> attaining 94.98% passing percentage in 2023 as compared to 2018 (50%). Adani Foundation has also added another feather in CSR cap with a significant improvement in the passing percentage of girls' students from lower 46.65 % (2018) to 99.14% (2023) in standard 10<sup>th</sup> studying in 9 KGBVs in Godda district. Defeating all the odds and hurdles, the Foundation had identified 51 Dropout children of TPP Core area and linked them with Aadhar card and their enrollment in school for completion of Primary education.

In health vertical, on 12<sup>th</sup> July 2023 at Ranchi district, Adani Power (Jharkhand) Limited, Godda was felicitated by Ministry of Health and Ministry of Labour and Employment for contributing towards Eradication of TB in Godda district in association with District administration. Similarly, on dated 12<sup>th</sup> September 2023, the Adani CSR was graced with "Jharkhand Samajik Utkrishtta Award 2023" for

contributing to upliftment and development of the society in Godda district of Jharkhand.

Under Sustainable Livelihood Programme, Adani Foundation will be implementing a major project called - Vruksh Se Vikas / Vruksh Se Samrudhi / Vruksh for Vikas (V4V) to contribute towards a global commitment to plant '100 million trees' by end of 2030 there by contributing to 'one trillion tree campaign'. Total target of plantation in Godda is 22 Lakh plants by year 2030. In this year 2023-24, a total of 25,000 plantations as per target have been done of horticulture fruit plants, medicinal and timber plants at household, panchayat, and other institutional level. Similarly, the community was supported with basic village infrastructure facilities such as drinking water facilities, sanitation facilities, and other need-based community development structures to make their living a better place at par with urban households.

The robust team of Adani Foundation at Jharkhand comprises of dedicated professionals including Unit CSR Head, Senior Project Officer, Project Officers, and a Medical team comprises of a doctor and four Para medicos.

The progress of CSR projects/interventions from **April 2023 to March 2024** is described in detail as under: -

### DETAILED DESCRIPTION OF CSR ACTIVITIES

# **EDUCATION & RURAL SPORTS**

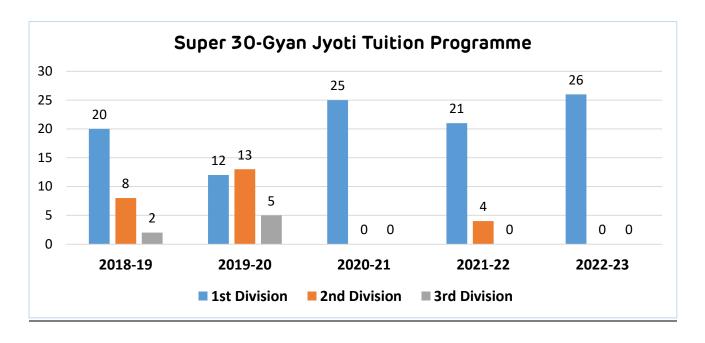
# Gyan Jyoti Tuition Programme (Providing Quality Education in Society)

1. Adani Gyan Jyoti Yojana (Group 30): - Education plays a vital role in development of society economically, socially, and financially, it also helps them to strengthen, so 'Adani Gyan Jyoti Yojana- Super 30 Program' was initiated in 2018-19 in Motia Village in which 30 students each of 8<sup>th</sup>, 9<sup>th</sup> & 10<sup>th</sup> standard studies at the coaching centre for their concept building. They can prepare for their upcoming examination through concept building and remedial classes provided in Gyan Jyoti Kendra. During Previous year 2022-23, **56 children** were enrolled from class 9<sup>th</sup>- 10<sup>th</sup> standard (30- Class 9<sup>th</sup> and 26- Class 10<sup>th</sup>) in Super 30 coaching program in Motia village.

#### Programme Outcome

- a. Enrollment in Super 30- Class 10<sup>th</sup>: During the last year 2022-23, a total of 50 students were screened after doing assessment of their performance based on their abilities and awareness after taking examination. Out of which, 26 meritorious students of Class 10<sup>th</sup> were selected and enrolled in Gyan Jyoti Tuition Programme- Super 30, Motia Center.
- b. Academic Performance (Session 2022-23): The students learning under Super 30 program in Gyan Jyoti Kendra, Motia have performed extremely well and passed with high grades of Academic Session 2022-23. The students succeeded with improved marks and passed with flying colours in their 10<sup>th</sup> board examination. All 26 students have passed the exam (100% passing percent) with 1<sup>st</sup> division marks. 4 students have passed with distinction marks above 75%.

Super 30- Class 10 <sup>th</sup> Results- Gyan Jyoti Tuition Programme									
Academic	Gyan		Students			Students			
Session	Jyoti Kendra	Enrolled	Appeared	Passed	1 <sup>st</sup> Division	2 <sup>nd</sup> Division	3 <sup>rd</sup> Division	Passing %	
2018-19	Motia	30	30	30	20	8	2	100	
2019-20	Motia	30	30	30	12	13	5	100	
2020-21	Motia	25	25	25	25	0	0	100	
2021-22	Motia	25	25	25	21	4	0	100	
2022-23	Motia	26	26	26	26	0	0	100	



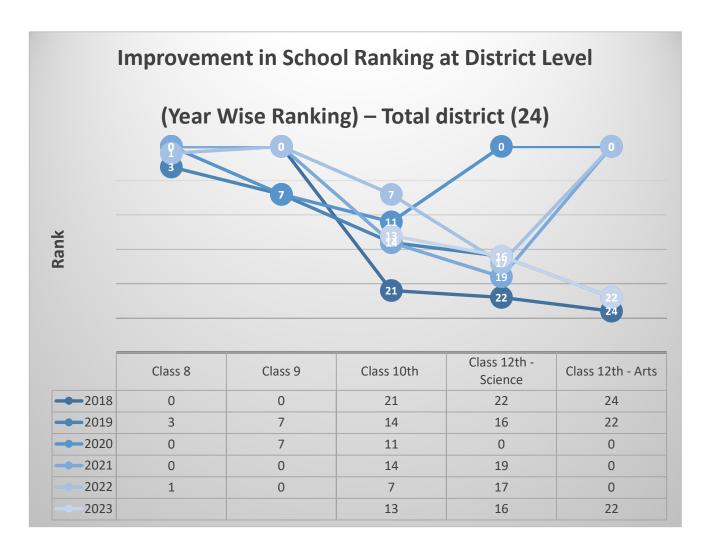
- Success Story: Aakash Shivam, a student of Super 30- Gyan Jyoti Tuition Programme from High School, Motia has performed phenomenal and succeeded in Class 10<sup>th</sup> board examination with flying colours. The champ has secured 90.40% with first division marks with the support provided by Adani Foundation with regular coaching classes, support of teaching learning materials and proper guidance.
- o <u>Enrollment in Year 2023-24:</u> In this session, **55 students (30 students- 9**<sup>th</sup> class and **25 students- 10**<sup>th</sup> class) are enrolled in Super 30 Coaching centre, Motia for preparation of Jharkhand 10<sup>th</sup> board examination to secure higher grades in exams in district and state level advancing them to a better future.
- 2. Gyanodaya Project: GYANODAYA, a step towards enlightening the human lives', was launched by Adani Foundation in partnership with District Administration in August 2018 to promote e-learning through Smart Classes in Middle and Higher Secondary Government Schools for students of 6th-12th standard of Godda district. Gyanodaya project has abled to create its learning space and improved the diverse spectrum of education through digital learning in 338 Govt. Schools with its outreach in more than 236 remote and untapped villages of 9 blocks of Godda district of Jharkhand. In the tenure of less than 5 years, the program has leveraged its services facilitated by over 1872 skilled teachers and benefiting more than 90,000 students directly. Transformation in their lives has been observed through multiple benefits of digital learning such as digital skills, decision making capabilities, visual learning, cultural awareness, improved academic performance and creativity. Gyanodaya model is filling the gap of teachers' shortage by enabling students to access smart classes with a simple touch of TV remote.

<u>Outreach of Gyanodaya</u>: Gyanodaya program has created its impact in **186** Middle Schools, **111** High Schools, **10** Plus 2 Schools, **18** KGBVs, **7** Welfare Association Schools, and **6** JEE/NEET Centres, respectively.

Block	Middle schools	High Schools	Plus2 Schools	KGBVs	Welfares	JEE/NEET Centres	Aggregate
Godda	57	27	3	2	0	3	92
Sunderpahari	3	5	0	2	3	NA	13
Podaiyahat	31	17	3	2	0	NA	53
Pathargama	36	7	1	2	0	1	47
Basantrai	16	5	0	2	0	NA	23
Mahagama	15	17	2	2	0	1	37
Boarijore	7	10	0	2	4	1	24
Mehrama	11	12	0	2	0	NA	25
Thakurgangti	10	11	1	2	0	NA	24
Total	186	111	10	18	7	6	338

# **Programme Outcome**

1. Improvement in School Ranking at District Level: The magnificent attempt of Gyanodaya program has improved the education system of Godda district and created an ecosystem of education by tapping up the government schools and strengthening the institutions as model school through operation of Digital learning program. Similarly, the intervention has enhanced the learning outcomes in the district significantly as compared to the baseline statistics of education since year 2018. Gyanodaya- E- Learning program has left remarkable footprint with significant increase in the school rankings at district level in the year 2023 as compared to preceding five consecutive years' performance.



Source- Education department, Godda.

- Class 8<sup>th</sup> stands at 1<sup>st</sup> rank (2022) as compared to 3<sup>rd</sup> rank (2019) among 24 districts of Jharkhand state.
- Class 9<sup>th</sup> standard upholds 7<sup>th</sup> rank position in the year 2019 & 2020 as compared to 21<sup>st</sup> position in the year 2018-19.
- The ranking position of Class 10<sup>th</sup> has improved from 21<sup>st</sup> rank (2018) to 14<sup>th</sup> rank (2019) to 11<sup>th</sup> rank (2020) to 14<sup>th</sup> rank (2021) to a significant achievement by securing 7<sup>th</sup> rank position in the year 2022 and 13<sup>th</sup> rank in 2023.
- 22<sup>nd</sup> rank (2018) to 16<sup>th</sup> rank (2019) to 19<sup>th</sup> rank (2021) to 17<sup>th</sup> rank in 2022 to 16<sup>th</sup> rank in 2023 in class 12<sup>th</sup> (Science) and
- 24<sup>th</sup> rank (2018) to 22<sup>nd</sup> rank (2023) in class 12<sup>th</sup> (Arts)

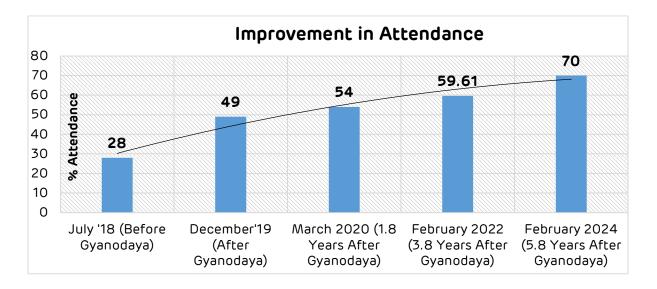
<sup>\*</sup>No Examination held of Class 8<sup>th</sup> and Class 9<sup>th</sup> in 2018

<sup>\*</sup>No Examination held of Class 8th due to COVID 19 in 2020 & 2021

2. Increase in Attendance Rate of Students: The visually appealing, easy-to-grasp and retainable concepts covered in the study materials has led to increase in the class-wise attendance comparing the figures of past years (July 18) from 20% low attendance rate to a rise in 54% in March 2020 to 59.61% in February 2022 to an exemplary growth to 70% in February 2024.

A significant reduction in dependency on tuition classes has been observed across the blocks which will thereby increase the faith of students and parents likewise on government schools. The growth in the class-wise attendance has been a result of making learning engaged and interactive using conceptualized and animated concept videos being taught under the Gyanodaya model.

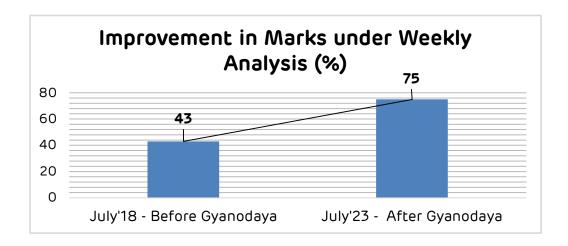
Improvement in Attendance after implementation of Gyanodaya						
July-18 (Before Gyanodaya)	March 2020 (1.8 Years After Gyanodaya)	February 2022 (3.8 Years After Gyanodaya)	February 2024 (After 5.8 Years after Gyanodaya)			
20-30%	54%	59.61%	70%			



**3.** Improvement in Marks of Students: Prior to educational initiative of Gyanodaya, the students used to fall under 30-40% marks bracket which has now shifted to 70-75% marks bracket on an average due to better understanding and retention of basic concepts and a daily quiz after every video.

Impact of Gyanodaya project on Results is as given below:

July-18 (Before Gyanodaya)	July-23 (After Gyanodaya)			
Improvement in Marks under Weekly Analysis				
30% - 40%	70-75 %			



**4. Increase in Passing Percentages:** With the advent of Gyanodaya, the passing percentage of students of Class 8<sup>th</sup>, Class 10<sup>th</sup> and Class 12<sup>th</sup> has increased progressively in the year 2023 as compared to previous five consecutive years 2022, 2021, 2020, 2019 and 2018.



\*Year Wise Passing %

- Class 10<sup>th</sup>: The passing percentage of Class 10<sup>th</sup> students has increased in 2023 (94.98%), and 2022 (96.59%) as compared to status of 2021 (95.26%), 2020 (75%), 2019 (67%) & 2018 (50%).
- Class 12<sup>th</sup> (Science): The passing % of Intermediate students has improved significantly as compared to figures of 30% in the year 2018, 45% (2019), 52.81% (2020), 81.86% (2021) to major improvement of 87.27% (2022) and 73.31% (2023) in Intermediate (Science).
- Class 12<sup>th</sup> (Arts): The passing % has also improved from 38.57% (2018) to 65.42% (2019) to 76.52% (2020) to 80.28% (2021) to 94.23% (2022) and 88.56% in 2023 in Intermediate (Arts) Stream.
- Class 9<sup>th</sup>: Passing percentage increased from 91% (2019) to **98%** in the year **2020**.
- Similarly, the passing percentage of JAC 8<sup>th</sup> Board students has improved from 90.58% in the year 2019 to 94.80% in the year 2022 to 97.94% in the year 2023.

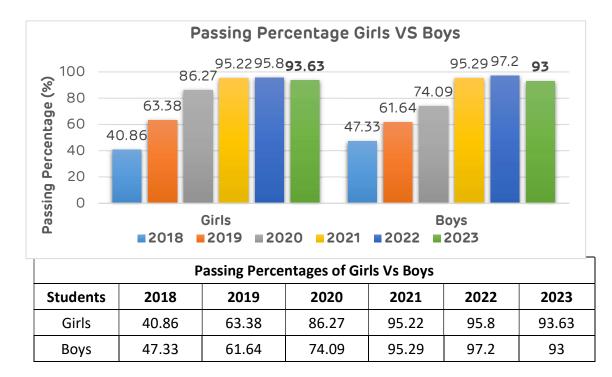
Class-wise Improvement in Passing Percentages						
Academic Year	Class 8 <sup>th</sup>	Class 9 <sup>th</sup>	Class 10 <sup>th</sup>	Class 12 <sup>th</sup> Science	Class 12 <sup>th</sup> Arts	
2017-2018	0	0	50	30	38.57	
2018-2019	90.58	91	67	45	65.42	
2019-2020	NA	98	75	52.81	76.52	
2020-2021	NA	NA	95.26	81.86	80.28	
2021-2022	94.80	NA	96.59	87.27	94.23	
2022-2023	97.94	NA	94.98	73.31	88.56	
% Increase	8.13	7.69	89.96	144.37	129.61	

<sup>\*</sup>Exams were not conducted of class 8<sup>th</sup> & 9<sup>th</sup> in 2018

<sup>\*\*%</sup> increase figure from 2018 to 2023 of class 10 & 12

<sup>\*\*\*%</sup> increase figure from 2019 to 2023 of class 8

5. Passing Percentages of Girls Vs Boys: The graph presents a sharp increase in the passing percentage of girls and boys as compared with the last 5 years. In the session 2017-18, girls passing percent was 40.86% which increased to 95.8% in 2021-22 and 93.63% in the session 2022-23. Simultaneously, the boys' passing percentage in the session 2017-18 was 47.33% which increased to 97.2% in 2021-22 and 93% in the session 2022-23.

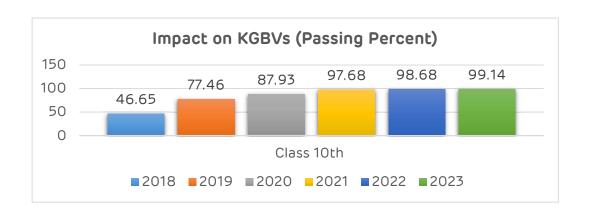


Source: Education department of Godda district

6. The Kasturba Gandhi Balika Vidyalaya (KGBV) scheme was launched by the Government of India in August 2004 for setting up residential schools at upper primary level for girls belonging predominantly to the SC, ST, OBC and minorities dwelling in difficult and untapped rural areas. The scheme was applicable, in Educationally Backward Blocks (EBBs) where the rural female literacy is below the national average (46.13%: Census 2001) and gender gap in literacy is more than the national average (21.59%: Census 2001).

#### Impact on Kasturba Gandhi Bal Vidyalaya (KGBVs) in Godda district

There are 9 KGBVs in the district where a total of 2663 girl students have studied in 10th standard since 2018. The intervention of Adam Foundation has led to a significant improvement in the **passing percentage of girls' students** from lower 46.65 % (2018) to **99.14% (2023)** of standard 10<sup>th</sup>.



- 7. Gyanodaya YouTube Channel: Gyanodaya YouTube Live class for the students studying in class 10th and 12<sup>th</sup>. Live class benefits can be availed by the students of any district of Jharkhand state. The syllabus of live class is based on Jharkhand Board. So far, 67,649 views from April 2023 to February 2024.
- 8. Delivery of Gyanodaya Equipment & Handholding to New Gyanodaya Schools: During the year 2023-24, Gyanodaya Smart Class equipment was delivered to 18 new Schools of 8 blocks of Godda district namely, Godda, Podaiyahat, Basantrai, Boarijore, Mahagama, Pathargama, Thakurgangti and Mehrama. A detailed Handholding session was also conducted in each new Gyanodaya school to operate Smart Classes properly. In addition, teachers are being trained for the proper use of the content to ensure that the students can utilize it in the best possible manner. A nodal teacher is appointed with the help of Headmaster of the school. With help of other teacher at the school, nodal teacher keeps the record of various activities like total class conducted, student's attendance, daily test, and analysis test marks. The parents of the students are also involved, and they are made aware of the Gyanodaya Smart Class and the benefits of attending the Gyanodaya Class for their children.

	List of Newly Added Gyanodaya Schools						
S.No.	Block	School Name	HM Name/Teacher				
1		Utkramit Middle School Dhamsain School	Amrendra Jha				
2	Godda	Utkramit Middle School Khatnai Hindi Balak	Sarla Kumari				
3		Plus 2 High School Motiya	Rahbar Alam				
4		Utkramit Middle School KURMAN	Punam Kumari Devi				
5	Mahagama	Middle School LOOGAI	Md. Samshad Ahmed				
6	Mahagama	Utkramit Middle School PARAYARA	Bhudev Sah				

7		Utkramit Middle School Amba bathen	Girish Rana
8	Pathargama	ST.Joseph Middle School Barmasia	Father
9		Utkramit Middle School RAJAON	Md. Abdurr Rashid
10	Thakusaanati	Utkramit Middle School SIMANPUR DIGHI	Pritvi Chand Hansda
11	Thakurgangti	Utkramit Middle School PAHARPUR DIGHI	Md. Zakaria Qureshi
12		Utkramit Middle School CHANGGE URDU	Bibi Afroza Khatun
13	Basantrai	JBAV BASANTRAI	Anita Kumari
14		Middle School MANJAR	Md. Rafiq Alam
15	Boarijor	Utkramit Middle School JAMMU JHARNA	Shalimuhin Ansari
16		Middle School Lohandiya Bazar	Sanjhli Hansda
17	Podaiyahat	Utkramit High School Tarkutta	Dinesh Prashad Hazari
18	Mehrama	Utkramit Middle School Goshichak	Dhiraj Singh Tomar

- 3.KGBV Project: Adani Foundation envision to ensure access and quality education to the girls of disadvantaged groups of society, reduce gender disparities, promote gender equality, retention of girls in schools, arresting girls' dropout rate, improving girls' enrolment in KGBVs and other govt schools and enhance the academic performance of girl students. The thrust of the project is to empower the Girl children in fields of education along with life skills by creating a learning ecosystem through addressing the educational challenges prevalent in KGBVs. The primary target group of KGBV project will be 4500+ Female students (500 average students in each KGBV) (SC, ST, OBC, BPL, marginalized and weaker sections of society) of 9 KGBVs from Class 6th to 12<sup>th</sup>. In the 1st year, 2023-24, 6 KGBVs was covered (KGBV Godda, KGBV Sunderpahari, KGBV Pathargama, KGBV Mahagama, KGBV Thakurgangti and KGBV Basantrai) and remaining 3 KGBVs (KGBV Poreyahat, KGBV Boarijore, and KGBV Mehrama) will be covered in succeeding project duration.
  - KGBV School Assessment: In 2023 an assessment was done of total 9 KGBV (Kasturba Gandhi Balika Vidyalaya) schools at Godda in support with Eckovation Team and it had been seen that KGBV's face several challenges in providing quality education to girls from marginalized and disadvantaged communities.

#### Some of the key challenges found during the assessment were:

- Inadequate infrastructure,
- Shortage of trained teachers,
- Dropout rate,

- Social and cultural barriers.
- Limited access to technology, etc.

Intervention: This year development activities were carried out in 6 KGBVs with respect to school infrastructure development (Beautification of School Campus area, and Kitchen and Construction of Dining shed, etc.), along with support provided of Kitchen Essentials (6 Roti Maker), Drinking Water facility (5 RO Water Cooler (60 Litre), and Dining Set for 3 KGBV creating adequate learning ambience and capacity building benefitting over 3350 girls students from 6 villages.

#### Gyanodaya Initiatives for Capacity building:

❖ Monthly Parents Teacher Meeting: Gyanodaya team participated and conducted PTMs in all 9 blocks including 13 schools of TPP core villages and discussed the importance and value of education and made them aware about Gyanodaya simulation and how the initiative is helping and will be helpful for their children. Over 200 Parents Teacher Meetings (PTMs) were conducted, and 1200+ Parents participated.

# 4. Coaching Program for Jawahar Navodaya Vidyalaya (JNV)- Class

**6 Entrance Examination,** an initiative of Utthan program of Adami Foundation was begun in January 2020 with an objective to address educational needs of poorer, rural, and tribal children, provide opportunities to bring them at par with others in the development of conducive environment and build their bright and secured career from right schooling by qualifying Navodaya entrance examination.

#### Methodology Adopted

- 1. Identification of students studying in govt schools for securing selection from rural quota (Enrolment Policy of JNV-75% rural quota, 25% urban quota, Total number of seats -80)
- 2. Enrollment of students for preparation of entrance examination in coaching centres followed by registration of students for appearing in entrance examination.
- Special coaching classes by teachers (Offline mode) are conducted at different locations at village level and online access to learning materials by students (self-study and smart classes) are adhered.
- **4.** The preparation of the examination includes arrangement of learning materials, stationery items and miscellaneous items.
- **5.** Weekly Grand tests are conducted by teachers for evaluation of students' performance and proper follow-up of students is done for improvement area.

Enrollment for Session 2024-25: The program is operational in 8 coaching centres located in 8 core and pipeline villages of Godda district benefitting over 90 students for preparation and qualifying the examination of Navodaya entrance examination for Academic Session 2024-25. The program is facilitated by eight skilled Utthan Sahayaks (teachers), adequate infrastructure and educational resources (bags, books, Stationary Materials, etc.)

## 5. Education Support to Palni

**Story of Palni Kumari:** Palni Kumari of Simdega, Jharkhand is a teenager nurtured by her only mother in family. At her minor age of 1.5 years, she lost her father. However, Palni and her mother did not lose the courage and showed remarkable resilience in dealing with the difficult situations. It is righty said, age is just a number if we envision to achieve our ambitions debarring all the obstacles and hurdles in the path.

Her perseverance and tenacity, led to pass the class 6<sup>th</sup> examination with 75% distinction marks and currently studying in 7<sup>th</sup> class standard. With a dream to fly high, she aspires to become Nurse and serve the poorer people along with the responsibilities of her mother in her shoulder. Together, Palni and her mother earn their bread and butter and paying school fees by selling chickpeas at the roadside of her locality.

Adani Foundation Support for Palni's Education: The Chairman of Adani Group, Hon'ble, Shri Gautam Adani has taken up the Noble work by taking the responsibilities of educating Palni, girl from a small town, Simdega to fulfil her dream of becoming a Nurse. For five years of duration, Adani Foundation will discharge the duty of Educating Palni Kumari and nurture her in a healthy environment.

# 6. Mainstreaming Rural children into Formal Education System

The Adani Foundation aims to mainstream the poor and marginalized children into formal education system who are deprived of quality education in core, railway line and pipeline villages. It focuses on mitigating the gap between educational resources and inability to access quality learning.

The Foundation had identified **51 Dropout children** of Amrakamat village of TPP core area who were earlier deprived of schooling. The factors associated were bridged by initiating the **Students Enrollment Campaign** in which children, parents and community were sensitized and educated on importance of schooling, Aadhar card, its registration and enrollment in the school. All children got issued with their

Aadhar card and they are now enrolled in **Primary education (Class 1 to Class 4)** in **Upgraded Middle School (UMS), Amrakamat**.

Apart from that, **Regular coaching classes** to a total of **58 children** are given by the Foundation in Coaching center, Amrakanoli and continuous monitoring of 51 children's status going to schools, its outcome and participation of parents is also done.

7. Dustbin distribution under Swachhata Abhiyan in Schools and community institutions of TPP Core area: The Adani Foundation initiated Swachhata Abhiyan in Schools and AWCs in which Dustbins were provided to schools located in TPP Core area, railway line area and pipeline area, Godda and Sahebganj. Around 24 schools and 3 AWCs were supported by Dustbin for promoting culture of cleanliness and hygiene in campus area under the campaign. It will also ensure incorporation of self-mechanism of maintenance and cleanliness of school area by students and creating an ecosystem of conducive learning environment.

The children, teachers and community were educated and sensitized on importance of waste management practices including biodegradable and non-biodegradable wastes, its disposal, scope of waste recycle and adoption of sanitation practices in home, schools, and workplaces.

AF supported with **total 37 Dustbins** (TPP Core area- **25 dustbins** in **21 schools and 2 temple premises, & 12 dustbins** in pipeline area, Godda & Sahebganj). 1 Notice board distribution in Intermediate College Mahagama.

# 8. Support to Improve School Infrastructure

- Support of Safe Drinking water facility: Adani provided support to improve School Infrastructure of Upgraded Middle School (UMS), Bhatdiha located in Godda district with 1 Kent RO Water filter (20 LPH) on 22<sup>nd</sup> June 2023 benefiting over 300 students in a year with an objective to improve Health, Nutrition, and Wellness of children and thereby, increase the attendance rate of students and academic performance.
- Support of Kitchen Materials for Health & wellness: Adani Foundation provided support of Kitchen Utilities for Health & Wellness of rural school going children in Primary School, Petbi Santhali, Podaiyahat block, Godda district on 7th August 2023 for better rural infrastructure and enable access to educational institutions for more than 200 tribal children. The Kitchen materials comprised of total 8 items for preparation of Mid-Day Meal and its storage with safety.

hygiene and maintaining quality of food. Currently, 32 students are enrolled in the Primary School, Petbi Santhali.

### 9. Support of Children playing facilities in Children's Park at Godda:

Adani endeavors to provide a better infrastructure facility for the children of Godda district to enable them to access learning and playing accessories which is vital for their holistic development with respect to their physical, cognitive, social, and intellectual development. In **October 2023**, AF intervened in Children's Park located at Godda by providing support of **6 types of Playing items of 1 set each** consisting of 1 Double Swing, 1 Duck MGR, 1 Circular Swing, 1 Multiplay system, 1 See-Saw, and 1 Merry-Go-Round. This initiative availed the playing facilities for the children in Godda to spend time during leisure, also promoting recreational activities, social networking, solidarity and improving happiness index of their families.

## 10. Support of Basic facilities for Strengthening Anganwadi Centre:

Adani Foundation endeavor to combat malnutrition & state of hunger in particularly of children and community in more than 25 villages of core, railway line and pipeline area. The project goal includes to make Community Managed Sustainable Model of Anganwadi to ensure health & wellness and cognitive development for holistic development of 'Mother & Child' through improved infrastructure and availability of resources in Anganwadi Centres. Regular visits in **seven Model AWCs** is done with an objective to provide a caring environment that addresses the educative, health and nutritive requirements which is leading a transformation and holistic development in lives of more than **500 rural children**.

- Kitchen Essentials and Learning Materials: In December 2023 month, AF provided support to 2 AWCs namely, AWC Motia, Yadav tola and Motia, Chapota tola with Kitchen materials and Chairs enabling health & wellness and holistic development of 60 children every year.
- Uniform support: Adani Foundation provided Uniform support for 500 Anganwadi children including 260 Girls and 240 Boys in 22 Anganwadi Centres of TPP core villages with an objective to transform the state of target groups comprising of children (0-5 years), adolescents, pregnant women, lactating mother, and community with advanced tools for their holistic development.

Anganwadi Uniform Distribution details							
S. I	Date	Name of Centre	Girls	Boys	Total		
1	13/9/2022	Patwa	15	15	30		
2	28/2/2023	Gangta	16	5	21		
3	28/2/2023	Kahar Tola Motia	9	10	19		
4	1/3/2023	Chapota Tola Motia	13	6	19		
5	2/3/2023	Yadav Tola Motia	17	15	32		
6	2/3/2023	Harijan Tola Motia	17	12	29		
7	1/3/2023	Rampur Dumaria	8	8	16		
8	2/3/2023	Harijan Tola Dumaria	13	10	23		
9	2/3/2023	Sondiha	6	7	13		
10	2/3/2023	Laiya Tola Choti Baksara	10	11	21		
11	2/3/2023	Laiya Tola Bari Baksara	7	11	18		
12	2/3/2023	Laiya Tola Bari Baksara	10	13	23		
13	2/3/2023	Purwedih	8	6	14		
14	3/3/2023	Baliakitta	9	9	18		
15	3/3/2023	Basantpur Kachhua Tikar	16	17	33		
16	4/3/2023	Basantpur Uttri Tola	21	14	35		
17	13/3/2023	Petbi	11	16	27		
18	13/3/2023	Gumma Santhali	10	10	20		
19	14/3/2023	Gumma Laiya Tola	9	9	18		
20	14/3/2023	Kauribahiyar Tetaria	9	8	17		
21	14/3/2023	Kauribahiyar Harijan Tola	9	8	17		
22	14/3/2023	Kanhadih Santhali	7	10	17		
23	October'23	Rampur Dumaria	10	10	20		
	TOTAL		260	240	500		

# Capacity Building & Awareness Programme

- 1. Celebration of International Yoga Day 2023: International Yoga Day was celebrated on 21st June 2023 at Officer Club, Shantivihar Township and community level in core and railway line villages. Over 200 members including employees and their family members had attended the yoga workshop organized at APJL site. Similarly, more than 800 students from 8 schools and 6 Anganwadi centres of TPP core area had actively participated during the occasion and inculcated various Yoga asanas and their benefits to keep healthy and understood the importance of Yoga in holistic development of their life.
- 2. Support to Mahila Mahavidyalaya, Godda to Organize One Day National Seminar: Adani provided support to Mahila Mahavidyalaya, Godda to organize One

Day National Seminar & Student Faculty Exchange program which was held on 15<sup>th</sup> July 2023. During the program, the main topics which was covered are: - "Career opportunities through Skill Development" under which subtopics comprised of Lifelong Learning for Skill Development, Skill Development and Employability, Up-Skilling and Re-Skilling, Digitalization and Future of Work. Along with other activities, Cultural program, Debates, Antyakshari and Rangoli Competition were also conducted.

This opportunity helped the students to enrich their learning, and skills, improve employee morale, achieving educational goals and benefitted more than **3000 students, teachers, and community** significantly.

**3. Support to S.B.S.S.P.S.J College, Pathargama for One Day National Seminar:** Adami provided support to Education committee members of S.B.S.S.P.S.J College, Pathargama to organize One Day National Seminar which was held in the college premise on **16**<sup>th</sup> **July 2023**. During the program, the main topics which was covered are: - "Importance of AQAR, Action taken on PEER Team Suggestion Report and Role of IQAC for subsequent cycle of NAAC Accreditation".

The chief dignitaries of the program were Principal, Lecturer and N.S.S. Coordinator from 3 states who had attended the seminar in S.B.S.S.P.S.J College, Pathargama. This opportunity helped teacher and the students to enrich their learning, and skills, improve employee morale, achieving educational goals and leading to upgradation of overall education system of Godda district. The program benefitted more than **500 students, teachers, and community** significantly.

# Supporting Sports & Cultural Events

Sports Kit Distribution: 63 Sports kits were distributed to 57 Youth groups comprising of football kit, carrom kit, cricket kit, volleyball kit along with Prizes (Winner Cups and Medals) under rural youth engagement program to promote recreational activity and sports events in 27 core, periphery, and pipeline villages of 7 blocks of Godda and Sahebganj district. Over 900 players benefited from the support which helped them to practice regularly and participate in several local level and district level sports tournaments. It also acts as a means of recreation for the sportsperson and aspirational players. The distribution of kit helped youth to be more engaged in constructive activity.

Sports Kit Distribution								
Particulars	Date	Village	Block	Unit	No. Of Team			
T- Shirt to Youth Club	09.10.23	Kendua	Boarijore	1	1			
Football Net	13.10.23	Dhamni Simaria	Boarijore	1	1			
Cricket Kit	18.10.23	Kadawa tola	Godda	2	2			
Cricket Kit (Wicket)	16.10.23	Petbi	Podaiyahat	1	1			
Stationary items, school bags, trophy, Prizes, etc.	22.10.23	Sarauni (Malhara)	Podaiyahat	1	1			
T-Shirt to Youth Club	24.11.23	Jamua	Godda	2	2			
Football	24.11.23	Jamua	Godda	1	1			
T-Shirt & Boot to Youth Club	24.11.23	Gangta	Godda	1	1			
Football	24.11.23	Gangta	Godda	1	1			
T-Shirt to Youth Club	04.12.23	Motia	Godda	6	6			
1 Volleyball & T-Shirts	08.12.23	Dumaria	Godda	1	1			
T-Shirt to Youth Club	22.12.23	Kauribahiyar Mal (Tetaria Santhali)	Godda	2	2			
Jersey & 1 Football to Youth Club	26.12.23	Sounpur	Thakurgangti	2	2			
T-Shirt & Trouser	17.01.24	Navdiha	Poreyahat	2	2			
Track suit & Prizes	22.01.24	Godda	Godda	1	1			
T-Shirt & Trouser	26.01.24	Gopladih	Godda	2	2			
T-Shirt	27.01.24	Daldali Gopalpur	Boarijore	2	2			
T-Shirt	01.02.2024	Chajora	Thakurgangti	2	2			
T-Shirt	03.02.2024	Rampur	Poreyahat	2	2			
T-Shirt	06.02.2024	Kajara, Pasai,	Poreyahat	2	2			
T-Shirt	06.02.2024	Karnu	Mahagama	2	2			
T-Shirt, Cricket Kit, Winner Cup	09.02.2024	Basantpur (Dudhiya Than)	Poreyahat	2	2			
Set of Medals, Prizes, etc.	14.02.2024	Mandal Tola, Basantpur	Poreyahat	2	2			
Set of Medals, Prizes, etc.	15.02.2024	Kakna	Godda	2	2			
T- Shirt	16.02.2024	SBSSPSJ College Pathargama	Pathargama	2	2			
T-Shirt, Football	17.02.2024	Bhagwanpur	Thakurgangti	2	2			
T-Shirt, Football	19.02.2024	Jhirli	Boarijore	3	3			
T-Shirt	28.02.2024	Mohani (Asadi- Madhuri)	Godda	4	1			

T-Shirt, Football	06.03.2024	Bargachha, Hariyari	Mahagama	2	2
Football	06.03.2024	Bada Solbandha (Sahibganj)	Mandro	1	1
Winner Cup, Runner up Cup and Trophy (Small)	14.03.2024	Godda	Godda	4	1
Winner Cup, Runner up Cup, and T- Shirt for Cricket team	19.03.2024	Deobandha, Dumaria	Godda	2	2
Total				63	57

Support to Godda District Netball Association: Adami endeavours to promote Youth & Sports Development Programme and encourage the youths to lead and perform in athletics at District, State and National Level. Talent of aspiring youths are explored, and they are further groomed & sharpen their skills in their domain sports field. In the last 13 years, more than 1300 players of Netball Sports from district are playing and have won medals by participating in 150 State Level and National Level Netball Sports tournament.

At this juncture, Adani had supported the 'Godda District Netball Association' with grocery items for conducting "9th Summer Residential Netball Training Camp" participated by 300 players at Gandhi Maidan, Godda. The outstanding players of the competition will be selected for further grooming & training session to participate in upcoming State Level and National Level Netball Sports tournament.

Sports Tournament: 59 sports tournament including Football (44), Cricket (5), Chess (1), and general sports event (9) were organized with coverage of 107 villages of core, and pipeline areas of Godda and Sahebganj district involving children & rural youths to instill them with confidence, develop their personality and motivate them for shaping bright future and development of youths in athletes. More than 12426 players and 84000+ audience members had participated and cheered their favorite team from nearby villages, maintaining safety protocols.

Sports Tournament									
SN	Sports	Date/Month/Year	No of Villages/ locations	No. of Teams	No. of Players	Average Audience Size			
1	Football Tournament in Kendua	09.10.23	1	16	240	800			
2	Football Tournament in Dhamni Simaria	13.10.23	1	16	240	900			
3	Football Tournament in Rajaunkala	26.10.23	1	16	240	1050			
4	Cricket Tournament in Petbi	16.10.23	1	16	176	750			
5	Cricket Tournament in Deobandha (Baran tola)	19.10.23	1	16	176	600			
6	General Sports Tournament in Kadawa tola, Godda	18.10.23	1	2	24	1500			
7	General Sports Tournament in Sarauni (Malhara)	22.10.23	1	5	50	2000			
8	Sponsored for Golf League in Jamshedpur	Nov' 23- Apr'24	18	25	300	1850			
9	Football Tournament in Bara Kendua	12.11.23	1	16	240	1700			
10	Football Tournament in Ganga Rampur	17.11.23	1	16	240	1800			
11	Football Tournament in Badgama	13.11.23-14.11.23	1	16	240	1950			
12	Football Tournament in Jamua	24.11.23	1	16	240	2120			
13	Football Tournament in Gangta	24.11.23-25.11.23	1	16	240	640			
14	Football Tournament in Chhota Tetaria	08.12.23	1	16	240	970			
15	National Championship for Chess Tournament in Dumka	6.12.23-10.12.23	20	150	300	2000			
16	Football Tournament in Kauribahiyar Mal (Tetariya Santhali tola	21.12.23-22.12.23	1	16	240	1020			
17	Football Tournament in Kumarshi	21.12.23-22.12.23	1	16	240	1450			
18	Football Tournament in Sounpur	26.12.23-27.12.23	1	16	240	1260			
19	Football Tournament in Jatharidih	27.12.23-29.12.23	1	16	240	1500			
20	General Sports Tournament (Cricket & Football) in Sondiha	20.12.23-26.12.23	1	15	300	2000			
21	Football Tournament in Charkatand	03.01.24	1	16	240	780			
22	Football Tournament in Godda College	09.01.24	1	8	120	950			
23	Football Tournament in Navdiha	17.01.24	1	16	240	1200			
24	Football Tournament in Gopladih	26.01.24	1	16	240	2050			
25	Football Tournament in Blathar	28.01.24	1	16	240	800			
26	Football Tournament in Beldiha	29.01.24	1	16	240	650			
27	Football Tournament in Chitarkothi	21.01.24-23.01.24	1	16	240	710			
28	Football Tournament in Jhirli	15.01.24-16.01.24	1	16	240	1100			
29	Football Tournament in Telgama	16.01.24-17.01.24	1	16	240	1350			
30	Football Tournament in Daldali Gopalpur	27.01.24	1	16	240	1200			
31	Football Tournament in Harkatta	30.01.24-31.01.24	1	16	240	1450			
32	Godda Premier League (GPL) in Gandhi Maidan, Godda	07.01.24-14.01.24	1	8	88	3000			
33	Sponsored for Airport Premier League (Cricket) 2023-24 in Ranchi	19.01.24-30-01.24	10	10	120	1500			
34	Sports Programme in Godda	22.01.24	1	10	100	640			
35	Football Tournament in Chajora	01.02.24-02.02.24	1	16	240	540			
36	Football Tournament in Karnu	06.02.24-07.02.24	1	16	240	950			
37	Football Tournament in Ratanpur	08.02.24-09.02.24	1	16	240	970			
38	Football Tournament in Katanpul  Football Tournament in Kajara (Pasai)	13.02.24	1	16	240	1500			
	Football Tournament in Harakkha		1						
39		13.02.24-14.02.24		16	240	1300			
40	Football Tournament in Bara Lohanda	14.02.24-15.02.24	1	16	240	1450			
41	Football Tournament in Bhagwanpur	17.02.24-18.02.24	1	16	240	1260			
42	Football Tournament in Jhirli	19.02.24-21.02.24	1	16	240	1750			

43	Football Tournament in Rupuchak	24.02.24-25.02.24	1	16	240	1300
44	Football Tournament in Dhankunda	27.02.24-29.02.24	1	16	240	1320
45	General Sports Tournament in Rampur	03.02.2024- 04.02.2024	1	8	88	1400
46	General Sports Tournament in Basantpur (Dudhiya Than)	09.02.2024- 11.02.2024	1	8	88	1470
47	General Sports Tournament in Mandal Tola, Basantpur	14.02.2024	1	5	80	1560
48	General Sports Tournament and Cricket Tournament in Kakna	15.02.2024	1	6	120	1390
49	General Sports Tournament in SBSSPSJ College Pathargama	16.02.2024	1	8	150	2000
50	Football Tournament in Bhagwanpur, Thakurgangti	17.02.2024- 18.02.2024	1	16	240	2150
51	Football Tournament in Jirli, Boarijor	19.02.2024- 21.02.2024	1	16	240	1250
52	Football Tournament in Rupchak, Pathargama	24.02.2024- 25.02.2024	1	16	240	2300
53	Football Tournament in Dhankunda	27.02.2024- 29.02.2024	1	16	240	2200
54	Football Tournament in Mohani (Asadi- Madhuri)	28.02.2024- 01.03.2024	1	16	240	1200
55	Football Tournament in Goradih (School Tola) Boarijor	04.03.2024- 06.03.2024	1	16	240	1400
56	Football Tournament in Bargachha, Hariyari	06.03.2024- 08.03.2024	1	16	240	1900
57	Football Tournament in Bada Solbandha (Sahibganj)	06.03.2024- 07.03.2024	1	16	240	1890
58	Football Tournament in Bisaha, Pathargama	11.03.2024- 12.03.2024	1	16	240	2160
59	Cricket Tournament in Deobandha, Dumaria	19.03.2024- 24.03.2024	4	6	66	2245
	Total		107	978	12426	84095

#### COMMUNITY HEALTH PROGRAMME

### Mobile Health Care Unit (MHCU)

In this financial year 2023-24 (April'23- March'24), four Mobile Health Care Units have together catered to 66142 patients including 20649 male, 28540 female and 16953 children from around 126 Core, Periphery, Railway line and Pipeline villages of Godda and Sahebganj district. Adani Foundation runs its own MHCU (1) in core villages, while it has partnered with Helpage India (1) and Wockhardt Foundation (2) to extend primary medical services in periphery and pipeline villages respectively. All these four MMUs provide services in the villages as per schedule through a team of a Doctor, a Pharmacist, an ANM, and a Social Protection Officer. AF supported mobile medical facilities goes a long way to ensure access of poor people to quality primary health care services at their doorstep.

2.Specialized Medical Camps: During the Year 2023-24, Adani Foundation endeavored to cater health needs in a specific health issue of the masses amidst Epidemic outbreak by adhering to safety protocols. The Foundation strives to be a catalyst to 'Sustainable human development' and serves the deprived and marginalized human mankind and community with means of rendering appropriate services at grassroots. The triggers adopted for development encompass health as one of the major elements for holistic development of an individual. Moreover, the drive aligns with Sustainable Development Goals (SDG) 3, 'Ensure healthy lives and promote well-being for all at all ages.

In the year 2023-24, Foundation had organized 96 Specialized Health Camps in specializations namely, Ophthalmic (12), Paediatrics (23), Gynec (20), Cardio (23), Osteo (18) at Health & Wellness Centre, Motia & 16 General Health Camps was conducted in 13 intervention villages of core, railway line and pipeline area of Godda district. Total 2535 patients (1606 patients at Wellness center and 929 patients in General Health Camps) including 707 males, 1234 females and 594 children from over 15 villages were screened, treated, and provided with free medicines.

Specialized Medical Camps was organized with an objective to provide critical and specialized health care services in villages to cater untreated illness/ medical issues concerning women/ girls and children, elders, and community for whom access to safe and standard health services remains a challenge.

### 3. Support to District Health department for Measles (Rubella)

Awareness Program: Adani provided support to District Health department, Godda with IEC materials (School Poster, Anganwadi Poster and Hand Bill) on 19<sup>th</sup> April 2023 to organize Awareness program cum Vaccination campaign on Prevention and Curative Measures of Measles (Rubella) diseases in children aged 9 Months to 15 years old. The intervention was carried out in schools, Anganwadi Centre, and hospitals which aided the frontline health workers, social activist, village leaders to educate, inform and aware the children, parents, and community about Rubella Vaccination for children. It benefited around 3000+children.

SN	N Particulars Unit				
1	School Poster	750			
2	Anganwadi Poster	500			
3	Hand Bill	10000			
	Total	11250			

4. Blood Donation Drive: The Adani Power (Jharkhand) Limited, Godda and Adani Foundation, Godda organized the Blood Donation Camp under joint aegis of Medical CSR and OHC to mark the 61st Birthday of Sh. Gautam Adani, Chairman of the Group on 2023 June 24th at Officer's Club, Motia site. The Site Head, APJL, Mr. Naresh Goel, Mr. Ramesh Jha, Chief Business Officer, Operations & Maintenance (O & M), and Mr. Prasun Kumar Chakraborty, Vice President - Operations & Maintenance (O & M) greeted the medical officers from District Health department, Godda with a flower bouquet and jointly inaugurated the Blood Donation Camp by performing the lamp lighting rituals. All the dignitaries recognized the good work of the blood donors and gave away the certificates to boost the morale of donors. More than 370 employees, contractors' staff and workers donated blood on this occasion creating an indelible mark of the highest collection on a day in the district.

The occasion witnessed the enthusiasm and passion among the blood donors to serve the cause of humanity. The idea was to save human lives at the time of emergency. The Adani Foundation played a major role in organizing the camp and the efforts of all the organizers including the HR-Administration and OHC were appreciated by all. T- Shirts, Certificates, Selfie point, Banner, Dangler, Prizes (Umbrella & Cap), juice, and snacks were arranged for the donors and the organizers on the occasion. Donors were also awarded certificates of appreciation duly signed off by the Adani Foundation Chairperson, Mrs. Priti G. Adani, that provided a sense of elevation to all. It turned out to be a memorable moment.

## 5. Plantation on the eve of 61st Birthday of Chairman of the Group:

On 61st Birthday of Honourable Sh. Gautam Adani, Chairman of the Group on June 24th, 2023, Plantation Drive was organized in High School, Baksara of TPP Core area. Over 250 school children and School Management Committees (SMCs) had volunteered in plantation activity who planted more than 150 fruit and non-fruit plants in the campus of school premises.

The ownership of plantation of each plant was taken up by every student. The program was led by students and School Management Committees (SMCs) who expressed their heartfelt gratitude and noble gesture to Sh. Gautam Adani on the special day and embarked an ambitious project -Vruksha se Vikash (Planting 100 million tree) of Adani Foundation.

The day marked a significance towards environment protection, afforestation, enhancement of greenery, social and economic development by spreading the message among school children, PRI members, and community.

The program was presided by esteemed dignitaries who graced the auspicious occasion with their presence and motivated the children to become the changemaker of the society.

6. Awareness Drive on Specialized Health Camps: Health Camp Awareness Drive has been initiated to inform, aware and educate the villagers and community of 17 core and railway line areas of the intervention of Adani Foundation of providing free Specialized Health Care services at PHC Motia, instrumental in safeguarding the life of approx. 2000 economically backward and marginalized rural population of the society.

Door to door household visit and awareness campaign is conducted in each village in which the target households are informed about Doctors' schedule, specialization of diseases diagnosed, and sensitized about the importance of good health and productive life for a happy living. Five doctors of concerned specialization namely, Gynec, Pediatrics, Osteo, Cardio, & Ophthalmic are deputed at PHC, Motia on respective days and time duration in monthly and fortnightly manner where the patients reach to the health centre along with their health card for diagnosis of their health complication and follow-up as per doctor's prescription.

# 7. Linking Poorer to Social Security Entitlement- Ayushman Card:

Adani Foundation had organized an Ayushman Card-Registration Drive with an objective to link poorer and needy families with government schemes to provide access to basic facilities for better healthcare which offers health insurance coverage for medical expenses. At the onset, an awareness campaign was organized in tribal and rural areas of Godda and Sahebganj district. During the

campaign, the villagers were informed and educated about Ayushman Health scheme, process of registration, benefits of Ayushman Card, etc. The AF team led the Registration program for linking the needy families with Ayushman Card with active participation of community.

A total of **601 rural and tribal families from 12 periphery and pipeline villages of Godda and Sahebganj district** had successfully registered and availed Ayushman Card.

	Ayushman Card Enrollment details							
SN	Duration	Block	Panchayat	Village	Н			
1	Jan'24	Godda	Lobhanda	Makundi Dikwani (Yadav tola)	72			
2	Jan'24	Godda	Lobhanda	Makundi Dikwani (Harijan tola)	44			
3	Jan'24	Godda	Pairdih	Kauribahiyar	34			
4	Jan'24	Godda	Pairdih	Kauribahiyar Mal	36			
5	Dec'23	Borio	Bara Toufir	Chhota tetariya	60			
6	Jan'24	Borio	Bara Toufir	Bara tetariya	26			
7	Jan'24	Borio	Bara Toufir	Bara lohanda	25			
8	Jan'24	Borio	Bara Toufir	Chhota lohanda	51			
9	Jan'24	Borio	Bara Toufir	Chhota Panchgar	51			
10	Jan'24	Borio	Bara Toufir	Satichouki Pangro	71			
11	Feb'24	Borio	Bara Toufir	Panchgar	60			
12	Feb'24	Mandro	Ambadiha	Solbandha	26			
13	Mar'24	Borio	Bara Toufir	Adro	25			
14	Mar'24	Borio	Bara Toufir	Nirapara	20			
	Total 60							

# **Health Awareness Programmes**

#### **Medical Services**

- ❖ Health Awareness: with collaborative efforts of Adani Foundation, Helpage India and Wockhardt Foundation in Peripheral, Pipeline & Railway Line village area to provide support for better community health. Health Awareness Program are organised in area to aware rural people about harmful diseases, maintenance of cleanliness, direction for balance diet which help them to fight from diseases and the COVID 19 virus affecting the populations at large scale followed by all safety norms. School children and community persons have become more vocal with active approach towards curbing diseases and sharing of such valuable information among community. 10000+ villagers benefitted.
- Critical Health cases: Diagnosis of critical cases of laborers working in TPP (site office) is done by CSR Medical Team regularly in an emergency manner.

❖ Ambulance Facility to Poor Patients: Families from 13 core villages have been benefitted from this initiative of Adani whose families remain loyal and grateful to company for the support provided by us in times of distress. Ambulance service is given to poor people belonging to TPP area in times of medical emergency or for transfer of critical patients to higher centre and for COVID health check-up, doing home quarantine and quarantine center and treatment like Bhagalpur, Deoghar, Ranchi, and Patna & Other nearby hospitals. 70+ patients benefitted from ambulance facility.

#### Seasonal Assistance

Support to tribal community for cultural event: Adani Foundation supported the tribal community with financial assistance, and traditional attire for the celebration of event with joy and happiness in tribal villages of TPP Core and Pipeline area. Over 600 tribals in 6 villages of Godda district were supported with 1 set of Lungi- Panchi and T-Shirt for men and women benefitting tribal community to celebrate their festivals with huge zeal, joy and enthusiasm and unite their community in tackling the social challenges.

	Support to Tribals on Social Occasions									
SN	Particulars Date/ Month Village Block		Unit	Beneficiary						
1	Lungi- Panchi & T-Shirt	11.01.24	Jhirli	Mahagama	32	32				
2	Lungi- Panchi & T-Shirt	11.01.24	Govindpur	Mahagama	28	28				
3	Lungi- Panchi	16.02.24	Nayabad	Godda	69	69				
4	T-Shirt	16.02.24	Nayabad	Godda	62	62				
5	Lungi- Panchi	17.02.24	Petbi Santhali & Mali	Podaiyahat	105	105				
6	T-Shirt	17.02.24	Petbi Santhali & Mali	Podaiyahat	93	93				
7	Lungi- Panchi	23.02.24	Gangta	Godda	111	111				
8	T-Shirt	23.02.24	Gangta	Godda	102	102				
		602	602							

Support of Musical instruments for Cultural program: On May 2023, on dated 18<sup>th</sup> May 2023, Adani Foundation provided Musical instruments (Dholak-1, Harmonium-1, & 2 pairs of Kartal instrument- Hand Cymbals Manjira Pair) support to community members of Tardiha village of Pathargama block in Godda district. The support will aid the village committee members to organize cultural program of their traditions benefitting over 2000 rural population in villages.

- ❖ Adani provided Saree support to 1330 poorer and tribal women residing in remote villages in Godda district which will enable celebration of festivals of their traditions during several occasion in proper attire.
- Support to community for Religious and cultural event: On 11<sup>th</sup> December 2023, AF provided support to villagers in Shiv temple, Dumaria village of TPP Core area, Godda with 1 set of traditional musical instruments (1 Harmonium, 1 Dholak, 1 Kartal and 3 Jhaal) benefitting over 2000 villagers to celebrate the festival with huge zeal, joy and enthusiasm and unite their community in tackling the social challenges. The villagers, especially the devotees, will conduct religious programs on several occasions in Shiv temple located in Dumaria village.
- Material support (Breath Analyzer) to Govt office, Godda: On January 2024, Adani provided support to Government department, Godda with 10 Breath Analyzer for Road safety near all Police station area routed in Godda district of Jharkhand. It will assist the administration and local police team in monitoring, controlling, and safeguarding the public, crowd management during festivals celebration, road traffic control, etc. in Godda district. It will also enable prompt handling of sudden danger and emergency situations, ensure safety and security of public, controlling road accidents, etc.

#### Relief Materials Support to Affected Families from Natural Hazards

1.1 Tarpaulin Assistance for Natural Disaster Management: Under 'Poorer Welfare & Assistance' program, Adani supported the poorer and weaker sections of society affected from natural calamities or uncertain disasters such as fire, flood, cyclone, thunderstorm, etc.

Adani instantly supported **19** affected families of **7** core, railway line and periphery villages with 19 Tarpaulin sheets in August and September 2023 for addressing the issue and safeguarding over **90 beneficiaries** in Godda district.

2.1 Poor Assistance Programme- Mosquito Net Distribution: Adani Foundation believes in assisting the community who are marginalized and deprived of basic facilities for survival. The health of the villagers is made secure and protected from several diseases which leads to fatalities and death cases in the villages. Assistance of Mosquito Net to the poorer households helps them to be

prevented from any vector-borne epidemic and common occurring water borne diseases such as Dengue, Malaria, etc. On dated 29<sup>th</sup> August 2023 and 30<sup>th</sup> August 2023, around **190 tribal households** were assisted with 190 Mosquito nets in tribal village namely Nayabad (61), Gangta (96), Mali Gangta (20) and Basmitikar (13) of Motia panchayat, Godda block of TPP Core area, Godda. Similarly, on dated 29<sup>th</sup> November 2023, **3500 Mosquito nets** were provided to District administration at Collectorate Office, Godda for mitigating health issues by preventing around **5000 rural and tribal population**.

- 3.1 Blanket Support under Relief Program in Winter Season: Adani has provided blankets support to over 1500 poorer and tribal community in Podaiyahat, Korka, Gandhigram, Pathargama, and TPP Core area, Godda to provide relief and cope up with cold winter under 'Poorer Welfare & Relief Program'. The community upon receiving the blanket expressed heartfelt gratitude to Adani for providing them the immediate relief support. The strong ties with community and more solidarity are observed in the villages.
- ii. Team Participation in cultural event: Adani supported the local villagers in organizing festivals and social events to strengthen ties and build relation with community. It emphasizes to celebrate the cultural program with huge joy and enthusiasm among the rural people. Social occasion program such as Sawan Mahotsav, Bhagwad Katha, International Day of Indigenous Peoples, Ganesh Chaturthi, Janmashtami, Vishwakarma Puja, etc. was celebrated in the villages benefitting more than 2000 rural and tribal communities.

# Welfare Support

i. Assistance in Health, Marriage, Death, and Social Occasion: Adani provides financial support to poor people for such events which require huge expense such as marriage ceremony, educational needs, major illness including hospitalization of patient, death rituals of a person and during social occasions. 2517 beneficiaries from more than 16 villages have been extended financial support to the tune of Rs. 37,27,092/-

#### Awards & Accolades

a) Recognition from Health Ministry on Eradication of TB: On 12<sup>th</sup> July 2023 at Ranchi district, Adani Power (Jharkhand) Limited, Godda has been felicitated by Ministry of Health and Ministry of Labour and Employment for contributing towards Eradication of TB in Godda district in association with District administration. The award was received by Sh. Sanjeev Shekhar, Head- Corporate Affairs and Sh. Subodh Singh, CSR Head

**Jharkhand** in Seminar Hall of Project Building- Jharkhand Mantralaya, Dhurwa, Ranchi district.

b) Felicitation with Jharkhand Samajik Utkrishtta (Social Excellence) Award 2023: On dated 12<sup>th</sup> September 2023, the Adani Power (Jharkhand) Limited was graced with Jharkhand Samajik Utkrishtta Award 2023 for contributing to upliftment and development of the society in Godda district of Jharkhand. The Adani Foundation's service towards upliftment of community in social, economic, and environmental sphere has impacted around lakhs of the poorer and marginalized groups of society of Godda district.

The Award was felicitated by Mr. Ajay Kumar Singh, D.G.P, Jharkhand in the presence of chief guest Mr. Banna Gupta, Health Minister of Jharkhand and government delegates during a seminar held in Ranchi, Jharkhand. The award was received by Mr. Sanjeev Shekhar, Corporate Affairs, Ranchi and Mr. Prawin Kumar, Corporate Affairs, Godda from Adani Group.

#### SUSTAINABLE LIVELIHOODS

1. Adani Skill Development Centre: Adani Skill Development Centre- ASDC, Godda was inaugurated by Executive Director AF- Education and Skills on 27<sup>th</sup> September 2018. Total Eight trades viz. Welder, Fitter, Mason and Bar bender, General Duty assistant, Hospitality, Electrical, industrial Sewing Machine Operator, and Digital Literacy classes is offered in which over 4600 candidates were trained and benefitted till last Financial Year 2022-23.

Enrollment in New Batch in 2023-24: In 2023-24, a new training batch of Domain Business trades was started from April 2023 onwards. A total of 498 candidates are enrolled including 25 candidates in Fitter Mechanical Assembly, 34 in Digital Literacy trade, 278 admissions in SMO trade and 161 in Domestic Data Entry Operator trade. The Self-learning model enables the candidate to build repository of knowledge through access of learning materials provided in the link and after the completion of course, the candidates appear on examination to self-evaluate their performance followed by certification duly provided by NSDC.

2. Handloom Upskilling Training Centre in Bhagaiya, Thakurgangti:

Adani endeavour to promote Bhagaiya Silk Cluster located in Bhagaiya village at
Thakurgangti block, Godda district, Jharkhand, known for traditional handloom silk

manufacturing and weaving, also known as Resham Nagar. More than 1,000 households from Bhagaiya village (100%) and Manikpur village (30%) belonging to OBCs, and minority community are linked to the initiative and earning their living judiciously. The process involves, reeling, unwinding, spinning, and weaving of silk. The Handloom Up-skilling Training program has been started to promote and stabilize such groups by bridging the existing gaps with respect to capacity building (Skilling) in varied segments including advanced method of silk production, making value added products, supply chain management, marketing skills and others.

The Handloom Up-skilling Training program has been started to promote and stabilize such groups by bridging the existing gaps with respect to capacity building (Skilling) in varied segments including advanced method of silk production, making value added products, supply chain management, marketing skills and others. The Inauguration Program was conducted on 28th May 2023 at Handloom Bhagaiya Silk Training Centre with active participation of around 150 guests and trainees during the ceremony and made the event successful. In new session 2023-24, a total of 5 Batch of Bhagaiya Silk training trade (1st to 4th batch with 30 trainees in each batch and 5th batch with 40 trainees), are enrolled benefiting over 160 candidates under training program.

# 3. Celebration of World Environment Day (5th June 2023) at TPP

**Core Area:** On the occasion of **World Environment Day on June 5**, Adani Foundation had organized series of community engagement activities such as **Awareness Rally, Plantation drive, oath-taking ceremony and school level competitions (drawing and paintings)** in several TPP Core area location including 10 schools, Primary Health Centers (PHCs), 4 Anganwadi, Panchayat Bhawan, and public places with participation of more than 5 Mukhiyas, 1200+ students, 400+ local people, 80 schoolteachers, and 35 SMC Adhyaksh & team members.

The program was inaugurated in the presence of Village Head, PRI members, schoolteachers, students, and community who delivered speeches and motivated the students on importance of Environment Day and conservation of environment. Various environmental & global issues such as deforestation, environmental pollution, soil erosion, land degradation, health issues and global warming based on sign boards, posters, placards, etc. were informed to the community within radius of 2 km in their villages.

During the plantation drive, more than **100 plants** (Ashoka & Neem) were planted at different community places such as schools, Anganwadi centers, PHC, Panchayat Bhawan, and other public places. The program had a significant response from the participants which sharpened the art and craft skills of students, their imaginations

and prospectives towards environment and preservation of biodiversity was well conveyed.

**Total Number of Plantation:** 50 plants in schools, 10 each in Primary Health Centers (PHCs), Anganwadi centers, Panchayat Bhawan, and 21 in Public Places.

4. Vruksh Se Vikas or Vruksha Se Samrudhi or Vruksha for Vikas (V4V) - Planting 100 million trees: Promote Environment Conservation, Ecological Restoration, Conservation of Biodiversity, and Income generation of farmers.

Adani Foundation will be implementing a project called - Vruksh Se Vikas / Vruksh Se Samrudhi / Vruksh for Vikas (V4V) to contribute towards a global commitment to plant 100 million trees by end of **2030** there by contributing to one trillion tree campaign. Hence, Adani Foundation, Godda within its ambit and intervention areas would be implementing the Plantation project with objectives of income generation, increasing areas covered by trees, and ecological restoration.

Community Awareness was started in intervention villages of Godda and Sahebganj district about Program, its objectives, importance, and the benefits of plantation. The Vision of Adani Foundation on Survival of Plantation was also spread and instilled among the community to a Shared Vision. Every individual and community beneficiary will take ownership and responsibility of the survival of plantation.

The essentials of plantation related to place selection, water requirements, fencing, bio-fertilizer, pits digging, cluster plantation, etc., was properly communicated during the interaction and meetings held with interested Households, Community Based Organisation and PRI members. Total target of plantation in Godda is **22 Lakh plants** by year **2030**. In this year **2023-24**, a total of **25,000 plantations** as per target have been made of Mango, Neem, Ashoka, Guava, Citrus (Lemon), Gulmohar, Saptaparni, Peepal, Jamun, Jackfruit, and Ficus (Banyan tree) saplings at household, school, AWC, and other institution level with coverage of around 900 households, and 6 community institutions in more than 18 villages. It is assured 95% survival of total 25,000 plantation. The area brought under green cover is **234.7 acres** promoting biodiversity and ecological restoration and benefiting over 1000 farmers.

5. Skill Development & Employment Generation for Youths at Women's College at ITI, Godda

Under Public Private Partnership (PPP) Model, an MoU was signed between Directorate of Employment and Training, Department of Labor, Employment, Training and Skill Development, Government of Jharkhand, and Adani Skill Development Centre (ASDC), Ahmedabad on dated 6<sup>th</sup> April 2022 to commence Vocational training program under affiliation of NCVT at Women's ITI, Siktia (Godda).

The Vocational training program is operational in Women's ITI, Siktia (Godda) in two trades, 1. Sewing Technology and 2. Fashion Design & Technology since FY 2022-23. A total of **35 students** from intervention villages are attending training courses in each training timeline for **1 year in ITI in two trades namely, Sewing Technology** & Fashion Design trade. The opportunities provided by the Skilling program have paved way for the rural youths to achieve their ambitions, become self-reliant, generate local employment, and become economically stable in Godda region.

**6. Adani Annapurna -Vermicomposting in villages:** Adani Annapurna - Vermicomposting program was started with an objective to enable farmers to become Vermi-Entrepreneurs to boost their income and uplift their socio-economic condition and promotion of Sustainable Livelihood practices among farmers in more than **13** TPP core, railway line and pipeline villages.

Since FY 2022-23, over **68 small & marginal farmers** were supported with **83 units of Vermibed** for Vermicompost production along with trainings to 350 new farmers on organic farming and Vermicomposting in over 13 core, railway line and periphery villages namely, Motia, Baliakitta, Baksara, Dumaria, Jajalpur, Gumma, Belbharna, Sarwa, Sunderpahari, Ranidih, Karnu, Mahagama, Boarijore, etc. of Godda district. It resulted in a positive response by farmers for doing organic based farming and entrepreneurship.

The farmers have cultivated the culture of organic farming by application of vermicompost and other organic fertilizers in agriculture and plantation of horticulture plants which has increased the crop yields and productivity of the farm produces by 15%. While, the remaining produce is sold to other progressive farmers, vegetable growers, etc. in nearby villages and rural markets which has augmented their livelihood due to increase in earnings by minimum Rs. 2000- Rs. 5000 on an average per farmer per annum.

□ Exposure Visit and Training on Vermicomposting: One day Training program on Vermicomposting was organized in KGBV (Kasturba Gandhi Balika Vidyalaya), Sunderpahari on 20<sup>th</sup> December 2023 with participation of around 200 girls and 10 teachers of KGBV. The theoretical training and implementation of vermicompost unit installation in school campus had educated and provided insights to the

students and teachers on various aspects of Vermicompost production, organic farming, economic benefits to farmers and importance of environment conservation and ecological restoration. **2 Vermicompost units** were installed in KGBV Sunderpahari during the training program.

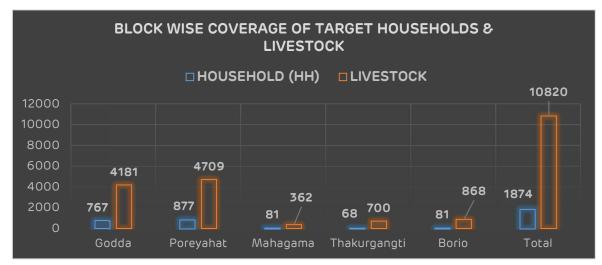
7. Kamdhenu- Veterinary Health Camp: Veterinary Health Camp was organized in the intervention villages including core, periphery, railway line and pipeline areas of Thermal Power Plant with an objective to treat and cure the diseases occurring in the cattle's and livestock to prevent them from fatalities and strengthen the financial status of poor and needful households during the outbreak. Adani Foundation in association with Animal Husbandry Department, Godda had organized Specialized Health Camp for Livestock on 04th Oct. 2023 to 06th Nov. 2023 with mutual guidance and needful support of Dr. Manoj Kumar Singh- District Animal Husbandry Officer (DHO).

		DAY WISE VE	TERINARY HEALT	Н САМР	
SN	DATE	BLOCK	VILLAGE	HOUSEHOLD	LIVESTOCK
1	04.10.2023	Poreyahat	Sondiha	95	668
2	05.10.2023	Poreyahat	Parasi	79	510
3	06.10.2023	Poreyahat	Maldih	81	439
4	07.10.2023	Godda	Patwa	63	339
5	08.10.2023	Godda	Belbarna	53	368
6	09.10.2023	Poreyahat	Gumma Santhali	77	340
7	10.10.2023	Godda	Kauribahiyar	102	415
8	11.10.2023	Poreyahat	Petwi	77	328
9	12.10.2023	Poreyahat	Petwi Santhali	69	279
10	13.10.2023	Poreyahat	Baliyakitta	85	560
11	14.10.2023	Poreyahat	Basantpur	96	500
12	15.10.2023	Poreyahat	Baksara	81	382
13	16.10.2023	Poreyahat	Baksara	69	349
14	17.10.2023	Poreyahat	Gumma	104	477
15	18.10.2023	Godda	Karikado	68	354
16	19.10.2023	Godda	Motiya	89	409
17	20.10.2023	Godda	Dumariya	95	603
18	03.11.2023	Godda	Nayabad	53	327
19	04.11.2023	Godda	Gangta	59	282
20	05.11.2023	Godda	Motiya	71	522
21	05.11.2023	Godda	Dumariya	78	439
22	06.11.2023	Godda	Karnu & Govindpur	81	362
23	29.10.2023	Mandro	Chota Tetariya	30	409
24	02.11.2023	Mandro	Sati Chauki Khutari	51	459

25	05.11.2023	Thakurgangti	Bahadurchak & Niyamatchak	68	700
		Total		1874	10820

\*Number of Village, Households and Livestock covered during Camp

**COVERAGE:** Total **26 Veterinary Health Camps** were conducted in **25 villages of 5 blocks** namely Godda, Poreyahat, Thakurgangti, Boarijor, Mahagama (Godda district) and Mandro (Sahebganj district) benefitting over **1874** households directly by providing door to door services to around **2000 livestock farmers**. A total of **10,820** cattle and Livestock were screened during the camp.



\*Block Wise Details of Household and Livestock covered during the Camp

- Treatment of Domesticated Livestock: Total 10820 domesticated cattle and Livestock were screened including 3375 Cow, 3084 Goat, 1950 Heifer Calf, 811Buffalo, 69 Buckling, 327 Hen, 358 Ox, and 69 Pigs respectively during the camp.
- Diseases Identified and Diagnosed: The screening and health check-up included Vaccination, Deworming, Ticks, and Parasites, Demolition, Infertility Check-ups, Weakness treatments and General treatment to the animals. The most common diseases were found to be Endoparasites, Osteoporosis, Ectoparasites, Enterotoxaemia, and Unknown Fever/Pyrexia of Unknown Origin (PUO), Wounds, Pregnancy Diagnosis, Repeat Breeding (RB), Dermatitis, and Lymphadenitis. The farmers were advised to do routine deworming and vaccination along with feeding of supplemental mineral-vitamin mixture to improve their body nutrient status and overall health.

**8. Library Development for Sustainable Agriculture:** Adani Foundation provided support of Almirah to School Management Committee of Bahadurchak (Niyamatchak) School, Godda district on 20<sup>th</sup> January 2024 for Library development on Sustainable agriculture and dairy activities benefitting more than 200 tribal and rural farmers. A total of 24 Books on 8 subjects related to farming activities was also provided for strengthening farmers of TPP Core villages.

#### 9. Chief Guest Visits & Important Days Celebration

• Celebration of 74<sup>th</sup> Van Mahotsava Program: Van Mahotsav is a pan-India tree planting festival celebrated in July every year. This initiative was nationally recognized in 1950 by Dr K M Munshi, who was the Union Minister for Agriculture and Food during that period. On 26<sup>th</sup> July 2023, 74<sup>th</sup> Van Mahotsava Program was organized at Dighi village of pipeline area, Godda district in participation with chief dignitaries from local administration, PRI members, Adani's staff, and community.

During the program, importance of celebrating Van Mahotsav, afforestation, its benefits, and shared vision of environment protection, ecological restoration and biological diversities was informed to the participants. It was succeeded by planting saplings in the vicinity by the chief guests.

■ 27<sup>th</sup> Adani Foundation Day Celebration: Adani Foundation Day was celebrated on 11<sup>th</sup> August 2023 to earmark 27 years of the Adani Foundation's work at site level. The message of Adani Foundation was spread among the community by joining hands with the masses and instilling values and spirit which signifies Unity, Peace, Solidarity and Holistic Development.

The 27<sup>th</sup> Adani Foundation Day was celebrated at Baksara and Amrakanoli village of Poreyahat block, Godda district by site team and stakeholders including rural beneficiaries, PRI members, and community. It was a festive occasion to celebrate with great joy and enthusiasm by filling the colours of hope and dreams of success, worshiping the human identity and integrity, and encouraging the values of everyone. On the occasion Tribal Puja Celebration, tribal dance representing the culture of Santhal Pargana community, Plantation activity near Pond and playful activities by children was organized followed by message from Mukhiya with a gesture to showcase the legacy of Adani Foundation. All community members put forth their well wishes and expressed their heartlet gratitude to Adani Foundation on breaking the taboos and hurdles of their lives and becoming the foundation for the development of human mankind.

• Celebration of Memorial Ceremony at Baksara village: Memorial Ceremony was held to pay patriotic tribute to great 'freedom fighter, Vishwanath Mandal' on his ninth-death anniversary on 6<sup>th</sup> October 2023 in Baksara village of Podaiyahat block of TPP Core area, Godda. During the occasion of Baksara Mahotsava, several activities were conducted to discharge services to the needy and poorer in Baksara village. The program commenced at 9:30 a.m. with flower offerings by Chief dignitaries and conduction of sports & cultural activities including Welcome Song, Patriotic Song, etc. with participation of school children, rural youths, and community members.

On the occasion, **prize distribution to 14 school students (10 girls and 4 boys)** on winning sports competition in High school, Baksara including stationary items (56 Copies), 14 drinking water bottles and 14 medals. A total of **1200+ participants including 50 children** were present to pay tribute during the occasion.

#### RURAL INFRASTRUCTURE DEVELOPMENT

#### Water Conservation, Ground water recharge

1. Construction of Stairs at 9 Ponds: Pond plays a crucial role in the functioning of natural cycle with enhancement of livelihood of human mankind, and natural species of flora and fauna. It enhances the soil moisture in the agricultural land, increases the water storage capacity of other harvesting structures and recharges ground water level in catchment area enabling access to drinking water namely wells, community wells and hand pumps.

In April'23- March'24, Construction of Stairs at 9 Ponds was done in 9 villages. It will enable around 138 farmers dependent on these ponds to conveniently irrigate their land in 55-60 acres prominently during Kharif season. It will also provide an opportunity for them to initiate integrated farming including agriculture, pisciculture, livestock development, etc. which will generate multiple sources of income and boost their income by minimum Rs. 5,000 in a year. This initiative will also aid around 500-600 community members in doing their domestic work in their daily routine and conduct cultural and religious programs with great joy and festivity.

#### **Drinking Water Facility**

- 1. Drinking water facility in villages –Borewell, Water tank, tap water, Community Well etc.: In this year 2023-24, 19 drinking water facilities was provided with respect to 12 units of Water tank, Borewell, and Tap water facility, 6 wells renovation and 1 Motor Repairing at Anganwadi Centre, Rampur Dumaria covering 10 villages of core, railway line and pipeline area benefitting more than 2500 population directly. The work will facilitate the villagers, students, devotees, and community during the summer season and all the year for drinking, domestic and religious purposes.
- 2. Installation, Renovation & Repairing Work of Hand pump: Hand pumps are primary source for drinking water and other domestic needs in the TPP area. Adani Foundation has taken up the hand pumps maintenance and repairing work of hand pumps, its installation and construction of hand pump platform in core, railway line and pipeline villages of Godda and Sahebganj district. With this work, we are ensuring 100% functionality of the hand pumps and water availability in the area.

This year 13 hand pumps were installed in 13 core and periphery villages benefiting more than 2900 rural population of Godda district. The branding of hand pumps installed by Adani Foundation has also been done for its recognition among the community and better monitoring system. Along with that, 2 Handpump platforms were constructed at Nayabad.

## Educational infrastructure Development

- □ 1 School Infrastructure Development in TPP Core area: The School Infrastructure of High School located in Motia village of TPP Core area, was strengthened including Construction work of Boundary Wall and Main Gate. It will bridge the infrastructural gap in pursuing education for more than 500 poorer and rural children every year in a proper space with a safe and conducive learning environment.
- □ Strengthening 4 Educational institutions in Godda district: Adami carried out infrastructure development work in the educational institutions comprising of schools and colleges enabling the children of Godda district residing near to periphery and pipeline area to complete their education till minimum higher level.

The renovation work was carried out in: -

- 1. Mahila Vidyalaya, Godda consisting of Gate work, Circle shaped seating place, renovation of boundary wall, etc.,
- 2. Fencing Boundary at SBSSPSJ College, Pathargama,
- 3. Renovation of Pravat Tara Mission School at Pipra Village, Mehrama Block,
- 4. Building Renovation work of Inter College, Mahagama.

The intervention will cater to adequate educational infrastructure needs for **2000+ poorer, tribal children and youths** of Godda district to complete at least higher-level education till graduation level.

□ School Infrastructure Development of Kasturba Gandhi Balika Vidyalaya (KGBV): In this year school development activities were carried out in 5 KGBVs (Kasturba Gandhi Balika Vidyalaya) with respect to school infrastructure upgradation enabling adequate learning ambience for girls to study along with proper dining, drinking, and residential facilities benefitting over 2000 girls per year (400 girls on an average per KGBV).

S N	Description	Work Status
1	<b>KGBV Pathargama-</b> Beautification of School Campus area, and Kitchen and Construction of Dining shed	Completed
2	<b>KGBV Godda-</b> Beautification of School Campus area and Kitchen and Construction of Dining shed	Completed
3	KGBV Mahagama- Beautification of School Campus area and Kitchen and Construction of Dining shed	Completed
4	KGBV Sunderpahari- Beautification of School Campus area	Completed
5	KGBV Thakurgangti- Beautification of School Campus area and Kitchen	Completed

## Other Village development structures

1. Construction of 13 Model Bathroom & Soak pit near Handpump: Model Bathroom and Soakpit/ Recharge pit has become a critical component in the socio-economic development of rural people and ecological restoration. It serves the objective of providing access to amenities like health, hygiene and sanitation for women, children, and tribal community. Some time ago people had no bathroom facility in their village, and they were using open places for toilet as well as bathing purpose which invites unhygienic condition and diseases among the people and makes the women more vulnerable to several social issues.

Construction of 13 Model Bathroom and Soakpit in 8 villages of core and periphery area of Godda district has addressed the needs of around 1000 women, girls and the community who lived in vulnerable condition. It has reduced their drudgery and safeguarded dignity of women and girls fostering social inclusion and equity. Development of such structures in rural habitation has also ensured alignment with Sustainable Development Goals, namely, 'Goal 3- Ensure healthy lives and promote well-being for all at all ages' and 'Goal 6. Ensure availability and sustainable management of water and sanitation for all'.

			Model Bathroom			
S.N	Duration	Block	Village	No. Of Bathroom	Total HHs	Beneficiary
1	23-Jun	Godda	Gangta	2	30	150
2	23-Jul	Mahagama	Ghat Ghoria	1	18	90
3	Oct'23	Mehrama	Hanuman Temple, Kokra Khas village	1	42	90
4	Dec'23	Podaiyahat	Baksara (Sah tola)	1	25	75
5	Dec'23	Podaiyahat	Baksara (Laiya tola)	1	30	90
6	Dec'23	Godda	Nayabad	2	35	105
7	Dec'23	Godda	Gangta	1	20	60
8	Dec'23	Podaiyahat	Petbi	1	25	75
9	Dec'23	Podaiyahat	Basantpur	2	60	180
10	Jan'24	Podaiyahat	Baliakitta	1	36	108
		Total		13	321	1023

2. Construction of 19 Seating Place (Chabutra) in villages: Construction of 19 Seating place has been done in 12 core and pipeline villages benefiting more than 5500 rural and tribal population. Normally villages do not have common places in the village for seating purposes mainly for elders, senior citizens and devotees coming to worship in temples situated in villages. This is being used by the common people in the village for seating purposes and for conducting village level meetings, SHG meetings and cultural activities at a small level.

	Seating Places						
S. N	Duration	Block	Village	Unit	Beneficiary		
1	23-Apr	Godda	Badi Lobandha (Near Siktia)	1	460		
2	23-Apr	Godda	Choti Lobandha (Near Siktia)	1	655		
3	23-May	Mahagama	Ramchandrapur	1	610		
4	23-May	Godda	Patwa near Hanuman temple	1	250		
5	23-May	Mahagama	Kushmara	1	335		

6	23-May	Mahagama	Shivkitta	1	300
7	23-Jun	Godda	Gangta (Near AWC)	1	224
8	23-Aug	Godda	Singheswar Temple, Dare, Godda	6	1500
9	23-Aug	Mahagama	Anjana	1	NA
10	Dec'23	Podaiyahat	Basmotitikar	1	350
11	Jan'24	Podaiyahat	Telgama	1	270
12	Feb'24	Mehrama	Balbadda	3	550
	Total		19	5504	

- 3. Construction of Conference Hall at Sibu Soren Janjatiya Inter College, Borio Block at cultural heritage sites in Sahebganj to provide adequate infrastructure to hold meetings, seminars, and cultural events benefiting over 591 tribals students, teaching staffs & community.
- 4. Construction of Community Hall at TPP area for Community Programs for Promotion of cultural activity and local events at village level for community. It helps share peace and harmony among the community. As we are committed to providing better community structures to the village, we have constructed 1 community hall in Motia village of TPP core area. This hall is also being used for community purposes by over 200 villagers on several occasions.

SN	Duration	Village	Unit
1	April 2023	Motia	1
	Total		1

- 5. Construction/Renovation of Boundary wall at 3 villages comprising of construction of boundary wall at Jaherthan at Telgama village, Boarijore block of pipeline area, Godda, boundary wall construction in community hall at Diyara Village, Godda and Renovation of Boundary wall at Motia Panchayat Bhawan. It will address the needs of PRI members and around 900 villagers per year to conduct panchayat and village level meetings on developmental programs of government, registration of beneficiaries to the govt. schemes, awareness generation among right beneficiary, conduction of SHGs meeting, cultural and religious activities, etc. The boundary wall renovation will enable safety in panchayat Bhawan and religious premises and promote horticulture plantation activities with maximum survival count resulting conservation of natural resources and ecology.
- **6. Construction of 2 Drains** was carried out in various core villages, namely **150m Drain at Petbi Village**, and **110m drain at Patwa Village**, for proper drainage system and sanitation in the rural area benefiting over **3500 rural population**.

- 7. Development of Workshop unit at Women's ITI Siktia, Godda: To provide better training infrastructure facilities to the students of Skill development program operational in Women's ITI Siktia, Godda.
- 8. Renovation and construction of 19 community structures: We have taken up the renovation & upgradation of old, defunct, and dilapidated community structures and cultural heritage structures in 16 intervention villages to restore, adapt and conserve structures of heritage and cultural value benefiting more than 20,000 beneficiaries. Moreover, it enables the villagers to organize local festivals, perform puja rites and conduct village level meetings such as SHG meeting, Gram Sabha, Sports Committee meeting, etc.
- **9. Repairing of 1 Village Road** at Basantpur village of TPP Core area, Podaiyahat block of Godda district to provide better rural infrastructure facilities benefiting **3000+ villagers** for safe and smooth commuting.
- 10. Construction of Paver Pathway, and Renovation of Well and bathroom at Bhavanipur Village, Vikram Shila- Aim to provide better rural infrastructure in the villages. This connecting path will benefit the tourists who visit Vikramshila, an archaeological site of National importance benefiting 5000+ visitors every year. This will also promote tourism and economic empowerment in the region. Also, Renovation of Well and bathroom construction work was carried out benefiting 200 population per year from Bhavanipur village.
- **11. Renovation of Children's Park at Lohiyanagar, Godda:** Renovation of Children's Park at Lohiyanagar, Godda for better playing and recreational facilities for around **1000 children and public** of Godda district every year.
- **12. Construction of Kitchen in Satsang Bhawan** in Deobandha village of periphery area enabling to perform cultural and religious activities on several occasions benefiting over **1500 community members** every year.



# Adani Power (Jharkhand) Limited, Godda

# Expenditure for Environmental Protection & CSR (Period: April 2023 – March 2024)

Annexure - IX

# **Expenditure for Environmental Protection & CSR**

(Fig. in Rs. Lacs)

		(119.11113. 2003)
Sr. No.	Particular	Expenditure from (Apr-23 to Mar-24)
1.	Rural Development/CSR Activities (Education, community health, Sustainable Livelihood, community Infrastructure development etc.)	660.94
2.	Green belt Development (Horticulture)	526.48
3.	Legal, Consent fees	3.67
4.	Third party monitoring, Services and Equipment & Instruments maintenance, Communication cost.	22.24
5.	Cost involved in emission treatment and disposal (AHP, FGD, SCR, STP, ETP, CHP etc.)	1060.97
	Total	2274.3

#### Nilkanth Prajapati

From: R N Shukla

**Sent:** 28 October 2023 13:13 **To:** Regional Office; dumka jspcb

**Cc:** Nilkanth Prajapati

**Subject:** FW: Information towards the change in Coal Source by Adani Power Jharkhand Limited, Jharkhand.

Attachments: Godda TPP Coal Source Change Information Letter Oct - Dec'23.pdf; OM-Amendment-in-Environmental-Clearance-for-change-in-coal-

source, 11 NOV 2020.pdf

PFA.

Regards, R N SHUKLA 079-25557022 09426600976

From: R N Shukla

**Sent:** Monday, October 9, 2023 11:15 PM

To: 'Yogendra Pal Singh' <yogendra78@nic.in>; 'saurabh.upadhyay85@gov.in' <saurabh.upadhyay85@gov.in>; 'ROR MoEFCC' <ro.ranchi-mef@gov.in>;

'ranchijspcb@gmail.com' <ranchijspcb@gmail.com>; 'Regional Office' <jspcbdumka@gmail.com>

**Cc:** Santosh Kumar Singh <Santosh.Singh1@adani.com>; Sanjeev Munjal <Sanjeev.Munjal@adani.com> **Subject:** Information towards the change in Coal Source by Adani Power Jharkhand Limited, Jharkhand.

#### R/Sir's

Kindly find enclosed herewith pointwise information towards the change in Coal Source for the period of October'23 to December'2023 by Godda TP of Adani Power Jharkhand Ltd. Jharkhand, The APJL is proposed to use domestic Coal through e-auction and hereby submits information as per para 7 of the MoEFCC OM dated 11.11.2020.

Regards, R N SHUKLA 079-25557022 09426600976



Ref: APL/APJL/ENV/MoEFCC/525/23

Date: 09.10.2023

To,
The Director – IA, II (T)
Ministry of Environment, Forest, and Climate Change
Government of India, Indira Paryavaran Bhavan,
Vayu Wing, Jor Bagh Road
New Delhi - 110 003

Sub.: Information towards the change in Coal Source (Amendment) as earlier communicated by Adani Power Jharkhand Limited, Godda (APJL), Jharkhand.

**Ref.:** 1. Environmental Clearance vide File vide Letter no: J13012/01/2016-IA.I (T) dated: 31.08.2017 and amendments dated 03.09.2019 & 27.02.2020.

2. MoEFCC Office Memorandum vide Letter No: J-13012/8/2009-IA.I (T) dated 11.11.2020

3. Our letter to MoEFCC vide no. APL/APJL/ENV/MoEFCC/521/23 dated 13.09.2023

Dear Sir,

With reference to above subject and in continuation of our letter vide no. APL/APJL/ENV/MoEFCC/521/23 dated 13.09.2023, we are hereby submitting further information towards change in Coal Source for the period of **October'2023 – December'2023** by Godda TPP of Adani Power Jharkhand Limited.

The EC vide reference 1 was issued to APJL on the basis of Imported Coal. APJL propose to use domestic Coal through e-auction & market Coal and hereby submit information as per para 7 of the OM dated 11.11.2020.

As per the Office Memorandum, MoEFCC dated; 11.11.2020, all the Thermal Power Plants (including Captive Power Plants) having Environmental Clearance can **change the Coal Source** (from imported to domestic, domestic to domestic, and domestic to imported) including Lignite, directly through e-auctions/short term linkage/long term linkage/other linkage options of Ministry of Coal or any organization recognized for allotting coal linkages, without seeking the amendment in Environmental Clearance.



Pointwise information towards the change in Coal Source by Godda TPP of Adani Power Jharkhand Ltd presented below:

SI. No.	Conditions	Information
1,	Details required regarding change in Source of Coal.  o Location of the source, o Proposed quantity, o Distance from the power plant and o Mode of transportation o Quality (Ash, Sulphur, Moisture content and Calorific value)	Details regarding change in Source of Coal are attached in <b>Annexure-I</b>
2.	The quantity of Coal transported from each source along with the mode of transportation shall be submitted as part of EC Compliance Report.	The quantity of coal transported from source along with the mode of transportation is mentioned in Annexure-I
3,	The applicable flue gas emissions standards for Particulate Matter, Sulphur Dioxide, Oxides of Nitrogen and Mercury shall be complied in line with Ministry's Notification vide S.O. 3305(E) dated 7.12.2015 and subsequent emissions. A progress of implementation undertaking, and its compliance shall be submitted as part of Compliance Report.	High Efficiency Electrostatic Precipitators (ESP) has already installed to meet PM emission as per prescribed limit.  FGD & SCR are installed to meet prescribed standard of SOx & NOx emission respectively.  Emission monitoring results/report will be submitted along with half yearly EC compliance report to the concern authority on regular basis.
4.	Ash content in the Coal and Coal transportation is governed by the Ministry's Notification vide S.O. 1561(E) dated 21.51.2020. As far as possible, Coal transportation shall be done by Rail/ Conveyor or other eco-friendly modes.	Ash content will be in compliance with Gazette Notification dated 21.05.2020.  Coal transportation from the loading railway siding of mines to the Power Plant will be by Rail/Road.
5.	Additional ash pond is also not allowed.	No additional ash pond required.

We hope you will find the above information in order. We assured to the Ministry that Adani Power Jharkhand Ltd. is committed to pollution prevention and will always operate and maintain the plant as per applicable environmental standards.

Adani Power (Jharkhand) Ltd Adani Corporate House Shantigram, S G Highway Ahmedabad 382 421 Gujarat, India

Tel +91 79 2555 4444 Fax +91 79 2555 7177 www.adanipower.com



Thanking You,

Yours faithfully

for Adani Power Jharkhand Ltd.

( and

(Santosh Kumar Singh) Authorized Signatory

Encl: As above

CC Integrated Regional Office,

Ministry of Environment Forest & Climate Change Second Floor, Headquarter- Jharkhand State Housing Board, Ranchi, Jharkhand

The Regional Officer,

Jharkhand State Pollution Control Board Dudhani, Dumka, Jharkhand – 814110 The Member Secretary,

Jharkhand State Pollution Control Board TA Division Building (Ground Floor, HEC Dhurwa, Ranchi – 843 004 (JH)

#### Annexure-I

Particulars	SECL			PKCL		
Tentative coal receipt Projections for the period of Oct'23 to Dec'23	Oct'23	Nov'23	Dec'23	Oct'23	Nov'23	Dec'23
Proposed Qty	24,000	24,000	24,000	60,000	60,000	60,000
Grade	G12	G12	G12	Washery Reject	Washery Reject	Washery Reject
Mode of transportation	Rail			Rail		
Rail/Road Distance (Km)		751		1211		
Calorific Value Range (Eq basis) Kcal/Kg	3700-4000		1500-1800			
ASH %		45%-50%		55%-60%		
Sulphur %		0.5%-1%			0.5%-1%	
00 - i - bu u - 0 c	TM 10%-12%			TM 11%-13%		
Moisture %	IM 5%-6%			IM 3%-4%		

#### Nilkanth Prajapati

From: R N Shukla

**Sent:** 19 January 2024 16:14

**To:** Nilkanth Prajapati; Khushi Parekh; Manish Kumar

**Subject:** FW: Information towards the change in Coal Source by Adani Power Jharkhand Limited, Jharkhand.

**Attachments:** AP(J)L\_Change in Coal Source Letter\_ January'2024 to March'2024.pdf

FYIP.

Regards, R N SHUKLA 079-25557022 09426600976

From: R N Shukla

Sent: Friday, January 19, 2024 4:13 PM

To: amit.vashishtha@nic.in; mohit.saxena@gov.in; ROR MoEFCC <ro.ranchi-mef@gov.in>; ranchijspcb@gmail.com; Regional Office <jspcbdumka@gmail.com>

**Cc:** Santosh Kumar Singh <Santosh.Singh1@adani.com>; Sanjeev Munjal <Sanjeev.Munjal@adani.com> **Subject:** Information towards the change in Coal Source by Adani Power Jharkhand Limited, Jharkhand.

#### R/Sir's

Kindly find enclosed herewith pointwise information towards the change in Coal Source for the period of January'24 to March'2024 by Godda TP of Adani Power Jharkhand Ltd. Jharkhand, The APJL is proposed to use domestic & imported Coal through e-auction and hereby submits information as per para 7 of the MoEFCC OM dated 11.11.2020 & 06.12.2023.

Regards, R N SHUKLA 079-25557022 09426600976



Ref: APL/APJL/ENV/MoEFCC/532/24

Date: 15.01.2024

To,
The Director – IA, II (T)
Ministry of Environment, Forest, and Climate Change
Government of India, Indira Paryavaran Bhavan,
Vayu Wing, Jor Bagh Road
New Delhi - 110 003

Sub.: Information towards the change in Coal Source by Adani Power Jharkhand Limited, Godda (APJL), Jharkhand.

Ref.: 1. Environmental Clearance vide File vide Letter no: J13012/01/2016-IA.I (T) dated: 31.08.2017 and amendments dated 03.09.2019 & 27.02.2020.

2. MoEFCC Office Memorandum vide Letter No: J-13012/8/2009-IA.I (T) dated 11.11.2020

MoEFCC Amended Office Memorandum vide Letter No: J-13012/8/2009-IA.II
 (T) dated 06.12.2023

Dear Sir.

With reference to above subject, we are hereby submitting information towards change in Coal Source for the period of **January '2024 – March '2024** by Godda TPP of Adani Power Jharkhand Limited.

The EC vide reference 1 was issued to APJL on the basis of Imported Coal. APJL propose to use domestic Coal through e-auction and hereby submits information as per para 7 of the OM dated 11.11.2020.

As per the Office Memorandum, MoEFCC dated; 11.11.2020 and its amendment, all the Thermal Power Plants (including Captive Power Plants) having Environmental Clearance can **change the Coal Source** (from imported to domestic, domestic to domestic, and domestic to imported) including Lignite, directly through e-auctions/short term linkage/long term linkage/other linkage options of Ministry of Coal or any organization recognized for allotting coal linkages, without seeking the amendment in Environmental Clearance.



Pointwise information towards the change in Coal Source by Godda TPP of Adani Power Jharkhand Ltd presented below:

SI. No.	Conditions	Information
1.	Details required regarding change in Source of Coal.  Location of the source, Proposed quantity, Distance from the power plant and Mode of transportation Quality (Ash, Sulphur, Moisture content and Calorific value)	Details regarding change in Source of Coal are attached in <b>Annexure-I</b>
2.	The quantity of Coal transported from each source along with the mode of transportation shall be submitted as part of EC Compliance Report.	The quantity of coal transported from source along with the mode of transportation is mentioned in <b>Annexure-I</b>
3.	The applicable flue gas emissions standards for Particulate Matter, Sulphur Dioxide, Oxides of Nitrogen and Mercury shall be complied in line with Ministry's Notification vide S.O. 3305(E) dated 7.12.2015 and subsequent emissions. A progress of implementation undertaking, and its compliance shall be submitted as part of Compliance Report.	High Efficiency Electrostatic Precipitators (ESP) has already installed to meet PM emission as per prescribed limit. FGD & SCR are installed to meet prescribed standard of SOx & NOx emission respectively. Emission monitoring results/report will be submitted along with half yearly EC compliance report to the concern authority on regular basis.
4	Ash content in the Coal and Coal transportation is governed by the Ministry's Notification vide S.O. 1561(E) dated 21.51.2020. As far as possible, Coal transportation shall be done by Rail/Conveyor or other eco-friendly modes.	Ash content will be in compliance with Gazette Notification dated 21,05.2020.  Coal transportation from the loading railway siding of mines to the Power Plant will be by Rail/Road.
5	Additional ash pond is also not allowed.	No additional ash pond required.



Comp	liance of OM Dated 06.12.2023	
a.	from domestic to domestic,	NA
b.	from domestic to domestic (blended with imported coal up to 30% content of imported coal)	NA
C.	from imported to imported (blended with domestic coal up to 10% content of domestic coal)	NA
d.	from imported to domestic (where the GCV of the domestic coal is of the same grade as of imported coal).	Complied

We hope you will find the above information in order. We assured to the Ministry that Adani Power Jharkhand Ltd. is committed to pollution prevention and will always operate and maintain the plant as per applicable environmental standards.

Thanking You,
Yours faithfully

for Adani Power Jharkhand Ltd.

(Santosh Kumar Singh) Authorized Signatory

Encl: As above

CC Integrated Regional Office,

Ministry of Environment Forest & Climate Change Second Floor, Headquarter- Jharkhand State Housing Board, Ranchi, Jharkhand

The Regional Officer,

Jharkhand State Pollution Control Board Dudhani, Dumka, Jharkhand – 814110 The Member Secretary,

Jharkhand State Pollution Control Board TA Division Building (Ground Floor, HEC Dhurwa, Ranchi – 843 004 (JH)

#### Annexure-I

Particulars	SECL		Suliyari		WCL			OCPL		NLC			CCL			Imported Coal					
Tentative coal receipt Projections for the period of Jan'24 to Mar'24	Jan'24	Feb'24	Mar'24	Jan'24	Feb'24	Mar'24	Jan'24	Feb'24	Mar'24	Jan'24	Feb'24	Mar'24	Jan'24	Feb'24	Mar'24	Jan'24	Feb'24	Mar'24	Jan'24	Feb'24	Mar'24
Proposed Qty (MT)	40,000	48,000	16,000	40,000	40,000	40,000	76,000	84,000	40,000	44,000	20,000	20,000	40,000	52,000	40,000	48,000	20,000	12,000	80,000	80,000	80,000
Mode of transportation	Rail		Rail		Rail		Rail		Rail		Rail		Rail								
Rail/Road Distance(Km)	751-841		748		691-801		691		670		516/539/560		Dhamra-702/Gangavaram- 1214/Haldia-479								
Calorific Value Range	3500-4300					3500-4600		3500-3600		3500-3600		3700-4300									
(Eq basis) Kcal/Kg			5500-5800		4800-5100 GAD																
ASH %	38%-40%		25%-30%		40%-42%		35%-40%		40%-42%		38%-42%		24%-25%								
Sulphur %	0.5%-1%		0.5%-1%		0.5%-1%		0.5%-1%		0.5%-1%		0.5%-1%		0.5%-1%								
Moisture %	TM 10%-12%		TM 13%-15%		TM 11%-13%		TM 11%-13%		TM 11%-13%		TM 11%-13%		TM 11%-13%								
	IM 4%-5%		IM 5%-6%		IM 3%-4%		IM 3%-4%		IM 3%-4%		IM 4%-5%		IM 4%-5%								



#### **TEST REPORT**

Sample Number:

VTL/C0/01

Name & Address of the Party:

M/S Adani Power Jharkhand Ltd. 2X800 MW Thermal Power Plant,

Village- Motia, Dist.- Godda, Jharkhand

Sample Description:

Coal

Report No.:

VTL/C0/2403260001

Format No.:

7.8 F-01

Party Reference No.:

Report Date:

NIL 31/03/2024

Period of Analysis:

26-31/03/2024

Receipt Date:

26/03/2024

Sampling Date:

23/03/2024

Sampling Quantity:

250 gm.

S. No.	Parameter	Test-Method	Results	Unit mg/kg	
1.	Arsenic (as As)	BY AAS Method	BLQ		
2.	Mercury (as Hg)	BY AAS Method	BLQ	mg/kg	
3.	Chromium (as Cr)	BY AAS Method	1.06	mg/kg	
4.	Lead (as Pb)	BY AAS Method	2.22	mg/kg	
5.	Ash %	IS 1350 (Part I): 1984, Reaffirmed 2007	26.10	%	
6.	Sulphur %	ASTM D-5373-08	0.37	%	







RK Yadav

Lab Incharge

Authorized Signatory

Approved & Certified EPA 1986 Recognised, ISO:9001 and OHSAS:45001 Certified

Vibrant Techno Lab Pvt. Ltd.

SC-40, 3rd Floor, Narayan Vihar S, Ajmer Road, Jaipur Raj. 302020

9929108691, 9810205356, 8005707098, 9549956601

**2** 0141-2954638

≥ bd@vibranttechnolab.com

www.vibranttechnolab.com

#### भारत सरकार परमाणु ऊर्जा विभाग विकिरण एवं आइसोटोप प्रौद्योगिकी बोर्ड



# Government of India Department of Atomic Energy Board of Radiation & Isotope Technology

Certificate Tracking ID / CTID : 2400375

Date of Issue / DOI : 02-Feb-2024

Certificate Serial No. / CSN : ULR-TC1170324000001607F





# Radioanalytical Laboratory

#### RADIOACTIVITY TEST CERTIFICATE

Ref: BRIT/RAL/DOM/887-890/MISC/638-641/23-24

To:
M/S. ADANI POWER (JHARKHAND) LIMITED
POWER PLANT - UNIT,
VILLAGE - MOTIA AND MALI,
GAYEGHAT AND ADJACENT VILLAGES,

DIST.GODDA, JHARKHAND - 814 133

INDIA

This is regarding the sample of "COAL" sent for radioactivity analysis vide your letter dt. nil which as per above letter is drawn from consignment with the following markings, as shown in italics:

NAME & ADDRESS OF THE CUSTOMER : M/S. ADANI POWER (JHARKHAND) LIMITED

POWER PLANT - UNIT, VILLAGE - MOTIA AND MALI,

GAYEGHAT AND ADJACENT VILLAGES,

DIST. GODDA,

JHARKHAND - 814133,

INDIA.

SAMPLE DESCRIPTION : COAL

DATE OF RECEIPT OF SAMPLE: 02.01.2024 DATE OF COMPLETION OF TEST: 25.01.2024

The samples were analysed for U-238, Th-232,Ra-226 and K-40 radioactivity content by HPGe gamma spectrometry and the values obtained are as follows:

Sr. No	SAMPLE DESCRIPTION	U-238 (Bq/Kg)	Th-232 (Bq/Kg)	Ra-226 (Bq/Kg)	K-40(Bq/Kg)
1	COAL	19.5 ± 1.2	25.6 ± 1.4	14.4 ± 2.6	40.1 ± 3.3

Opinion: The measurement values are below the clearance level for radionuclides of natural origin in bulk solid materials, as per AERB directive 01/2010 (table-3) dated 26/11/2010.

Note: (i) The report pertains to the given sample only. (ii) The sample will be retained in this laboratory for a period of 1 month from certificate date and thereafter it will be disposed off. (iii) This report shall not be reproduced except in full, without written approval of the laboratory. (iv) The sampling is not done by this laboratory.

Checked by:Authorized Signatory:GANPAT B NAKTIAJAY NANA THAMKEAssistantOIC. RAL

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

1/1

The authenticity of this certificate is verifiable. Please scan the QR code using a QR scanning application on any mobile devices. Upon redirection you must enter the necessary information in landing page <a href="https://eportal.britatom.gov.in">https://eportal.britatom.gov.in</a>. We will then revert you back with a digital copy of the certificate in your verified e-mail ID. In accordance to IT Act 2000 (21 of 2000), this document is generated electronically through a validated s/w and need no physical/ digital signature(s).



