एनटीपीसी लिमिटेड
(भारत सरकार का उपक्रम)
NTPC Limited
(A Government of India Enterprise)

Ref: Lara/EMG/Stage-I/2024 **Date: 29.11.2024**

To,
Regional Officer,
Inspector General of Forests,
Integrated Regional Office,
Ministry of Environment, Forest & Climate Change
Raipur.
(mail:- iro.raipur-mefcc@gov.in)

Subject: 24th Six Monthly Environment Compliance Report of NTPC-Lara Station Stage-I (2X800 MW).

Ref. No.: MoEF&CC, Govt. Of India, New Delhi Reference File Number: J 13012/79/2007-1A-II (T); dated: 13.12.2012

Dear Sir,

This has reference to the environment clearance for Lara STPS, NTPC Ltd. Stage-I issued vide MoEF&CC, Govt. Of India, New Delhi Reference File Number: J 13012/79/2007-1A-II (T); dated: 13.12.2012. Kindly find the enclosed 24th Six monthly environmental clearance compliance report for the period 01.04.2024 to 30.09.2024 for your record and kind information please.

Thanking You,

Sudhir Dahiya
Additional General Manager
(Environment Management Group)
NTPC Lara

डॉ. सुधीर दहिया
Dr. SUDHIR DAHIYA
अपर महाप्रबंधक (पर्यावरण प्रबंधन)
Addl. General Manager (EMG)
एनटीपीसी-लारा, रायगढ़ (छ.ग.)
NTPC-LARA, Raigarh (C.G.)

Enclosure: i) As above

CC:
1. Member Secretary, CECB, Raipur
2. Regional Officer, CECB , Raigarh

COMPLIANCE REPORT OF ENVIRONMENTAL CLEARANCE CONDITIONS FOR LARA STPP, STAGE-I (2X800 MW)

(PERIOD: April 2024 TO September 2024)

A. Specific Conditions:

S. No.	Description	Status of Implementation (As on 30.09.2024)
i	Vision document specifying prospective plan for the site shall be formulated and submitted to the Regional Office of the Ministry within **six months.**	Being Complied Vision document specifying prospective plan of the project was submitted to the Regional Office (Western Central Zone) of the MOEF&CC at Nagpur along with first six monthly compliance report vide NTPC letter dated 11.07.2013.
ii	Scheme for implementation for harnessing solar power within the premises of the plant particularly at available roof tops shall be formulated and status of implementation shall be submitted periodically to the Regional Office of the Ministry.	Complied. 1164.8 KW roof top solar panels have been commissioned and operational. Three POs has been awarded to three different agencies for installation of 440kW of roof top solar panels. PO No is mentioned below. (PO: 4200060274 for supply of material) PO: 5500043926 for Installation & commissioning) PO: 4000324837 for O&M systems for 3 years.

iii	Provision for installation of FGD shall be provided for future use.	NTPC has already awarded contract for installation of FGD to M/s L&T on 31.07.2018 for controlling SOx concentration in flue gas in compliance to the latest MOEF&CC emission norms dated 07.12.2015 for TPP. The installation of FGD is in progress. FGD U#1 is in operation. FGD U#2 commissioning activity is in advance stage. Rs. 490 Crores Expenditure done out of total Rs. 571 Crore Package value.
iv	Coal transportation to plant site shall be undertaken by rail and no road transportation shall be permitted.	Noted, Compliance assured. MoEF&CC vide gazette notification dated 21.05.2020 and OM dated 11.11.2020 has also accorded amendment regarding coal transportation by road. Coal is being transported by rail mode only from 2nd July 2024.
v	A long-term study of radio activity and heavy metals content on coal to be used shall be carried out through a reputed institute. Thereafter mechanism for an in-built continuous monitoring for Radio activity and heavy metals in coal and fly ash (including bottom ash) shall be put in place. The Clause has been amended as : "Radio activity and Heavy Metals" contents in coal & fly ash (including bottom ash) shall be carried out through a reputed institute once in a year and the analysis report to be submitted to the ministry and its Regional Office.	In compliance to the said stipulations, the heavy metal testing for coal, fly ash and bottom ash has been carried out by MOEF&CC approved vendor. The monitoring of radioactivity contents has also been carried out annually through M/s Board of Radioisotope Technology (BRIT), Department of Atomic Energy (DAE). The analysis reports attached with the compliance report.
vi	Sulphur and ash contents in the coal to	MOEF&CC Vide Office Memorandum

	be used in the project shall not exceed 0.5% and 34 % respectively at any given time. In case of variation of coal quality at any point of time fresh reference shall be made to the Ministry for suitable amendments to environmental clearance condition wherever necessary.	dated 11.11.2020 has modified this condition. The project proponent has to only inform to the Regional Office of MoEF&CC regarding the change in coal source and quality.
vii	Bi-flue stack of 275 m height with flue gas velocity not less than 22 m/s shall be installed and provided with continuous online monitoring equipments for SO_x, NO_x and PM. Mercury emissions from stack may also be monitored on periodic basis.	Complied. Mercury emissions from stack are also monitored on periodic basis. Monitoring Reports attached.
viii	High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm^3.	The High Efficiency Electrostatic Precipitators (ESP), designed for achieving guaranteed efficiency of 99.97 % installed and operational to ensure that the emission of Particulate Matter (PM) is in compliance.
ix	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.	Complied. Adequate Dust extraction and dust suppression system provided in all areas (in coal handling and ash handling points, transfer areas and other vulnerable dusty areas) for control of fugitive emission.
x	No mine void filling or filling up of low-lying areas with fly ash shall be undertaken.	Ash utilization in low lying area is being done in line with MoEF&CC OM dated 28.08.2019 and in compliance to the MOEF&CC Notification dated 31.12.2021.
xi	Utilization of 100% Fly Ash generated shall be made from 4th year of operation. Status of implementation shall be reported to the Regional Office of the Ministry from time to time.	Ash Utilization Plan has been prepared and all efforts are being made to achieve the targets in compliance to fly ash Gazette Notification dated 03.11.2009 and its amendments issued thereafter. Annual Ash utilization report of FY 2023-24 attached with the compliance report.
xii	Fly ash shall be collected in dry form and storage facility (silos) shall be provided. Unutilized fly ash shall be disposed off in the ash pond in the form of slurry form.	Three High Concentration Slurry Disposal (HCSD) Silos are operational having capacity 750MT each for collection, issue of dry fly ash to end user and disposal of

		unused fly ash in ash dykes as mandated. In addition to above, additional Dry Ash Extraction System (DAES) for collection of fly ash with higher storage capacity silos (4*1250MT) awarded and are under advance stage of erection.
	Mercury and other heavy metals (As, Hg, Cr, Pb etc.) will be monitored in the bottom ash as also in the effluents emanating from the existing ash pond. No ash shall be disposed off in low lying area.	Periodic monitoring for mercury & heavy metals in the bottom ash and water emanating from ash pond is being done. Monitoring report attached. Ash utilization in low lying area is being done in line with MoEF&CC OM dated 28.08.2019 and in compliance to the MOEF&CC Notification dated 31.12.2021.
xiii	Ash pond shall be lined with HDPE/LDPE lining or any other suitable impermeable media such that no leachate takes place at any point of time. Adequate safety measures shall also be implemented to protect the ash dyke from getting breached. Ash pond water shall be re- circulated and utilized.	Complied. Suitable impermeable media lining provided in all ash dykes. The structure of ash dykes is designed, constructed and operated as per State-of-the-Art engineering design and construction with adequate factor of Safety to avert any remote possibility of getting breached. Regular monitoring and inspection of ash dykes and an emergency response system ensure that there are no risks of failure as apprehended. In compliance. Ash Water recirculation system (AWRS) of adequate capacity installed and operational.
xiv	Fugitive emissions shall be controlled to prevent impact on such that no agricultural/ non-agricultural land. Impact to any land shall be mitigated and suitable compensation provided in	Noted, Compliance assured. Compliance assured, if any such conditions arise.

	consultation with the local Panchayat.	
xv	Hydrogeology of the area shall be reviewed annually from an institute / organization of repute to assess impact of surface water and ground regime (especially around ash dyke.) In case any deterioration is observed, specific mitigation measures shall be undertaken, and reports / data of water quality monitored regularly and maintained shall be submitted to the Regional Office of the Ministry.	• The baseline Hydro-geological study at Lara project has been carried out through IIT, Roorkee. The new proposal for the study has been initiated and PR No . 200134062 has been generated. • The surface and ground water analysis is also being carried out through MOEF&CC approved laboratory and monitoring reports are attached for reference.
xvi	No ground water shall be extracted for use in operation of the power plant even in lean season.	In compliance. Raw water is sourced from Saradih Barrage of Mahanadi river as per the agreement with Chhattisgarh Water Resource Department (CGWRD) for all purposes & No groundwater is being used.
xvii	No water bodies (including natural drainage system) in the area shall be disturbed due to activities associated with the setting up/operation of the power plant.	Noted, Compliance assured.
xviii	Minimum required environmental flow suggested by the Competent Authority of the state Govt. shall be maintained in the Channel/ Rivers (as applicable) even in lean season.	Raw water is sourced from Saradih Barrage of Mahanadi river as per the agreement with Chhattisgarh Water Resource Department (CGWRD) and water drawl is being done in consultation with (CGWRD) to comply all applicable conditions. Saradih reservoir is under administrative Control of Chhattisgarh Water resource Department.
xix	COC of 5.0 shall be adopted	Complied.
xx	Regular monitoring of ground water level shall be carried out by establishing a network of existing wells and constructing new piezometers. Monitoring around the ash pond area shall be carried out particularly for heavy metals (Hg, Cr, As, Pb) and records maintained and submitted to the Regional Office of this Ministry. The data so obtained should be compared with the baseline data so as	Complied. 13 nos. of piezometers for regular monitoring of ground water level in and around the ash pond areas and plant area as per stipulation have been constructed. Base line monitoring for ground water quality is being already carried out through MoEF&CC recognized laboratory and the same will be continued. The records are being maintained and submitted to

	to ensure that the ground water quality is not adversely affected due to the project.	concerned regulatory authority regularly. Reports are being attached.
xxi	Monitoring surface water quality in the area shall also be regularly conducted and records maintained. The monitored data shall be submitted to the Ministry regularly. Further, monitoring points shall be located between the plant and drainage in the direction of flow of ground water and records maintained. Monitoring for heavy metals in ground water shall be undertaken.	Monitoring of Surface water quality in the areas are being carried out by MOEF&CC recognized laboratory and the same will be continued. The records are being maintained and submitted to concerned regulatory authority regularly. Reports are being attached. Monitoring for heavy metals in ground water is also being carried out and its records being submitted to concerned regulatory authority regularly.
xxii	Waste water generated from the plant shall be treated before discharge to comply limits prescribed by the SPCB/CPCB.	In compliance.
xxiii	The project proponent shall undertake rain water harvesting measures and shall develop water storage for use in operation of the plant. Rain water harvesting system shall be put in place which shall comprise of rain water collection from the built up and open area in the plant premises. Action plan for implementation shall be submitted to the Regional Office of the Ministry.	Facility for Rainwater harvesting along with storage capacity created in Township as per availability of land. A water body of the capacity of 90,000 m^3 has been rejuvenated inside the township & all of the water is being sent to the reservoir. Rainwater harvesting system provided in township & plant. 24 pits in NTPC Lara township & 17 pits in plant area have been provided for groundwater recharge. Ground water recharge centers have been constructed as per rainwater harvesting scheme in our plant area & township area.

xxiv	Additional soil for leveling of the proposed site shall be generated within the site (to the extent possible) so that natural drainage system of the area is protected and improved.	In compliance.
xxv	Common property resource falling in the vicinity of the project area shall be identified and if any common property resource (such as grazing land, pond etc.) is falling within the plant area and is unavoidable by its sheer location, an equal area shall be first developed and handed over to the community.	Complied. Development of common property resource has already been included in R&R plan and CSR Activities.
xxvi	The project proponent need to ensure that poor villagers (particularly landless farmers) are further not marginalized. Accordingly, identification of landless farmers shall be carried out from records of Revenue Department/ District Agricultural Office, collected and appropriate scheme for sustainable livelihood scheme shall be devised and audited report sent to the concerned Department from time to time.	Complied. These aspects have already been included in R&R Plan and implemented.
xxvii	The project proponent shall ensure compensation to the land oustees and also formulate scheme in consultation with the State Govt. for immediate implementation of sustainable welfare measures for marginalized landless farmers whose sustenance were indirectly dependent on the land now proposed for the power project and not owned by them.	The said stipulations has already been complied in accordance with the approved R&R Plan.

xxvii	The project proponent shall also adequately contribute in the development of the neighboring villages. Special package with implementation schedule for providing potable drinking water supply in the nearby villages and schools shall be undertaken in a time bound manner.	Development of neighboring villages has been covered under Rehabilitation Action Plan and Community Development activities planned under Corporate Social Responsibility. The activities include development of concrete roads with drains, infrastructure facilities in schools, hand pumps and wells, Water supply facilities in affected villages, renovation and rehabilitation of water bodies/ ponds, water shed development etc.
xxix	CSR scheme shall be undertaken based on need based assessment in and around the villages within 5 km of the site and in constant consultation with the village Panchayat and the District Administration. As part of CSR employment of local youth after imparting relevant training as may be necessary shall be undertaken as committed.	Plan for CD/CSR activities have been developed on the basis of need-based assessment and in consultation with Village Development Advisory Committee (VDAC) and State Government. This committee has representatives of all nearby villages, State Government, NGO etc. The cycle of assessment, formulation of activities and implementation shall be continued in future also. The details of CD/CSR works undertaken has been attached
xxx	An amount of Rs 38.0 Crores shall be earmarked as one-time capital cost for CSR program as committed by the project proponent. Subsequently a recurring expenditure of Rs 7.65 Crores per annum till the life of the plant shall be earmarked as recurring expenditure for CSR activities. Details of the activities to be undertaken shall be submitted within six months along with road map for implementation.	The condition has been deleted through EC amendment dated 21.10.2020.
xxxi	It shall be ensured that an in-built monitoring mechanism for the CSR schemes identified is in place and annual social audit shall be got done from the nearest government institute of repute in the region. The project proponent shall also submit the status of implementation of the scheme from	Need based Assessment Survey has been carried out through M/s INDIAN INSTITUTE OF CORPORATE AFFAIRS (IICA). Monitoring of work is done by Site-R&R, RHQ-R&R, Corporate-R&R and CSR department (Headed by Executive Director). Report of works done under CSR/CD

	time to time. The achievements should be put on company's website.	has been attached. There is three tier in-house monitoring mechanism in NTPC. Monitoring of work by Site-R&R (headed by AGM), RHQ-R&R, Corporate-R&R and CSR departments (headed by Executive Director).
xxxiii	Green Belt consisting of 3 tiers of plantations of native species around plant not less than 100m width shall be raised (except in areas not feasible). The density of trees shall not less than 2500 per ha with survival rate not less than 80%.	a) Green belt developed. Additional Plantation is being done by engaging local people and through contracts awarded to Chhattisgarh Rajya Van Vikas Nigam Limited in the land available in Plant, Township and ash dyke area as per final layout of St-I. b) Total 3.67 Lakh trees have been planted till date. Out of which 0.30 Lakh tree plantation has been done in 2024-25. c) A total Rupees 11.07 crores have been deposited under Hariyar Chhattisgarh scheme of Chhattisgarh State Government by NTPC Lara. A total 2.72 Lakh tree saplings have been planted under above program till date.
xxxiii	An Environmental Cell shall be created at the project site itself and shall be headed by an officer of appropriate seniority and qualification. It shall be ensured that the Head of the Cell shall directly report to the Head of the Organization.	In compliance.

B. General Conditions:

i	The treated effluents conforming to the prescribed standards only shall be re- circulated and reused within the plant. Arrangements shall be	Complied

	made that effluents and storm water do not get mixed.	
ii	A sewage treatment plant shall be provided (as applicable) and the treated sewage shall be used for raising green belt/ plantation.	MBBR Technology based Sewage Treatment Plant of 1.7MLD capacity is operational. Entire STP effluent is treated conforming to prescribed standards and is being utilized for plantation & raising greenbelt.
iii	Adequate safety measures shall be provided in the plant area to check/minimize spontaneous fires in coal yard, especially during summer season. Copy of these measures with full details along with location plant layout shall be submitted to the Ministry as well as to the Regional Office of the Ministry.	Complied, 460 numbers of fire hydrants provided in the entire power station including Coal yard.
iv	Storage facilities for auxiliary liquid fuel such as LDO/HFO/LSHS shall be made in the plant area in consultation with department of Explosives, 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.	License for storage of LDO has been obtained from Department of Explosives, Nagpur vide license number P/HQ/CG/15/712(P373361) dated 16.12.2016 valid till 31.12.2027. Being Complied. A detailed Disaster Management Plan is prepared and finalized in consultation with Department of Explosives, Nagpur and regular mock drills are being conducted quarterly as per plan in order to address any eventuality in case of an accident.
v	First Aid and sanitation arrangements shall be made for the drivers and other contract workers during construction phase.	Noted, Compliance assured. A first aid Centre is established to provide immediate medical aid to the workers and their family members since 26.09.2014. A 24hour ambulance is in service at site for emergent requirements. All arrangements related to first aid health & safety and sanitation for contract workers during construction phase of the project was kept under the EPC contract. However, NTPC has effectively complied the said stipulation. Various measures implemented

		during construction phase through contractor during construction phase were: Adequate infrastructure facilities, such as sanitation, fuel, restroom, medical facilities, safety, and suitable water supply has been provided to the labor colonies housing the work force during construction phase of the project. Safety equipment such as earplugs and earmuffs, helmets, face shields, safety goggles etc. also has also been provided to workers engaged in high-risk areas.
vi	Noise levels emanating from turbines shall be so controlled such that the noise in the work zone shall be limited to 85dB (A) from source. For people working in the high noise area, requisite personal protective equipments like ear plug/ear muff etc shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non noisy/less noisy areas.	Complied. Base line monitoring for Noise level is being already carried out through MOEF&CC recognized laboratory and the same will be continued. Personal Protective Equipment (PPE's) are also being provided to personnel working in high noise areas. Periodic examination of workers also being done as stipulated.
vii	Regular monitoring of ambient air ground level concentration of SO_2, NOx, $PM_{2.5}$ & PM_{10} and Hg shall be carried out in the impact zone and record maintained. If at any stage these levels are found to exceed the prescribed limits, 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.	Four numbers of CAAQMS station are provided and the locations of AAQMS were finalized in consultation with CECB. Regular monitoring of ambient air quality, ground level concentration of SO_2, NOx, $PM_{2.5}$ & PM_{10} and Hg is being carried out through MOEF&CC recognized laboratory and records are being maintained and submitted. Ambient air quality reports are enclosed.
viii	Provision shall be made for the housing of construction labor (as applicable) within the site with all necessary infrastructures and	A labour colony with necessary infrastructure facilities such as housing, sanitation, mobile toilet, fuel, medical facilities, safety,

	facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structure to be removed after the completion of the project.	drinking water supply etc. has been provided for construction labour. The same has been kept under the scope of EPC contractor. Further, NTPC is ensuring effective compliance of the said stipulations.
ix	The project proponent shall advertise in at least two local news papers 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 http://envfor.nic.in.	Complied. The information of Environmental Clearance was published in two newspapers widely circulated in the region. 1. Navbharat on 18.12.2012. 2. Kelo Pravah on 18.12.2012.
x	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila parishad/ 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. The clearance letter is also available on website of NTPC https://www.ntpc.co.in/about-us/corporate-functions/environment/environment-policy-management
xi	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 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 pollutant levels namely, SPM, RSPM ($PM_{2.5}$ & PM_{10}), SO_2, NOx (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.	Status of compliance of the stipulated environmental clearance conditions uploaded on the NTPC website. https://www.ntpc.co.in/about-us/corporate-functions/environment/status-hyc-reports The latest and updated Half Yearly Compliance (HYC) report of EC conditions is regularly being submitted to the Regional Office of MOEF&CC, IRO, Raipur, CPCB Zonal Office & CECB. The display for criteria pollutant levels at a convenient location near the

		main gate of NTPC Lara STPS has been done for Stack emissions and ambient air.
xii	The environment 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 Ministry by e-mail.	The annual Environment Statement for financial year ending 31st March in prescribed Form-V has been submitted to CECB as well as Regional Office (West Central Zone) of MOEF&CC, Nagpur for the year 2023-24 and also has been put on the website of the company along with the status of compliance of environmental clearance conditions. https://www.ntpc.co.in/about-us/corporate-functions/environment/status-hyc-reports
xiii	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 email to the Regional office, Ministry of Environment and Forests.	Complied. The half yearly compliance report is being regularly submitted to the concerned statutory authority. The status of compliance of the environmental clearance conditions uploaded on NTPC website and update the same periodically. https://www.ntpc.co.in/about-us/corporate-functions/environment/status-hyc-reports The latest six-monthly progress report for the period of April, 2024 to September, 2024 is being submitted herewith.
xiv	Regional office of the Ministry of Environment & Forests 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	A complete set of documents including Environmental Impact Assessment Report and Environment Management Plan along with the additional information/ clarifications as submitted to MOEF&CC have been forwarded on 11.07.2013 to the Regional Office of MOEF&CC.

	from time to time shall be forwarded to the Regional Office for their use during monitoring. Project proponent will up-load the compliance status in their website and up-date the same from time to time at least six-monthly basis. Criteria pollutants levels including NOx (from stack & ambient air) shall be displayed at the main gate of the power plant.	Project proponent has uploaded the compliance status in the company website and is being updated the same on six monthly basis. https://www.ntpc.co.in/about-us/corporate-functions/environment/status-hyc-reports
xv	Separate funds shall be allocated for implementation of environmental protection measures along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purpose and year-wise expenditure should be reported to the ministry.	Item-wise break-up for implementation of environmental protection measures along with status of expenditure is enclosed**.** Separate funds have already been allocated for implementation of environmental protection measures and the same will not be diverted for other purpose.
xvi	The project authorities shall inform the Regional 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.	Investment approval for the project was accorded by Board of Directors on 07.11.2012, which may be considered as the date of financial closure. The Commercial operation of Unit#1 (800 MW) started on 01.10.2019 and of Unit#2 (800 MW) started on 07.11.2020.
xvii	Full cooperation shall be extended to the Scientists/officers from the Ministry/ Regional Office of the Ministry/ CPCB/ SPCB who would be monitoring the compliance of environmental status.	Noted, Compliance assured.
5.	The Ministry of Environment and Forests reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry. The Ministry may also impose additional environmental conditions or modify the existing ones, if necessary.	Noted.
6.	The environmental clearance accorded shall be valid for a period of 5 years to start operations by the power plant.	Noted.
7.	Concealing factual data or submission of false/fabricated data and failure to comply with any of	Noted

	the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.	
8.	In case of any deviation or alteration in the project proposed including coal transportation system from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of the condition(s) imposed and to add additional environmental protection measures required, if any.	Noted.
9.	The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management, Handling & Transboundary Movement) Rules, 2008 and its amendments, the Public Liability Insurance Act, 1991 and its amendments.	Noted.
10.	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Noted.

EC Amendment dated 14.01.2020

Sr. No.	Description	Status of Implementation (As on 30.09.2024)
Coal transportation by road		
i)	The quantities transported from each route, mode and length of transportation, and total quantities transported daily wise against the permitted quantity of each route as per the permission issued by the	Coal Transportation by road has been permitted vide notification dated 21.05.2020 and its provisions are in compliance.

	Ministry and power generation in terms of PLF/Units shall be submitted to the ministry as part of six monthly compliance report. These quantities will be examined by the EAC during further extension based on which a decision will be taken.	
ii)	Progress (Physical and financial) of MGR laying from Talaipalli mine to Lara Power Plant shall be submitted.	NTPC Lara connectivity to Talaipalli Mines has been completed & operational. Rs. 2429/2458 Crores expenditure has been incurred till date out of total Rs. 2532/2600 Crores (Estimated Expenditure).
iii)	At least two water sprinklers on each route shall be deployed for dust suppression continuously during transportation. The number of sprinklers used, and the quantity of water (in KLD) sprinkled daily shall be reported as part of six-monthly compliance report.	Two water sprinklers(3KLD per tanker) each have been deployed for coal transportation from NTPC Talabira mines in the route Talabira to NTPC Lara for dust suppression continuously during transportation till 1st July 2024 (Quantity of water (in KLD) is 6 KLD). From 2nd July 2024, coal from Talaipalli mine to NTPC Lara has been transported through Rail route only.
Additional conditions in the Environmental Clearance		
iv)	Progress (Physical and financial) of construction FGD and De-NOx measures shall be submitted as part of six-monthly compliance report.	Noted. Compliance assured. NTPC has already awarded contract for installation of FGD to M/s L&T on 31.07.2018 for controlling SOx concentration in flue gas in compliance to the latest MOEF&CC emission norms dated 07.12.2015 for TPP. The installation of FGD is in progress. FGD U#1 is in operation. FGD U#2 commissioning activity is in advance stage. Rs. 490 Crores Expenditure done out of total Rs. 571 Crore Package value. NTPC Lara boilers are equipped with Low NOx burners and OFA dampers.
v)	Technology selection for adoption of FGD for control of SOx. In case of	Noted. Compliance assured. Wet FGD has been selected at NTPC Lara.

<table>
<tr><td></td><td>wet FGD, source of Limestone, impact of transportation, handling, storage and disposal of Gypsum including land requirement.</td><td></td></tr>
<tr><td>vi)</td><td>Alternate technology analysis and justification of Technology Selection for NOx reduction.</td><td>Noted. Compliance assured.</td></tr>
<tr><td>vii)</td><td>Water requirements for FGD to be installed in the existing units has to provided. Therefore, water balance to be modified based on the water requirement for whole Units including a plan on ZLD.</td><td>Water requirement of FGD is 420 m3/hr. Water balance has been modified based on the water requirement for whole Units including a plan on ZLD.</td></tr>
<tr><td>viii)</td><td>Emission norms and specific water consumption as per the Ministry’s norms dated 7.12.2018 and 28.6.2018 shall be complied with. As committed, Flue-gas Desulphurisation Unit and Selective Reactor to control SO2 and NOx respectively shall be installed.</td><td>Noted. Compliance assured.</td></tr>
<tr><td>ix)</td><td>The stack emissions (minimum, maximum, average and 98% percentile) shall be submitted for the period of six months in the compliance report. Further, daily water withdrawal, consumption, power generation and average PLF shall be submitted. The specific water consumption per MW-hr shall be calculated based on water consumption and power generation and to be submitted in the compliance report.</td><td>Stack Emissions (mg/Nm3):
<table>
<tr><th>Sr. No.</th><th>Description</th><th>Unit</th><th>PM mg/Nm3</th><th>SO2 mg/Nm3</th><th>NOx mg/Nm3</th><th>Mercury mg/Nm3</th></tr>
<tr><td>1</td><td>Minimum</td><td>I</td><td>20.65</td><td>1010</td><td>283</td><td>0.0003</td></tr>
<tr><td>2</td><td>Maximum</td><td>I</td><td>29.10</td><td>1220</td><td>340</td><td>0.0008</td></tr>
<tr><td>3</td><td>Average</td><td>I</td><td>25.10</td><td>1122</td><td>310.2</td><td>0.0006</td></tr>
<tr><td>4</td><td>98% Percentile</td><td>I</td><td>29.10</td><td>1217</td><td>339.6</td><td>0.0008</td></tr>
<tr><td>5</td><td>Minimum</td><td>II</td><td>20.80</td><td>1028</td><td>290</td><td>0.0002</td></tr>
<tr><td>6</td><td>Maximum</td><td>II</td><td>29.55</td><td>1225</td><td>338</td><td>0.0007</td></tr>
<tr><td>7</td><td>Average</td><td>II</td><td>25.55</td><td>1134</td><td>311</td><td>0.00044</td></tr>
<tr><td>8</td><td>98% Percentile</td><td>II</td><td>29.45</td><td>1223</td><td>336.7</td><td>0.0007</td></tr>
</table>
Average PLF for 01.04.2024 to 30.09.2024 is 91.63%. Water Withdrawal Report has been attached. Total power generation is 6439.07 million Units.</td></tr>
<tr><td>x)</td><td>The plant shall operate</td><td>Noted. Compliance assured.</td></tr>
</table>

	only after meeting the new emission norms as notified by the Ministry. Else, extension of timeline from the CPCB for implementing pollution control measure for meeting new norms shall be obtained and a copy of the same shall be submitted to the Ministry.	

EC Amendment dated 21.10.2020

Sr. No.	Description	Status of Implementation (As on 30.09.2024)
i)	The condition No. xxx of EC dated 13.12.2012 regarding CSR expenditure is hereby deleted.	Noted.
ii)	The condition No. vii of EC dated 13.12.2012 is modified as: "Bi-flue stack of 275m height with flue gas velocity not less than 22 m/s shall be installed and continuous online monitoring equipment's for SOx, NOx, and PM mercury emissions from stack may also monitored on periodic basis."	Noted. Compliance assured.
iii)	The General Condition No. v of EC dated 13.12.2012, is modified as: "Radio activity and heavy metals' contents in coal and fly ash (including bottom ash) shall be carried out through a reputed institute once in a year and the analysis reported to be submitted to the Ministry and its Regional Office."	Noted. Compliance assured.
iv)	The total Radioactivity in the working areas such as coal stock yard, fly ash pond shall be calculated based on the analysis results per unit weight of coal/ash. The total radioactivity in the atmosphere is to be compared with the maximum permissible dosage levels of each person working in those areas. This is to be conducted once in a year.	Noted. Compliance assured.
v)	While commissioning the proposed unit, the compliance of revised emission norms issued vide	Noted. Compliance assured.

	Notification dated 07.12.2015 and as amended time to time shall be achieved along with specific water consumption as per the notification dated 28.06.2018. The FGD System and NOx control measures such as SCR/SCNR/De-NOX burners shall be installed to achieve the revised emission norms.	
vi)	As per the Revised Traffic Policy notified by ministry 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 bodies /similar organization located within 50 km radius of the proposed power project to minimize the water drawl from surface water bodies. The details of sewage Treatment plants located within 50km radius along with the capacities shall be submitted.	Noted. Compliance assured. STP in Raigarh recently commissioned and water quantity and treated water quality is yet to be finalized. Station is in discussion to explore the feasibility of the same.

Monitoring the Implementation of Environmental Safeguards
Ministry of Environment & Forests& Climate change
Regional Office (West Central Zone), Nagpur
Monitoring Report
PART – I
DATA SHEET

S. No.		
1.	Project type: River-valley / Mining / Industry / Thermal / Nuclear / other (specify)	Thermal
2.	Name of the project	Lara Super Thermal Power Station, Stage-I (2x800 MW)
3.	Clearance letter (s)/ OM no and date	No.J-13012/79/2007-IA.II(T) dated 13/12/2012.
4.	Location a) district (s) b) state (s) c) latitude/longitude	 District: Raigarh, State: Chhattisgarh. 21o 45' N/ 83o 26' E
5.	Address for correspondence a) Address of the Concerned Project Chief Engineer (with PIN Code & Telephone/ Telex/ Fax No.) b) Address of the Executive Project Engineer/ manager	 EXECUTIVE DIRECTOR, NTPC - Lara STPS, Lara Super Thermal Power Station, Village: Chhapora, PO+PS: Pussore District- Raigarh (Chhattisgarh) PIN Code- 496 440 E-mail: faxforntpclara@gmail.com GM (O&M), NTPC - Lara STPS, Lara Super Thermal Power Station, Village: Chhapora, PO+PS: Pussore District- Raigarh (Chhattisgarh) PIN Code- 496 440
6.	Salient features a) of the project b) of the environmental management plans	 Lara STPS is a coal based super thermal power project based on supercritical technology. Please refer Chapters 2 of the EIA Report.
7.	Breakup of the project area a) submergence area: forest & non-forest b) others	 As the proposed project is a coal based super thermal power project, no submergence area is involved. An area of 1035.59 Ha. is being acquired for Main plant, Township and ash disposal areas of

		the project, which includes 811.8 Ha of Private Land, 72.03 Ha. of Govt. Land and 151.762 Ha. of Revenue Forest Land.
8.	Breakup of the project affected population with enumeration of those losing houses/dwelling units only agricultural land only, both dwelling units & agricultural land & landless labourers/artisan a) SC, ST/ Adivasis b) Others (Please indicate whether these figures are based on any scientific and systematic survey carried out give details and years of survey)	A detailed Socio-economic Survey of land being acquired has been undertaken. The details PAPs is as follows: Total No. of PAPs: • No. of SC/ ST/ Adivasi PAPs: 1022(Approx) • No. of Homestead Oustees: 17 (Approx) • No. of Land Oustees: 2200 (Approx) • No. of Land + Homestead Oustees: 2217 (Approx) • No. of Landless Labourers/ Artisans: 250 (Approx.)
9.	Financial details: a) Project cost as originally planned and subsequent revised estimates and the year of price reference b) Allocation made for environment plans with item wise and year wise break up. c) Benefit cost ratio/Internal rate of Return and the year of assessment d) Whether © includes the cost of environmental management as shown in the above e) Actual expenditure incurred on the project so far f) Actual expenditure incurred on the environmental management plans so far	Rs. 17869.00 Crores Rs 1309.98 Crores (Break-up given in. Annexure-I). The project is at initial stage of commissioning & operation please. Rs.17380.00 Crores Rs. 1201.82 Crores
10.	Forest land requirement a) the status of approval for diversion of forest land for non-forestry use	The project involves 151.762 Ha of Revenue Forest land. The complete Revenue Forest Land diversion has been done in name of NTPC, Lara

	b) the status of clearing felling	Tree felling plan approved and executed by the forest department.
	c) the status of compensatory afforestation, if any	Plan for compensatory afforestation has already been approved and the amount of the compensatory afforestation is deposited in the CAMPA fund of the forest department.
	d) comments on the viability & sustainability of compensatory afforestation programme in the light of actual field experience so far	Plan for compensatory afforestation has already been made in consultation with State Forest Department and the same shall be implemented by State Forest Department.
11.	The status of clear felling in non-forest areas (such as submergence area of reservoir, approach roads), if any with quantitative information	As the proposed project is a coal based super thermal power project, no submergence area is involved.
12.	Status of construction a) Date of commencement (Actual and/ or planned) b) Date of completion (Actual and/ of planned)	a) Site leveling package awarded on 20.02.2013. b) U#1 commercial operation start date is 01.10.2019. U#2-commercial operation started on 07.11.2020.
13.	Reasons for the delay if the project is yet to start	Not Applicable
14.	Dates of site visits a..The dates on which the project was monitored by Regional office previous occasion, if any b.Date of site visit for monitoring report.	Regional officer of CECB Raigarh, official visited site for inspection on 05.06.2018. Regional Ofiice, CECB, Raigarh officials visited NTPC, Lara site on 17.12.2019 and 27.01.2020. Regional Ofiice, CECB, Raigarh officials visited NTPC, Lara site on 21.10.2020. Regional Ofiice, CECB, Raigarh officials visited NTPC, Lara site on 09.04.2021. Regional Ofiice, CECB, Raigarh officials visited NTPC, Lara site on 11.04.2022. Regional Ofiice, CECB, Raigarh officials visited NTPC, Lara site on 08.11.2024.

15	Details of correspondence with project authorities for obtaining action plan/information on status of compliance to safeguards other than the routine letters. For logistic support for site visit. (The monitoring report may obtain the details of all the letters issued so far but the later reports may cover only the letters issued subsequently)	NIL

Annexure-I

PROVISIONS FOR CAPITAL COST FOR ENVIRONMENTAL PROTECTION MEASURES AT LARA STPP, STAGE-I

Sr. No	Description of Item	Cost (Rs in crores)	Actual Exp.as on 30.09.2024 (Crores.)
1.	FGD	571	490
2.	Electrostatic Precipitators	207.4	205.58
3.	Stacks	70.25	70.25
4.	Cooling Towers incl. Civil Works	131.11	129.41
5.	Ash Handling	157.13	136.07
6.	Ash pond dyke	74	74
7.	Water Treatment Plant (Effluent Treatment Plant, DM Plant, DM Plant Waste Treatment System	57.27	57.04
8.	Dust Extraction & Suppression System	2.27	2.27
9.	Sewage Collection, Treatment & Disposal (STP)	3.50	3.50
10.	Environmental Lab Equipment	3.49	3.49
11.	Green Belt & Afforestation	8.27	5.92
	Hariyar Chhattisgarh Scheme for Tree Plantation	9.29	9.29
12.	Compensatory Afforestation	3.91	3.91
13.	NPV for forest land diversion	9.50	9.50
14.	Works for deepening of ponds under water conservation & rainwater harvesting	1.59	1.59
Total		**1309.98**	**1201.82**

NTPC LARA
R&R WORK DETAILS FOR THE YEAR 2011-12

S. No.	Item	Name of work	Site village and village panchayat	value	Present Status	Category	NTPC/Deposit
1	Other	Details of Tarpolin affected by floods		26,00,000.00	completed	Others	NTPC
2	Drinking Water	Provision of bore and tank in project-affected villages	9 village	18,64,000.00	completed	Drinking Water	NTPC
3	Health	Free Medical Vans in Project Affected Villages	9 village	1,83,000.00	completed	Health	NTPC
4	Health	Free medical camp	Mahloi	1,04,000.00	completed	Health	NTPC
5	Health	Participation in Family Welfare with PHC Powers	pussore	99,347.00	completed	Health	NTPC
6	Health	Distribution of bulbs and fans in project-affected schools	9 village	58,861.00	completed	Health	NTPC
7	Health	Participation in Family Welfare with PHC Powers	pussore	49,936.00	completed	Health	NTPC
8	Health	Participation in Family Welfare with PHC Powers	pussore	37,160.00	completed	Health	NTPC
9	Health	Dessert distribution on Independence Day in Powers Block	pussore	33,440.00	completed	Others	NTPC
10	Health	Free Family Planning Camp in Primary Health Center	pussore	26,400.00	completed	Health	NTPC
11	Health	Planting in Village Chapora on World Environment Day	Chhapora	25,044.00	completed	Others	NTPC
12	Health	Free Medical Camp Village Lara	Lara	24,000.00	completed	Health	NTPC
13	Sports	Financial assistance in the Cricket Tournament organized by Drripali	Darripali	22,000.00	completed	Sport & Culture	NTPC
14	Sports	Food packet break in inter-state cricket tournament tahsil pussore	pussore	18,800.00	completed	Sport & Culture	NTPC
Total				**51,45,988.00**			

NTPC LARA
R&R WORK DETAILS FOR THE YEAR 2012-13

S. No.	Item	Name of work	Site village and village panchayat	value	Present Status	Category	NTPC/Deposit
1	Training	50 PAP Training in the Construction Business for short term by CIDC New Delhi	9 village	14,19,000.00	completed	Skill Development	NTPC
2	Health	Free villages in rural areas affected by the Medical Wayne project	9 village	3,10,000.00	completed	Health	NTPC
3	Training	Motor driving and license to 45 villages in project-affected villages	9 village	1,88,550.00	completed	Skill Development	NTPC
4	Training	50 PPA for short term training in ITI Pussore	9 village	1,75,000.00	completed	Skill Development	NTPC
5	animal hasbradree	Veterinary camp	9 village	1,57,645.00	completed	Health	NTPC
6	Training	Motor driving and license to 30 villages in project-affected villages	9 village	1,50,000.00	completed	Skill Development	NTPC
7	Health	AC & Water Cooler at Pussore Public Health Center	pussore	1,42,000.00	completed	Others	NTPC
8	Sports	In the village affected by the Sports and Game Equipment distribution project	9 village	91,851.00	completed	Sport & Culture	NTPC
9	Aducation	Shala Pravetoosh Kondratai Higher Secondary School Pussore	Kondatrai	65,000.00	completed	Education including ITI	NTPC
10	Health	Participation in Family Welfare with PHC Powers	pussore	35,835.00	completed	Others	NTPC
11	other	Furniture	Devalsurra	30,616.00	completed	Others	NTPC
12	Aducation	Planting in Primary School of Village Bodhrajaria, affected by project on Environment Day	Bodajhariya	21,248.00	completed	School	NTPC
13	Sports	Cricket kit bodajhariya panchayat	Bodajhariya	17,755.00	completed	Sport & Culture	NTPC
14	Sports	Financial assistance in the Cricket Tournament organized by lara	Lara	17,010.00	completed	Sport & Culture	NTPC
15	other	Storage camp	9 village	16,905.00	completed	Infrastructure other than road	NTPC
16	other	Electrical wiring at Ripali Primary School	Riyapali	6,450.00	completed	School	NTPC
17	Infrastructure	Link road from Bodajhariya to Ghutkupali (N H-200)	pussore	12,66,00,000.00	PWD	Road	NTPC
Total				**12,94,44,865.00**			NTPC

18	Aducation	Financial Assistance for Engineering College (KIT) Upgradation	KTI Raigarh	5,00,00,000.00	completed	Education including ITI	NTPC
Grand Total				**17,94,44,865.00**			

NTPC LARA

R&R WORK DETAILS FOR THE YEAR 2013-14

Year	Descriptrion	Name of contractor	PO / PR No.	value	Present Status	village	Amount Release	Category	NTPC/Deposit
1	Restoration of weekly market at chhapora village	Bhu Vistapith Sahakari Samithi Maryadit Chhapora	5500012962 Date-04.04.2013	1607558.58	completed	Chhapora	1822990.53	Infrastructure other than road	NTPC
2	Reinnovation of pond at village Bodajhariya	Sarpanch & Sachiv Gram Panchyat Kandagarh	5500013009 Date-05.04.2013	1569385.55	completed	Bodajhariya	1650216.24	Others	NTPC
3	Construction of school boundary wall Bodhajhariya.	1110221 Sarpanch & Sachiv Gram Panchyat Kandagarh	5500013204	641000.00	completed	Bodajhariya	205145.95	Infrastructure other than road	NTPC
4	Conversion of Intra Village raod into Cement concrete road in Devalsurra Part-I	Bhu-Bisthapit Sahkari samiti Maryadit Develsura	5500013011 Date-05.04.2013	1792280.54	completed	Devalsura	2013806.41	Road	NTPC
5	Conversion of Intra Village raod into Cement concrete road in Devalsurra Part-II	Bhu-Bisthapit Sahkari samiti Maryadit Develsura	5500014910 Date-21.12.2013	3748184.75	completed	Devalsura	3485088.8	Road	NTPC
6	Conversion of Intra Village raod into Cement concrete road in Mahloi Part-I	Gram Panchyat Mahloi	5500013016 Date-05.04.2013	1242802.55	completed	mahloi	1396412.95	Road	NTPC
7	Conversion of Intra Village Road into Cement concrete road in Kandagarh-1	Bhu-Bisthapit Sahkari samiti Maryadit Kandagarh	5500013010 Date-05.04.2013	1926100.68	completed	kandgarh	1759530.28	Road	NTPC
8	Construction of school boundry wall in village Lara	Gram panchayat lara	5500013487 Date-11.06.2013	837850.10	completed	Lara	0	Infrastructure other than road	NTPC
9	Conversion of intra village road in to cement concrete road at village Armuda (Part-I)	Gram Panchyat Develsura	5500013014 Date-05.04.2013	1543018.18	completed	armuda	1065176.17	Road	NTPC
10	Conversion of Intra village Road into cement concrete in Riapalli Village	Patel construction	5500014958 dt 21.12.2013	1589371.59	completed	Raipalli	1503722.06	Road	NTPC
11	Electrification in common building	1117949 GRAM PANCHAYAT CHHAPORA	8200100342	55850.00	completed	ALL	55850	Others	NTPC
12	Providing two tubewell with submersible pump	shri Balaji borewell	5500013026 date-05.04.2013	592853.00	completed	Bodajhariya	705303	Drinking Water	NTPC
13	Collector & CEO Jilla Panchayat	Development work	8200084644	3000000.00	Collector	Collector	3000000	Infrastructure other than road	Deposit
14	Payment to Prabhari Adhiakri Chakradhar	Chakradhar Samarao	8200097370	200000.00	Collector	Collector	200000	Sport & Culture	Deposit

15	Mobail Health Clinic for Localpopulation	1097721 METRO HOSPITAL & DIABETES RESEARCH	8200115646	101946.00	completed	ALL	113281	Health	Deposit
16	Criket for PAPs	1079150 Universal Stores	8200107921	144780.00	completed	ALL	144780	Sport & Culture	NTPC
17	Renovation of PHC building at Chhapora village.	Gagan construction	5500013205 Date-01.05.2013	641146.75	completed	Chhapora	330328.12	Infrastructure other than road	NTPC
18	Payment of School teachers for village lara	1101821 GRAM PANCHAYAT CHHAPORA	8200090288	96000.00	completed	lara	96000	School	NTPC
19	procurement of office furniture for Gram Panchayat Kangarh & Mahloi	1100594 SHASHI EBTERPRISES	4600021327 Date-09-04-2013	49708.00	completed		49708	Others	NTPC
Total				**21379836.27**			**19597339.5**		

NTPC LARA

R&R WORK DETAILS FOR THE YEAR 2014-15

Year	Descriptrion	Name of contractor	PO / PR No.	value	Present Status	village	Amount Release	Category	NTPC/Deposit
1	Renovation and Beautyfication of Pond-1 at Village Chhapora in Lara STPP	Gagan construction	5500015141 Dt 11.01.2014	723041.18	completed	Chhapora	751719.65	Others	NTPC
2	Renovation and Beautification of Pond -2 at Chhapora	Chandra Kumar Patel	5500016103 Dtd. 26.04.2014	860672.83	completed	Chhapora	777616.61	Others	NTPC
3	Supply of drinking water for village Chhapora-2014	Patel construction	5500016316 Date-22.05.2014	144000.00	completed	Chhapora	78526.16	Drinking Water	NTPC
4	Conversion of intra village road in to cement concrete road in Chhapora village	Neelam construction	5500015171 Date-19.02.2014	3987760.65	completed	Chhapora	2734870.65	Road	NTPC
5	Construction of cc road from Nawadih Shiv Mandir to Chhapora school	Gram Panchyat Chhapora	5500022548 Date-23.02.2016	3284707.50	completed	Chhapora	3338951	Road	NTPC
6	Construction of school boundary wall in Chhapora village	Gagan construction	5500016256 Date-12.05.2014	988485.28	In Progress	Chhapora	403536.3	Infrastructure other than road	NTPC
7	Supply of drinking water for village Bodajharia-2014	Gupta construction	5500016501 Date-14.06.2014	192000.00	completed	Bodajhariya	73708.16	Drinking Water	NTPC
8	Conversion of intra village road in to cement concrete road at village Bodajharia	Sarpanch & Sachiv Gram Panchyat Kandagarh	5500016257 Date-13.05.2014	2343527.31	In Progress	Bodajhariya	1940468.14	Road	NTPC
9	Renovation and beautification of pond at village Mahloi	Gram panchayat Mahloi	5500015163 Date-13.01.2014	1428713.85	In Progress	Mahloi	1355903.25	Others	NTPC
10	Conversion of Intra Village Road into Cement concrete road in Kandagarh-2	Sarpanch & Sachiv Gram Panchyat Kandagarh	5500015725 Date-11.04.2014	3641399.02	completed	Kandagarh	3072108.25	Road	NTPC
11	Reinnovation and Beautification of pond at village Kandagarh	Gaurang Sao	5500015166 Dt 15.01.2014	1235512.79	completed	Kandagarh	1271458.28	Others	NTPC
12	Supply of drinking water for village Kandagarh-2014	Vasudev Sao	5500016499 Date-16.04.2014	131040.00	completed	Kandagarh	84494.72	Drinking Water	NTPC
13	school boundary wall Kandagrh	1110221 Sarpanch & Sachiv Gram Panchyat	5500013017	435162.00	completed	Kandagarh	453215.4	Infrastructure other than road	NTPC
14	Renovation of Pond for village Jhilgitar	Singh construction	5500017932 Date-09.12.2014	2012137.21	completed	Jhilgitar	1685901.56	Others	NTPC
15	Internal cc Road for village Lara	Parmeshwar construction	5500017931 Date-09.12.2014	3093148.77	completed	Lara	3144814.04	Road	NTPC
16	Supply of drinking water for village Armuda	Bhavesh construction	5500016296 Date-14.05.2014	240000.00	completed	Armuda	138427.52	Drinking Water	NTPC

17	Supply of drinking water for village Riyapali-2014	Jai construction	5500016315 Date-19.05.2014	168000.00	completed	Raipalli	88989.12	Drinking Water	NTPC
18	School furniture distribution - Phase 1	CSIDC- 1030668	4600028183	1286597.00	completed	ALL	1220073.87	School	NTPC
19	Sewing Machine distribution	Mukesh Traders - 1074315	4600027831	116100.00	completed	Chhapora	116100	Skill Development	NTPC
20	Sewing Machine Training	Sahu mahila silai school	8200130789	48625.00	completed	Chhapora	48625	Skill Development	NTPC
21	Tricycle Distribution	1086585 ALIMCO AUXILIARY PRODUCTION	4600028762	184800.00	completed	ALL	92400	Physically Challeged Persons (PCP)	NTPC
22	Raincoat & water bottel disribu	1127963 krishna Sales Corporation	8200123464	317000.00	completed	ALL	315400	School	NTPC
23	Collector & CEO Jilla Panchayat	CD works in 9 village	8200105620	3000000.00	completed	Collector	3000000	Infrastructure other than road	Deposit
24	Collector & CEO Jilla Panchayat	CD works in 9 village		1500000.00	completed	Collector	1500000	Infrastructure other than road	Deposit
25	Construction of drain line in village Chhapora	Jhas Ketan Patel	5500016607 Date-28.06.2014	971030.06	completed	Chhapora	802263.77	Infrastructure other than road	NTPC
26	Temp. Water supply arrengment to Bodajhariya pond	Ritesh Agrawal	5500017597 Date-08.11.2014	529000.00	completed	Bodajhariya	423350.01	Drinking Water	NTPC
27	Development of office area of Pussore Tehsil office	Jai construction	5500016143 Date-29.04.2014	794553.00	completed	Collector	850607.76	Infrastructure other than road	NTPC
28	Collector Raigarh	CD works in the district	8200105570	10098000.00	completed	Collector	10098000	Infrastructure other than road	Deposit
29	Payment to Prabhari Adhiakri Chakradhar	Chakradhar Samarao	8200124173	500000.00	completed	Collector	500000	Sport & Culture	Deposit
30	payment to Indian red cross Society for Life Line Express (Medical Camp)	1128398- INDIAN RED CROSS SOCIETY RAIGARH	8200123249	200000.00	Deposited	Collector	200000	Health	Deposit
31	Payment to Collector & CEO Jila Panchayat Raigarh for Sanitation	CEO Jila Panchayat Raiagrh for Sanitation	8200124364	1653089.00	Deposited	Collector	1653089	Sanitation/Toilet	Deposit
32	Mobail Health Clinic for Localpopulation	1097721 METRO HOSPITAL & DIABETES RESEARCH	460003216	1244386.00	completed	ALL	1553665.24	Health	Deposit
Total				**47352488.45**			**43768283.5**		

NTPC LARA
R&R WORK DETAILS FOR THE YEAR 2015-16

Year	Descriptrion	Name of contractor	PO / PR No.	value	Present Status	village	Amount Release	Category	NTPC/Deposit
1	Drinking water-Chhapora-2015	Thawait construction	5500019835 Date-05.05.2015	154800.00	Final bill to be process	Chhapora	173933.28	Drinking Water	NTPC
2	Construction of PHC building at Chhapora village	Satyendra Narayan Singh	5500016753 Date-16.07.2014	7476737.15	In progress	Chhapora	7694087.65	Infrastructure other than road	NTPC
3	Drilling of Borewell in 03 Locations as per recommendation of WRD.	shri Balaji borewell	5500021983 Date- 18.12.2015	235170.00	completed	Bodajharia	261850.05	Drinking Water	NTPC
4	Construction of 01 No. Bus stand at Devalsura village	Patel construction	5500015389 Date-24.02.2014	212621.13	completed	Devalsura	196515.01	Infrastructure other than road	NTPC
5	construction of internal CC road Armuda (Pase-II)	Fakir chand Patel	5500018928 Date-24.03.2015	1217762.00	In progress	Armuda	1126211.79	Road	NTPC
6	Development of creamation area for village Armuda	Bhavesh construction	5500017642 Date-11.11.2014	491472.00	completed	Armuda	439354.53	Infrastructure other than road	NTPC
7	Drinking water-Riyapali-2015	Jhasketan Patel	5500020271 Date-15.06.2015	174000.00	completed	Raipalli	159244.80	Drinking Water	NTPC
8	Notebook Distribution in school in all 9 villages	1107330 AGRASEN OFFSET	8200150470	113832.00	completed	All	113832.00	School	NTPC
9	Beutician Training	1144087 Youth welfare society	8200163728	55000.00	completed	Chhapora	55000.00	Skill Development	NTPC
10	Beutician Training	1144087 Youth welfare society	8200163728	55000.00	completed	Chhapora	100000.00	Skill Development	NTPC
11	Deposit to Collector Janggir for school furniture	1133006 COLLECTOR JANJGIR CHAMPA	8200135475	5000000.00	completed	Collector	5000000.00	School	NTPC
12	Collector & CEO Jilla Panchayat	Toilet in chhapora, armuda	8200153553	2340882.00	completed	Collector	2340882.00	Sanitation/Toilet	Deposit
13	construction of water tank near weekly market at chhapora village	Bhuwaneshwar choudhary	5500018011	98574.00	completed	Chhapora	101161.04	Drinking Water	NTPC
14	Drinking water-Armuda	Bhavesh construction	5500019837 Date-05.05.2015	126000.00	Final bill to be process	Armuda	141573.6	Drinking Water	NTPC
15	Health camp phase-2		4600032167	162130.00	completed	ALL	1553665.24	Health	NTPC
16	Deepning of Mura pond for vill Chhapora (IBRAD)	Neelam construction, Chhapora	5500020978 Date- 24.08.2015	1403424.76	completed	Chhapora	1512315.03	Others	NTPC
17	Deepning of Bawanmura pond for vill Chhapora (IBRAD)	Jhasketan Patel, Chhapora	5500021973 Date- 24.12.2015	575270.43	completed	Chhapora	580162.64	Others	NTPC
18	Drinking water-Bodajhariya-2015	Gulabram Pradhan construction	5500019832 Date-05.05.2015	168000.00	completed	Bodajhariya	188764.8	Drinking Water	NTPC
19	Drinking water-Develsura-2015	Ramesh Kumar Patel	5500020256 Date-15.06.2015	186000.00	completed	Devalsura	196416.00	Drinking Water	NTPC

20	Drinking water-Mahloi-2015	Nehroolal Gupta	5500019838 Date-05.05.2015	180000.00	completed	Mahloi	202248.00	Drinking Water	NTPC
21	Drinking water-Kandhagarh-2015	Vasudeo Sao	5500020268 Date-15.06.2015	174000.00	completed	Kandagarh	111777.60	Drinking Water	NTPC
22	Drinking water-Jhilgitar	Viswal construction	5500020270 Date-15.06.2015	156000.00	completed	Jhilgitar	142771.20	Drinking Water	NTPC
23	Drinking water-Lara-2015	Parmeshwar construction	5500019836 Date-05.05.2015	186000.00	completed	Lara	209259.26	Drinking Water	NTPC
24	Construction of water tank to Indira Awas	Gupta construction	5500020595 Date-15.06.2015	119392.26	completed	Armuda	94764.20	Drinking Water	NTPC
25	Fencing CPR work	Bhavesh construction	5500019335 Date-26.02.2015	1054559.00	In progress	Armuda	96020.00	Others	NTPC
26	Cleaning of black top road from Chhapora to Bodajhariya	Chandra kumar patel	5500018030 Date- 07.01.2015	132800.00	completed	ALL	144517.43	Road	NTPC
27	Payment to Prabhari Adhikari Chakradhar	Chakradhar Samarao	8200176039	600000.00	completed	Collector	600000.00	Sport & Culture	Deposit
28	Deposit to Collector Raigarh CSR Fund for Fertilizer Godown construction	collector CSR Fund	820016392	1100000.00	deposited	Collector	1100000.00	Infrastructure other than road	Deposit
29	JAJWALDEV LOK MAHOSTAV & AGRITECH And & CEO, ZILLA PANCHAYAT, JANJGIR	1144323 JAJWALDEV LOK MAHOSTAV & AGRITECH	8200162114	600000.00	deposited	Collector	600000.00	Sport & Culture	Deposit
Total				**24549426.73**			**25236327.2**		

NTPC LARA
R&R WORK DETAILS FOR THE YEAR 2016-17

Year	Descriptrion	Name of contractor	PO / PR No.	value	Present Status	village	Amount Release	Category	NTPC/Deposit
1	Over head tank for all Project Affacted village	Mohan Poddar	5500021507 Date-27.10.2015	19942138.38	completed	Chhapora	14917297.62	Drinking Water	NTPC
2	Mid day Meal shed in Bodajhariya School	Panda Construction	5500023078	597070.87	completed	Bodajharia	566983.75	Infrastructure other than road	NTPC
3	Community centre for village Bodajhariya	Gupta contruction	4600042006	876938.19		Bodajharia	0.00	Infrastructure other than road	NTPC
4	Kondapali Lara road	268 SAMBHU PRASAD S	5500016787	4203442.82	completed	Outside	3015550.99	Road	NTPC
5	Toilet in School of village Lara	Dinesh Construction	4600040447	120559.45	20% work completed	Lara	0.00	Sanitation/Toilet	NTPC
6	CC road for village Lara	Dinesh Construction	4600042314	1482958.08	90% work completed	Lara	1400479.55	Road	NTPC
7	Deepening & Beutification of sarakmunda Nistari Pond at Village Lara.	Parmeshwar construction	4600039253	2004691.56	100% work completed	Lara	2038452.2	Others	NTPC
8	Toilet in School of village Lara & kandagrh	Sarpanch & Sachiv Gram Panchyat Kandagarh	5500023566	113681.53	completed	Kandagrh	0	Sanitation/Toilet	NTPC
9	School Furniture - phase2	1030668 CHHATTISGARH STATE INDUSTRIAL	4600041583	1614937.00	completed	ALL	0	School	NTPC
10	Collector & CEO Jila Panchayat	Extra amount for Toilete in chhapora, armuda village	8200172538	138000.00	completed	Collector	138000.00	Sanitation/Toilet	Deposit
11	Poultry training	1144087 Your welfare society	8200199612	100000.00	completed	Collector	100000.00	Skill Development	NTPC
12	Drinking water-Chhapora- 2016	Chandra Kumar Patel	4600039130	130800.00	completed	Chhapora	136079.96	Drinking Water	NTPC
13	Drinking water-Bodajhariya-2016	Chandra Kumar Patel	4600039130	130800.00	completed	Chhapora	136079.96	Drinking Water	NTPC
14	Installation of two nos. 5000 L water tanks in village Bodajharia	Sarpanch & Sachiv Gram Panchyat Kandagarh	4600039138	154800.00	completed	Bodajharia	162413.58	Drinking Water	NTPC
15	Deepening of Naya & Dabri Pond - IBRAD	Anand Contruction	5500021427 date-26.11.2015	1213713.72	completed	Devalsura	1220152.66	Others	NTPC
16	Drinking water Devalsura-2016	Gram Panchyat Develsura	4600040551	154800.00	completed	Devalsura	150000	Drinking Water	NTPC
17	Drinking water-Mahloi-2016	GAJENDRA KUMAR	4600039129	120600.00	completed	Mahloi	122278.35	Drinking Water	NTPC
18	Construction of Pachari at Purana Talab for Village Mahloi.	PRADHAN CONSTRUCTION	4600039090	321720.12	completed	Mahloi	271051	Others	NTPC
19	Drinking water-Jhilgitar	Viswal construction	4600040549	120000.00	completed	Jhilgitar	126140	Drinking Water	NTPC
20	Drinking water-Lara-2016	1124779 Parmeshwar construction	5500019836	209259.00	completed	Lara	209259.26	Drinking Water	NTPC
21	Drinking water-Armuda	Jagdish saw	4600039131	106812.00	completed	Armuda	104142	Drinking Water	NTPC
22	Drinking water-Riyapali-2016	Jhasketan Patel	4600039134	126000	completed	Riapali	131086	Drinking Water	NTPC

23	Payment to prabhari Adhikari Chakradhar	Chakradhar Samarao	8200176039	600000.00	completed	Collector	600000.00	Sport & Culture	Deposit
24	Assitance to Collector Raiagrh for toilet contruction at Tamnar Block	6 different agencies	8200172775, 2785, 4898, 4899, 4900, 7617	1052001.00	completed	Collector	1052001.00	Sanitation/Toilet	Deposit
25	Toilet Construction	ceo jila panchayat	8200182553	22640000.00	deposited	Collector	22640000.00	Sanitation/Toilet	Deposit
26	Deposit to Collector Raigarh for Education Development	collector raiagrh	8200184582	216000.00	deposited	Collector	216000.00	Education including ITI	Deposit
27	Renovation of Sports complex raigarh- Carpet pasting, Glasswork, Badminton court renovation	collector raiagrh	8200190064	338544.00	deposited	Collector	338544.00	Sport & Culture	Deposit
Total				**58830267.72**	**Wrong**		**49791991.88**		
					Actual		52671940.02		

NTPC LARA

CD WORK DETAILS FOR THE YEAR 2018-19

S. No.	Name of work	Village and Village Panchayat	Value	Amount Release	Contractors's Name	PO No	Category	NTPC/Deposit
1	1. Renovation of Pond 2. Pond deepening, Amadipa Saraiapali 3. C C road construction with drain	Odekela,Saraiapali	44,54,000.00	44,54,000.00	CEO Jila Panchayat, Raiagrh	8200228440 Dtd: 10.04.2018	Road	Deposit
2	CC road construction 1. Sajvapara, Tetla 2. Junadhih Gond Dipa, Banda 3. Main road to Dipara and Dhipapara main road to junadhih bonda	Tetla, Banda, Linjir	59,98,000.00	59,98,000.00	CEO Jila Panchayat, Raiagrh	8200121147 Dtd: 09.05.2018	Road	Deposit
3	Deposit to Zila Panchayat Office , Raigarh for demolition of Muktidham Sa Pratikshalaya in Bodajhariya village.	Bodajharia	1,90,000.00	1,90,000.00	Sarpanch and Sachiv Gram panchayat Kandgarh	8200231805 Dtd: 16.05.2018	Others	Deposit
4	1. Deepening of Pond Bonda 2. Pond deepening and boring and pump installation 3. Mukditham Marg with CC Road. 4. Deepening of pond - Basanpali 5. Deepening of pond - GUDU	Bonda, Odekela, Gudu	70,78,300.00	15,75,000.00	CEO Jila Panchayat, Raiagrh	8200233222	Infrastructure other than road	Deposit
5	Coupon vending machine	Raigarh	2,79,849.00	2,79,849.00	Unique Computer System, Raigarh	8200234577	Others	NTPC
6	Installation of CC Camera at vital locations in Pussore Police Station	Pussore	79,200.00	1,03,000.00			Others	NTPC
7	Shree Ritesh Yadav's game promotion soft ball player	Raigarh	1,70,000.00	1,70,000.00	Collector- Raigarh		Sport & Culture	Deposit
8	Construction of new school building under the CSR item	Tehsil Pussore and Baramkela	3,70,57,000.00	3,70,57,000.00	Collector- Raigarh	8200238932	Education	Deposit
9	Chakradhar Samaroh	Raiagrh	10,00,000.00	10,00,000.00	Officer-in-charge Chakradhar Samaroh	8200176039	Sport & Culture	Deposit
10	Welcome gate construction	Mahloi, Armuda, Kandagrh, Bodajahariya, Chhapora, Devalsura, Ghutkupalli, Lara	31,50,000.00	31,50,000.00	Sarpanch and Sachiv Gram panchayat	Mahloi + Armuda PO: 8200255738 Kandagarh + Bodajharia P.O: 8200255740 Chhapora P.O: 8200255742 Lara P.O: 8200256817 Ghutkupali P.O: 8200255745	Infrastructure other than road	Deposit
11	Solar street lights	9 Village	79,60,000.00	79,60,000.00	CREDA, Raigarh	8200242655 Dtd: 03.10.2018	Infrastructure other than road	Deposit
12	Dustbin in Raigarh railway station (Swachhta Pakhvada)	Raigarh	6,500.00	6,500.00	Ajay Fancy Store Raigarh	8200247976	Sanitation	NTPC

13	Photocopy machine and toner	Raigarh	99,474.00	99,474.00	Dy. Director (Mining Dept) Raigarh	8200248277	Others	NTPC
14	Miscellaneous infrastructure construction	Lakhanpur, Jharsuguda (Odisha)	72,00,000.00	72,00,000.00	Collector Jharsuguda	8200250710 Dtd: 01.12.2018	Infrastructure other than road	Deposit
15	Distribution of Plants	9 Village	30,000.00	30,000.00	Superintendent Horticulture Pussore	8200252219 Dtd: 18.12.2018	Others	Deposit
16	Cricket Tournament	Armuda	37,000.00	30,000.00		P.O: 8200248277	Sport & Culture	NTPC
17	Invitation Cup Inter State Cricket Tournament-2019	Pussore	2,50,000.00	2,50,000.00	Cricket Organization Committee	8200254556 Dtd: 10.01.2019	Sport & Culture	Deposit
18	Invitation Cup Inter State Cricket Tournament-2018	Pussore	2,00,000.00	2,00,000.00	Cricket Organized Committee	8200248018 Dtd: 03.11.2018	Sport & Culture	Deposit
19	Volleyball Tournament	Lara	50,400.00	50,400.00		Notesheet dtd: 12.01.2019	Sport & Culture	NTPC
20	Jajvalaydev Lok Mahotsav and Agritech Agricultural Mela	Janjgir-Champa	7,20,000.00	7,20,000.00	Collector- Janjgir-Champa	8200254834 Dtd: 14.01.2019	Sport & Culture	Deposit
21	Office furniture and other materials in village Armuda Primary School	Armuda	42,970.00	42,970.00		Misc PO	Infrastructure other than road	NTPC
22	Construction of Vehicle Parking Shed in Tehsil Office	Dabhara	1,54,000.00	1,54,000.00		P.O No: 8200255463 Ch: No: 106383, Dtd: 04.02.2019	Infrastructure other than road	Deposit
23	Construction of public toilets in Tehsil office	Dabhara	6,46,000.00	6,46,000.00	Tahsil-Dabhara Janjgir-Champa	P.O No: 8200255462 Ch: No: 106382 Dtd: 04.02.2019	Toilets	Deposit
24	Renovation Work of Tehsil office	Dabhara	9,24,000.00	9,24,000.00		P.O No: 8200255519 Ch: No: 106384, Dtd: 04.02.2019	Infrastructure other than road	Deposit
25	Dhan Mandi Boundary-wall.	Chhapora	16,27,995.12	9,94,657.50		PO No: 5500030863	Infrastructure other than road	NTPC
26	Mobile Medical Van	9 Village	1,09,04,760.00	30,22,193.00		PO No: 5500022128	Health	NTPC
27	Construction of 01 No. Doctor & 02 No. Staff Quarters for New Public Health Centre (PHC Building) in Chhapora village	Chhapora	33,35,711.42	29,75,547.31		PO No: 5500026204	Health	NTPC
28	E-Rickshaw for PWD PAP	Chhappora	1,33,000.00	1,33,000.00			Physically Challeged Persons (PCP)	NTPC
29	Financial Assistance to Sh. Rishi Singh (National Taekwondo Medalist selected for World Championship Trial)	Raigarh	30,000.00	30,000.00	MLA-Raigarh	Lara/HR-E S/2018-19/SPORTS/100414	Sport & Culture	Deposit
30	Procurement, Supply, Installation & Commissioning of 01 no of Potable Water ATM.	Bodajharia	14,20,000.00	0.00	CREDA, Raigarh	Lara/HR-E S/2018-19/WATERATM/120717	Drinking Water	Deposit
31	Construction of 02 nos. new pond in village-kandagarh	Kandagarh	12,87,435.64	8,10,000.00		P.O No: 4600042769	Drinking Water	NTPC
32	Water distribution network in village chappora (from OTH to the village)	Chappora	16,12,749.15	0.00		P.O No: 4600043700	Drinking Water	NTPC

33	Construction of Armuda Primary school	Armuda	47,55,610.38	42,10,824.56		P.O No: 5500016512	Education	NTPC
34	Parking space and office rooms at SP Office complex	Raigarh	14,03,785.00	0.00		P.O No: 4600047192	Infrastructure other than road	NTPC
35	Construction of Drain village Armuda	Armuda	1,97,225.00	0.00		P.O No: 4600042840	Infrastructure other than road	NTPC
36	Construction of brick drain along CC road in Lara	Lara	14,57,184.00	3,75,024.00		P.O No: 4600048070	Infrastructure other than road	NTPC
37	KIT Scholarship to Ms. Sunita Panda	Kandagarh	1,20,000.00	1,20,000.00		P.O No: 8200249991	Education	NTPC
38	Supply of Drinking Water Thru Tanker - Chhapora	Chhapora	2,33,782.00	2,33,782.00		P.O No: 4600050753	Drinking Water	NTPC
39	Supply of Drinking Water Thru Tanker-Riyapali	Riyapali	2,33,782.00	2,33,782.00		P.O No: 4600050751	Drinking Water	NTPC
40	Supply of Drinking Water Thru Tanker-Bodajharia	Bodajharia	1,98,120.00	1,98,120.00		P.O No: 4600050754	Drinking Water	NTPC
41	Supply of Drinking Water Thru Tanker-Kandhagarh	Kandagarh	2,33,782.00	2,33,782.00		P.O No: 4600050756	Drinking Water	NTPC
42	Supply of Drinking Water Thru Tanker–Armuda	Armuda	1,98,120.00	1,98,120.00		P.O No: 4600050758	Drinking Water	NTPC
43	Supply of Drinking Water Thru Tanker–Mahloi	Mahloi	2,33,782.00	2,33,782.00		P.O No: 4600050747	Drinking Water	NTPC
44	Supply of Drinking Water Thru Tanker–Dewalsurra	Dewalsurra	2,33,782.00	2,33,782.00		P.O No: 4600050752	Drinking Water	NTPC
45	Supply of Drinking Water Thru Tanker–Jhilgitar	Jhilgitar	2,33,782.00	2,33,782.00		P.O No: 4600050746	Drinking Water	NTPC
46	Supply of Drinking Water Thru Tanker–Lara	Lara	2,33,781.00	2,33,781.00		P.O No: 4600050750	Drinking Water	NTPC
47	Supply of Drinking Water Thru Tanker–Thengapali	Thengapali	2,33,781.00	2,33,781.00		P.O No: 4600050790	Drinking Water	NTPC
48	Providing drinking water thru Pyau-Armuda & jhilgitar	Bhu visthapit Kalyan Samiti Armuda & Jhilgitar	1,36,000.00	1,36,000.00		P.O No: 8200241140	Drinking Water	NTPC
49	Providing drinking water thru Pyau-Chhapora	Chhapora	80,240.00	80,240.00		P.O No: 8200240537	Drinking Water	NTPC
50	Providing drinking water thru Pyau-Mahloi	Mahloi	80,240.00	80,240.00		P.O No: 8200240543	Drinking Water	NTPC
51	Providing drinking water thru Pyau-Kandagarh	Kandagarh	80,240.00	80,240.00		P.O No: 8200240682	Drinking Water	NTPC
52	Providing drinking water thru Pyau-Bodajharia	Bodajharia	80,240.00	80,240.00		P.O No: 8200240984	Drinking Water	NTPC
53	Providing drinking water thru Pyau-Dewalsurra	Dewalsurra	80,240.00	80,240.00		P.O No: 8200240762	Drinking Water	NTPC
54	Const of CC Road for village Lara	Lara	14,80,411.64	16,32,134.68		P.O No: 5500029078	Road	NTPC
55	Cleanling of Ponds under Swachhta Pakhwada	Kandagarh	15,000	15,000	SARPANCH & SACHIV Gram Panchayat Kandagarh	P.O No: 8200235329	Sanitation	NTPC
56	Cleanling of Ponds under Swachhta Pakhwada	Mahloi	15,000	15,000	SARPANCH & SACHIV Gram Panchayat Mahloi	P.O No: 8200235314	Sanitation	NTPC
57	Cleanling of Ponds under Swachhta Pakhwada	Chhapora	15,000	15,000	Gram Panchayat Chhapora	P.O No: 8200235316	Sanitation	NTPC

58	Cleanling of Ponds under Swachhta Pakhwada	Riyapali	15,000	15,000	Gram Panchayat Ghutkupali	P.O No: 8200235319	Sanitation	NTPC
59	Cleanling of Ponds under Swachhta Pakhwada	Bodhajharia	15,000	15,000	Gupta Construction	P.O No: 8200248846	Sanitation	NTPC
60	HOT AIR OVEN for PHC Chhapora	Chhapora	63,244	63,244	MERCURY LAB PLANNERS	P.O No: 4600055507	Health	NTPC
61	Medical Equipments for PHC Chhapora	Chhapora	1,30,849	1,30,849	GEM		Health	NTPC
	Total		11,04,84,498.35	8,95,35,512.05				

Format

Year 2017-18 community development expenditure sector wise and activity wise

Project: NTPC LARA

Date:31.03.2018

As on

S.No.	Sector / CD Activities	Awarded/ Estimated value in (Rs Lakh) as per approval	Cum. Exp. Till date (Rs.Lakh)			Committed (awarded work in progress & work under approval (Rs. Lakh)	Remaining Money (Rs. Lakh)	Remarks (Completed/ in Progress / under approval)	Place/Village	No of Beneficiaries (Approx)	Year of Execution	Category	NTPC/Deposit
			Executed by NTPC	Deposit work	Total								
1	2	3	4	5	6=4+5	7	8=3-(6+7)	9	10	11	12		
I	**Drinking Water**												
1	Supply of drinking water for Project affected village Mahloi thru Tanker	1,74,600.00	1,74,600.00	-	1,74,600.00	**0.00**		Completed	Mahloi	627	2017-18	Drinking Water	NTPC
2	Supply of drinking water for Project affected village Armuda thru Tanker	1,74,600.00	1,74,600.00	-	1,74,600.00	**0.00**		Completed	Armuda	471	2017-18	Drinking Water	NTPC
3	Supply of drinking water for Project affected village Kandagarh thru Tanker	1,74,600.00	1,74,600.00	-	1,74,600.00	**0.00**		Completed	Kandagarh	830	2017-18	Drinking Water	NTPC
4	Supply of drinking water for Project affected village Jhilgitar thru Tanker	1,74,600.00	1,74,600.00	-	1,74,600.00	**0.00**		Completed	Jhilgitar	129	2017-18	Drinking Water	NTPC
5	Supply of drinking water for Project affected village Lara thru Tanker	1,74,600.00	1,74,600.00	-	1,74,600.00	**0.00**		Completed	Lara	1106	2017-18	Drinking Water	NTPC
6	Supply of drinking water for Project affected village Bodhajhariya thru Tanker	1,74,600.00	1,74,600.00	-	1,74,600.00	**0.00**		Completed	Bodajharia	619	2017-18	Drinking Water	NTPC
7	Supply of drinking water for Project affected village Thengapali thru Tanker	1,74,600.00	1,74,600.00	-	1,74,600.00	**0.00**		Completed	Thengapalli	500	2017-18	Drinking Water	NTPC
8	Supply of drinking water for Project affected village Chhapora thru Tanker	1,80,000.00	1,80,000.00	-	1,80,000.00	**0.00**		Completed	Chappora	1188	2017-18	Drinking Water	NTPC
9	Supply of drinking water for Project affected village Develsurra thru Tanker	1,74,600.00	1,72,854.00	-	1,72,854.00	**1746.00**		Completed	Devalsura	517	2017-18	Drinking Water	NTPC
10	Laying water line from bore well to pond for filling pond	1,44,753.00	1,65,742.19	-	1,65,742.19	**-20989.19**		Completed	Bodajharia	619	2017-18	Others	NTPC
11	Constn of Borewell for Indira Awas Colony Armuda	58,982.00	58,982.00	-	58,982.00	**0.00**		Completed	Armuda	85	2017-18	Drinking Water	NTPC
12	Construction of 01 nos. new pond in village-kandagarh	12,87,435.64	8,09,480.00	-	8,09,480.00	**477955.64**		In progress	Kandagarh	830	2017-18	Others	NTPC
13	Water distribution network in village chappora (from OTH to the village)	16,12,749.15	7,45,615.00	-	7,45,615.00	**867134.15**		In progress	Chappora	1188	2017-18	Drinking Water	NTPC
14	Water purifiers for project affted schools	75,854.00	75,854.00	-	75,854.00	**0.00**		Completed	Armuda PS, Mahloi PS, MS, HS, Lara PS & MS and 1 anganbadi	783	2017-18	Drinking Water	NTPC
	Sub Total-I	**47,56,573.79**	**34,30,727.19**	**-**	**34,30,727.19**	**1325846.60**	0.00	**-**	-	**#REF!**			
II	**Education**												
1	Renovation of Permanent Cultural Stage in High School for village- Mahloi	84,900.63	95,108.63	-	95,108.63	**-10208.00**		Completed	Mahloi	480	2017-18	Others	NTPC
2	Construction of Cycle Stand for High School in village Mahloi	2,80,363.35	2,68,603.00	-	2,68,603.00	**11760.35**		Completed	Mahloi	480	2017-18	Infrastructure other than road	NTPC
3	Construction of Sanskritik Manch in kandagrh Middle School	90,849.21	98,509.44	-	98,509.44	**-7660.23**		Completed	Kandagarh	107	2017-18	Infrastructure other than road	NTPC
4	Construction of Cycle Stand in Chhapora School	2,80,678.25	2,27,397.00	-	2,27,397.00	**53281.25**		Completed	Chappora	120	2017-18	Infrastructure other than road	NTPC
5	Boundary Wall of Primary School kandagarh	9,13,000.00	-	9,13,000.00	9,13,000.00	**0.00**		In progress	Kandagarh	35	2017-18	Infrastructure other than road	NTPC
6	Boundary wall of Primary School Riapalli	9,13,000.00	-	9,13,000.00	9,13,000.00	**0.00**		Completed	Riapalli	11	2017-18	Infrastructure other than road	NTPC
7	Deposit to Collector Raigarh for District Education Development Program	21,60,000.00	-	21,60,000.00	21,60,000.00	**0.00**		Completed	Raigarh District		2017-18		Deposit
8	Restoration of Armuda Primary school	42,98,594.19	19,61,164.00	-	19,61,164.00	**2337430.19**		In progress	Armuda	17	2017-18		NTPC
9	PA System for Mahloi School	27,988.00	27,988.00	-	27,988.00	**0.00**		Completed	Mahloi	480	2017-18		NTPC
10	PA System for Lara School	27,988.00	27,988.00	-	27,988.00	**0.00**		Completed	Lara	206	2017-18		NTPC
11	Waterbottle for school Children	1,97,482.00	1,97,482.00	-	1,97,482.00	**0.00**		Completed	9 villages	1510	2017-18	Drinking Water	NTPC
12	Almirah and other utility items for Armuda School	18,000.00	18,000.00	-	18,000.00	**0.00**		Completed	armuda	17	2017-18	Others	NTPC
13	Sweater for primary school children	1,86,680.00	1,86,680.00	-	1,86,680.00	**0.00**		Completed	9 villages	773	2017-18	Others	NTPC
14	School bag for children from project affected schools	4,24,500.00	4,24,500.00	-	4,24,500.00	**0.00**		Completed	9 villages	1132	2017-18	Others	NTPC
15	Dari for distribution to schools and anganwadis	1,30,000.00	80,500.00	-	80,500.00	**49500.00**		Completed	9 villages	1510	2017-18	Others	NTPC
16	School Furniture Phase II*	16,14,937.00	18,41,028.00	-	18,41,028.00	**-226091.00**		Completed	9 villages	613		Others	NTPC
	Sub Total-II	**1,16,48,960.63**	**54,54,948.07**	**39,86,000.00**	**94,40,948.07**	**2208012.56**	**0**	**-**	**-**				
III	**Health**												

1	Construction of 01 No. Doctor & 02 No. Staff Quarters for New Public Health Centre (PHC Building) in Chhapora village	31,99,513.21	12,71,177.00	-	12,71,177.00	**1928336.21**		In progress	Chappora	3	2017-18		NTPC
2	Mobile Health Clinic (2017-18 expnd)	26,86,260.00	26,86,260.00	-	26,86,260.00	**0.00**		In progress	9 villages	5753	2017-18		NTPC
	Sub Total - III	**58,85,773.21**	**39,57,437.00**	**-**	**39,57,437.00**	**1928336.21**	0.00	-	-				
IV	**Road**												
1	CC Road from GP Building to NTPC Road 250 mts	8,81,000.00	-	8,81,000.00	8,81,000.00	**0.00**		Completed	Mahloi	627	2017-18	Road	NTPC
2	CC Road from House of Devendraa Pradhan to High School 200 mts	7,40,000.00	-	7,40,000.00	7,40,000.00	**0.00**		Completed	Mahloi	627	2017-18	Road	NTPC
3	CC Road from Bharat Pradhan House to Shiv Mandir 250 mts	8,81,000.00	-	8,81,000.00	8,81,000.00	**0.00**		Completed	Mahloi	627	2017-18	Road	NTPC
4	CC Road from field of chamar singh to main road	12,31,000.00	-	12,31,000.00	12,31,000.00	**0.00**		Completed	Riapalli	266	2017-18	Road	NTPC
5	CC Road from filed ofhouse of arvind singh to house of chamar singh	12,31,000.00	-	12,31,000.00	12,31,000.00	**0.00**		Completed	Riapalli	266	2017-18	Road	NTPC
6	CC Road from primary school to harijan mohalla	10,57,000.00	-	10,57,000.00	10,57,000.00	**0.00**		Completed	Riapalli	266	2017-18	Road	NTPC
7	CC road nawadi basti	12,31,000.00	-	12,31,000.00	12,31,000.00	**0.00**		Completed	Chappora	350	2017-18	Road	NTPC
8	CC Road 300 mts , harijan mohalla	10,59,000.00	-	10,59,000.00	10,59,000.00	**0.00**		Completed	Lara	200	2017-18	Road	NTPC
9	CC Road from main road to kewta talab	10,59,000.00	-	10,59,000.00	10,59,000.00	**0.00**		In progress	Devalsura	150	2017-18	Road	NTPC
10	CC Road in Knadagarh village	10,17,000.00	-	10,17,000.00	10,17,000.00	**0.00**		In progress	Kandagarh	500	2017-18	Road	NTPC
11	CC Road from main road to ujjagajin gudi	3,30,000.00	-	3,30,000.00	3,30,000.00	**0.00**		In progress	Armuda	200	2017-18	Road	NTPC
12	CC Road in new Indira Awas colony	5,47,000.00	-	5,47,000.00	5,47,000.00	**0.00**		In progress	Armuda	85	2017-18	Road	NTPC
13	CC Road from overhead water tank to banjara mohalla	11,50,000.00	-	11,50,000.00	11,50,000.00	**0.00**		In progress	Mahloi	300	2017-18	Road	NTPC
14	CC road for village Lara (400 M)	14,64,398.00	16,13,634.00	-	16,13,634.00	**-149236.00**		Completed	Lara	350	2017-18	Road	NTPC
15	Temporary repair of Chappora Road to Shiv Mandir	1,47,045.00	1,47,045.00	-	1,47,045.00	**0.00**		Completed	Chappora	400	2017-18	Road	NTPC
16	Construction of CC Road from Main Road (Pussore Road near Chhapora Nala)	28,59,674.00	29,01,236.00	-	29,01,236.00	**-41562.00**		Completed	Chappora	1188	2017-18	Road	NTPC
17	Construction of WMM Road for village kandagarh towards Chantipali village.	17,34,555.00	17,80,886.00	-	17,80,886.00	**-46331.00**		Completed	Kandagarh	1000	2017-18	Road	NTPC
18	Construction of CC Road from Chappora Road to Shiv Mandir	18,28,868.55	24,54,748.00	-	24,54,748.00	**-625879.45**		Completed	Chappora	400	2017-18	Road	NTPC
19	Balance work of Armuda CC Road Phase ii*	12,17,762.00	11,26,211.00	-	11,26,211.00	**91551.00**		Completed		400		Road	NTPC
	Sub Total - IV	**2,16,66,302.55**	**1,00,23,760.00**	**1,24,14,000.00**	**2,24,37,760.00**	**-771457.45**	**0.00**	-	-				
V	**Infrastructure other than road**												
1	Mangal Bhawan near Shiv Mandir	15,26,000.00	-	15,26,000.00	15,26,000.00	**0.00**		In progress	Chappora	500	2017-18	Others	NTPC
2	Community Center in Chappora village	6,50,000.00	-	6,50,000.00	6,50,000.00	**0.00**		completed	Chappora	500	2017-18	Infrastructure other than road	NTPC
3	Construction of Fair price shop with godown	9,82,000.00	-	9,82,000.00	9,82,000.00	**0.00**		In progress	Lara	1100	2017-18	Others	NTPC
4	Cremation Shed	4,80,000.00	-	4,80,000.00	4,80,000.00	**0.00**		In progress	Lara	1100	2017-18	Others	NTPC
5	new panchayat building	17,39,000.00	-	17,39,000.00	17,39,000.00	**0.00**		In progress	Lara	1100	2017-18	Infrastructure other than road	NTPC
6	Mangal Bhawan in Devalsura village	15,86,000.00	-	15,86,000.00	15,86,000.00	**0.00**		In progress	Devalsura	500	2017-18	Others	NTPC
7	Community center at Kandagarh village	2,75,000.00	-	2,75,000.00	2,75,000.00	**0.00**		In progress	Kandagarh	400	2017-18		
8	Mangal Bhawan Nirman	19,85,000.00	-	19,85,000.00	19,85,000.00	**0.00**		In progress	Kandagarh	350	2017-18		
9	Community center at Saradih village	50,00,000.00	-	50,00,000.00	50,00,000.00	**0.00**		In progress	Saradih	800	2017-18	Infrastructure other than road	NTPC
10	Bathing Ghat Nirman at Mahanadi river bank	1,20,000.00	-	1,20,000.00	1,20,000.00	**0.00**		In progress	Saradih	800	2017-18		
11	Chowpal nirman in ujjagajin gudi	3,00,000.00	-	3,00,000.00	3,00,000.00	**0.00**		In progress	Armuda	400	2017-18		
12	Chowpal nirman in new indira awas colony	3,00,000.00	-	3,00,000.00	3,00,000.00	**0.00**		In progress	Armuda	85	2017-18		
13	Community center near armuda school	19,00,000.00	-	19,00,000.00	19,00,000.00	**0.00**		In progress	Armuda	471	2017-18		
14	Construction of Boundary Wall with Two Rooms for Play Ground	12,21,104.47	11,08,663.00	-	11,08,663.00	**112441.47**		completed	Chappora	200	2017-18		
15	Construction of Boundry Wall for Panchayat Ghar in Village-kandagarh	2,65,419.38	2,66,625.00	-	2,66,625.00	**-1205.62**		completed	Kandagarh	800	2017-18		
16	Parking space and office rooms at SP Office complex	14,03,785.00	11,44,757.00	-	11,44,757.00	**259028.00**		In progress	Raigarh	100	2017-18	Others	NTPC
17	Fencing CPR work in Armuda*	10,54,559.00	96,020.00	-	96,020.00	**958539.00**		completed	Armuda	400	2017-18	Infrastructure other than road	NTPC
18	Construction of pachari at purana talab mahloi	3,21,720.00	2,71,051.00	-	2,71,051.00	**50669.00**		completed	Mahloi	600	2017-18		
	Sub Total - V	**2,11,09,587.85**	**28,87,116.00**	**1,68,43,000.00**	**1,97,30,116.00**	**1379471.85**	0.00	-	-				
VI	**Sanitation**												
1	Construction of Drain	20,00,000.00	-	20,00,000.00	20,00,000.00	**0.00**		In progress	Chappora	1100	2017-18		NTPC
2	Construction of Drain in middle basti	19,81,000.00	-	19,81,000.00	19,81,000.00	**0.00**		In progress	Devalsura	500	2017-18		NTPC
3	Construction of Drain village Armuda	1,97,225.00	1,56,202.00	-	1,56,202.00	**41023.00**		In progress	Armuda	200	2017-18		NTPC
4	Construction of brick drain along CC road in Lara	14,57,184.00	7,27,520.00	-	7,27,520.00	**729664.00**		In progress	Lara	250	2017-18	Road	NTPC
	Sub Total - VI	**56,35,409.00**	**8,83,722.00**	**39,81,000.00**	**48,64,722.00**	770687.00	0.00	-	-				
VII	**Toilet**												
	Individual Toilet												
1	Construction of aditional Individual Toilets in 09 project affected villages	45,00,000.00	-	45,00,000.00	45,00,000.00	**0.00**	**0**	In progress	9 villages	225	2017-18	Sanitation/Toilet	NTPC
	Toilet in School (under CD)												NTPC
2	Toilet in kandagarh primary school	1,13,681.00	1,10,682.00	-	1,10,682.00	**2999.00**		completed	kandagarh	35		Sanitation/Toilet	NTPC
	Sub Total - VII	**46,13,681.00**	**1,10,682.00**	**45,00,000.00**	**46,10,682.00**	2999.00	0.00						
VIII	**Sport & Culture**												
1	Sanskriti Manch	5,40,000.00	-	5,40,000.00	5,40,000.00	**0.00**		In progress	chappora	1100	2017-18		
2	Deposit to Collector Raigarh for Chakradhar Samaroh	7,20,000.00	-	7,20,000.00	7,20,000.00	**0.00**			Raigarh		2017-18		

3	Deposit for JAJWALDEV LOK MAHOSTAV & AGRITECH	7,20,000.00	-	7,20,000.00	7,20,000.00	**0.00**			Jhajgir-Champa		2017-18		
4	Inter village cricket tournament	28,000.00	28,000.00		28,000.00	**0.00**		Completed	Armuda	200	2017-18	Sport & Culture	NTPC
5	Inter village vollyball tournament	61,550.00	54,000.00		54,000.00	**7550.00**		Completed	9 villages	100	2017-18	Sport & Culture	NTPC
6	Assitance to Zilla Ameture Kabbadi Sangh, Raigarh	1,00,000.00	-	1,00,000.00	1,00,000.00	**0.00**			Raigarh	600	2017-18	Sport & Culture	NTPC
7	Financial Assistance for Pussore Invitation Cup Cricket Tournament	2,00,000.00	-	-	-	**200000.00**			pussore	100	2017-18	Sport & Culture	NTPC
8	National Games held at Raigarh (Dress for players & electrical fittings in players lodging place)	7,04,445.00	-	7,04,445.00	7,04,445.00	**0.00**			Raigarh	1000	2017-18	Sport & Culture	NTPC
	Sub Total - VIII	**30,73,995.00**	**82,000.00**	**27,84,445.00**	**28,66,445.00**	**207550.00**	0.00	-	-				
Summary		**Awarded /Estimated value in (Rs Lakh)**	**Executed by NTPC**	**Deposit work**	**Cum. Exp. Till date (Rs.Lakh)**	**Committed (Rs. Lakh)**	**Remaining Money (Rs. Lakh)**	**Completed/ in Progress / Committed**	**Place/Village**	**No of Beneficiaries (Approx)**			
		7,83,90,283.03	**2,68,30,392.26**	**4,45,08,445.00**	**7,13,38,837.26**	**#REF!**	**#REF!**	**As above**	**As above**	**As above**			

***** 9 Villages are the project affted villages - Chappora, Armuda, Devalsura, Bodajharia, Kandagarh, Jhilgitar, Lara, Riapalli and Mahloi**

NTPC Lara-Proposed CSR/CD Work for the FY 2019-20. Approx Available Budget (8.71 Cr)								04.03.2020
S.No.	**Description**	**Village**	**PO/PR Number**	**Estimated Amount (INR)**	**Actual Expenditure (INR)**	**Category**	**Reference**	**Remarks**
1	Water distribution network from water tank to villages	9 villages				Drinking Water	Villagers	PO
A	Armuda		4600058518	5,02,635	2,28,300	Drinking Water	Villagers	Awarded
B	Mahloi		4600059504	7,77,890	4,00,000	Drinking Water	Villagers	Awarded
C	Devalsura		4600058751	11,09,367	5,00,000	Drinking Water	Villagers	Awarded
D	Chhapora		4600043700	15,15,984	7,45,615	Drinking Water	Villagers	Awarded
E	Kandagarh		4600058519	13,11,136	6,49,000	Drinking Water	Villagers	Awarded
F	Jhilgitar		4600058466	1,92,624		Drinking Water	Villagers	Awarded
G	Lara		4600058509	13,13,840		Drinking Water	Villagers	Awarded
H	Riyapali		4600058477	3,64,441		Drinking Water	Villagers	Awarded
I	Bodajharia		4600058504	9,68,301	5,47,000	Drinking Water	Villagers	Awarded
2	Financial Support to Master Rishi Singh (Taekwondoo Player)	Raigarh	8200268350		28,400	Sport & Culture	MLA	Completed
3	Installation of Solar Street Lights in the Balance area of all villages	7 villages	4600058628	85,00,000	42,50,000	Infrastructure other than road	Villagers	Under Progress
4	Installation of Solar Water ATM Machine in Bodhajharia Village	Bodajharia	8200264237		14,20,000	Drinking Water	MLA	Completed
5	Construction of community toilet in Vill: Armuda and Pussore Block	Pussore Tehsil	Proposed			Toilets	NTPC	With CCD for PR
6	Construction of Additional Classrooms and Toilets in Govt Primary School	Bodajharia	4600060207	23,04,000		Education	Villagers	With C&M under award
7	Construction of existing road from Bodajharia to Kandagarh Village	Kandagarh	Cancelled			Road	Villagers	Work done by Govt.
8	Construction of Devlas In Village: Bodajharia	Bodajharia	5500033571	4,97,925	3,10,440	Infrastructure other than road	Villagers	Under Progress
9	Providing and laying of WMM in front side road and inside the school of New Armuda Govt School and Construction of school nearby drains.	Armuda	4600057307		6,80,552	Education	Villagers	Completed
10	Parking at PHC Chhapora	Chhapora	5500033709	6,24,789		Health	PHC	Agency not executing work
11	Boundary Wall, Gate and Toilet of Anganwadi of Armuda.	Armuda	4600056453		2,26,477	Education	Villagers	Completed
12	SUPPLY, INSTALLATION AND COMMISSIONING OF PLAY EQUIPMENTS	11 villages	4600055930		11,83,193	Education	Villagers	Completed
13	Digging of New pond in Bodajharia	Bodajharia	800044747	25,97,193		Drinking Water	Villagers	New proposal by CCD to be initiated
14	Construction of Mid-day Meal Shed in Govt School.	Mahloi	5500033210		4,74,468	Education	Villagers	Completed
15	Renovation of Mandir Talab	Lara	Under Award			Drinking Water	Villagers	Under Award
16	Renovation Natwar Talab	Gutkupalli	4600058217	31,96,353		Drinking Water	Villagers	Work to start w.e.f Feb'2020.
17	Construction of Over Head Tank in Bodajharia Village	Bodajharia	5500021507	21,73,303		Drinking Water	Villagers	Provisional Time Extension provided
18	Constn of CC Road in Lara	Lara	4600056626		20,96,556	Road	Villagers	Completed
19	Civil Works in Kandagarh Gram Panchayat including Roads and Leveling of community land (Nistar)	Kandagarh & Bodajharia	Under Approval			Infrastructure other than road	Villagers	CCD has moved proposal
20	Construction of School Boundary wall for Village Jhilgitar	Jhilgitar	4600038809		4,26,236	Education	Villagers	Completed

21	Construction of Community centre at Bodajharia	Bodajharia	4600042006 16.09.16	8,76,938		Infrastructure other than road	Villagers	Under Progress
22	Digging of 01 no. borewell and provision of 02 nos. water tanks (5000 L) for bathing near Chandan Talab	Bodajharia	4600049530	2,92,840	1,34,267	Drinking Water	Villagers	Borewell completed Balance work Under Progress
23	Digging of Borewell and water supply network in Indira Awas Colony	Armuda	4600056934	1,96,014		Drinking Water	Villagers	Under Progress
24	Construction of CC Road in Devalsura	Dewalsura	4600056830		4,03,715	Road	Villagers	Completed
25	Construction of Gate in Govt Primary School Lara	Lara				Education	Villagers	Completed
26	Construction of Girls Toilet in GOVT High Secondary School Mahloi	Mahloi	Under Approval			Education	Villagers	Proposal to be initiated
27	Mobile Medical Van Services for villages	25 Villages.	4600057457		10,54,500	Health	NTPC	Started w.e.f 02.01.2020
28	Skill Development for youths of PAP Villages	9 villages					NTPC	Proposal to be initiated
29	Skill Development classes for Womens	9 villages					NTPC	Proposal to be initiated
30	Medical Furnitures for PHC Chhapora	Chhapora	4600055140		5,33,501	Health	PHC	Completed
31	Renovation and deepening of Pond in Dewalsura	Dewalsura	Proposed			Drinking Water	Villagers	On hold
32	Construction Of Boundary Wall For Kodpali Dhanmandi.	Kodpali	Proposed			Infrastructure other than road	Villagers	On hold
33	Providing Printers, UPS and Chairs in Tehsil office Dabhra-reg	Dabhra	8200272813 8200272070		16,040	Others	State Admin	Completed
34	Digging of Borewell in Banjarapara village-Bodhajharia.	Bodajharia		2,06,206	1,23,113	Drinking Water	MLA	Completed
35	Felicitation to Girl Child Ku. Nisha Patel for highest marks in C.G. Sate Board Secondary Education-2019.	Tarda, Pussore	8200268004		49,660	Education	NTPC	Completed
36	Extending Infrastructure Support during Socio Culture Event' 2019 at Raigarh	Raigarh	8200269250		99,710	Others	State Admin	Completed
37	Village Cricket Tournament at village Lara	Lara	8200275625 8200275581 8200275654		31,659	Sport & Culture	Villagers	Completed
38	Supply and Installation of DD Refrigerator of 260 Ltr (LG Model-GL-N292DDSY) for PHC Chappora	Chhapora	8200267200		23,700	Health	PHC	Completed
39	Financial Support to 18th Senior State and Inter District carrom Championship 2018-19	Raipur	8200263289		50,000	Sport & Culture	NTPC	Completed
40	Deposit Work Bunga, Boundary wall Gadain Devi Mandir	Dabhra	4600056295		8,50,000	Infrastructure other than road	Villagers	Completed, UC Received As on 25.03.2021
41	Arranging Coaching Classes to PAPs of Lara to prepare them for Competitive Employment Exams-	All villages	8200275471		2,42,000	Education	State Admin	Completed
42	Volley Ball Tournament in Lara	Lara			53,702	Sport & Culture	Villagers	Completed
43	Deposit work in Pussore Block through Zila Panchayat Office	Pussore	4600057105		92,96,000	Road	Minister	Completed, UC Received As on 25.03.2021
44	Waiver of fees for PAP girl Child Estimated Value=13,61,000.	9 villages	8200276125		12,36,750	Education	NTPC	Completed
45	Deposit work for Electrification work in Auditorium near Panjri Plant, Riagrh	Raigarh	4600057413		13,09,576	Infrastructure other than road	State Admin	Completed
46	Solar Street Light in MGR Villages by MGR Team	MGR	8200276619		21,48,389	Infrastructure other than road	NTPC	Completed
47	Inauguration for PHC Chhapora (Tent Hiring)	Chhapora	8200275609		33,069	Others		Completed

48	Construction of boundary wall with two rooms & toilet for play ground.	Lara	4600043922	13,74,513		Infrastructure other than road	Villagers	Under Progress
49	Construction of boundary wall at Govt. Middle School Basanpali	Basanpali	4600058277		15,95,000	Infrastructure other than road	State Admin	Completed, UC Received As on 25.03.2021
50	Procurement of Dari for Schools and Anganwadis	9 villages	8200228156		1,22,558	Education	Villagers	Completed
51	Painting of Board and Wall At PHC Chhapora	Chhapora	8200282559		9,240	Health	PHC	Completed
52	CLEANLINESS DRIVE IN BODHAJHARIA VILLAGE	Bodajharia	8200282557		15,000	Others	Villagers	Completed
53	Construction of Culvert over the drain falling in between the road from Kandagarh to Chantipali Village	Kandagarh				Road	Villagers	Being done through site package.
54	Construction of Cycle Stand in New Govt. Primary School Armuda	Armuda				Education	Villagers	Approved
55	Construction of NEW Building for Mahloi High Secondary School.	Mahloi				Education	State Admin	
56	Ground Area Concreting and Construction of Platform in Chappora Dhan Mandi	Chhapora	4600058715	18,56,523		Infrastructure other than road	Villagers	Under Progress
57	Construction of Bathing Ghat at Thengapali Village	Thengapali	800045797	6,00,518		Infrastructure other than road	Villagers	Approved
58	Laying of PCC and Paver Block to make the road from School Main Gate up to the School Premises of New Armuda Govt School.	Armuda				Education	Villagers	
59	Deposit to District Collector for Contribution to National Tribal Dance Festival-2019	Raipur	4600059128		5,00,000	Sport & Culture	State Admin	Completed
60	Organizing Inter – Village Cricket Tournament at village Lara 2019-20	Lara		12,000		Sport & Culture	Villagers	Completed
61	Organizing Inter – Village Cricket Tournament at village Jhilgitar	Jhilgitar		30,000		Sport & Culture	Villagers	Completed
62	Distribution of T-Shirts and Caps for NSS State Level Program				1,59,579	Sport & Culture	Minister	Completed
63	Jajvalaydev Lok Mahotsav and Agritech Agricultural Mela		8200292051		7,20,000	Sport & Culture	State Admin	Completed
64	Boundary Wall and gate of PHC Chhapora	Chhapora	4600060020	1,72,563		Health	NTPC	
65	Tution Fees Reimbursement for Higher Education (KIT)				60,000	Education		
	Total			**3,35,67,896**	**3,50,36,965**			

NTPC Lara-Proposed ITI Pussore Work for the FY 2019-20. Approx Available Budget (10.00 Cr)								**04.03.2020**
S.No.	**Description**	**Village**	**PO/PR Number**	**Estimated Amount (INR)**	**Actual Expenditure (INR)**	**Category**	**Reference**	**Remarks**
1	Procurement of furniture from M/s Godrej for phase 1 of renovation of ITI Pussore under CSR.	Pussore	4600056711		27,82,185	Education	**Big Ticket/CM**	
2	Electrical Works for renovation of ITI Pussore - Phase-I	Pussore	4600057756	3,61,497		Education	**Big Ticket/CM**	

3	Electrical Supply for renovation of ITI Pussore - Phase-I	Pussore	4600058643 4600058642 4600058649 4600058653 4600058313	7,00,391		Education	**Big Ticket/CM**	
4	Civil Works for Renovation of ITI Pussore - Phase I	Pussore	4600057657	20,06,047		Education	**Big Ticket/CM**	
5	PROCUREMENT OF VIRTUAL WELDING MACHINE FOR ITI PUSSORE	Pussore	700056311	10,15,775		Education	**Big Ticket/CM**	
6	Procurement of IT Materials	Pussore	4600057026 4600058234	8,09,757		Education	**Big Ticket/CM**	
7	Construction of Boundary Wall of Govt ITI Pussore - Pradip File No-143494	Pussore	4600057704	22,46,315		Education	**Big Ticket/CM**	
	Total			**71,39,782**	**27,82,185**	**99,21,967**		

NTPC Lara-Proposed GEM Work for the FY 2020-21.								**04.03.2020**
S.No.	**Description**	**Village**	**PO/PR Number**	**Estimated Amount (INR)**	**Actual Expenditure (INR)**	**Category**	**Reference**	**Remarks**
67	Residential Workshop for Empowerment of Girl Child	9 villages				Education	**NTPC**	Approved

NTPC Lara-Proposed CSR/CD Work for the FY 2020-21 Approx Available Budget (8.71 Cr)

S. No.	Description	Village	PO/PR Number	Service Period	Estimated Amount (INR)	Actual expendtiure (Payment As per MIS Dashboard)	Category	Reference
1	Water distribution network from water tank to villages	9 villages					Drinking Water	**Villagers**
A	Armuda	Armuda	4600058518		5,02,635		Drinking Water	**Villagers**
B	Mahloi	Mahloi	4600059504		7,77,890		Drinking Water	**Villagers**
C	Devalsura	Devalsura	4600058751		11,09,367		Drinking Water	**Villagers**
D	Chhapora	Chhapora	4600043700		15,15,984	9,59,218	Drinking Water	**Villagers**

E	Kandagarh	Kandagarh	4600058519		13,11,136		Drinking Water	**Villagers**
F	Jhilgitar	Jhilgitar	4600058466	11.11.2019-30.07.2020 Jayram Panda	1,92,624	1,00,000	Drinking Water	**Villagers**
G	Lara	Lara	4600058509	18.11.2019-17.05.2020 VC:1166613 Sahdev Construction	13,13,840		Drinking Water	**Villagers**
H	Riyapali	Riyapali	4600058477	11.11.2019-10.03.2020 VC:1110224 Thawait Construction	3,64,441		Drinking Water	**Villagers**
I	Bodajharia	Bodajharia	4600058504	18.11.2019-15.05.2020 (VC:1177904) SETKUMAR SAWARA	9,68,301		Drinking Water	**Villagers**
2	Construction of Over Head Tank in Bodajharia Village	Bodajharia	5500021507		21,73,303		Drinking Water	**Villagers**
3	Installation of Solar Street Lights in the Balance area of all villages	7 villages	4600058628		85,00,000	42,50,000	Infrastructure other than road	**Villagers**

4	Construction of community toilet in Vill: Armuda	Armuda	4600063690		14,24,596		Toilets	
5	Construction of Additional Classrooms and Toilets in Govt Primary School	Bodajharia	4600060207		23,04,000	8,96,861	Education	**Villagers**
6	Construction of Devlas In Village: Bodajharia	Bodajharia	5500033571		6,65,219	354799.57	Infrastructure other than road	**Villagers**
8	Construction of Community centre at Bodajharia	Bodajharia	4600042006		8,76,938		Infrastructure other than road	**Villagers**
9	Digging of 01 no. borewell and provision of 02 nos. water tanks (5000 L) for bathing near Chandan Talab	Bodajharia	4600049530		2,92,840		Drinking Water	**Villagers**
10	Digging of Borewell and water supply network in Indira Awas Colony	Armuda	4600056934		1,96,014		Drinking Water	**Villagers**
11	Mobile Medical Van Services for villages (MMU)	25 Villages.	4600057457		1,41,07,296	21,42,695	Health	**NTPC**
13	Construction of boundary wall with two rooms & toilet for play ground.	Lara	4600043922		13,74,513		Infrastructure other than road	**Villagers**
14	Construction of Cycle Stand in New Govt. Primary School Armuda	Armuda	4600063656		2,94,572		Education	**Villagers**
15	Procurement of AC and Furniture for SDOP office Kharsia		4500070421 4500070423		60,000	71,400	Education	**State Admin**
16	Ground Area Concreting and Construction of Platform in Chappora Dhan Mandi	Chhapora	4600058715		18,56,523		Infrastructure other than road	**Villagers**

	Construction of Bathing Ghat at Thengapali Village	Thengapali	800045797		6,00,518		Infrastructure other than road	**Villagers**
18	Tution Fees Reimbursement for Higher Education (KIT)		8200299285 8200299284 8200297900 8200308212 8200308215		8,03,350	6,83,350	Education	
19	Tablu for Republic day Celebration	State	4600060906		1,15,640	1,15,640	Sport & Culture	
21	Procurement of Air Coolers for Pussore Police Station		4500066295		29,850	29,850	others	
22	Procurement of Air Conditioner for Pussore Tehsil Office		700060384		35,129		others	
24	COVID-19 expenses		4600060610 4600061423 4600061441 8200297142		20,48,390	20,48,390	Health	
31	Renovation of Mandir Talab	Lara	4600060232		28,59,124		Drinking Water	**Villagers**
32	Renovation Natwar Talab	Gutkupalli	4600058217		31,96,353		Drinking Water	**Villagers**
33	Civil Works in Kandagarh Gram Panchayat including Roads and Leveling of community land (Nistar)	Kandagarh & Bodajharia	Under Approval				Infrastructure other than road	**Villagers**
33	Third Party Toilets Audit made under Swachh Vidyalaya Abhiyaan- Janmitram	Kharsia, Gharghoda, Sarangarh Blocks	4600064967		1,30,594	77,050	Others	**NTPC**
34	Conducting Inter village Cricket Tournament phase 1 Ghutkupali	Ghutkupali	8200313204 8200314013		30,000		Sport & Culture	
12	Waiver of Welcome Kit for PAP girl Child School Kit Estimated Value=3,73,500.	9 villages	8200276125		3,73,500	2,28,500	Education	**NTPC**
	Conducting Inter village Cricket Tournament Rengalpali	Rengalpali	8200314011		30,000	30,000	Sport & Culture	**Villagers**

	Farmers training	All Villages			59,600			
	Jan Sunwayi	Kandagarh, Armuda, Ghutkupali			48,600		Others	
	Deposited to Collector For Various CSR CD works of Rs 63,00,000 **1.Harijan Maholla CC Road- Machida GP- Kalmi Village** **2.Pradip House to Yudhistir house CC Road- Turanga GP- Turanga Village** **3.Atal chowk to Gurukul School CC road- Turanga GP- Turanga Village** **4.Mahesh Sharma House to Phagun House CC road- Badehardi GP- Badehardi Village** **5.Sarathi Mohalla- Sodekela GP- Sodekela Village** **6.Dasrathi Meher House to Jagganath Temple - Kathani- GP- Kathani Village** **7.Vinod House to Kehar Ram House - Kotasura GP- Kotasura Village** **8.Shanilal House to Gautam House - Jakela GP- Jakela Village** **9.Main road to Chouhan Mohalla - Siha GP- Siha Village**	Machida Turanga Turanga Badehardi Sodekela Kathani Kotasura jakela siha Midmida	4600065135		63,00,000	34,00,000	Infrastructure other than road	**MLA Admin**
	Paymen to CSPDCL for electric Connection	Armuda Mahloi, Devalsura, Chhapora	4600065200		61,812	61,812	Drinking Water	**NTPC**
	Deposit work of Collector Raigarh for Construction of Muktidham in various villages of Pussore Tehsil	Pussore tehsil	4600065260		35,49,000	35,49,000	Infrastructure other than road	**Admin**
	Total				**5,18,70,386**	**1,89,98,566**		

NTPC Lara-Proposed CSR/CD Work for the FY 2021-22

S. No.	Description	Village	PO/PR Number	Name of agency	Time period	Spill Over & New proposals 2021-22	Expenditure 2021-22	Balance 2021-22	Category
1	**Water distribution network from**	9 villages							
A	Armuda	Armuda	4600058518	M/s Gupta Construction	18.11.2019 till	2,74,335.00	1,95,087	79,248	Drinking Water
B	Bodajharia	Bodajharia	4600058504	M/s Setkumar Sarrera	18.11.2019 till	4,21,301.00	0	4,21,301	Drinking Water
C	Devalsura	Devalsura	4600058751	M/s Patel construction	01.12.2019 till	5,92,473.00	0	5,92,473	Drinking Water
D	Jhilgitar	Jhilgitar	4600058466	M/s Jayram Panda (VC:1144203)	11.11.2019 till	93,822.00		93,822	Drinking Water
E	Kandagarh	Kandagarh	4600058519	M/s Vasudev Sao (VC:1120339)	18.11.2019 till	6,62,136.00	5,85,320	76,816	Drinking Water
F	Lara	Lara	4600058509	M/s Sandev Construction	18.11.2019 till	13,13,840.00	0	13,13,840	Drinking Water
G	Mahloi	Mahloi	4600059504	M/s Bhawani Construction	28.01.2020 till	3,77,890.00	2,65,000	1,12,890	Drinking Water
H	Riyapali	Riyapali	4600058477	M/s Thawan Construction	11.11.2019 till	3,64,441.00	0	3,64,441	Drinking Water
2	Construction of Over Head Tank in	Bodajharia	5500021507	M/s Mohan Poddar (VC:1102882)	10.11.2015	21,73,303.00	0	21,73,303	Drinking Water
3	Construction of community toilet in	Armuda	4600063690	M/s Jagdish Saw (VC:1132841)	20.11.2020 till	14,24,596.43	0	14,24,596	Toilets
4	Digging of Borewell and water supply	Armuda	4600056934	M/s Gajanan Patel (VC:1165156)	20.07.2019 till	1,96,014.00	0	1,96,014	Drinking Water
5	Construction of Cycle Stand in New	Armuda	4600063656	M/s Bhavesh Construction	10.11.2020 till	2,94,571.51	2,54,133	40,439	Education
7	Construction of Additional Classrooms	Bodajharia	4600060207	M/s Sandev Construction	09.03.2020 till	14,07,139.00	6,52,734	7,54,405	Education
8	Construction of Devlas In Village:	Bodajharia	5500033571	M/s Sandev Construction	10.07.2019 till	1,36,237.00		1,36,237	Infrastructure
9	Construction of Community centre at	Bodajharia	4600042006	M/s Gupta Construction	22.11.2016 till	8,76,938.00	0	8,76,938	Infrastructure
10	Digging of 01 no. borewell and	Bodajharia	4600049530	Sarpanch & Sachiv Gram Panchayat	23.01.2018 till	1,58,573.00	0	1,58,573	Drinking Water
11	Construction of CC Road from Main Road to Muktidham and levelling &	Bodajharia	4600065456	M/s Gupta Construction	10.04.2021 till	22,33,801.00		22,33,801	Infrastructure
13	Ground Area Concreting and	Chhapora	4600058715	M/s Tarun Stone	29.11.2019 till	15,44,762.00	3,67,879	11,76,883	Infrastructure
14	Parking at PHC Chhapora	Chhapora	5500033709	M/s Chhinnakumar Patel	23.07.2019 till	6,24,789.00	0	6,24,789	Infrastructure
15	Renovation Natwar Talab	Gutkupalli	4600058217	M/s Pradhan Construction	28.10.2019 till	23,47,265.00	0	23,47,265	Drinking Water
17	Construction of mid-day meal shed in Govt. Primary & Middle School	Kandagarh	4600064557	M/s Gouranig Sao (VC:1120312)	26.01.2021 till	7,91,715.66		7,91,716	
18	Construction of boundary wall with	Lara	4600043922	M/s Parmeshwar Construction	07.03.2017 till	12,68,395.00	0	12,68,395	Infrastructure
19	Renovation of Mandir Talab	Lara	4600060232	M/s Parmeshwar Construction	16.03.2020 till	27,50,775.00	0	27,50,775	Drinking Water
20	Construction of Bathing Ghat at	Thengapali	4600061504	M/s Tapaswi Construction	01.06.2020 till	6,00,518.00	5,64,887	35,631	Infrastructure
21	Tuition Fees Reimbursement for		8200320779	Sambhunath		3,36,000.00	3,36,000	0	Education
22	Waiver of Welcome Kit for PAP girl Child School Kit (Estimated	9 villages	8200276125	M/s Shree Swaminarayan				0	Education
23	Mobile Medical Van Services for	25 Villages	4600057457	M/s Hindustan Latex Family Planning	01.10.2019 till	1,12,46,769.00	50,27,816	62,18,953	Health
24	Conducting SIE and NAS for NTPC LARA	M/s IICA	4600063185	M/s Indian Institute of Corporate Affair	20.11.2020 till	11,24,500.00		11,24,500	Others
25	Deposit work to CSR fund of Collector-	Pussore	4600065135	District Collector-Raigarh		29,00,000.00		29,00,000	Toilet & Road
26	Construction of community toilet in Pus Stand & Hospital at Pussore	Pussore Tehsil	4600062662	M/s S B ENTERPRISES	24.08.2020 till	31,78,110.98		31,78,111	Toilets
27	Third Party Toilets Audit made under	Kharsia, Gharghoda	4600064967	M/s Janmitram	30.01.2021 till	1,30,594.00	1,30,594	0	Infrastructure
29	Distribution of Blankets amongst mentally ill and leprosy patients	Raigarh	4600065824 4600066516	M/s Radheshyam Agrawal	22.01.2021 to	65,142.00	65,142.00	0	Others
30	Electricity Connection for 02 villages,	Jhilgitar Kandagarh	4600066856	CSPDCL Raigarh		71,340.00	71,340	0	Drinking water
31	Training to farmers					60,000.00		60,000	Training
32	Jansunvai					48,600.00	10,916	37,684	Training
34	**Drinking Water through Pyau**	**11 villages**							
A	Mahloi	Armuda	4600065612	M/s Gram Panchayat, Mahloi (VC:1111161)	15.04.2021 till 14.07.2021	1,60,439.00	1,60,439	0	Drinking water
B		Mahloi							Drinking water
C	Kandagarh	Bodajharia	4600065616	M/s Gram Panchayat, Kandagarh (VC: 1110221)		1,63,428.00		1,63,428	Drinking water
D		Kandagarh							Drinking water
E	Chhapora	Chhapora	4600065613	M/s Gram Panchayat, Chhapora		1,63,428.00		1,63,428	Drinking water
F	Devalsura	Devalsura	4600065614	M/s Gram Panchayat, Devalsura		81,714.00		81,714	Drinking water
I	Lohakhan	Jhilgitar	4600065615	M/s Gram Panchayat, Lahrlhan		81,714.00		81,714	Drinking water
J	Lara	Lara	4600065617	M/s Gram Panchayat, Lara		78,725.00	78,725	0	Drinking water
K	Ghutkupali	Ghutkupali	4600065618	M/s Gram Panchayat, Ghutkupali (VC: 1143822)		1,63,428.00		1,63,428.00	Drinking water
L		Riyapali							Drinking water

M	Rengalpali	Thengapali	4600065619	M/s Gram Panchayat, Rengalpali		78,725.00	78725	0.00	Drinking water
35	**Drinking Water through Water**	**11 villages**						0.00	
A	Armuda	Armuda	4600065713	M/s Bhuvishapit Kalyan Samiti	26.04.2021 till 25.07.2021	1,48,590.00	116890	31,700.00	Drinking water
B	Bodajharia	Bodajharia	4600065714	M/s Panda Construction		1,48,590.00		1,48,590.00	Drinking water
C	Chhapora	Chhapora	4600065718	M/s Neelam Construction		1,48,590.00		1,48,590.00	Drinking water
D	Dewalsurra	Dewalsurra	4600065719	M/s Anand Construction		1,48,590.00	116890	31,700.00	Drinking water
E	Ghutkupali	Ghutkupali	4600065726	M/s Gotrarig Sao (VC:1120319)		1,48,590.00		1,48,590.00	Drinking water
F	Jhilgitar	Jhilgitar	4600065720	M/s Parmeshwar Construction		1,48,590.00	116890	31,700.00	Drinking water
I	Kandagarh	Kandagarh	4600065721	M/s Bhavesh Construction		1,48,590.00	116890	31,700.00	Drinking water
J	Lara	Lara	4600065722	M/s Butti Construction		1,48,590.00		1,48,590.00	Drinking water
K	Mahloi	Mahloi	4600065724	M/s Pradhan Construction		1,48,590.00	116890	31,700.00	Drinking water
L	Riyapali	Riyapali	4600065725	M/s Choudhary Construction		1,48,590.00		1,48,590.00	Drinking water
M	Thengapali	Thengapali	4600065729	M/s Tapaswi Construction		1,48,590.00		1,48,590.00	Drinking water
36	Financial Assistance to Collector-	Raigarh	4600065851	Collector Raigarh (VC:1119708)		8,00,000.00	8,00,000.00	0.00	Health
37	Financial Assistance to Collector-	Janjgir Champa	4600065852	Collector-Janjgir Chhattisgarh Rajya		8,00,000.00	8,00,000.00	0.00	Health
38	Procurement of face masks for	All 9 villages & contract	4600065865	Hathkargha Vikas &		2,40,000.00	2,40,000.00	0.00	Health
39	Providing financial assistance to	Raigarh	4600065998	Collector Raigarh (VC:1119708)		8,00,000.00	8,00,000.00	0.00	Health
40	Furniture's for Rengalpali Gram	Rengalpali	4600065988	M/s Gram Panchayat, Rengalpali		34,700.00	34,700.00	0.00	Others
41	Cleaning of pond through Gram	Rengalpali	4600066021	M/s Gram Panchayat, Rengalpali	17.05.2021 to	30,000.00	30,000.00	0.00	Others
42	Construction of Welcome Gate	Dewalsurra	4600066041	M/s Gram Panchayat, Dewalsurra	17.05.2021 to	4,50,000.00	2,25,000.00	2,25,000.00	Infrastructure
43	Construction of Welcome Gate	Jhilgitar	4600066044	M/s Gram Panchayat, Lahalkhan	17.05.2021 to	4,50,000.00	2,25,000.00	2,25,000.00	Infrastructure
44	Cleaning and minor repair works for	Bodajharia	4600066407	M/s Gram Panchayat, Kandagarh	07.06.2021 to	2,22,061.20	88,824.00	1,33,237.20	Drinking
45	Cleaning and minor repair works in	Ghutkupali	4600066406	M/s Gram Panchayat, Ghutkupali	07.06.2021 to	1,32,753.25	53,000.00	79,753.25	Drinking
46	Cleaning of pond through Gram	Jhilgitar	4600066409	M/s Gram Panchayat, Lahalkhan	07.06.2021 to	30,000.00	30,000.00	0.00	Drinking
47	Cleaning of pond through Gram	Armuda	4600066503	M/s Gram Panchayat, Mahloi	14.06.2021 to	30,000.00		30,000.00	Drinking
48	Construction of Welcome Gate	Thengapali	4600066783	M/s Gram Panchayat, Rengalpali	05.08.2021 to	4,50,000.00	2,25,000.00	2,25,000.00	Infrastructure
49	Conducting COVID19 vaccination for	All Villages	4600066379	M/s O.P.JINDAL HOSPITAL &RESEARC	16.06.2021 to	17,00,000.00	1,49,250.00	15,50,750.00	Health
50	Deposit work for re-constructions of	Lara	4600067440	M/s Gram Panchayat, Lara	10.09.2021 to	1,75,511.62	70,204.00	1,05,307.62	Sanitation &
51	Assistance for 37th Chakradhar	Raigarh	4600067562	M/s Dist Administration		1,00,000.00	1,00,000.00	0.00	Others
52	Construction of Welcome Gate in Vill:	Ghutkupali	4600067816	M/s Gram Panchayat Ghutkupali	01.11.2021	4,50,000.00	2,25,000.00	2,25,000.00	Infrastructure
53	Conduct of Inter-Village volleyball	Lara	4600067960	Lara(VC:1101821)		22,000.00	22,000.00	0.00	Sports & Culture
54	Conduct of Inter-Village volleyball	Raigarh	4600067566			29,430.00	29,430.00	0.00	Sports & Culture
55	Approval for providing Park Items for		Items are procured from GEM	M/s UNIVERSAL GEM		1,72,838.22	1,72,838.22	0.00	Others
56	Digging of Bore well and installation of		4600068093			1,43,807.00	0.00	1,43,807.00	Infrastructure
57	Providing 25% concession in tuition		4600067796			2,25,750.00	2,25,750.00	0.00	Education
58	Reimbursement of welcome pack		4600067737			1,55,900.00	1,55,900.00	0.00	Education
59	Electrical Metre Connection for 02		Staff Advance			27,906.00		27,906.00	
60	Financial Assistance to District	Raigarh	4600068368			50,00,000	2500000	25,00,000.00	Education
61	Construction of Overhead tanks for	All Villages	5500021507	M/s Mohan Poddar (VC:1102880)			4355749	0.00	Drinking water
62	Nistari Land Demarcation Boards at	All villages	4600068568	M/s Bhavesh Construction	23.12.2021 till	1,28,450	0	1,28,450.00	Infrastructure
63	Supporting education 30 number girl	All Villages	4600068790			6,12,600.00			Education
						5,73,69,434.87	**2,09,86,831.82**	**4,07,38,352.05**	
63	Renovation of Devlas Talab and	Dewalsurra		M/s Gram Panchayat, Dewalsurra		10,32,000.00			
64	Land filling in front of Govt. School at	Dewalsurra		M/s Gram Panchayat, Dewalsurra		4,66,000.00			
65	RCC Road & Drain Construction	Chhapora		M/s Gram Panchayat, Chhapora		6,42,000.00			
66	Laying of Inter-locking bricks in front	Chhapora		M/s Gram Panchayat, Chhapora		3,23,000.00			
67	Land Filling in front of Chhapora	Chhapora		M/s Gram Panchayat, Chhapora		4,34,000.00			
68	Construction of Samudayik Bhawan	Kandagarh		M/s Gram Panchayat, Kandagarh		7,99,000.00			
69	Repairing of bund and construction of	Kandagarh		M/s Gram Panchayat, Kandagarh		5,90,000.00			
70	Construction of Muktidham	Jhilgitar		M/s Gram Panchayat, Lahalkhan		6,65,000.00			

71	Construction of Muktidham	Lara		M/s Gram Panchayat, Lara		6,65,000.00
72	Construction of Drain in Dipapara	Lara		M/s Gram Panchayat, Lara		12,00,000.00
73	Cleaning & repairing of Kanta Talab	Ghutkupali		M/s Gram Panchayat, Ghutkupali		8,00,000.00
74	In-principle approval for construction			M/s Gram Panchayat, Lohakhan		12,00,000.00
75	CD works as desired by Sh. Umesh					22,00,000.00
76	Works as told by MP-Raigarh					20,00,000.00
						12,84,95,919.74

NTPC Lara- CD Works for the FY 2022-23				
S. No.	**Description**	**Village**	**Expenditure 2022-23**	**Category**
1	**Water distribution network from water tank to villages**	9 villages		
A	Armuda	Armuda	1,95,087.00	Drinking Water
B	Kandagarh	Kandagarh	5,85,320.00	Drinking Water
C	Mahloi	Mahloi	2,65,000.00	Drinking Water
2	Construction of Additional Classrooms and Toilets in Govt Primary School	Bodajharia	6,52,734.00	Education
3	Mobile Medical Van Services for villages	25 Villages	8,47,184.00	Health
4	Construction of community toilet in Bus Stand & Hospital at Pussore	Pussore Tehsil	3,97,412.00	Toilets
5	Depositing Rs. 50 lacs for procurement of furniture for Government schools through District Administration-Raigarh	Raigarh	25,00,000.00	Education
6	Construction of 500m CC Road from Junadih to Jiladi Road	Bonda	12,50,800.00	Road
7	Construction of 300 m CC Road at village Kathli	Kathli		Road
8	Construction of Welcome Gate	Thengapali	2,25,000.00	Infrastructure other than road
9	Construction of Welcome Gate	Dewalsurra	2,25,000.00	Infrastructure other than road
10	Renovation of Devlas Talab and construction of Pachri at Darripali, Panchayat:Dewalsurra	Dewalsurra	8,52,432.00	Drinking Water
11	Land filling in front of Govt. School at Darripali, GP Dewalsurra	Dewalsurra	3,84,916.00	Infrastructure other than road
12	Construction of Welcome Gate	Jhilgitar	2,25,000.00	Infrastructure other than road
13	In-principle approval for construction of village approach road in Vill: Jhilgitar.	Jhilgitar	12,88,560.00	Road
14	Cleaning and minor repair works for Chandan Talab in Bodajharia Village	Bodajharia	88,824.00	Drinking Water
15	Construction of Sanskritik Bhavan at Vill: Kandagarh through Gram Panchayat-Kandagarh	Kandagarh	3,77,128.00	Infrastructure other than road

16	Construction of Safety wall and bund repairing at Neelsagar Talab through Gram Panchayat-Kandagarh	Kandagarh	2,78,480.00	Infrastructure other than road
17	Cleaning and minor repair works in Nistari Talab for Ghutkupali Village	Ghutkupali	53,000.00	Drinking Water
18	Construction of Welcome Gate in Vill: Riyapali	Riyapali	2,25,000.00	Infrastructure other than road
19	Cleaning & repairing of Kanta Talab	Riyapali	3,78,400.00	Drinking Water
20	Fencing around land allocated to Indira Awas beneficiaries at Village: Armuda	Armuda	96,500.64	Infrastructure other than road
21	Land Filling In front of Community Centre Armuda under deposit work through Gram Panchayat, Mahloi	Armuda	4,98,904.00	Infrastructure other than road
22	Construction of Girls Toilet at Govt Higher Secondary School Mahloi.	Mahloi	1,86,404.00	Sanitation & Toilet
23	Deposit work for re-constructions of drain in Lara Village.	Lara	1,37,480.16	Sanitation & Toilet
24	Chain link fencing and gate in Gouthan	Lara	4,30,346.00	Infrastructure other than road
25	Construction of Drain in Dipapara (Western)	Lara	9,35,858.00	Infrastructure other than road
26	Construction of CC road from Bich Basti to Talab at Vill: Chhapora	Chhapora	4,00,000.00	Road
27	Construction of CC road from Chhapora Village to NTPC township road through Gram Panchayat-Chhapora	Chhapora	4,00,000.00	Road
28	Financial Assistance for CM Suposhan Yojana at Raigarh District	Raigarh	1,00,00,000.00	Health
29	Renovation of CHC Pussore	Raigarh	1,05,60,000.00	Health
Total			**3,19,98,032.80**	

NTPC Lara- CD Works to be implemented for the FY 2023-24

S. No.	Gram Panchayat	Villages	Proposed Activity FY 23-24	PO/PR	PO/PR Value (Amount in Rs)	Expenditure Till 31.03.2024
1						
A	Mahloi	Armuda	CC road in Village Armuda	4600075859	5,94,000.00	1,48,500.00
		Armuda	Cleaning & Deepening of Kosomuda Talab	4600078323	9,85,000.00	
		Mahloi	CC road from Main gate to Gauthan	4600077018	9,87,000.00	2,46,750.00
		Mahloi	CC Road Tirath house to Vaidya house	4600077293	9,96,000.00	2,49,000.00
		Mahloi	Construction of CC Road & Waiting Hall at Mukti Dham & Cleaning of Dabari	4600076628	10,37,000.00	2,59,250.00
		Armuda	Arrangement of tentage for sports tournament Meher Tent House	8200406585	1,06,932.00	
	Chhapora	Chhapora	CC road at village Chhapora	4600076379	19,80,000.00	19,80,000.00
		Chhapora	Deepening and const. a Pachari at Bamurmuda Talab Chhapora	4600077312	9,98,000.00	2,49,500.00
	Devalsura	Darripali	Deepening of talab at village Darripali	4600077015	19,50,000.00	4,87,500.00
		Devalsura	CC road from Township to Devalsura village	4600076559	20,00,000.00	5,00,000.00
	Kandagarh	Kandagarh	Med bandhan (Road repair) work at village Bodajharia through GP Kandagarh.	4600078322	3,55,000.00	1,77,500.00
		Kandagarh	CC Road form Bhagvatiya house to Rath Chouhan house Kandagarh	4600076974	9,96,000.00	4,98,000.00
		Kandagarh	CC road from Temple to Brahmanpara	4600076597	9,23,000.00	4,61,500.00
		Bodajhariya	Arrangement of Tent for Sports Tournament	8200406471	1,96,585.00	1,96,585.00
	Lara	Lara	CC road at village Lara from Dipara para to Village road`	4600076383	19,84,000.00	19,84,000.00
		Lara	Girls toilet at Primary school Lara	4600077338	4,15,000.00	2,07,500.00
		Lara	Construction of CC road at village Lara from Gaurishankar Bore to Kanta Talab.	4600076851	14,25,000.00	14,25,000.00
	Lohakhan	Jhilgitar	Chain Link Fencing at Charagah Lohakhan	4600077042	3,06,000.00	1,53,000.00
		Jhilgitar	Construction of CC road at village Jhilgitar from Jhilgitar to Lohakhan approach road.	4600076975	14,90,000.00	14,90,000.00
		Lohakhan	CC road at village Lohakhan	4600076378	19,84,000.00	19,84,000.00
	Ghutkupali	Riyapali	Construction of CC road at village Ghutkupali from Ghutkupali to Sondekela Middle School.	4600078464	10,00,000.00	2,50,000.00
		Riyapali & Ghutkupali	construction of CC road & Drain at Ghutkupali Gram Panchayat.	4600076988	4,00,000.00	2,00,000.00
		Riyapali	CC road from Ramu's land to NTPC Township	4600076630	13,73,000.00	3,43,250.00
	Rengalpali	Badmal	Construction of CC road at village Badmal	4600076387	7,18,000.00	7,18,000.00
		Badmal	Construction of CC Road at village Badmal Dipapara	4600077016	6,35,000.00	6,35,000.00
		Rengalpali	Construction CC road in Village Rengalpali	4600076926	6,75,000.00	6,75,000.00
		Thengapali	Construction CC road in Village Thengapali	4600077619	2,23,000.00	1,11,500.00
		Rengalpali	Construction of a Pachari at village Rengalpali	4600078294	1,99,000.00	99,500.00
					2,69,31,517.00	**1,56,30,335.00**
B	GP Kasdol	Ratorat	Construction of CC road at village Kasdol	4600076363	13,50,000.00	3,37,500.00
		Ratorat	Electrification at Village Ratrot	8200387324	6,38,000.00	6,38,000.00
	GP Ektal	Ektal	Construction of CC road at village Ektal	4600076986	10,00,000.00	10,00,000.00
	GP Tarpali	Tarpali	Constructon of CC Road at village Tarpali from Mukti Dham to Muninagar.	4600076985	7,62,000.00	3,81,000.00
	GP Jurda	Jurda	Construction of CC Road at village Jurda	4600077795	9,79,000.00	2,44,750.00
	GP Regeda	Regeda	Construction of CC road at village Regeda from Sarju House to Salhipara.	4600078382	9,93,000.00	4,96,500.00
		Regeda	Deepening of pond & construction of pachri at Darramuda Talab	4600078380	9,92,000.00	4,96,000.00
	GP Jurda	Jurda	Construction of CC road from NTPC Colony to Main road Part-2	4600078208	9,79,000.00	4,89,500.00
	GP Ektal	Ektal	Deepening of pond at village Ektal	4600078205	12,66,000.00	6,33,000.00
	GP Tarpali	Tarpali	Construction of CC road from Atal Chowk to Bridge	4600078256	5,73,000.00	2,86,500.00

	GP Kotarliya	Kotarliya	Construction CC Road from Railway under bridge to main road Part-1	4600078295	9,96,000.00	4,98,000.00
		Kotarliya	Construction of Welcome Gate	4600078407	2,40,000.00	1,20,000.00
	Kandagarh	Bodajharia	Digging Borewell & installation of pump	4600078321	1,95,000.00	97,500.00
	Sambalpuri	Sambalpuri	CC road at village Sambalpuri	4600078381	9,75,000.00	4,87,500.00
					1,19,38,000.00	**62,05,750.00**
C	Dabhara Tehsil	Dabhara Tehsil	Digging of Borewell in 25 No. of villages with tank	4600075765	80,25,000.00	64,20,000.00
	Gotama	Gotama	Construction of CC road at village Gotama	4600078347	15,50,000.00	7,75,000.00
					95,75,000.00	**71,95,000.00**
	Raigarh	Raigarh	Installation of CCTV camera at various Location of Raigarh City	8200378135	48,89,000.00	48,89,000.00
D	Rengalpali	Rengalpali	Deepening & cleaning of Pond Chandan talab Rengalpali	4600075268	19,84,000.00	19,84,000.00
	Lara	Lara	Deepening & cleaning of Pond Kanta Talab Lara	4600075269	19,34,000.00	19,34,000.00
	09 villages	09 villages	Various Sports activities in 11 villages Gram Panchayat Wise	Approved	6,30,000.00	6,30,000.00
					94,37,000.00	**94,37,000.00**
F	Netnagar		Deepening & Cleaning of Netnagar Talab	4600076280	14,50,000.00	14,50,000.00
					14,50,000.00	**14,50,000.00**
Total 1.0			**Total A+B+C+D+E+F**			**3,99,18,085.00**

2

A	Sarangarh		Renovation of 05 No. of Swami Atamanand School at Sarangarh Bilaigarh district	4600075211		2,00,00,000.00
B	Raigarh	6,36,02,553.00	Financial assistance for renovation of buildings in 36 no. Swami Atmanand Government Schools in Raigarh District on Deposit Work basis.	4600073549	Paid in September	6,36,02,553.00
C	Sakti		Digging of Borewell & installation of Pump & Water tank at various villages of Dabhra Tehsil, District Sakti.	4600075765		64,20,000.00
			Total 2.0			**9,00,22,553.00**
			Total Expenditure 1+2			**12,99,40,638.00**

NTPC Lara- CD Works to be implemented for the FY 2024-25						
S. No.	**Gram Panchayat**	**Villages**	**Proposed Activity FY 24-25**	**PO/PR**	**PO/PR Value (Amount in Rs)**	
1	Rengalpali	Thengapali	Construction of CC road at Thengapali village	800060904	1996000	
2	Lara	Lara	Construction of CC road at Lara village	800060877	1904000	
3	Chhapora	Chhapora	Construction of CC road at Chhapora village.	800060901	1980000	
4	Mahloi	Armuda	Construction of shed at Mangal Bhawan, Armuda	800060902	1948000	
5	Lohakhan	Lohakhan	construction of CC Road at Lohakhan Village.	800060903	1980000	
6	Ghutkupali	Riyapali	Construction of CC road at Riyapali village	800060836	1990000	
7	Kandagarh	Kandagarh	construction of CC Road at Kandagarh village.	800060837	1887000	
8	Gotama	Thakurpali	Construction of CC road at Thakurpali village (Basti to main road	800060838	1000000	
9	Gotama	Thakurpali	Construction of CC road at Thakurpali village from School to Kalmi village.	800061230	1000000	
10	Regda	Regda	Construction of CC Road at Regda village	800060990	993000	
11	Jurda	Jurda	Construction of CC road at Jurda village	800060991	1250000	
12	Ektal	Dhanuhardera	Construction of CC road at Dhanuhardera village	800060992	1200000	
13	Devalsura	Devalsura	Cement concrete flooring work near Mangal Bhawan premises, Devalsura village	800060905	1997000	
	Tarpali	Tarpali	Construction of CC road at Tarpali village	800061170	1000000	
					2,21,25,000.00	

Initiatives on water conservation and ground water charging

Sr. No.	Village	Name of work	Status	Awarded value	Remarks
Completed Works					
1	Chhapora	Deepening of Mura Pond for Village Chhapora.	Work completed	14,03,424.76	
2	Chhapora	Deepening of Bamanmaura Pond for Village Chhapora.	Work completed	5,75,270.43	
3	Chhapora	Renovation and Beautification of Pond-1 at Village Chhapora	Work completed	6,69,027.79	
4	Chhapora	Renovation and Beautification of Pond#2 at Chhapora Village.	Work completed	6,92,074.31	
5	Devalsurra	Re-Excavation of Pond (Naya Talab; Dabri Talab)	Work completed	12,13,713.72	
6	Mehloi	Re-Excavation of Pond (Marghat)	Work in progress	14,28,713.85	
7	Mehloi	Re-Excavation of Pond (Purena Talab)pachri Nirman	work completed	3,21,720.12	
8	Bodajhariya	Re-Excavation of Pond (Chandan Talab)	Work completed	15,69,385.55	
9	Kandagarh	Re-Excavation of Pond (Nilsagar Talab)	Work completed	11,31,593.34	
10	Kandagarh	Construction of two nos new ponds at village-Kandagarh.	Work completed	12,87,435.64	
11	Jhilgitar	Re-Excavation of Pond (Imlitar Talab)	Work completed	20,12,137.21	
12	Lara	Re-Excavation of Pond (Bandhali talab)	Work completed	16,74,233.00	
13	Lara	Deepening & Beautification of Sarakmunda Nistari Pond at Village Lara.	Work completed	20,04,691.56	
14	Lara	Deepening & Beautification of Mandir Talab for Village Lara	Awarded	28,59,124.00	WIP (Excavation/Cleaning completed)

Complaince statement of Pt No 8(i) as per letter Dated 14.01.2020

Period **01.04.2024-30.09.2024**

Route Talaipali-Gharghoda-Lara
Mode- Road
Length of Route 75 km
Daily Average 0 TPD

NTPC TALAIPALI

Sl. NO.	Dispatch Date	Qty	Nos of Truck
1	01-04-2024	0.000	0
2	02-04-2024	0.000	0
3	03-04-2024	0.000	0
4	04-04-2024	0.000	0
5	05-04-2024	0.000	0
6	06-04-2024	0.000	0
7	07-04-2024	0.000	0
8	08-04-2024	0.000	0
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11	11-04-2024	0.000	0
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21	21-04-2024	0.000	0
22	22-04-2024	0.000	0
23	23-04-2024	0.000	0
24	24-04-2024	0.000	0
25	25-04-2024	0.000	0
26	26-04-2024	0.000	0

27	27-04-2024	0.000	0
28	28-04-2024	0.000	0
29	29-04-2024	0.000	0
30	30-04-2024	0.000	0
31	01-05-2024	0.000	0
32	02-05-2024	0.000	0
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38	08-05-2024	0.000	0
39	09-05-2024	0.000	0
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178	25-09-2024	0.000	0
179	26-09-2024	0.000	0
180	27-09-2024	0.000	0
181	28-09-2024	0.000	0
182	29-09-2024	0.000	0

183	30-09-2024	0.000	0
	TOTAL	**0.000**	**0**

Complaince statement of Pt No 8(i) as per letter Dated 14.01.2020

Period **01.04.2024 to 30.09.2024**

Route Talabira-Jharsaguda-Brajrajnagar-Kanaktura-Lara
Mode- Road
Length of Route 95 km
Daily Average 1727 TPD

NLC TALABIRA

Sl. NO.	Dispatch Date	Qty	Nos of Truck
1	01-04-2024	4056.850	116
2	02-04-2024	5890.700	169
3	03-04-2024	5766.040	165
4	04-04-2024	6195.510	177
5	05-04-2024	6145.070	178
6	06-04-2024	6828.180	196
7	07-04-2024	6560.870	188
8	08-04-2024	5760.510	166
9	09-04-2024	3884.640	111
10	10-04-2024	5391.020	155
11	11-04-2024	973.740	27
12	12-04-2024	7891.130	226
13	13-04-2024	5796.980	166
14	14-04-2024	5531.390	157
15	15-04-2024	5148.780	149
16	16-04-2024	4255.680	120
17	17-04-2024	2668.160	78
18	18-04-2024	3172.450	91
19	19-04-2024	2000.630	57
20	20-04-2024	4770.790	138
21	21-04-2024	3951.600	115
22	22-04-2024	3355.930	97
23	23-04-2024	5217.020	151
24	24-04-2024	5550.130	161
25	25-04-2024	3215.280	96
26	26-04-2024	3586.910	105
27	27-04-2024	6005.320	174
28	28-04-2024	7100.260	203
29	29-04-2024	4819.070	140
30	30-04-2024	6229.220	177
31	01-05-2024	3931.880	112
32	02-05-2024	4056.450	117
33	03-05-2024	6368.990	181

34	04-05-2024	6552.380	187
35	05-05-2024	5726.130	163
36	06-05-2024	6170.390	177
37	07-05-2024	3781.060	107
38	08-05-2024	3514.040	100
39	09-05-2024	4017.610	117
40	10-05-2024	4232.950	119
41	11-05-2024	3246.510	92
42	12-05-2024	3665.280	103
43	13-05-2024	4221.230	121
44	14-05-2024	6586.090	186
45	15-05-2024	2683.880	76
46	16-05-2024	3453.170	99
47	17-05-2024	1999.420	57
48	18-05-2024	5447.470	157
49	19-05-2024	3516.360	101
50	20-05-2024	3579.470	104
51	21-05-2024	3487.820	102
52	22-05-2024	3076.740	89
53	23-05-2024	1695.900	50
54	24-05-2024	1502.150	44
55	25-05-2024	2389.110	70
56	26-05-2024	2697.200	80
57	27-05-2024	1761.560	51
58	28-05-2024	1794.480	52
59	29-05-2024	1289.600	38
60	30-05-2024	670.230	20
61	31-05-2024	222.960	6
62	01-06-2024	71.230	2
63	02-06-2024	67.730	2
64	03-06-2024	69.120	2
65	04-06-2024	136.150	4
66	05-06-2024	1003.320	31
67	06-06-2024	1454.530	46
68	07-06-2024	2351.380	71
69	08-06-2024	3942.130	112
70	09-06-2024	4039.100	116
71	10-06-2024	2952.520	84
72	11-06-2024	3744.540	109
73	12-06-2024	2701.620	77
74	13-06-2024	688.070	20
75	14-06-2024	726.280	22
76	15-06-2024	2319.630	66
77	16-06-2024	3474.030	103
78	17-06-2024	3266.910	97
79	18-06-2024	2260.530	67

80	19-06-2024	2231.890	65
81	20-06-2024	2256.580	66
82	21-06-2024	2247.520	67
83	22-06-2024	2262.710	67
84	23-06-2024	2253.730	67
85	24-06-2024	2530.970	76
86	25-06-2024	1989.810	59
87	26-06-2024	1877.730	56
88	27-06-2024	2316.780	68
89	28-06-2024	1695.000	50
90	29-06-2024	1700.360	50
91	30-06-2024	1624.620	50
92	01-07-2024	809.240	23
93	02-07-2024	0.000	0
94	03-07-2024	0.000	0
95	04-07-2024	0.000	0
96	05-07-2024	0.000	0
97	06-07-2024	0.000	0
98	07-07-2024	0.000	0
99	08-07-2024	0.000	0
100	09-07-2024	0.000	0
101	10-07-2024	0.000	0
102	11-07-2024	0.000	0
103	12-07-2024	0.000	0
104	13-07-2024	0.000	0
105	14-07-2024	0.000	0
106	15-07-2024	0.000	0
107	16-07-2024	0.000	0
108	17-07-2024	0.000	0
109	18-07-2024	0.000	0
110	19-07-2024	0.000	0
111	20-07-2024	0.000	0
112	21-07-2024	0.000	0
113	22-07-2024	0.000	0
114	23-07-2024	0.000	0
115	24-07-2024	0.000	0
116	25-07-2024	0.000	0
117	26-07-2024	0.000	0
118	27-07-2024	0.000	0
119	28-07-2024	0.000	0
120	29-07-2024	0.000	0
121	30-07-2024	0.000	0
122	31-07-2024	0.000	0
123	01-08-2024	0.000	0
124	02-08-2024	0.000	0
125	03-08-2024	0.000	0

126	04-08-2024	0.000	0
127	05-08-2024	0.000	0
128	06-08-2024	0.000	0
129	07-08-2024	0.000	0
130	08-08-2024	0.000	0
131	09-08-2024	0.000	0
132	10-08-2024	0.000	0
133	11-08-2024	0.000	0
134	12-08-2024	0.000	0
135	13-08-2024	0.000	0
136	14-08-2024	0.000	0
137	15-08-2024	0.000	0
138	16-08-2024	0.000	0
139	17-08-2024	0.000	0
140	18-08-2024	0.000	0
141	19-08-2024	0.000	0
142	20-08-2024	0.000	0
143	21-08-2024	0.000	0
144	22-08-2024	0.000	0
145	23-08-2024	0.000	0
146	24-08-2024	0.000	0
147	25-08-2024	0.000	0
148	26-08-2024	0.000	0
149	27-08-2024	0.000	0
150	28-08-2024	0.000	0
151	29-08-2024	0.000	0
152	30-08-2024	0.000	0
153	31-08-2024	0.000	0
154	01-09-2024	0.000	0
155	02-09-2024	0.000	0
156	03-09-2024	0.000	0
157	04-09-2024	0.000	0
158	05-09-2024	0.000	0
159	06-09-2024	0.000	0
160	07-09-2024	0.000	0
161	08-09-2024	0.000	0
162	09-09-2024	0.000	0
163	10-09-2024	0.000	0
164	11-09-2024	0.000	0
165	12-09-2024	0.000	0
166	13-09-2024	0.000	0
167	14-09-2024	0.000	0
168	15-09-2024	0.000	0
169	16-09-2024	0.000	0
170	17-09-2024	0.000	0
171	18-09-2024	0.000	0

भारत सरकार
परमाणु ऊर्जा विभाग
विकिरण एवं आइसोटोप प्रौद्योगिकी बोर्ड

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

प्रमाणपत्र ट्रैकिंग आईडी/Certificate Tracking ID : 2402874
जारी करने की तिथि/Date of Issue : 17-Aug-2024
प्रमाणपत्र क्रमांक/Certificate Sr.No.: ULR-TC1170324000003170F

TC-11703

Radioanalytical Laboratory

RADIOACTIVITY TEST CERTIFICATE

Ref : BRIT/RAL/DOM/505-520/MISC/392-407/24-25

To :
M/S. NTPC LTD (LARA)
1047 LARA SUPER THERMAL POWER PROJECT
VILLAGE. CHHAPORA, PO PUSSORE,
DIST.RAIGARH, C.G. PIN 496440

This is regarding the sample of "COAL, BOTTOM ASH & FLY ASH"sent for radioactivity analysis vide your letter ref. no. LARA/O&M/CHEM/2948 dated 11.07.2024 with the following details as shown in italics:

Sr. No	NAME OF THE SAMPLE	SAMPLE I.D.	DATE OF SAMPLING	TOTAL BULK QUANTITY FROM WHICH SAMPLE IS DRAWN
1	COAL SAMPLE-1	COAL SAMPLE TALAIPALI	25/06/2024	300 KG
2	COAL SAMPLE-2	COAL SAMPLE TALABIRA	25/06/2024	300 KG
3	BOTTOM ASH	BOTTOM ASH	25/06/2024	250 KG
4	FLY ASH	FLY ASH	25/06/2024	250 KG

DATE OF RECEIPT OF SAMPLE: 18.07.2024 **DATE OF COMPLETION OF TEST: 16.08.2024**

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	U-238 (Bq/Kg)	Th-232 (Bq/Kg)	Ra-226 (Bq/Kg)	K-40(Bq/Kg)
1	COAL SAMPLE-1	38.4 ± 2.7	49.5 ± 5.1	44.6 ± 6.3	263 ± 17.1
2	COAL SAMPLE-2	43 ± 3.0	88.2 ± 3.3	11.4 ± 2.1	93.4 ± 7.1
3	BOTTOM ASH	119 ± 4.3	181 ± 7.0	72.7 ± 8.2	618 ± 29.8
4	FLY ASH	122 ± 4.1	186 ± 14.2	112 ± 10.1	773 ± 32.6

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:
GANPAT B NAKTI
Assistant

Authorized Signatory:
AJAY NANA THAMKE
OIC, RAL

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

विआप्रौबो/ बीएआरसी परिसर, सेक्टर २०, वाशी, नवी मुंबई – ४०० ७०३ (महाराष्ट्र)
BRIT/ BARC Vashi Complex, Sector 20, Navi Mumbai – 400 703 (Maharashtra)
वेबसाइट/ Website: www.britatom.gov.in; दूरभाष/ 022 2788 7002/ 7006

Idma Laboratories Limited

TC-8207

TEST REPORT

Lab No	**250524N-E-027**		**Page-1/1**
Issued to:	NTPC LIMITED Lara Super Thermal Power Project Village-Chhapora, PO/PS-Pussore Raigarh, Chattisgarh-496440		
Type of Unit	Thermal Power Project		
Type of sample	Coal		
Work Order No.	4000317716-037-1047	Date-	09.10.2023
Quantity	1Kg		
Mode of Collection of Sample	Sampling By Laboratories		
Sample Collected by	Idma Lab Representative		
Packing & Marking	Packed in sample Bag.		
Location	NTPC LARA Plant		
Sampling Period	May 2024		
Date of Reporting	29.05.2024		
Date of sampling	22.05.2024		
Sampling Protocol	SW-846Chapter9		

HEAVY METAL ANALYSIS OF COAL

S.No.	Test Parameters	Units	Results	Test Method
1.	Total Arsenic (as As)	mg/kg	0.68	APHA3125B 24th Edition 2023
2.	Total Cadmium (as Cd)	mg/kg	0.51	APHA3125B 24th Edition 2023
3.	Total Chromium (as Cr)	mg/kg	24.87	APHA3125B 24th Edition 2023
4.	Total Copper (as Cu)	mg/kg	22.30	APHA3125B 24th Edition 2023
5.	Total Iron (as Fe)	mg/kg	14970	APHA3125B 24th Edition 2023
6.	Total Zinc (as Zn)	mg/kg	30.32	APHA3125B 24th Edition 2023
7.	Total Lead (as Pb)	mg/kg	6.26	APHA3125B 24th Edition 2023
8.	Total Mercury (as Hg)	mg/kg	0.19	APHA3125B 24th Edition 2023
9.	Total Hexavalent Chromium	mg/kg	5.88	APHA3500-B 24th Edition 2023

BLQ: Below Limit of Quantification. **LOQ:** Limit of quantification. End of Report.

Analysed by

Idma Laboratories Limited
29/5
Renu
Sr. Analyst

Authorized Signatory

29/5/24

Idma Laboratories Ltd.
Kartar Singh
Tech. Mgr.
Panchkula

Idma Laboratories Limited

Idma Corporate Park,

391, industrial Area, Phase - 1,

Panchkula - 134113,

Haryana (India)

Tel No. 0172 - 5064827,- 5064830

Website : www.idmagroup.co.in

Email : commercial@idmalab.co.in

Idma Laboratories Limited

TC-8207

TEST REPORT

Lab No	**250524N-E-024**		**Page-1/1**
Issued to:	NTPC LIMITED Lara Super Thermal Power Project Village-Chhapora, PO/PS-Pussore Raigarh, Chattisgarh-496440		
Type of Unit	Thermal Power Project		
Type of sample	Fly Ash		
Work Order No.	4000317716-037-1047	Date-	09.10.2023
Quantity	1Kg		
Mode of Collection of Sample	Sampling By Laboratories		
Sample Collected by	Idma Lab Representative		
Packing & Marking	Packed in sample Bag.		
Location	NTPC LARA Plant		
Sampling Period	May 2024		
Date of Reporting	29.05.2024		
Date of sampling	22.05.2024		
Sampling Protocol	SW-846Chapter9		

CHEMICAL ANALYSIS OF FLY ASH

S.No.	Test Parameters	Units	Results	Test Method
1.	Total Arsenic (as As)	mg/kg	BLQ(LOQ:0.05)	APHA3125B 24th Edition 2023
2.	Total Cadmium (as Cd)	mg/kg	BLQ(LOQ:0.05)	APHA3125B 24th Edition 2023
3.	Total Chromium (as Cr)	mg/kg	22.1	APHA3125B 24th Edition 2023
4.	Total Copper (as Cu)	mg/kg	53.4	APHA3125B 24th Edition 2023
5.	Total Iron (as Fe)	mg/kg	32214	APHA3125B 24th Edition 2023
6.	Total Zinc (as Zn)	mg/kg	65.4	APHA3125B 24th Edition 2023
7.	Total Lead (as Pb)	mg/kg	BLQ(LOQ:0.05)	APHA3125B 24th Edition 2023
8.	Total Mercury (as Hg)	mg/kg	BLQ(LOQ:0.05)	APHA3125B 24th Edition 2023
9.	Total Hexavalent Chromium	mg/kg	3.8	APHA3500-B 24th Edition 2023

BLQ: Below Limit of Quantification. **LOQ:** Limit of quantification. End of Report.

Analysed by

Renu Sharma

Idma Laboratories Limited
Renu
Sr. Analyst
Authorised Signatory

Authorized Signatory

Idma Laboratories Ltd.
Kartar Singh
Tech. Mgr.
Panchkula

Idma Laboratories Limited

Idma Corporate Park,

391, industrial Area, Phase - 1,

Panchkula - 134113,

Haryana (India)

Tel No. 0172 - 5064827,- 5064830

Website : www.idmagroup.co.in

Email : commercial@idmalab.co.in

Idma Laboratories Limited

TC-8207

TEST REPORT

Lab No	**250524N-E-025**		**Page-1/1**
Issued to:	NTPC LIMITED Lara Super Thermal Power Project Village-Chhapora, PO/PS-Pussore Raigarh, Chattisgarh-496440		
Type of Unit	Thermal Power Project		
Type of sample	Bottom Ash		
Work Order No.	4000317716-037-1047	Date-	09.10.2023
Quantity	1Kg		
Mode of Collection of Sample	Sampling By Laboratories		
Sample Collected by	Idma Lab Representative		
Packing & Marking	Packed in sample Bag.		
Location	NTPC LARA Plant		
Sampling Period	May 2024		
Date of Reporting	29.05.2024		
Date of sampling	22.05.2024		
Sampling Protocol	SW-846Chapter9		

CHEMICAL ANALYSIS OF BOTTOM ASH

S.No.	Test Parameters	Units	Results	Test Method
1.	Total Arsenic (as As)	mg/kg	BLQ(LOQ:0.05)	APHA3125B 24th Edition 2023
2.	Total Cadmium (as Cd)	mg/kg	BLQ(LOQ:0.05)	APHA3125B 24th Edition 2023
3.	Total Chromium (as Cr)	mg/kg	21.7	APHA3125B 24th Edition 2023
4.	Total Copper (as Cu)	mg/kg	49.6	APHA3125B 24th Edition 2023
5.	Total Iron (as Fe)	mg/kg	32132	APHA3125B 24th Edition 2023
6.	Total Zinc (as Zn)	mg/kg	63.3	APHA3125B 24th Edition 2023
7.	Total Lead (as Pb)	mg/kg	BLQ(LOQ:0.05)	APHA3125B 24th Edition 2023
8.	Total Mercury (as Hg)	mg/kg	BLQ(LOQ:0.05)	APHA3125B 24th Edition 2023
9.	Total Hexavalent Chromium	mg/kg	4.4	APHA3500-B 24th Edition 2023

BLQ: Below Limit of Quantification.**LOQ:** Limit of quantification. End of Report.

Analysed by

Idma Laboratories Limited Renu Sharma Sr. Analyst Authorised Signatory

Authorized Signatory

Idma Laboratories Ltd. Kartar Singh Tech. Mgr. Panchkula

Idma Laboratories Limited
Idma Corporate Park,
391, industrial Area, Phase - 1,
Panchkula - 134113,
Haryana (India)
Tel No. 0172 - 5064827,- 5064830
Website : www.idmagroup.co.in
Email : commercial@idmalab.co.in

Idma Laboratories Limited

TC-8207

TEST REPORT

Lab No	**240824N-E-024**		**Page-1/1**
Issued to:	NTPC LIMITED Lara Super Thermal Power Project Village-Chhapora, PO/PS-Pussore Raigarh, Chattisgarh-496440		
Type of Unit	Thermal Power Project		
Type of sample	Coal		
Work Order No.	4000317716-037-1047	Date-	09.10.2023
Quantity	1Kg		
Mode of Collection of Sample	Sampling By Laboratories		
Sample Collected by	Idma Lab Representative		
Packing & Marking	Packed in sample Bag.		
Location	NTPC LARA Plant		
Sampling Period	August 2024		
Date of Reporting	27.08.2024		
Date of sampling	21.08.2024		
Sampling Protocol	SW-846Chapter9		

HEAVY METAL ANALYSIS OF COAL

S.No.	Test Parameters	Units	Results	Test Method
1.	Total Arsenic (as As)	mg/kg	0.52	APHA3125B
2.	Total Cadmium (as Cd)	mg/kg	0.58	APHA3125B
3.	Total Chromium (as Cr)	mg/kg	25.72	APHA3125B
4.	Total Copper (as Cu)	mg/kg	23.50	APHA3125B
5.	Total Iron (as Fe)	mg/kg	15160	APHA3125B
6.	Total Zinc (as Zn)	mg/kg	33.75	APHA3125B
7.	Total Lead (as Pb)	mg/kg	7.85	APHA3125B
8.	Total Mercury (as Hg)	mg/kg	0.23	APHA3125B
9.	Total Hexavalent Chromium	mg/kg	4.58	APHA3500-B

BLQ: Below Limit of Quantification. **LOQ:** Limit of quantification. End of Report.

Analysed by
Renu Sharma
27/8/24

Idma Laboratories Limited Renu Sr. Analyst Authorised Signatory

Authorized Signatory 27/08/24

Idma Laboratories Ltd. Kartar Singh Tech. Mgr. Panchkula

Idma Laboratories Limited

Idma Corporate Park,
391, industrial Area, Phase - 1,
Panchkula - 134113,
Haryana (India)
Tel No. 0172 - 5064827,- 5064830
Website : www.idmagroup.co.in
Email : commercial@idmalab.co.in

Idma Laboratories Limited

TC-8207

TEST REPORT

Lab No	**240824N-E-021**		**Page-1/1**
Issued to:	NTPC LIMITED Lara Super Thermal Power Project Village-Chhapora, PO/PS-Pussore Raigarh, Chattisgarh-496440		
Type of Unit	Thermal Power Project		
Type of sample	Fly Ash		
Work Order No.	4000317716-037-1047	Date-	09.10.2023
Quantity	1Kg		
Mode of Collection of Sample	Sampling By Laboratories		
Sample Collected by	Idma Lab Representative		
Packing & Marking	Packed in sample Bag.		
Location	NTPC LARA Plant		
Sampling Period	August 2024		
Date of Reporting	27.08.2024		
Date of sampling	21.08.2024		
Sampling Protocol	SW-846Chapter9		

CHEMICAL ANALYSIS OF FLY ASH

S.No.	Test Parameters	Units	Results	Test Method
1.	Total Arsenic (as As)	mg/kg	BLQ(LOQ:0.05)	APHA3125B
2.	Total Cadmium (as Cd)	mg/kg	BLQ(LOQ:0.05)	APHA3125B
3.	Total Chromium (as Cr)	mg/kg	23.6	APHA3125B
4.	Total Copper (as Cu)	mg/kg	55.1	APHA3125B
5.	Total Iron (as Fe)	mg/kg	32310	APHA3125B
6.	Total Zinc (as Zn)	mg/kg	64.8	APHA3125B
7.	Total Lead (as Pb)	mg/kg	BLQ(LOQ:0.05)	APHA3125B
8.	Total Mercury (as Hg)	mg/kg	BLQ(LOQ:0.05)	APHA3125B
9.	Total Hexavalent Chromium	mg/kg	3.1	APHA3500-B

BLQ: Below Limit of Quantification.**LOQ:** Limit of quantification. End of Report.

Analysed by

Renu Sharma 27/8/24

Idma Laboratories Limited Renu Sr. Analyst Authorized Signatory

Authorized Signatory

22/08/24

Idma Laboratories Ltd. Kartar Singh Tech. Mgr. Panchkula

Idma Laboratories Limited

Idma Corporate Park,

391, Industrial Area, Phase - 1,

Panchkula - 134113,

Haryana (India)

Tel No. 0172 - 5064827,- 5064830

Website : www.idmagroup.co.in

Email : commercial@idmalab.co.in

Idma Laboratories Limited

TC-8207

TEST REPORT

Lab No	**240824N-E-022**		**Page-1/1**
Issued to:	NTPC LIMITED Lara Super Thermal Power Project Village-Chhapora, PO/PS-Pussore Raigarh, Chattisgarh-496440		
Type of Unit	Thermal Power Project		
Type of sample	Bottom Ash		
Work Order No.	4000317716-037-1047	Date-	09.10.2023
Quantity	1Kg		
Mode of Collection of Sample	Sampling By Laboratories		
Sample Collected by	Idma Lab Representative		
Packing & Marking	Packed in sample Bag.		
Location	NTPC LARA Plant		
Sampling Period	August 2024		
Date of Reporting	27.08.2024		
Date of sampling	21.08.2024		
Sampling Protocol	SW-846Chapter9		

CHEMICAL ANALYSIS OF BOTTOM ASH

S.No.	Test Parameters	Units	Results	Test Method
1.	Total Arsenic (as As)	mg/kg	BLQ(LOQ:0.05)	APHA3125B
2.	Total Cadmium (as Cd)	mg/kg	BLQ(LOQ:0.05)	APHA3125B
3.	Total Chromium (as Cr)	mg/kg	20.9	APHA3125B
4.	Total Copper (as Cu)	mg/kg	48.2	APHA3125B
5.	Total Iron (as Fe)	mg/kg	31950	APHA3125B
6.	Total Zinc (as Zn)	mg/kg	65.0	APHA3125B
7.	Total Lead (as Pb)	mg/kg	BLQ(LOQ:0.05)	APHA3125B
8.	Total Mercury (as Hg)	mg/kg	BLQ(LOQ:0.05)	APHA3125B
9.	Total Hexavalent Chromium	mg/kg	4.0	APHA3500-B

BLQ: Below Limit of Quantification.**LOQ:** Limit of quantification. End of Report.

Analysed by

Renu Sharma 27/8/24

Idma Laboratories Limited Renu Sr. Analyst Authorised Signatory

Authorized Signatory

27/08/24

Idma Laboratories Ltd. Kartar Singh Tech. Mgr. Panchkula

Idma Laboratories Limited

Idma Corporate Park,

391, industrial Area, Phase - 1,

Panchkula - 134113,

Haryana (India)

Tel No. 0172 - 5064827.- 5064830

Website : www.idmagroup.co.in

Email : commercial@idmalab.co.in

Idma Laboratories Limited

TC-8207

TEST REPORT

Lab No	**250524N-E-042**		**Page-1/1**
Issued to:	NTPC LIMITED Lara Super Thermal Power Project Village-Chhapora, PO/PS-Pussore Raigarh, Chattisgarh-496440		
Type of Unit	Thermal Power Project		
Type of sample	Effluent Water		
Work Order No.	4000317716-037-1047	Date-	09.10.2023
Quantity	1 Litre		
Mode of Collection of Sample	Sampling By Laboratories		
Sample Collected by	Idma Lab Representative		
Packing & Marking	Plastic cans & Sterilized Glass Bottle		
Location	Ash Pond Effluent – Sample 1		
Sampling Period	May 2024		
Date of Reporting	29.05.2024		
Date of sampling	22.05.2024		
Sampling Protocol	IS: 17614		

CHEMICAL ANALYSIS OF WATER

S.No.	Test Parameters	Units	Results	Test Method
1.	Temperature	°C	28.2	IS: 3025 Part 9
2.	Mercury as Hg	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 48
3.	Chromium Hexavalent as Cr VI	mg/l	BQL[LOQ 0.05]	APHA 3500 CrB
4.	Iron as Fe	mg/l	0.187	IS: 3025 Part 53
5.	Copper as Cu	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 42
6.	Chromium as Cr	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 52
7.	Zinc as Zn	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 49
8.	Cadmium as Cd	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 41
9.	Lead as Pb	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 47
10.	Arsenic as As	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 37

BLQ: Below Limit of Quantification. **LOQ:** Limit of quantification. End of Report

Authorized Signatory

Idma Laboratories Ltd. Kartar Singh Tech. Mgr. Panchkula

Analysed by

Renu Sharma 29/5/24

Idma Laboratories Limited Renu Sr. Analyst Authorised Signatory

Idma Laboratories Limited

Idma Corporate Park,

391, industrial Area, Phase - 1,

Panchkula - 134113,

Haryana (India)

Tel No. 0172 - 5064827,- 5064830

Website : www.idmagroup.co.in

Idma Laboratories Limited

TC-8207

TEST REPORT

Lab No	**250524N-E-043**		
Issued to:	NTPC LIMITED Lara Super Thermal Power Project Village-Chhapora, PO/PS-Pussore Raigarh, Chattisgarh-496440		
Type of Unit	Thermal Power Project		
Type of sample	Effluent Water		
Work Order No.	4000317716-037-1047	Date-	09.10.2023
Quantity	1 Litre		
Mode of Collection of Sample	Sampling By Laboratories		
Sample Collected by	Idma Lab Representative		
Packing & Marking	Plastic cans & Sterilized Glass Bottle		
Location	Ash Pond Effluent – Sample 2		
Sampling Period	May 2024		
Date of Reporting	25.05.2024		
Date of sampling	22.05.2024		
Sampling Protocol	IS: 17614		

CHEMICAL ANALYSIS OF WATER

S.No.	Test Parameters	Units	Results	Test Method
1.	Temperature	°C	28.1	IS: 3025 Part 9
2.	Mercury as Hg	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 48
3.	Chromium Hexavalent as Cr VI	mg/l	BQL[LOQ 0.05]	APHA 3500 CrB
4.	Iron as Fe	mg/l	0.181	IS: 3025 Part 53
5.	Copper as Cu	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 42
6.	Chromium as Cr	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 52
7.	Zinc as Zn	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 49
8.	Cadmium as Cd	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 41
9.	Lead as Pb	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 47
10.	Arsenic as As	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 37

BLQ: Below Limit of Quantification. **LOQ:** Limit of quantification. End of Report

Authorized Signatory

Idma Laboratories Ltd. Kartar Singh Tech. Mgr. Panchkula

Analysed by

Renu Sharma 25/5/24

Idma Laboratories Limited Renu Sr. Analyst Authorised Signatory

Idma Laboratories Limited

Idma Corporate Park,

391, industrial Area, Phase - 1,

Panchkula - 134113,

Haryana (India)

Tel No. 0172 - 5064827,- 5064830

Website : www.idmagroup.co.in

Disclaimer :

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Idma Laboratories Limited

TC-8207

TEST REPORT

Lab No	**240824N-E-040**		**Page-1/1**
Issued to:	NTPC LIMITED Lara Super Thermal Power Project Village-Chhapora, PO/PS-Pussore Raigarh, Chattisgarh-496440		
Type of Unit	Thermal Power Project		
Type of sample	Effluent Water		
Work Order No.	4000317716-037-1047	Date-	09.10.2023
Quantity	1 Liter		
Mode of Collection of Sample	Sampling By Laboratories		
Sample Collected by	Idma Lab Representative		
Packing & Marking	Plastic cans & Sterilized Glass Bottle		
Location	Ash Pond Effluent – Sample 1		
Sampling Period	August 2024		
Date of Reporting	28.08.2024		
Date of sampling	21.08.2024		
Sampling Protocol	IS: 17614		

CHEMICAL ANALYSIS OF WATER

S.No.	Test Parameters	Units	Results	Test Method
1.	Temperature	°C	26.1	IS: 3025 Part 9
2.	Mercury as Hg	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 48
3.	Chromium Hexavalent as Cr VI	mg/L	BLQ[LOQ 0.05]	APHA 3500 CrB
4.	Iron as Fe	mg/L	0.179	IS: 3025 Part 53
5.	Copper as Cu	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 42
6.	Chromium as Cr	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 52
7.	Zinc as Zn	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 49
8.	Cadmium as Cd	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 41
9.	Lead as Pb	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 47
10.	Arsenic as As	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 37

BLQ: Below Limit of Quantification. **LOQ:** Limit of quantification. End of Report

Analysed by

28/8/24

Authorized Signatory 28/08/24

Idma Laboratories Limited — Authorised Signatory — Renu

Idma Laboratories Ltd. — Kartar Singh — Tech. Mgr. — Panchkula

Idma Laboratories Limited

Idma Corporate Park,

391, industrial Area, Phase - 1,

Panchkula - 134113,

Haryana (India)

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Website : www.idmagroup.co.in

Email : commercial@idmalab.co.in

Idma Laboratories Limited

TC-8207

TEST REPORT

Lab No	**240824N-E-041**		**Page-1/1**
Issued to:	NTPC LIMITED Lara Super Thermal Power Project Village-Chhapora, PO/PS-Pussore Raigarh, Chattisgarh-496440		
Type of Unit	Thermal Power Project		
Type of sample	Effluent Water		
Work Order No.	4000317716-037-1047	Date-	09.10.2023
Quantity	1 Liter		
Mode of Collection of Sample	Sampling By Laboratories		
Sample Collected by	Idma Lab Representative		
Packing & Marking	Plastic cans & Sterilized Glass Bottle		
Location	Ash Pond Effluent – Sample 2		
Sampling Period	August 2024		
Date of Reporting	28.08.2024		
Date of sampling	21.08.2024		
Sampling Protocol	IS: 17614		

CHEMICAL ANALYSIS OF WATER

S.No.	Test Parameters	Units	Results	Test Method
1.	Temperature	°C	26.2	IS: 3025 Part 9
2.	Mercury as Hg	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 48
3.	Chromium Hexavalent as Cr VI	mg/L	BLQ[LOQ 0.05]	APHA 3500 CrB
4.	Iron as Fe	mg/L	0.193	IS: 3025 Part 53
5.	Copper as Cu	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 42
6.	Chromium as Cr	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 52
7.	Zinc as Zn	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 49
8.	Cadmium as Cd	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 41
9.	Lead as Pb	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 47
10.	Arsenic as As	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 37

BLQ: Below Limit of Quantification. **LOQ:** Limit of quantification. End of Report

Analysed by

28/8/24

Authorized Signatory 28/08/24

Idma Laboratories Limited
Idma Corporate Park,
391, industrial Area, Phase - 1,
Panchkula - 134113,
Haryana (India)
Tel No. 0172 - 5064827,- 5064830
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Fly Ash Notification Dated 31st December 2021 - **Statutory Compliance**

Report for the period 01.04.2023 to 31.03.2024

Sl. No.	Details	Reply
1	Name of Power Plant	Lara Super Thermal Power Project
2	Name of the company	NTPC Limited
3	District	Raigarh
4	State	Chhattisgarh
5	Postal address for communication:	Vill-Chhapora, PO&PS-Pussore, Dist.-Raigarh, Chhattisgarh-496440
6	E-mail:	aulara@ntpc.co.in, hoplara@ntpc.co.in
7	Power Plant installed capacity (MW):	2 x 800 MW = 1600 MW
8	Plant Load Factor (PLF):	83.61
9	No. of units generated (MWh):	11751553
10	Total area under power plant (ha): (including area under ash ponds)	1004.97
11	Quantity of coal consumption during reporting period (Metric Tons per Annum):	8406939
12	Average ash content in percentage (per cent):	37.71
13	Quantity of current ash generation during reporting period (Metric Tons per Annum): Fly ash (Metric Tons per Annum): Bottom ash (Metric Tons per Annum):	 3170585 2536468 634117
14	Capacity of dry fly ash storage silo(s) (Metric Tons) :	2100 (3X700MT)
15	Details of utilisation of current ash generated during reporting period	
	(a) Total quantity of current ash utilised (MTPA) during reporting period:	3283211.4
	(i) Fly ash based products (bricks or blocks or tiles or fibre cement sheets or pipes or boards or panels)	8805.5
	(ii) Cement manufacturing:	0
	(iii) Ready mix concrete:	0
	(iv) Ash and Geo-polymer based construction material:	0
	(v) Manufacturing of sintered or cold bonded ash aggregate:	0
	(vi) Construction of roads, road and fly over embankment:	2779684.7
	(vii) Construction of dams:	0
	(viii) Filling up of low lying area:	494721.2
	(ix) Filling of mine voids:	0
	(x) Use in overburden dumps:	0

	(xi) Agriculture:	0
	(xii) Construction of shoreline protection structures in coastal districts;	0
	(xiii) Export of ash to other countries:	0
	(xiv) Others (please specify):	0
	(c) Quantity of bottom ash utilised (MTPA):	0
	(i) Fly ash based products (bricks or blocks or tiles or fibre cement sheets or pipes or boards or panels):	0
	(ii) Cement manufacturing:	0
	(iii) Ready mix concrete:	0
	(iv) Ash and Geo-polymer based construction material:	0
	(v) Manufacturing of sintered or cold bonded ash aggregate:	0
	(vi) Construction of roads, road and flyover embankment:	0
	(vii) Construction of dams:	0
	(viii) Filling up of low lying area:	0
	(ix) Filling of mine voids:	0
	(x) Use in overburden dumps:	0
	(xi) Agriculture:	0
	(xii) Construction of shoreline protection structures in coastal districts:	0
	(xiii) Export of ash to other countries:	0
	(xiv) Others (please specify):	0
	Total quantity of current ash unutilised (MTPA) during reporting period:	0
16	Percentage utilisation of current ash generated during reporting period (per cent):	**103.55 %**
17	Details of disposal of ash in ash ponds	0
	(a) Total quantity of ash disposed in ash pond(s) (Metric Tons) as on 31st March 2023 (excluding reporting period):	45.53 LMT
	(b) Quantity of ash disposed in ash pond(s) during reporting period (Metric Tons):	0
	(c) Total quantity of water consumption for slurry discharge into ash ponds during reporting period (m3):	896775
	(d) Total number of ash ponds: (i) Active: (ii) Exhausted (yet to be reclaimed): (iii) Reclaimed:	01 01 00 00
	(e) total area under ash ponds (ha):	144
18	Individual ash pond details Ash pond-1,2, etc. (please provide below mentioned details separately, if number of ash ponds is more than one)	One ash pond with three lagoons
	(a) Status: Under construction or Active or Exhausted or Reclaimed	Active

	(b) Date of start of ash disposal in ash pond (DD/MM/YYYY or MMYYYY):	01.10.2019
	(c) Date of stoppage of ash disposal in ash pond after completing its capacity (DD/MM/YYYY or MM/YYYY): (Not applicable for active ash ponds)	NA
	(d) area (hectares):	144
	(e) dyke height (m):	Starter Dyke upto 12 m & 3 m raisings
	(f) volume (m3):	129.25 LCM
	(g) quantity of ash disposed as on 31st March 2024 (Metric Tons):	44.40 LCM
	(h) available volume in percentage (per cent) and quantity of ash can be further disposed (Metric Tons):	65.64% 84.85 LMT
	(i) expected life of ash pond (number of years and months):	16 YEAR (20% DISPOSAL) 8 YEAR (40% DISPOSAL) 5 YEAR & 4 MONTH (60 % DISPOSAL) (consider monthly ash gen=487*2*24*0.37*30*0.85 =220552 MT)
	(j) co-ordinates (Lat and Long): (please specify minimum 4 co-ordinates)	21°44'18" 83°28'13" 21°44'02" 83°28'07" 21°44'07" 83°27'48" 21°43'07" 83°27'49" 21°44'00" 83°28'37" 21°43'45" 83°28'22" 21°43'39" 83°28'02" 21°43'38" 83°27'42"
	(k) type of lining carried in ash pond: HDPE lining or LDPE lining or clay lining or No lining	No lining
	(l) mode of disposal: Dry disposal or wet slurry (in case of wet slurry please specify whether HCSD or MCSD or LCSD)	Bottom ash as LCSD Fly ash as HCSD
	(h) Ratio of ash: water in slurry mix (1:___):	LCSD- 1:6 HCSD- 1:0.58- 1:1.15
	(m) Ash water recycling system (AWRS) installed and functioning: Yes or No	Yes
	(n) Quantity of wastewater from ash pond discharged into land or water body (m3):	NIL
	(o) Last date when the dyke stability study was conducted and name of the organisation who conducted the study:	14th December 2021, IIT Hyderabad
	(p) Last date when the audit was conducted and name of the organisation who conducted the audit:	26.11.2023 National Institute of Technology Rourkela, Odisha
19	Quantity of legacy ash utilised (MTPA):	NA
	i. Fly ash based products (bricks or blocks or tiles or fibre cement sheets or pipes or boards or panels):	-
	ii. Cement manufacturing:	-
	iii. Ready mix concrete:	-

	iv. Ash and Geo-polymer based construction material:		-	
	v. Manufacturing of sintered or cold bonded ash aggregate:		-	
	vi. Construction of roads, road and flyover embankment:		-	
	vii. Construction of dams:		-	
	viii. Filling up of low lying area:		-	
	ix. Filling of mine voids:		-	
	x. Use in overburden dumps:		-	
	xi. Agriculture:		-	
	xii. Construction of shoreline protection structures in coastal districts;		-	
	xiii. Export of ash to other countries:		-	
	xiv. Others (please specify):		-	
20	Summary:			
	Details	Quantity generated (MTP)	Quantity utilised (MTP) and (per cent)	Balance quantity (MTP)
	Current ash during reporting period	3170585	3283211.4 / **103.55 %**	0
	Legacy ash	NIL	NIL	NIL
	Total	3170585	3283211.4 / **103.55 %**	0
21	Any other information: Soft copy of the annual compliance report, and shape files of power plant and ash ponds may be e-mailed to:- moefcccoalash@gov.in			
22	Signature of Authorised Signatory			

Singh 16/5/2024

Signature of the Head of Project
of the thermal power station
Name
Designation
Date:

अखिलेश सिंह
AKHILESH SINGH
परियोजना प्रमुख
Head of Project
एनटीपीसी-लारा/NTPC-Lara
रायगढ़ (छ.ग.)/Raigarh (C.G.)

Sonu Ram

Idma Laboratories Limited

TC-8207

TEST REPORT

Lab No	**250524N-E-027**		**Page-1/1**
Issued to:	NTPC LIMITED Lara Super Thermal Power Project Village-Chhapora, PO/PS-Pussore Raigarh, Chattisgarh-496440		
Type of Unit	Thermal Power Project		
Type of sample	Coal		
Work Order No.	4000317716-037-1047	Date-	09.10.2023
Quantity	1Kg		
Mode of Collection of Sample	Sampling By Laboratories		
Sample Collected by	Idma Lab Representative		
Packing & Marking	Packed in sample Bag.		
Location	NTPC LARA Plant		
Sampling Period	May 2024		
Date of Reporting	29.05.2024		
Date of sampling	22.05.2024		
Sampling Protocol	SW-846Chapter9		

HEAVY METAL ANALYSIS OF COAL

S.No.	Test Parameters	Units	Results	Test Method
1.	Total Arsenic (as As)	mg/kg	0.68	APHA3125B 24th Edition 2023
2.	Total Cadmium (as Cd)	mg/kg	0.51	APHA3125B 24th Edition 2023
3.	Total Chromium (as Cr)	mg/kg	24.87	APHA3125B 24th Edition 2023
4.	Total Copper (as Cu)	mg/kg	22.30	APHA3125B 24th Edition 2023
5.	Total Iron (as Fe)	mg/kg	14970	APHA3125B 24th Edition 2023
6.	Total Zinc (as Zn)	mg/kg	30.32	APHA3125B 24th Edition 2023
7.	Total Lead (as Pb)	mg/kg	6.26	APHA3125B 24th Edition 2023
8.	Total Mercury (as Hg)	mg/kg	0.19	APHA3125B 24th Edition 2023
9.	Total Hexavalent Chromium	mg/kg	5.88	APHA3500-B 24th Edition 2023

BLQ: Below Limit of Quantification. **LOQ:** Limit of quantification. End of Report.

Analysed by

Idma Laboratories Limited
29/5
Renu
Sr. Analyst

Authorized Signatory

29/5/24

Idma Laboratories Ltd.
Kartar Singh
Tech. Mgr.
Panchkula

Idma Laboratories Limited

Idma Corporate Park,

391, industrial Area, Phase - 1,

Panchkula - 134113,

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Tel No. 0172 - 5064827,- 5064830

Website : www.idmagroup.co.in

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Idma Laboratories Limited

TC-8207

TEST REPORT

Lab No	**250524N-E-024**		**Page-1/1**
Issued to:	NTPC LIMITED Lara Super Thermal Power Project Village-Chhapora, PO/PS-Pussore Raigarh, Chattisgarh-496440		
Type of Unit	Thermal Power Project		
Type of sample	Fly Ash		
Work Order No.	4000317716-037-1047	Date-	09.10.2023
Quantity	1Kg		
Mode of Collection of Sample	Sampling By Laboratories		
Sample Collected by	Idma Lab Representative		
Packing & Marking	Packed in sample Bag.		
Location	NTPC LARA Plant		
Sampling Period	May 2024		
Date of Reporting	29.05.2024		
Date of sampling	22.05.2024		
Sampling Protocol	SW-846Chapter9		

CHEMICAL ANALYSIS OF FLY ASH

S.No.	Test Parameters	Units	Results	Test Method
1.	Total Arsenic (as As)	mg/kg	BLQ(LOQ:0.05)	APHA3125B 24th Edition 2023
2.	Total Cadmium (as Cd)	mg/kg	BLQ(LOQ:0.05)	APHA3125B 24th Edition 2023
3.	Total Chromium (as Cr)	mg/kg	22.1	APHA3125B 24th Edition 2023
4.	Total Copper (as Cu)	mg/kg	53.4	APHA3125B 24th Edition 2023
5.	Total Iron (as Fe)	mg/kg	32214	APHA3125B 24th Edition 2023
6.	Total Zinc (as Zn)	mg/kg	65.4	APHA3125B 24th Edition 2023
7.	Total Lead (as Pb)	mg/kg	BLQ(LOQ:0.05)	APHA3125B 24th Edition 2023
8.	Total Mercury (as Hg)	mg/kg	BLQ(LOQ:0.05)	APHA3125B 24th Edition 2023
9.	Total Hexavalent Chromium	mg/kg	3.8	APHA3500-B 24th Edition 2023

BLQ: Below Limit of Quantification. **LOQ:** Limit of quantification. End of Report.

Analysed by

Renu Sharma

Idma Laboratories Limited
Renu
Sr. Analyst
Authorised Signatory

Authorized Signatory

Idma Laboratories Ltd.
Kartar Singh
Tech. Mgr.
Panchkula

Idma Laboratories Limited

Idma Corporate Park,

391, industrial Area, Phase - 1,

Panchkula - 134113,

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Tel No. 0172 - 5064827,- 5064830

Website : www.idmagroup.co.in

Email : commercial@idmalab.co.in

Idma Laboratories Limited

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TEST REPORT

Lab No	**250524N-E-025**		**Page-1/1**
Issued to:	NTPC LIMITED Lara Super Thermal Power Project Village-Chhapora, PO/PS-Pussore Raigarh, Chattisgarh-496440		
Type of Unit	Thermal Power Project		
Type of sample	Bottom Ash		
Work Order No.	4000317716-037-1047	Date-	09.10.2023
Quantity	1Kg		
Mode of Collection of Sample	Sampling By Laboratories		
Sample Collected by	Idma Lab Representative		
Packing & Marking	Packed in sample Bag.		
Location	NTPC LARA Plant		
Sampling Period	May 2024		
Date of Reporting	29.05.2024		
Date of sampling	22.05.2024		
Sampling Protocol	SW-846Chapter9		

CHEMICAL ANALYSIS OF BOTTOM ASH

S.No.	Test Parameters	Units	Results	Test Method
1.	Total Arsenic (as As)	mg/kg	BLQ(LOQ:0.05)	APHA3125B 24th Edition 2023
2.	Total Cadmium (as Cd)	mg/kg	BLQ(LOQ:0.05)	APHA3125B 24th Edition 2023
3.	Total Chromium (as Cr)	mg/kg	21.7	APHA3125B 24th Edition 2023
4.	Total Copper (as Cu)	mg/kg	49.6	APHA3125B 24th Edition 2023
5.	Total Iron (as Fe)	mg/kg	32132	APHA3125B 24th Edition 2023
6.	Total Zinc (as Zn)	mg/kg	63.3	APHA3125B 24th Edition 2023
7.	Total Lead (as Pb)	mg/kg	BLQ(LOQ:0.05)	APHA3125B 24th Edition 2023
8.	Total Mercury (as Hg)	mg/kg	BLQ(LOQ:0.05)	APHA3125B 24th Edition 2023
9.	Total Hexavalent Chromium	mg/kg	4.4	APHA3500-B 24th Edition 2023

BLQ: Below Limit of Quantification.**LOQ:** Limit of quantification. End of Report.

Analysed by

Idma Laboratories Limited Renu Sharma Sr. Analyst Authorised Signatory

Authorized Signatory

Idma Laboratories Ltd. Kartar Singh Tech. Mgr. Panchkula

Idma Laboratories Limited
Idma Corporate Park,
391, industrial Area, Phase - 1,
Panchkula - 134113,
Haryana (India)
Tel No. 0172 - 5064827,- 5064830
Website : www.idmagroup.co.in
Email : commercial@idmalab.co.in

Idma Laboratories Limited

TC-8207

TEST REPORT

Lab No	**240824N-E-024**		**Page-1/1**
Issued to:	NTPC LIMITED Lara Super Thermal Power Project Village-Chhapora, PO/PS-Pussore Raigarh, Chattisgarh-496440		
Type of Unit	Thermal Power Project		
Type of sample	Coal		
Work Order No.	4000317716-037-1047	Date-	09.10.2023
Quantity	1Kg		
Mode of Collection of Sample	Sampling By Laboratories		
Sample Collected by	Idma Lab Representative		
Packing & Marking	Packed in sample Bag.		
Location	NTPC LARA Plant		
Sampling Period	August 2024		
Date of Reporting	27.08.2024		
Date of sampling	21.08.2024		
Sampling Protocol	SW-846Chapter9		

HEAVY METAL ANALYSIS OF COAL

S.No.	Test Parameters	Units	Results	Test Method
1.	Total Arsenic (as As)	mg/kg	0.52	APHA3125B
2.	Total Cadmium (as Cd)	mg/kg	0.58	APHA3125B
3.	Total Chromium (as Cr)	mg/kg	25.72	APHA3125B
4.	Total Copper (as Cu)	mg/kg	23.50	APHA3125B
5.	Total Iron (as Fe)	mg/kg	15160	APHA3125B
6.	Total Zinc (as Zn)	mg/kg	33.75	APHA3125B
7.	Total Lead (as Pb)	mg/kg	7.85	APHA3125B
8.	Total Mercury (as Hg)	mg/kg	0.23	APHA3125B
9.	Total Hexavalent Chromium	mg/kg	4.58	APHA3500-B

BLQ: Below Limit of Quantification. **LOQ:** Limit of quantification. End of Report.

Analysed by
Renu Sharma
27/8/24

Idma Laboratories Limited Renu Sr. Analyst Authorised Signatory

Authorized Signatory 27/08/24

Idma Laboratories Ltd. Kartar Singh Tech. Mgr. Panchkula

Idma Laboratories Limited

Idma Corporate Park,
391, industrial Area, Phase - 1,
Panchkula - 134113,
Haryana (India)
Tel No. 0172 - 5064827,- 5064830
Website : www.idmagroup.co.in
Email : commercial@idmalab.co.in

Idma Laboratories Limited

TC-8207

TEST REPORT

Lab No	**240824N-E-021**		**Page-1/1**
Issued to:	NTPC LIMITED Lara Super Thermal Power Project Village-Chhapora, PO/PS-Pussore Raigarh, Chattisgarh-496440		
Type of Unit	Thermal Power Project		
Type of sample	Fly Ash		
Work Order No.	4000317716-037-1047	Date-	09.10.2023
Quantity	1Kg		
Mode of Collection of Sample	Sampling By Laboratories		
Sample Collected by	Idma Lab Representative		
Packing & Marking	Packed in sample Bag.		
Location	NTPC LARA Plant		
Sampling Period	August 2024		
Date of Reporting	27.08.2024		
Date of sampling	21.08.2024		
Sampling Protocol	SW-846Chapter9		

CHEMICAL ANALYSIS OF FLY ASH

S.No.	Test Parameters	Units	Results	Test Method
1.	Total Arsenic (as As)	mg/kg	BLQ(LOQ:0.05)	APHA3125B
2.	Total Cadmium (as Cd)	mg/kg	BLQ(LOQ:0.05)	APHA3125B
3.	Total Chromium (as Cr)	mg/kg	23.6	APHA3125B
4.	Total Copper (as Cu)	mg/kg	55.1	APHA3125B
5.	Total Iron (as Fe)	mg/kg	32310	APHA3125B
6.	Total Zinc (as Zn)	mg/kg	64.8	APHA3125B
7.	Total Lead (as Pb)	mg/kg	BLQ(LOQ:0.05)	APHA3125B
8.	Total Mercury (as Hg)	mg/kg	BLQ(LOQ:0.05)	APHA3125B
9.	Total Hexavalent Chromium	mg/kg	3.1	APHA3500-B

BLQ: Below Limit of Quantification.**LOQ:** Limit of quantification. End of Report.

Analysed by

Renu Sharma 27/8/24

Idma Laboratories Limited Renu Sr. Analyst Authorized Signatory

Authorized Signatory

22/08/24

Idma Laboratories Ltd. Kartar Singh Tech. Mgr. Panchkula

Idma Laboratories Limited

Idma Corporate Park,

391, Industrial Area, Phase - 1,

Panchkula - 134113,

Haryana (India)

Tel No. 0172 - 5064827,- 5064830

Website : www.idmagroup.co.in

Email : commercial@idmalab.co.in

Idma Laboratories Limited

TC-8207

TEST REPORT

Lab No	**240824N-E-022**		**Page-1/1**
Issued to:	NTPC LIMITED Lara Super Thermal Power Project Village-Chhapora, PO/PS-Pussore Raigarh, Chattisgarh-496440		
Type of Unit	Thermal Power Project		
Type of sample	Bottom Ash		
Work Order No.	4000317716-037-1047	Date-	09.10.2023
Quantity	1Kg		
Mode of Collection of Sample	Sampling By Laboratories		
Sample Collected by	Idma Lab Representative		
Packing & Marking	Packed in sample Bag.		
Location	NTPC LARA Plant		
Sampling Period	August 2024		
Date of Reporting	27.08.2024		
Date of sampling	21.08.2024		
Sampling Protocol	SW-846Chapter9		

CHEMICAL ANALYSIS OF BOTTOM ASH

S.No.	Test Parameters	Units	Results	Test Method
1.	Total Arsenic (as As)	mg/kg	BLQ(LOQ:0.05)	APHA3125B
2.	Total Cadmium (as Cd)	mg/kg	BLQ(LOQ:0.05)	APHA3125B
3.	Total Chromium (as Cr)	mg/kg	20.9	APHA3125B
4.	Total Copper (as Cu)	mg/kg	48.2	APHA3125B
5.	Total Iron (as Fe)	mg/kg	31950	APHA3125B
6.	Total Zinc (as Zn)	mg/kg	65.0	APHA3125B
7.	Total Lead (as Pb)	mg/kg	BLQ(LOQ:0.05)	APHA3125B
8.	Total Mercury (as Hg)	mg/kg	BLQ(LOQ:0.05)	APHA3125B
9.	Total Hexavalent Chromium	mg/kg	4.0	APHA3500-B

BLQ: Below Limit of Quantification.**LOQ:** Limit of quantification. End of Report.

Analysed by

Renu Sharma 27/8/24

Idma Laboratories Limited Renu Sr. Analyst Authorised Signatory

Authorized Signatory

27/08/24

Idma Laboratories Ltd. Kartar Singh Tech. Mgr. Panchkula

Idma Laboratories Limited

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Idma Laboratories Limited

TC-8207

TEST REPORT

Lab No	**250524N-E-042**		**Page-1/1**
Issued to:	NTPC LIMITED Lara Super Thermal Power Project Village-Chhapora, PO/PS-Pussore Raigarh, Chattisgarh-496440		
Type of Unit	Thermal Power Project		
Type of sample	Effluent Water		
Work Order No.	4000317716-037-1047	Date-	09.10.2023
Quantity	1 Litre		
Mode of Collection of Sample	Sampling By Laboratories		
Sample Collected by	Idma Lab Representative		
Packing & Marking	Plastic cans & Sterilized Glass Bottle		
Location	Ash Pond Effluent – Sample 1		
Sampling Period	May 2024		
Date of Reporting	29.05.2024		
Date of sampling	22.05.2024		
Sampling Protocol	IS: 17614		

CHEMICAL ANALYSIS OF WATER

S.No.	Test Parameters	Units	Results	Test Method
1.	Temperature	°C	28.2	IS: 3025 Part 9
2.	Mercury as Hg	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 48
3.	Chromium Hexavalent as Cr VI	mg/l	BQL[LOQ 0.05]	APHA 3500 CrB
4.	Iron as Fe	mg/l	0.187	IS: 3025 Part 53
5.	Copper as Cu	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 42
6.	Chromium as Cr	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 52
7.	Zinc as Zn	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 49
8.	Cadmium as Cd	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 41
9.	Lead as Pb	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 47
10.	Arsenic as As	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 37

BLQ: Below Limit of Quantification. **LOQ:** Limit of quantification. End of Report

Authorized Signatory

Idma Laboratories Ltd. Kartar Singh Tech. Mgr. Panchkula

Analysed by

Renu Sharma 29/5/24

Idma Laboratories Limited Renu Sr. Analyst Authorised Signatory

Idma Laboratories Limited

Idma Corporate Park,

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Idma Laboratories Limited

TC-8207

TEST REPORT

Lab No	**250524N-E-043**		
Issued to:	NTPC LIMITED Lara Super Thermal Power Project Village-Chhapora, PO/PS-Pussore Raigarh, Chattisgarh-496440		
Type of Unit	Thermal Power Project		
Type of sample	Effluent Water		
Work Order No.	4000317716-037-1047	Date-	09.10.2023
Quantity	1 Litre		
Mode of Collection of Sample	Sampling By Laboratories		
Sample Collected by	Idma Lab Representative		
Packing & Marking	Plastic cans & Sterilized Glass Bottle		
Location	Ash Pond Effluent – Sample 2		
Sampling Period	May 2024		
Date of Reporting	25.05.2024		
Date of sampling	22.05.2024		
Sampling Protocol	IS: 17614		

CHEMICAL ANALYSIS OF WATER

S.No.	Test Parameters	Units	Results	Test Method
1.	Temperature	°C	28.1	IS: 3025 Part 9
2.	Mercury as Hg	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 48
3.	Chromium Hexavalent as Cr VI	mg/l	BQL[LOQ 0.05]	APHA 3500 CrB
4.	Iron as Fe	mg/l	0.181	IS: 3025 Part 53
5.	Copper as Cu	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 42
6.	Chromium as Cr	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 52
7.	Zinc as Zn	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 49
8.	Cadmium as Cd	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 41
9.	Lead as Pb	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 47
10.	Arsenic as As	mg/l	BQL[LOQ 0.0005]	IS: 3025 Part 37

BLQ: Below Limit of Quantification. **LOQ:** Limit of quantification. End of Report

Authorized Signatory

Idma Laboratories Ltd. Kartar Singh Tech. Mgr. Panchkula

Analysed by

Renu Sharma 25/5/24

Idma Laboratories Limited Renu Sr. Analyst Authorised Signatory

Idma Laboratories Limited

Idma Corporate Park,

391, industrial Area, Phase - 1,

Panchkula - 134113,

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Disclaimer :

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Idma Laboratories Limited

TC-8207

TEST REPORT

Lab No	**240824N-E-040**		**Page-1/1**
Issued to:	NTPC LIMITED Lara Super Thermal Power Project Village-Chhapora, PO/PS-Pussore Raigarh, Chattisgarh-496440		
Type of Unit	Thermal Power Project		
Type of sample	Effluent Water		
Work Order No.	4000317716-037-1047	Date-	09.10.2023
Quantity	1 Liter		
Mode of Collection of Sample	Sampling By Laboratories		
Sample Collected by	Idma Lab Representative		
Packing & Marking	Plastic cans & Sterilized Glass Bottle		
Location	Ash Pond Effluent – Sample 1		
Sampling Period	August 2024		
Date of Reporting	28.08.2024		
Date of sampling	21.08.2024		
Sampling Protocol	IS: 17614		

CHEMICAL ANALYSIS OF WATER

S.No.	Test Parameters	Units	Results	Test Method
1.	Temperature	°C	26.1	IS: 3025 Part 9
2.	Mercury as Hg	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 48
3.	Chromium Hexavalent as Cr VI	mg/L	BLQ[LOQ 0.05]	APHA 3500 CrB
4.	Iron as Fe	mg/L	0.179	IS: 3025 Part 53
5.	Copper as Cu	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 42
6.	Chromium as Cr	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 52
7.	Zinc as Zn	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 49
8.	Cadmium as Cd	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 41
9.	Lead as Pb	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 47
10.	Arsenic as As	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 37

BLQ: Below Limit of Quantification. **LOQ:** Limit of quantification. End of Report

Analysed by

28/8/24

Authorized Signatory 28/08/24

Idma Laboratories Limited — Authorised Signatory — Renu

Idma Laboratories Ltd. — Kartar Singh — Tech. Mgr. — Panchkula

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Idma Laboratories Limited

TC-8207

TEST REPORT

Lab No	**240824N-E-041**		**Page-1/1**
Issued to:	NTPC LIMITED Lara Super Thermal Power Project Village-Chhapora, PO/PS-Pussore Raigarh, Chattisgarh-496440		
Type of Unit	Thermal Power Project		
Type of sample	Effluent Water		
Work Order No.	4000317716-037-1047	Date-	09.10.2023
Quantity	1 Liter		
Mode of Collection of Sample	Sampling By Laboratories		
Sample Collected by	Idma Lab Representative		
Packing & Marking	Plastic cans & Sterilized Glass Bottle		
Location	Ash Pond Effluent – Sample 2		
Sampling Period	August 2024		
Date of Reporting	28.08.2024		
Date of sampling	21.08.2024		
Sampling Protocol	IS: 17614		

CHEMICAL ANALYSIS OF WATER

S.No.	Test Parameters	Units	Results	Test Method
1.	Temperature	°C	26.2	IS: 3025 Part 9
2.	Mercury as Hg	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 48
3.	Chromium Hexavalent as Cr VI	mg/L	BLQ[LOQ 0.05]	APHA 3500 CrB
4.	Iron as Fe	mg/L	0.193	IS: 3025 Part 53
5.	Copper as Cu	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 42
6.	Chromium as Cr	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 52
7.	Zinc as Zn	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 49
8.	Cadmium as Cd	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 41
9.	Lead as Pb	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 47
10.	Arsenic as As	mg/L	BLQ[LOQ 0.0005]	IS: 3025 Part 37

BLQ: Below Limit of Quantification. **LOQ:** Limit of quantification. End of Report

Analysed by

28/8/24

Authorized Signatory 28/08/24

Idma Laboratories Limited
Idma Corporate Park,
391, industrial Area, Phase - 1,
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NTPC Limited

(A Government of India Enterprise)

SSC - WR-II(Sipat) Project
PO Ujwal Nagar
District Bilaspur
Chhattisgarh- 495555, India
Telephone No. : 07752-246552 Fax No. : 07752-246507

Service Purchase Order

CIN No. : L40101DL1975GOI007966

Purchase Order No. : 4600063185-187-1019 **Date :** 26.09.2020 **(version : 0)**

To
INDIAN INSTITUTE OF CORPORATE AFFAIRS (IICA)
PLOT NO. 6,7,8, SECTOR-5,
IMT MANESAR
GURGAON
Haryana
India - 122052
Tel: 0124-2640108
Fax: 0124-2291036
E-Mail : MUKESH.KUMAR@IICA.IN

Vendor Code : 1130685

Subject:	:	Conducting SIE and NAS for NTPC LARA
NIT NO.	:	9900206277/187/1019 Dated 22.09.2020
Your Offer No.	:	Bid no.115001
Your Reference	:	Tender Reference Number NTPC/SSC - WR-II(Sipat)/9900206277 Tender ID 2020_NTPC_40421_1
Our Reference	:	PRADIP File ref.no.SSC WR-2/SSC-C&M/2020-21/800044961/353508

Dear Sir,

This has reference to our above mentioned NIT, Your offer and subsequent discussions. We are pleased to accept your offer opened on 22.08.2020 and confirm having awarded on you the work of Conducting SIE and NAS for NTPC LARA of total value INR 1,124,500.00 (Rupee ELEVEN LAKH TWENTY-FOUR THOUSAND FIVE HUNDRED ONLY) mentioned in the scope of works, special terms & conditions, Bill of quantities etc.

The duration of the service period shall be from 20.11.2020 to 19.05.2021. Though the duration of contract shall remain same, the actual date of commencement of the contract shall be as per the direction of EIC. Sh Shakil Ahmed, Sr.Manager (LA/R&R) shall be EIC for this work.

This service purchase order along with its annexure is being issued to you in duplicate .We request you to return the duplicate copy of this service purchase order, duly signed on each page by your authorised signatory in token of your unequivocal acknowledgment of the same within 15 days from the date of this service purchase order. If no communication is received within 15 days of receipt of Purchase Order, it will be treated that order has been accepted in entirety.

We thank you for the interest shown by you in our project and the cooperation extended to us. We expect to receive your continued cooperation in future also.

Thanking You,
For & on behalf of NTPC Limited.

Sr.Manager(C&M)

Enclosures :
1.SOW & Terms and condoitions
2.Tender Documents

(Bill of Quantity)

Name of Work: Conducting SIE and NAS for NTPC LARA

Sl No.	Code	Description	Unit	Quantity	Net Price	Amount	Long Text

Delivery/Invoicing Address:

1047 LARA SUPER THERMAL POWER PROJECT
VILLAGE - CHHAPORA,PO/PS - PUSSORE RAIGARH
Chhattisgarh
496440
India
07752-246552
07752-246507
Invoicing to be done on
GST No. : 22AAACN0255D4Z5

10		Conducting SIE And NAS	AU	1.000	1,124,500.00	1,124,500.00	

Tax: IN:Integrated GST-ND @ 18.00 % **Extra**

10 .10		NAS/SIE pilot study and questionnaire pr	NO	1	195,000.0000	195,000.00	
10 .20		Field Study (Remuneration of survey team	NO	1	246,000.0000	246,000.00	
10 .30		Data Compilation and analysis (This incl	NO	1	228,000.0000	228,000.00	
10 .40		Report Writing (which includes Writing o	NO	1	199,000.0000	199,000.00	
10 .50		Travelling (Excluding Local travel at NT	NO	1	190,000.0000	190,000.00	
10 .60		Printing of report	NO	1	66,500.0000	66,500.00	

TOTAL OF BOQ PART : 00010 INR 1124500.00

Amount **1124500.00**
Other Charges 0.00

Net Amount on BOQ PART : 00010 INR 1124500.00

Net Total Amount INR 1,124,500.00
Less Rebate/Amount INR 0.00
Grand Total INR 1,124,500.00
INR ELEVEN LAKH TWENTY-FOUR THOUSAND FIVE HUNDRED ONLY

Sr.Manager(C&M)

Terms & Conditions

Payment Terms

TERMS OF PAYMENT:

1.0

S.No.	Stage	Activities	Payment % (GST extra)
1	Mobilization advance	Advance after order	10%
2	Data Collection & Draft report submission	-Pilot study and preparation of questionnaire/interview schedule -Field Study (Remuneration of survey team that includes faculty, research assistant, field assistant, printing of survey materials, logistic arrangements to undertake the survey.	40%
3	Final Report Submission	-Data compilation and analysis -Report writing -Travelling expenses (Including lodging and boarding) -Printing and submission of final Report	50%
TOTAL			100%

Payment shall be released as above mentioned on submission of bill by the agency along with required documents, as directed by EIC. Bank Charges if any shall be borne by the agency.

2.0 Applicable GST thereon (in respect of direct transactions between the Employer and the Consultant) which are payable by the Employer under the Contract shall be reimbursed by the Employer to the Consultant on production of satisfactory documentary evidence by the Consultant.

3.0 Further payment of any statutory fees, paid to other authorities, shall be paid separately by NTPC.

Payment Mode

Through EFT

Invoice to be raised on delivery/invoice address against the given PO line items.

Liquidated Damages

@ 0.50 % per week or part there of for the portion of works executed beyond the agreed completion date subject to a maximum of 10.00 % PO value.

Special Instruction

1. Contract Period: The validity of contract shall be 6 Months from the date of start of work as per LOA. Date of Start will be informed by EIC well in advance.

2.CONTRACT AGREEMENT: (Applicable only if awarded contract value is more than Two Lacs) You shall enter

into a formal Agreement with us, on non-judicial stamp paper of value Rs 250.00, within a period of thirty (30) days from the date of issue of this Letter of Award as per NTPC approved format.

3. All the other terms & conditions are as per Conditions of contract and SCC (issued with enquiry).

Sr.Manager(C&M)

Break up of Price (For Service Related Lines Only)

Sl No.	Service Code	Description	Qty.	UOM	Rate	Premium	Discount	Addl Discount	Net Rate	Value
10 .10		NAS/SIE pilot study and questionnaire pr	1	NO	195,000.00	0.00	0.00	0.00	195,000.0000	195,000.00
10 .20		Field Study (Remuneration of survey team	1	NO	246,000.00	0.00	0.00	0.00	246,000.0000	246,000.00
10 .30		Data Compilation and analysis (This incl	1	NO	228,000.00	0.00	0.00	0.00	228,000.0000	228,000.00
10 .40		Report Writing (which includes Writing o	1	NO	199,000.00	0.00	0.00	0.00	199,000.0000	199,000.00
10 .50		Travelling (Excluding Local travel at NT	1	NO	190,000.00	0.00	0.00	0.00	190,000.0000	190,000.00
10 .60		Printing of report	1	NO	66,500.00	0.00	0.00	0.00	66,500.0000	66,500.00

Prepared By:
Pradeep Suman

Sr.Manager(C&M)

List of Documents

Please note that below documents are needed to be provided along with Invoice.

S.No.	Document Description

Sr.Manager(C&M)

NTPC VENDOR PAYMENT PORTAL & PAYMENT PROCEDURE

1.For all the cases where payment documents are to be directly submitted to NTPC (excluding Payment through Bank cases), the Invoice and supporting document(s) as required in the Purchase Order have to be Digitally Signed with class II or III digital signature and uploaded in the NTPC Vendor Payment Portal https://pradip.ntpc.co.in/VendorFinal/Login.jsp.

In such cases, there will be no requirement of physical copy of invoice & documents except for Lorry Receipts (LRs)/ Delivery Challan, which are normally sent along with the material/ transporter. Bank Guarantees to be sent in original wherever applicable.

2.From **15.5.2020**, NTPC will accept only digitally signed Invoice & supporting documents from Vendors for direct payment cases. Submission of documents in physical form shall not be accepted by NTPC unless otherwise asked for in the PO.
For such cases of physical submission, Vendors are required to send complete set of documents including invoice etc. addressed to the "Invoice Receipt Center" of the Delivery/ Invoicing Address as mentioned in the Purchase Order Annexure 1/ BOQ Sheet.

While submitting the Invoice/ Bills & related documents in physical form, Vendors are required to mention the following details on the top of the envelope:

a. Invoice/Bill reference No.
b. NTPC PO No./ Package no.
c. NTPC Vendor Code asper PO

In addition to above, vendors are requested to mention their correspondence E-mail & Mobile No.in the Covering Letter, through which invoice processing related information/clarification request may be sent.

3.Vendors can track / monitor the status of payments from the Vendor payment portal. Help documents are available in the portal. Vendors are requested to make full use of the Vendor Payment Portal.

4. A toll-free helpline (1800 102 5970, operating times 9am to 6 pm to Mon to Sat except Holidays) is also available for help on digital invoice uploading & payment tracking.

5. For payment cases through bank, all original documents are to be submitted in bank as per terms of PO.

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NEED ASSESSMENT SURVEY
Cum
SOCIAL IMPACT EVALUATION
NTPC LARA, CHHATTISGARH

March, 2021

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Table of Content

List of Acronyms

AWW KII	Anganwadi Worker Key Informant Interview
BPL	Below Poverty Line
CII	Confederation of Indian Industries
CSR	Corporate Social Responsibility
CSR-CD	Corporate Social responsibility- Community Development
E2E in CSR	End-to-End Advisory Services in CSR
IMR	Infant Mortality Rate
KII	Key Informant Interview
MMR	Maternal Mortality Rate
NA	Data not available
NSO	National Statistical Organisation
NTPC	National Thermal Power Corporation
PHC	Primary Health Centre
RGI	Registrar General of India
SAI	Sports Authority of India
SHG	Self Help Group
SRS	Sample Registration System
VDAC	Village Development Advisory Committee
WASH	Water, Sanitation and Hygiene

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Executive Summary

In the present study entitled: 'Need Assessment Survey cum Social Impact Evaluation of National Thermal Power Corporation (NTPC), Lara presents the findings of the ten neighbouring villages of the stations. Lara Super Thermal Power Project is located in the Raigarh District in the Indian state of Chhattisgarh.

A mixed-method of qualitative and quantitative research approach was used for the assessment. The field surveyors collected both Primary and secondary for the survey. Primary data was collected by conducting extensive fieldwork in all the ten villages of Chhattisgarh. The IICA used a sample size of 366 households. The primary data collection exercise covered 366 households, 30 focus groups discussions, and 11 interviews with key informants. The secondary data was collected from government records, dashboards reports and the census of India. Out of the total household survey respondents, 49 per cent were females and 50 per cent males. The majority of the population in these villages speaks Hindi and local dialect. These villages had a high percentage of people belonging to the OBC (57%), SC (20%) and ST (19%) category.

The area is primarily dependent upon agriculture and allied activities. In the study area, 81 per cent of respondents are engaged in agriculture and allied activities as their primary occupation, 16 per cent work in the service sector in both government and private organisations.

The needs are grouped and classified under various categories in accordance with the CSR policies. The broad areas are Education, Healthcare, Skill Development Training, Water, Sanitation and Hygiene and Rural Infrastructure.

Prior to starting any CSR-CD intervention, it is recommended that need assessment, baseline studies are conducted. The program design involves critical needs assessment, resource mapping, and participatory planning with the communities to ensure their involvement and ownership in the long run. The interventions are in line with the Sustainable Development Goals and Schedule VII of the Companies Act, 2013. Stakeholder consultations should be done to include their needs and concerns in the projects at the beginning itself. Moreover, interventions should be thoroughly discussed in the Gram Sabha and suggestions coming out of Gram Sabha should be considered. A record of the consultations should be maintained.

After analysing the impact of the intervention implemented by NTPC Lara, Theme wise recommendations at the village level are chalked out specific to the needs of the people. The needs of the people are identified after through field survey and assessment of the projects in the area. From the identified needs, recommendations and new projects are suggested by IICA in the area of skill development, healthcare, agriculture, drinking water and rural infrastructure. Theme-wise, recommendations are given below.

In the area of Skill Development, it was found that an average of 5 per cent of the village population was unemployed. Moreover, 16 per cent of the population does not have a sustainable source of livelihood for 365 days a year. The respondents from the villages stressed that a lack of permanent sources of employment is not available in the nearby areas. To fulfil employment-related needs, NTPC can design a project that can be linked with government programs, or NTPC can collaborate with organisations that provide training to the youth. NTPC can focus on training people in the industrial sector present in the areas such as the silk industry. Vocational training in the IT sector is also suggested. The people also ask for training in the IT sector in the villages.

In the area of Agriculture, it was found that 97 per cent of the landowners used their lands for farming. The primary crop grown in the area was Rice. The farmers were dependent on rainwater for cultivation. Eighty-four per cent of farmers said that the major issue that they are facing is lack of water for irrigation for farming.

NTPC can design and implement a drip irrigation intervention in the area. For economic use of water and soil water retention capacity, this intervention will allow farmers to cultivate both the farming seasons and not depend on the rainwater entirely.

In the area of education, 41 per cent of the woman respondents were found to be illiterate. Among the literate females (59%), a significant portion of 43 per cent of the women has no academic qualification. They are literates with no formal education. A total of only 6 per cent of women have higher education qualifications, where 6 per cent are undergraduates, and 5 per cent are Sr. Secondary pass outs.

Remote classes through smartphone and tabs were recommended to improve the literacy of women living in rural areas. Courses taken from smartphone and tabs will also not disturb the daily routine of the women who are homemakers.

In healthcare, pregnant women and mothers in the villages had a very low level of awareness regarding basic sexual and reproductive knowledge and healthy practices. It was also found that ambulance services were not very efficient. The health facility was limited, and the sub-centres available for the village were not adequately equipped. The Anganwadi Centers had a poor infrastructure in few villages.

For improving maternal and child healthcare, NTPC can incorporate services that will cater to the needs of children and women in health care in the current mobile medical unit already run by NTPC Lara. Secondly, NTPC can repair the Anganwadi Centers and provide the basic amenities in the centre like toys for children, furniture and electric appliances Etc.

In the area of Drinking Water, except Chhapora (17%) Mahloi (12%), the rest of the eight villages had 0-4 per cent of piped drinking water. The need for a clean piped drinking water system was very evident and apparent. Eighty per cent of the respondents from the villages have asked for pipe drinking water interventions. As per the need, NTPC can fund the system of piped drinking water in the village. The project should be designed to keep the components of the NTPC CSR policy on potable drinking water in check. NTPC can also dovetail the ‘Har Ghar Jal Scheme’ of the Government of India by providing drinking water supply through pipelines to each household through elevated storage reservoirs in every village.

In the area of Rural Infrastructure, the need that arose after the field survey was improving the quality of education in the schools through smart classes. To work towards quality education, NTPC can put up smart classes in school one time installing of equipment and capacity building training of teachers will ensure news of teaching methods and improve the students overall academic results.

Moreover, repairing the Anganwadi Centers in the village are essential for better health outcomes of infants, pregnant women, mother and adolescent girls. Painting, installing smart TVs, and providing toys and furniture will improve the functionality of the centre. The

intervention will eventually impact and improve the infant mortality and maternal mortality of the villages.

Introduction

In accordance with its mission of being a socially responsible corporate entity with a thrust on community development, NTPC aims to focus on implementing Community Development (CD) programmes in the affected/neighbouring villages around its operating stations. To accomplish this mission, it is imperative to carry out a Need Assessment Survey (hereafter, NAS) to identify the social, economic and cultural needs of the villages. The whole exercise aims to set up long-term CD priorities, which could be achieved within the specified time frame. Briefly, it's a way of assessing what the group or community members see as their most important needs for improving community life. The results of the survey guide for future action. Generally, the needs that are rated most important are the ones that get addressed on priority.

NAS/SIE is being conducted by the Indian Institute of Corporate Affairs (IICA) for NTPC. The IICA follows a systematic process for determining and addressing needs, or "gaps" between current conditions and desired conditions. This assessment would help to identify current conditions and desired services or outcomes. Following a systematic approach, the aim is to identify needs, prioritize the needs and suggest an intervention to bridge the gap(s).

The needs assessment/SIE is conducted at Lara Thermal Power Station which has identified 10 villages under the Raigarh district of Chhattisgarh for undertaking CSR-CD activities.

The present NAS/SIE report presents the following information as per the Terms of Reference:

i) List of the villages covered under NAS/SIE and basis for it.

ii) Details of selected areas of community development, identification of key indicators in the selected area and comparison of it at National level, State level and District level.

iii) The existing situation of these selected community development areas in the identified villages.

iv) Assessment of Needs based on the identified indicators as above and including activities and fund requirement.

v) Details of development plans of the various government agencies (both Central and State) and Panchayats including the availability of funds.

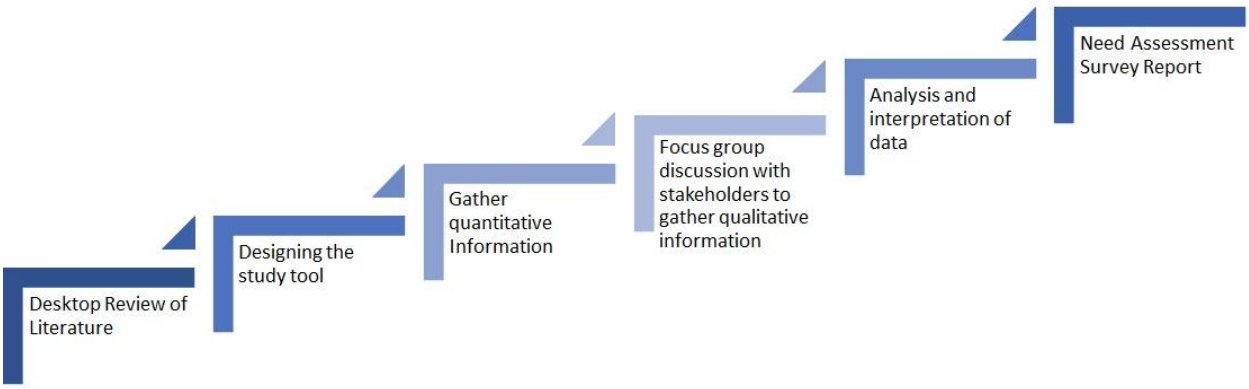
vi) Identification of gaps between the needs and government programmes and list of activities/programmes that could be taken up by the NTPC in line with its CSR-CD policy.

vii) Recommendation for prioritizations of CSR-CD programmes/activities over the next 5 years.

Research Methodology

The study uses quantitative as well as qualitative methods and uses primary and secondary data to assess the needs of the target area. Primary data was collected by conducting extensive fieldwork in all villages. To conduct the need assessment study, IICA adopted the five-step approach as explained in Figure-1. The first step was to collate Secondary data from different government offices and websites. The second step was to prepare, pre-testing and finalization of Research Tools for the field survey. The third step was to form a survey team and prepare them for the field survey. Fieldwork in all the 10 villages and collection of primary data. As the fourth step, Focus Group Discussions (FGD) were held for the collection of qualitative information regarding the village. Fifth, data analysis of findings and preparation of the preliminary evaluation was done. The last step is the finalisation of the report and reporting of conclusions and recommendations.

Figure 1: Research Steps



Sampling

To select the sampling size, a confidence level of 95%, with a 5% margin of error was selected. Stratified random sampling is taken for the study. This sampling method was the best method for scrutinizing and collecting data. Mostly, villages consisted of diverse communities. To represent all the local communities of the village, an equal proportion to the village

population for the study sample was taken. The proportion was selected from various social categories that are General (24%), ST (10%), SC (16%) and OBC (49%) categories.

Table 1: Measuring of Sampling Size

Confidence Level	95%
Margin of Error	5%
Population Size	7315
Sample Size	366 (Household)

A total of 366 Household surveys were conducted in all the 10 villages. The household survey covered questions regarding the significant domains such as, education, infrastructure, health & sanitation and water. The aim of the survey is to explore and further analyse the attitude, knowledge and behaviour of the locals/communities.

Data Collection

The primary data was collected through household surveys, focused group discussions and key informant interviews. Secondary data was collected from the Census of India (2011) and official records of various offices like Primary Health Centres (PHC), Anganwadi Centres, Schools etc. apart from the data received from the NTPC office. Data collected through qualitative techniques like FGD and KII are analyzed through description and explanation.

Objectives[1]

The specific objectives of NAS are described below[1]:

i. To Prepare a Comprehensive target area profile. This consists of the following:

- Demographic profile / Socio economic profile: total population, sex ratio, number of people in different age groups, like infants, children, adults, old aged, vulnerable group etc.
- Quality of Life: Various Parameters on Households, etc.
- Infrastructure available

  a. Schools,
  b. Roads
  c. Health care facilities
  d. Water, sanitation facilities
  e. Electricity
  f. Community Building,
  g. Others
- Knowledge, Attitude and Practices analysis (KAP)
  a. Language and habits of communication
  b. Cultural Characteristics: Traditions, Values and beliefs, etc.
  c. Knowledge, attitudes and behaviors with respect to the development problem to be dealt.
- Educational Status: Literacy, education, training and skills, and opportunities for all members of the society cutting across gender, age, caste and religion.
- Health: Life expectancy, maternal and infant mortality rate, quality of life, and the level of health care available in the situation of morbidity.
- Major historical events in the area in terms of social movements and of social upheaval and its long-term Need (if any) in the area.

[1] TOR of NTPC

- Social problems: Crime, superstition, alcoholism, domestic violence, gender related Discrimination, caste related, etc.
- Occupation and employment (season wise): identify the particular context of each group, the season or the time of day when its members are available, the seasonal nature of their economic occupations, their physical setting, etc.
- Festivals and customs
- Natural resources.
- Existing development programs and its impact.
- Others: Any other Govt. schemes being implemented in target community.

ii. To assess the extent of the activities taken in Rehabilitation & Resettlement Plan (R&R Plan) / Rehabilitation Action Plan (RAP) and implemented as per NTPC records and project affected persons perspectives w.r t. Nos. of beneficiaries identified and avail the benefits as per R&R Plan / RAP.

iii. Identify employment needs, scope of self-employment – level of employment and agriculture development for higher economic growth and stability with predefined economic indicators, for example per capita income, expenditure, and savings etc. to assess the impact in the future.

iv. To identify gender-wise critical educational, health, and recreation needs with specific social indicators like literacy, education, training and skills, and opportunities for all members of the society cutting across gender, age, caste and religion to evaluate the need in the future.

v. To identify areas of interventions where community development activities can bring gender equality.

vi. To identify the infrastructural needs of the target area and prioritize them based on Social Development Indicators.

vii. To explore the opportunity of networking/partnerships with Govt. / Local bodies' plans

and intervention for spearheading overall development of the target area. Specifically, it will include the following.

- To take stock of the development plans prepared by any government agency for the area.
- To review the plan and the budget available under various central / state government schemes for development of the area.
- To identify the gaps between the plans of the government / local bodies / NTPC and the specified indicators/goals.

Objective 1 - To Prepare a Comprehensive Target area profile

Demographic Profile

Raigarh is a city located in the Chhattisgarh State; it is the district head quarter of Raigarh District. It is known as the cultural capital of Chhattisgarh because of its historical cultural activities. The district consists of a total of 9 Tehsil and 1445 villages. Raigarh is well known for its 'kosa' or tasar, a kind of fine silk created by the silkworm. The district also has a thermal power station belonging to the NTPC.

The Raigarh District has a total population of 150019. The district has a sex ratio of 953 females for every 1000 males, and a literacy rate of 87.02%. The total number of Male, female and children (0-6 Years) is 70197, 66929 and 16994 respectively.

The Need Assessment Survey/Social Impact evaluation has been conducted in 10 villages spread across the Raigarh district of Chhattisgarh. The total population of 10 villages is 7315 where the number of men is 3668 and of women is 3647 as per the 2011 census. The total number of households is 1906.

Village wise distribution is given in Table 2

Table 2: Demographic Details[2]

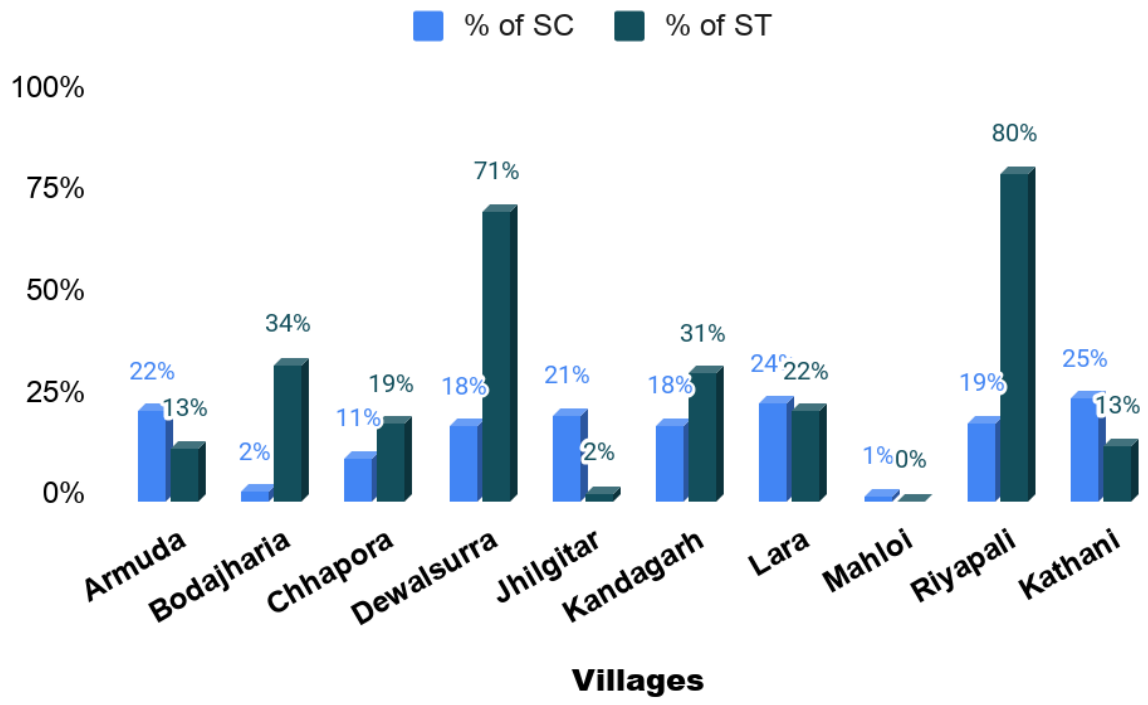
Village Name	**Total Households**	**Total Population**	**Male**	**Female**	**Children (0-6)**	**SC**	**ST**
Armuda	153	540	259	281	48	118	69
Bodajharia	202	724	374	350	91	15	243
Chhapora	329	1219	589	630	116	128	229
Dewalsurra	159	566	88	71	21	29	113
Jhilgitar	39	159	289	277	51	118	11
Kandagarh	247	979	503	476	129	180	306
Lara	300	1290	379	354	86	9	0

[2] Based on Census of India, 2011

Mahloi	175	733	649	641	164	307	282
Riyapali	48	184	94	90	25	35	148
Kathani	254	921	444	477	87	231	124
Total	1906	7315	3668	3647	818	1170	1525

Figure 2 shows the number of people from Schedule Caste and Schedule Tribe.

Figure 2: Population of SC and ST[3]

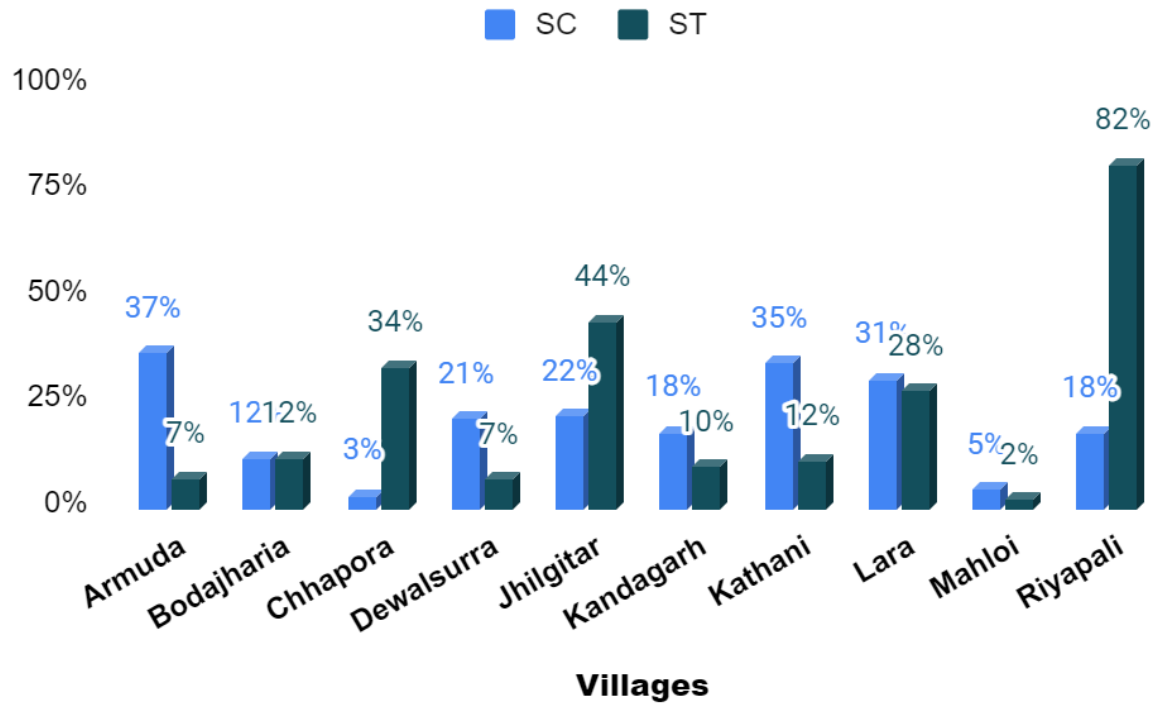


A total of 29% of the village population belongs to the ST category. In the villages of Bodajharia (34%), Dewalsurra (71%) and Riyapli (97%), STs have a higher proportion than other villages. Population belonging to SC category is only 16 per cent. Villages like Armuda (22%), Chhapora (11%), Dewalsurra (18%), Jhilgitar (21%), Kandagarh (18%), Lara (24%), and Riyapli (19%) have more than 10% of population belonging to SC category.

[3] Based on Census of India, 2011

Figure 3: Population of SC and ST

Figure 3 shows the number of people from Schedule Caste and Schedule Tribe after the field survey is completed.



After the data collection from the Gram Pradhan, it was found that in some villages there was an increase in the SC population. Villages like Amruda (37%), Dewalsurra (21%), Jhilgitar (22%), Lara (31%), Mahloi (5%), and Kathani (35%) saw an increase in SC population.

The ST population is more or less the same in all the villages.

Quality of Life

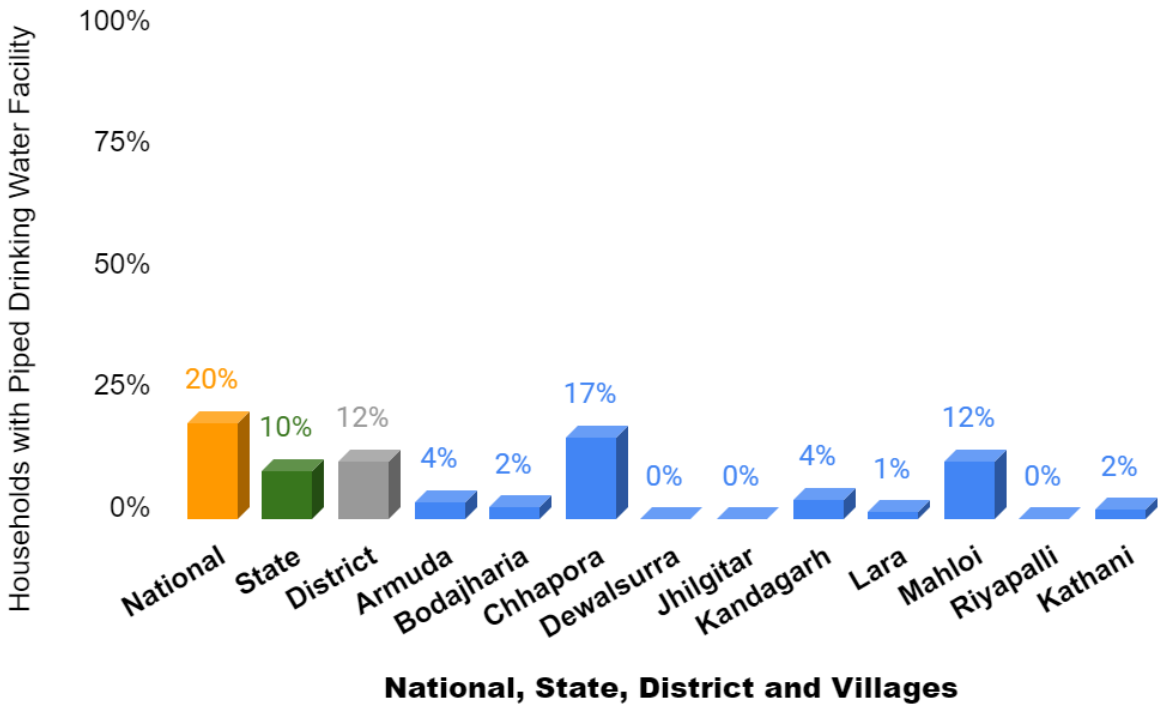
To assess the quality of life of the people living in these villages 6 indicators were taken into consideration.

Drinking Water

Drinking water facility is a basic need of the people. At the national level, only 20% of households have 100% piped water facilities. In the state of Chhattisgarh and Raigarh District, it

is 10% and 12% respectively. or the field survey, it was found that villages like Chhapora (17%) Mahloi (12%) has a pipe drinking water supply. The rest of the villages have 0-4 per cent of piped water facility. Piped drinking water supply is desired by the people living in the villages. Other than piped drinking water, people also have access to hand pumps (48%), borewells (54%) and tubewells (18%) as an improved source of drinking water

Figure 4: Percentage of households with Piped Drinking Water Facility

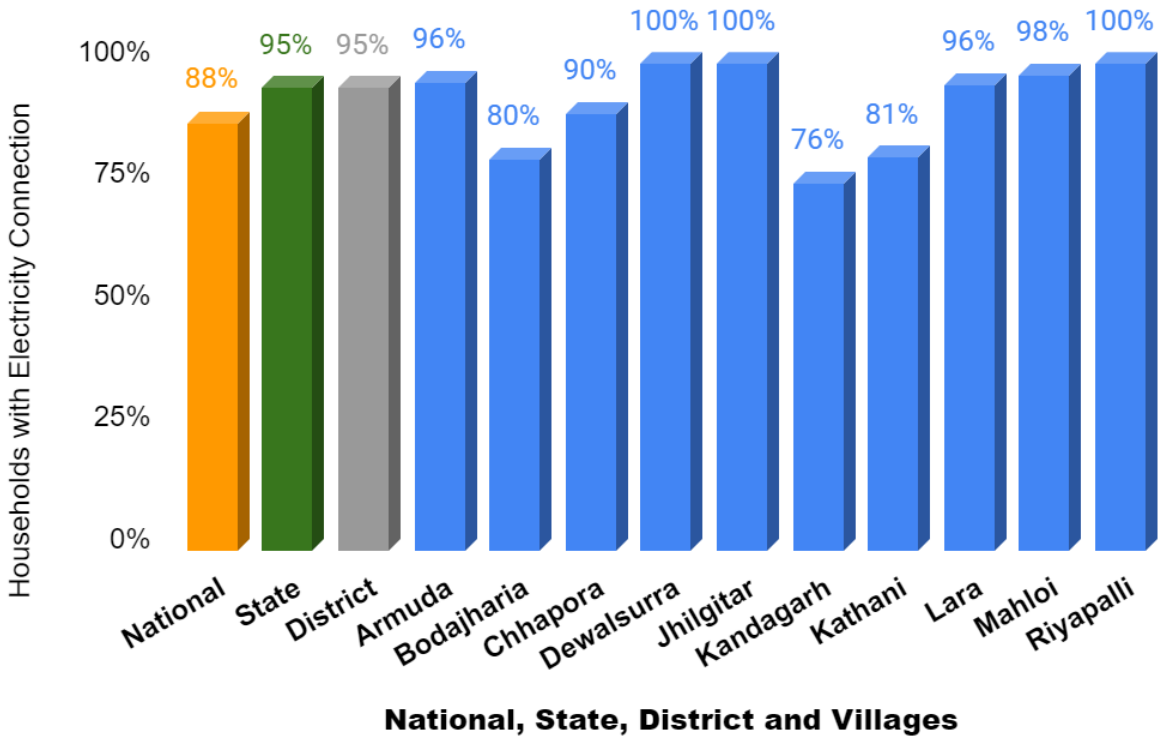


Electricity

In India, 88 per cent of households have electricity connections. Both in Chhattisgarh and Raigarh district, 95 per cent of households respectively have electricity connections. In the study villages, most of the villages had 100% of households having electricity connection.

Figure 5: Percentage of households in the Villages having domestic electricity

The figure shows the percentage of households in the 10 villages that have domestic electricity connections.



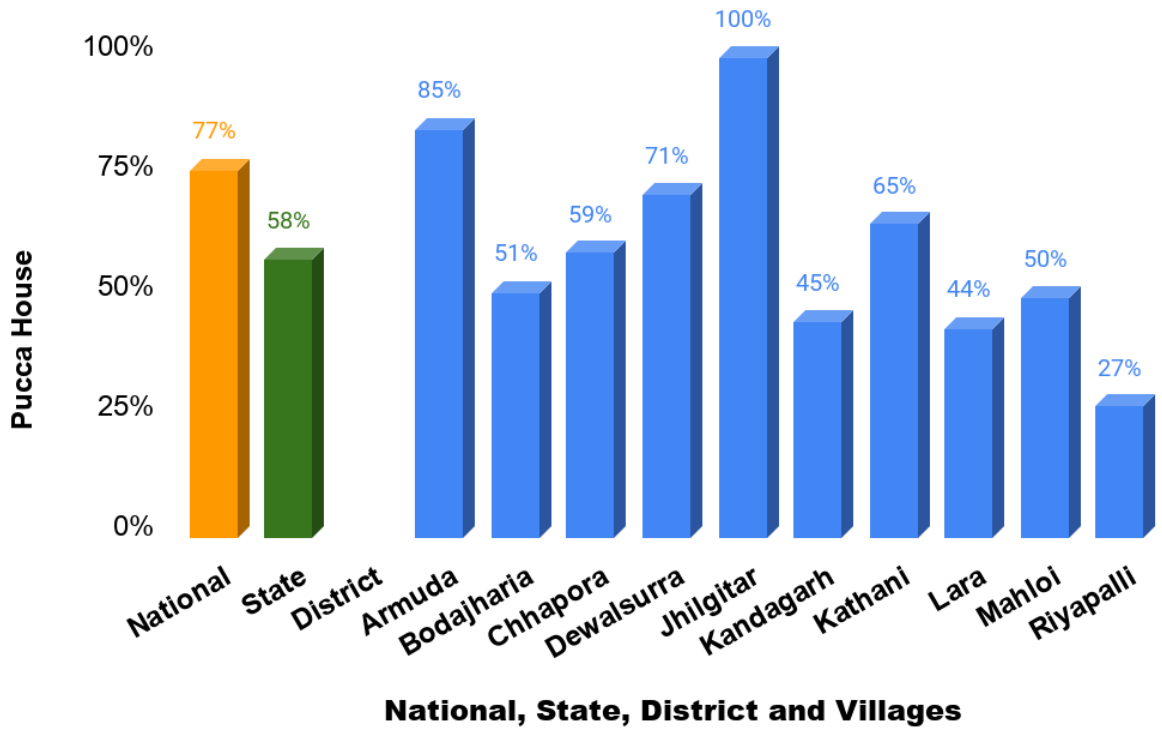
In the project affected villages, 97% of households have domestic electricity. 3 out of 10 villages have 100 per cent level of domestic electricity connection. These villages are higher than the National (95%), State (95%) and District (95%) level of electricity connection[4]. Villages like Bodajharia (80%), Chhapora (90%), Kandagarh (76%) and Kathani (81%) have lesser households with domestic electricity connections than the district benchmark.

Population Having Shelter and Pucca Houses

Housing has a positive impact on the overall standard of living of rural people. Figure 6 shows the percentage of pucca houses in the village. Villages like Amruda (85%) and Jhilgitar (!00%) have a higher percentage of Pucca houses from the national benchmark (76.7%) and State benchmark (58%)[5]. The rest of the 8 village have lower percentage of Pucca Houses from the National Benchmark.

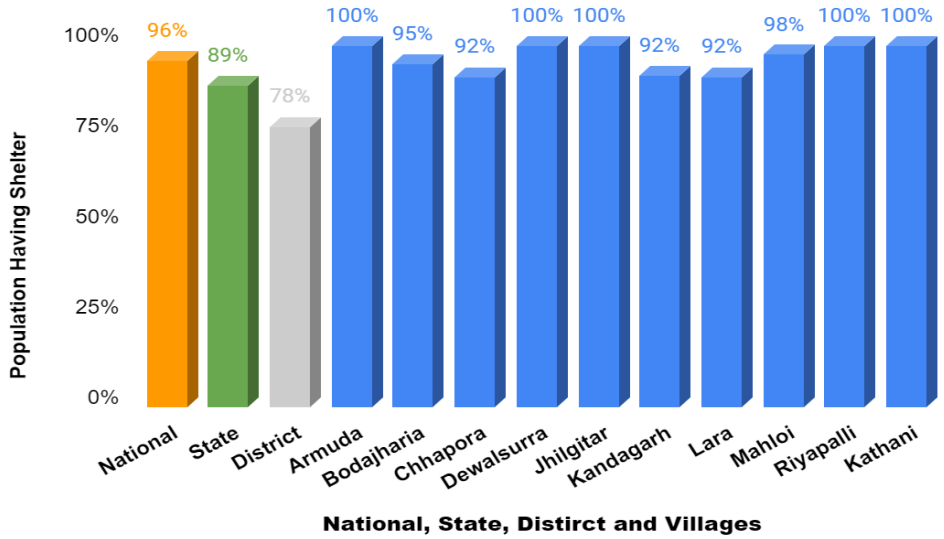
Figure 6: Percentage of Household having Pucca Houses

[4] NFHS 4 Report
[5] NSSO Survey, 2018-19 (76th Round)



In the villages, more than 95% of people have their own houses/shelter. Only 5% of the respondents did not own a house and were living on rent. The percentage of having shelter in the villages is higher than the state (89%) and district levels (78%).

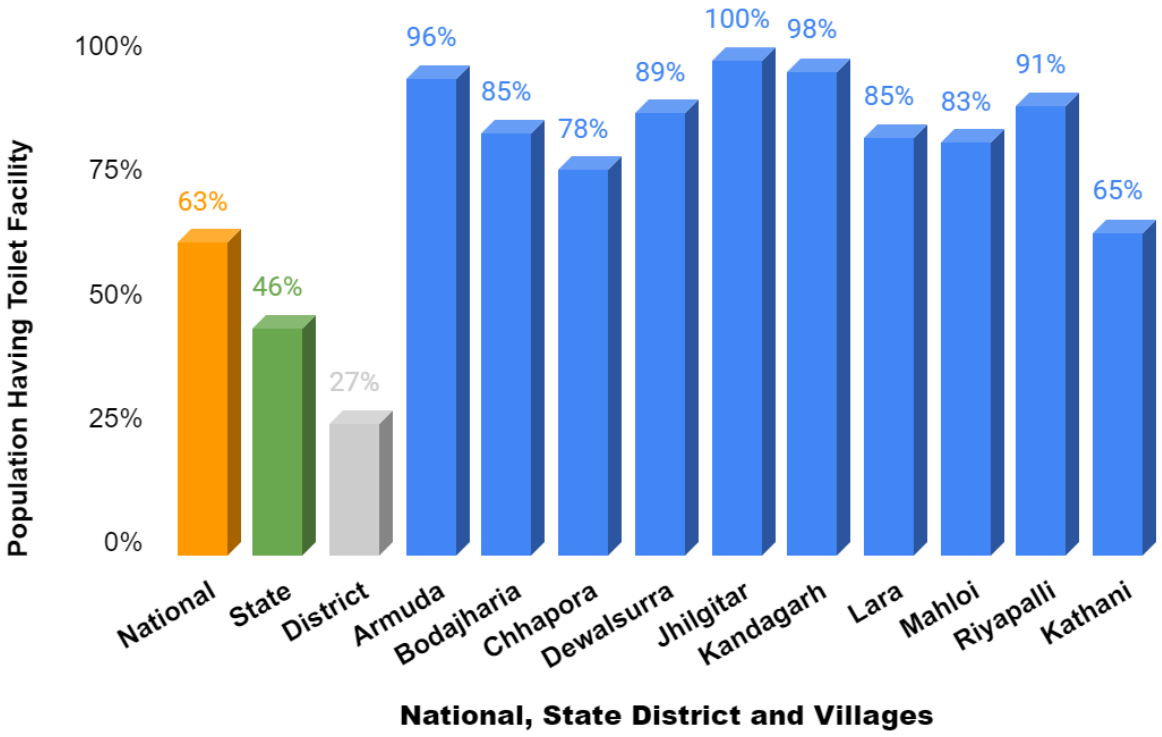
Figure 7: Percentage of Population having Shelter



Population Having Toilet Facility

The percentage of households having toilet facility of all the villages (84%) are higher from the National (63%)[6], State (46%) and DIstrict (39%)[7] benchmark. Jhilgitar Village has 100 per cent households with toilet facility. Moreover, all the project villages have a higher percentage of households having toilet facility than from the control village (Kathani).

Figure 8: Percentage of Household Having Toilets



Existing status of available Infrastructure

To assess the existing status of basic amenities and infrastructure development, a field survey was conducted in all the 10 villages of Raigarh district. A village wise infrastructure table has been attached in annexure 3.

[6] NSSO Survey, 2018-19 (76th Round)
[7] NFHS 4 Report (Note – the district benchmark is before the Swachh Bharat Mission)

- School Infrastructure: In these 10 study villages there are 10 schools where we conducted school KII. 6 are primary school, 2 are Upper Primary (class either VI- VII or VIII) and 2 are Higher Secondary (highest class either XI or XII)

- Roads: Through Gram Panchayat KII it was found that out of 10 Gram Panchayats 9 said that they did have all-weather roads in the villages[8]

- Health care facilities: There is only one PHC serving these 10 villages. People of other 9 villages have to travel more than 5-10 km for healthcare facilities[9]. Anganwadi Centers are available in all the villages.

- Water, sanitation facilities: All the villages have improved source of water facilities such as handpumps, borewells and tubewells. Piped drinking water is available in few villages.

- Electricity: In these 10 villages, 95% of households had access to electricity. All the villages get electricity for more than 6 hours[10].

- Community buildings: There are community buildings in only 05 villages out of 10 villages.

- Drainage: Out of 10 Gram Panchayat, it was found that only 2 Gram Panchayat (Jhilgitar and Kathani) had a drainage system.

Knowledge, Attitude, Practices Analysis (KAP)

- **Language and Modes of Communication**- The major languages spoken in the district of Raigarh is Hindi and Odia. The medium of instructions in the schools is Hindi.

- **Cultural characteristics: traditions, values, beliefs, etc.** Raigarh is known as the 'Cultural capital of Chhattisgarh', Raigarh is famous for its dance form "Kathak" (as Raigarh Gharana) and classical music. Credit goes to Maharaja Chakradhar Singh under whose patronage Raigarh flourished as a centre of art and culture. Every year on the occasion of festival Ganesh Puja, Chakradhar Samaroh is organized in Raigarh.

[8] Gram Panchayat KII
[9] Health KII
[10] Household Survey

Chakradhar Samaroh is among the famous cultural festivals of Chhattisgarh known for its special music and dance performances that reflect the rich cultural heritage of the state. Dhokra Work (Bell metal) is a speciality of the district. There are Jharas tribes practicing Dhokra Work. This involves casting non-ferrous metals such as bell metal, bronze, and brass using lost-wax casting technique.

- **Knowledge, attitudes and behaviors with respect to the development problem to be dealt:** The people are not aware of many government schemes and benefits in various domains. An attitude towards firstly, identifying the developmental issues at village level has to be developed. They should be aware of their various agencies and support system present in the villages.

Educational Status: Literacy, Education, training and skills, and opportunities for all members of the society cutting across gender, age, caste and religion

The Literacy rate of 7+ year olds in India is 73%[11]. In the state, it is 70% and in the district, it is 85%. In comparison to these benchmarks, 3 villages have literacy levels below 70%. These villages are Dewalsurra (69%), Lara (67%), and Riyapali (68%). The rest of the villages have higher literacy rates from National and State benchmarks.

Figure 9: Literacy Rate

The figure shows the literacy rate of the study villages in comparison to national, state, and district level.

[11] Census 2011

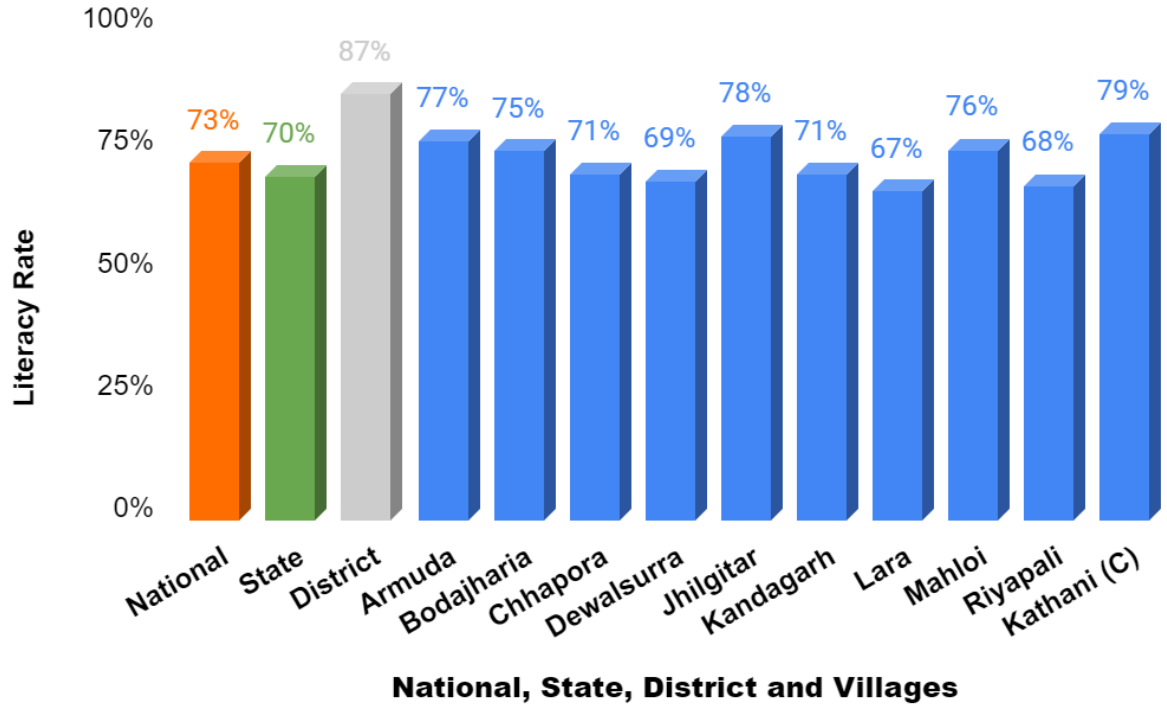
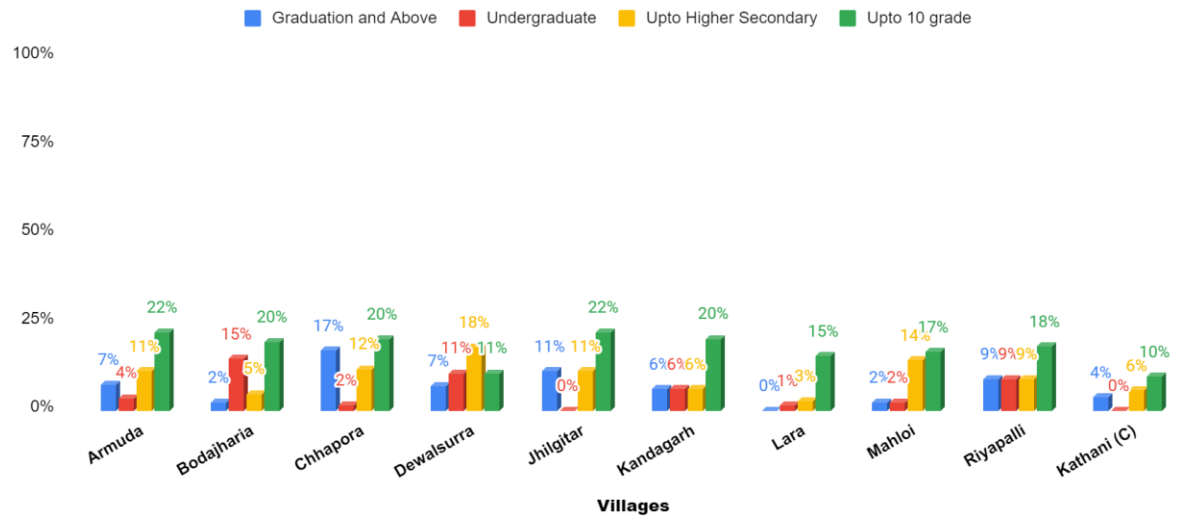


Figure 10: Percentage of People with Education Qualification

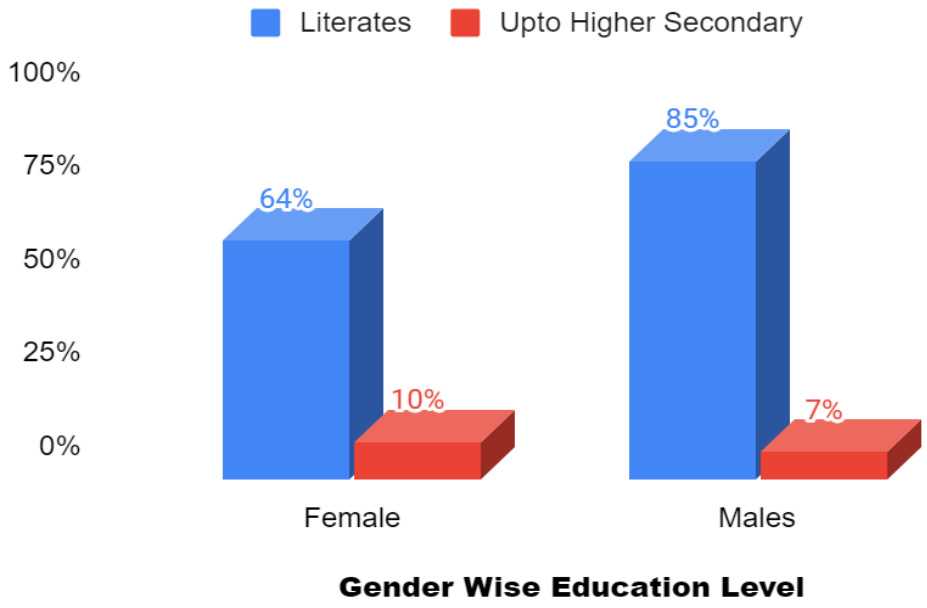


In the area of education qualification, the data shows that most of the people in these villages have only been to schools. The highest percentage of people have had only education up to matriculation (16%). Only 4.37% population in these villages who have UG degrees and

5.91% have PG degrees. 25 per cent of the respondents are illiterate and 23 per cent have studied only upto primary school.

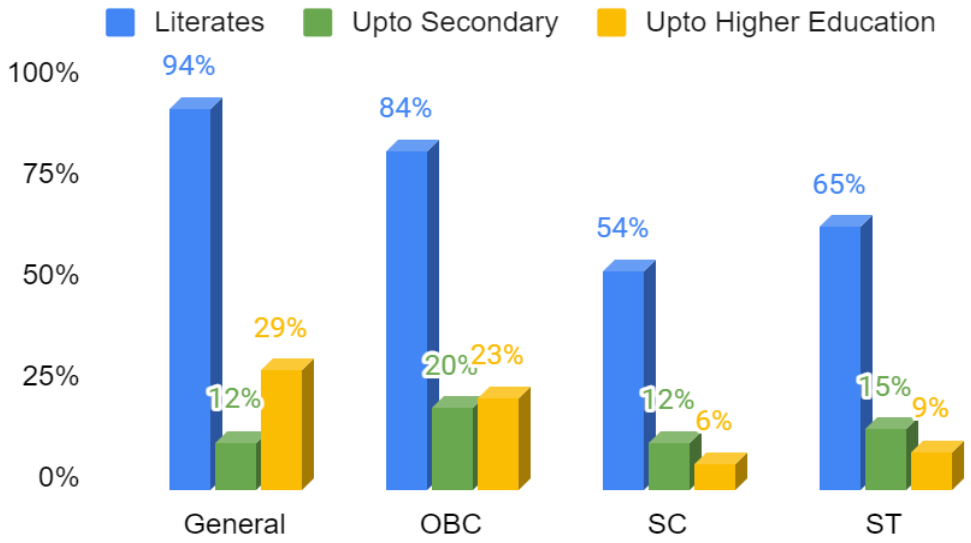
Figure 11 shows the gender-wise proportion of educational levels in the villages. The data shows the gender-wise proportion of educational levels in the villages. The women lag behind in the gender wise per cent of literates Overall, the male literacy rate (85%) in comparison to to the female literacy (64%) in the villages. However, there are higher percentage of females (10%) in the villages than males (7%) who have completed their education upto Higher Secondary.

Figure 11: Gender wise Proportion of Education Level



In terms of social categories, people belonging to the general category (94%) has the highest number of literates followed by OBC (84%), ST (65%) and SC (54%). In higher education respondents belonging to the General Category had a higher number of graduates and postgraduates (29%), followed by OBC (23%). The other two categories are quite lower in terms of higher education indicator. Only 6 per cent of the SC population and 9 per cent of the ST population got higher education.

Figure 12: Social Category wise Educational Level



Social Catergory Wise Educational Qualification

In the area of Skill training only 5.53 of the total respondents have attended skill training programs. Table 3 shows the respondents from villages that have attended skill training programs in a span of 1 year.

Table 3: Percentage of People Attended Skill Training Programs

S. No.	**Villages**	**Male**	**Female**
1.	Lara	13.63%	7.04%
2	Mahloi	13.33%	0%
3.	Chhapora	0%	5.55%
4.	Amruda	0%	25%
5.	Riyapali	0%	16.66%

Health Status

Life Expectancy

The Life expectancy in Chhatisgarh is 65.2 years. For men, it is 63.7 years and for females it is 66.6 Years[12]. In rural areas, it is 63.2 Years.

Maternal and Infant Mortality Rates

The number of infant and maternal deaths are given in the table below.

Table 4: Number of Infant and Maternal Deaths

Villages	**Maternal Deaths (in Numbers)**	**Infant Deaths (In Numbers)**
Armuda	0	0
Bodajharia	0	0
Chhapora	0	0
Dewalsurra	0	0
Jhilgitar	0	0
Kandagarh	2	0
Kathani	0	0
Lara	0	0
Mahloi	0	0
Riyapalli	0	0

Figure 13: Institutional Delivery

[12] SRS Life table 2014-18

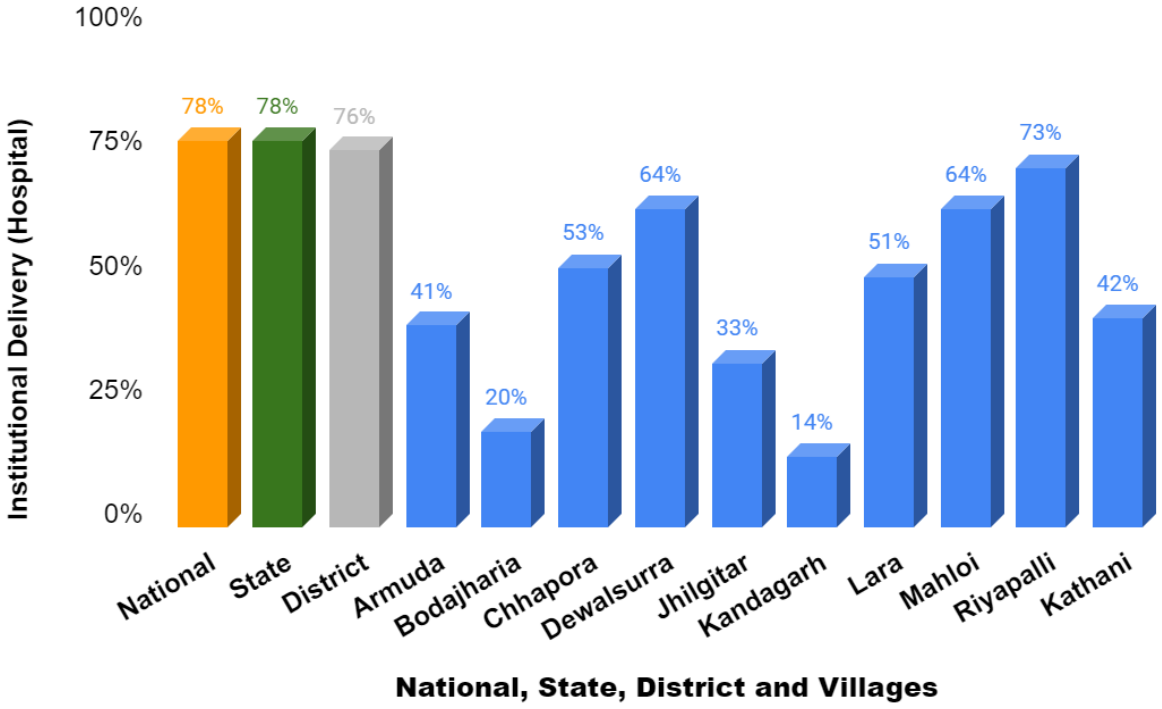
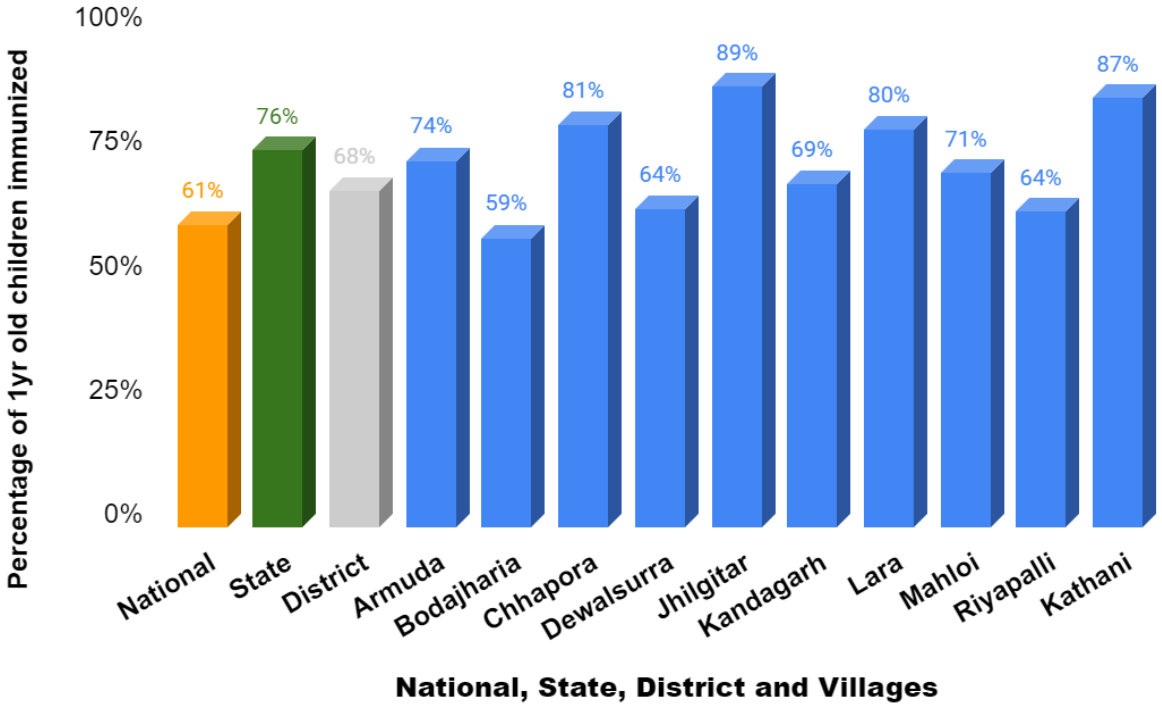


Figure 13 shows the institutional delivery of the villages in Raigarh District. The percentage of institutional delivery in all the villages are below the National (78%), State (70%) and District (84%) benchmark. The institutional deliveries in all the villages (43%) are less than the national. The reason being that there is only 1 PHC in Chapora Villages is far from other villages. Moreover, the tribals communities prefer their own community's midwife at the time of delivery. 38% of the village respondents have said that ambulance services are not very efficient and effective in the area.

Figure 14: Percentage of Children Immunized under ICDS

The figure 14 shows the children who are getting ICDS services in the villages.



Children Immunization in the villages (74.81) are higher than the National benchmark (61%). Out of 10 village, 7 Gram Panchayat that is Armuda (74%), Chhapora (81%), Jhilgitar (89%), Lara (80%) and Kathani (87%) have more percentage of 1 year old immunization than the district benchmark that is 68%[13]. Villages like Jhilgitar (89%), Chhapora (81%) and Kathani (87%) have the highest per cent of one-year-old children immunization in all the villages. The immunization of these children take place in Anganwadi Centers and PHC. It was found that 89% of the respondents take their children to Anganwadi Center for immunization

Availability of Health Facility

All the villages have Anganwadi Centers in the village. 85% of the respondents have said that they take their child to Anganwadi Centers for Immunization. There is a PHC in Chhapora village which caters for the health needs of all the villages.

[13] Antyodaya Dashboard

Crime and Social Problems: Crime, superstition, alcoholism, domestic violence, gender related Discrimination, caste related, etc

The major crimes that were found in the field survey were theft and crimes towards women such as harassment and snatching of belongings. Domestic violence is not very prominent in the area. When asked, women felt safe and secure in their houses. Atrocity against the marginalized section of the society is low in all the villages. Overall, there were not any major crimes in the study villages.

Occupations and employment (season wise): Identify the Particular context of each group: the season or the time of day when its members are available, the seasonal nature of their economic occupations, their physical settings

In the 10 study villages it was found that the majority of the people in these villages are farmers (65%) and agricultural labourers (16%). Only 14.65 percent of respondents are working in the service sector as employees and skilled labourers.

Table 5: Various Occupations of the People

S.No.	**Occupation**	**Percentage**
1.	Agricultural Labourer/ Cultivator on other's land	16.20%
2.	Animal Husbandry	1.03%
3.	Businessman	3.60%
4.	Farming on own land	64.52%
5.	Service Sector	14.65%

Major crops that are grown in the area are rice, millets and pulses. The farmers grow crops in both the seasons depending on the soil fertility and water availability for cultivation. Agricultural Laborers work in the farms during the seasons and later look for other alternative source of earning. Women of the villages also work in farms. 60 per cent of the women work in their farms who own land. Only 15 per cent of the women comprises Agricultural labourers.

Festivals and Customs

The major festivals in the area are Ganesh Puja and Chakradhar Samaroh. The interim period of ten days is observed with devotion, worship and festivity. Apart from other ceremonial observation and joyous celebrations the occasion is marked with cultural programs consisting of Music, Dance and Drama performed every evening. This festival used to be celebrated by the ancestors of king Chakradhar Singh right from the time they made it their abode. They had, all of them, been very orthodox and had great faith in rituals and other religious observations.

Apart from these, Diwali, Eid and Holi are famous in this area. Chakradhar Samaroh is among the famous cultural festivals of Chhattisgarh known for its special music and dance performances that reflect the rich cultural heritage of the state.

Natural Resources

Raigarh district is blessed with Ram Jharna. According to History, Lord Ram once had been here during his Vanwas, and drank water from the water source. Hence the name Ram Jharna. It is a very good picnic spot. Holy dip in this Jharna on special and auspicious occasions is also popular in the district. The district is also popular for Gomarda Abhayaranya. It is a natural home for many rare wild animals like tigers, bears, etc.

Government Programs and its impact

There are various government programs and schemes that have been running in the target area through state and central government towards the welfare of the people. The schemes are of various domains like education, health, water and sanitation, rural infrastructure, skill development etc. These schemes have been impacted at the block level, state level and national level. There have been major improvements in all the sectors due to the government programs, however, there is still a long road to reducing the gaps. A list of various government programs and their impact has been attached in annexures 4.

Objective 2 To assess extent of the activities taken in Rehabilitation & Resettlement Plan (R&R Plan) /Rehabilitation Action Plan (RAP) and implemented as per NTPC records and project affected persons perspectives w.r t. Nos. of beneficiaries identified and avail the benefits as per R&R Plan / RAP.

This section comprises the impact analysis of all the activities both in the short-term and long-term across thematic areas such as education, healthcare, drinking water, and rural infrastructure.

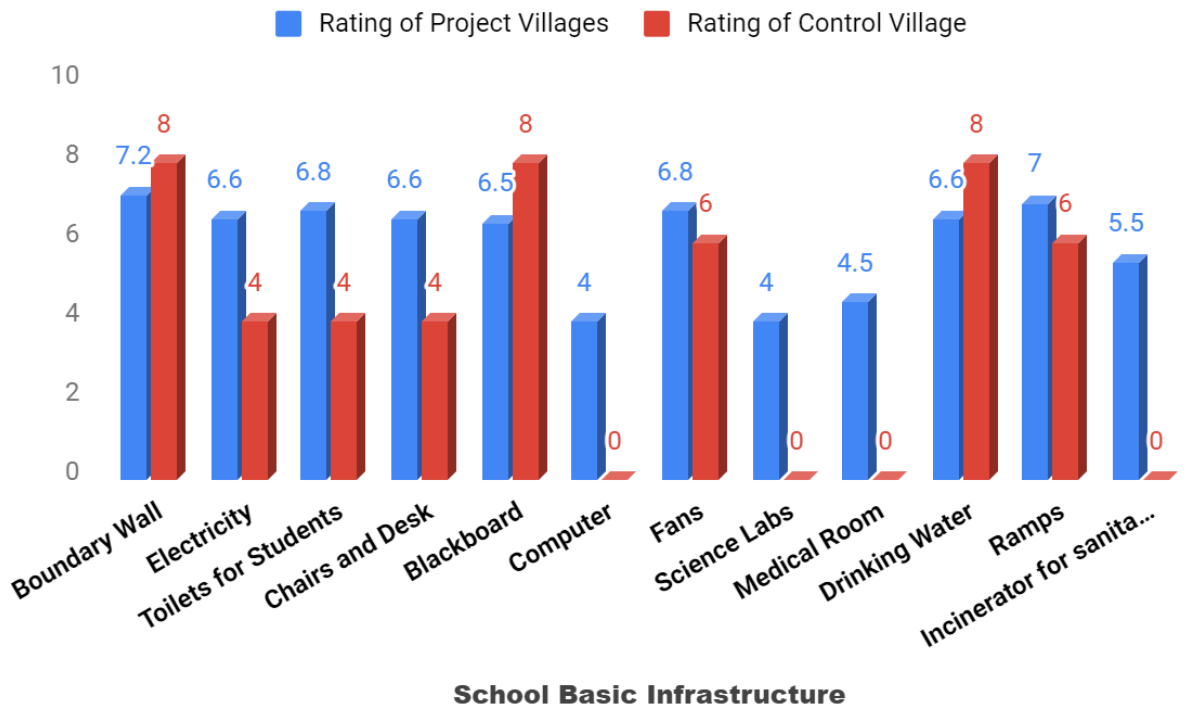
Impact of Education Projects

NTPC Lara, under its educational intervention, provides infrastructural support like the renovation of school buildings and school furniture. They also provided stationery and merit scholarships to students.

Impact: Figure 15 presents the availability of infrastructures in the schools in the study area. The educational interventions resulted in the up-gradation of education institutions. It was found that the project villages have performed better in the electricity (6.6), toilets for students (6.8), Chairs and desk (6.6), Computer Labs (4.0), Science Labs (4.5), Ramps (7) and Incinerator for Sanitary pads (6.5). The ratings in Drinking Water (6.6), however, is lower than the rating of the control village (8.0)[14]. Thus, NTPC's support to educational institutes built an efficient, effective and quality education system.

Figure 15: School Basic Infrastructure

[14] School KII



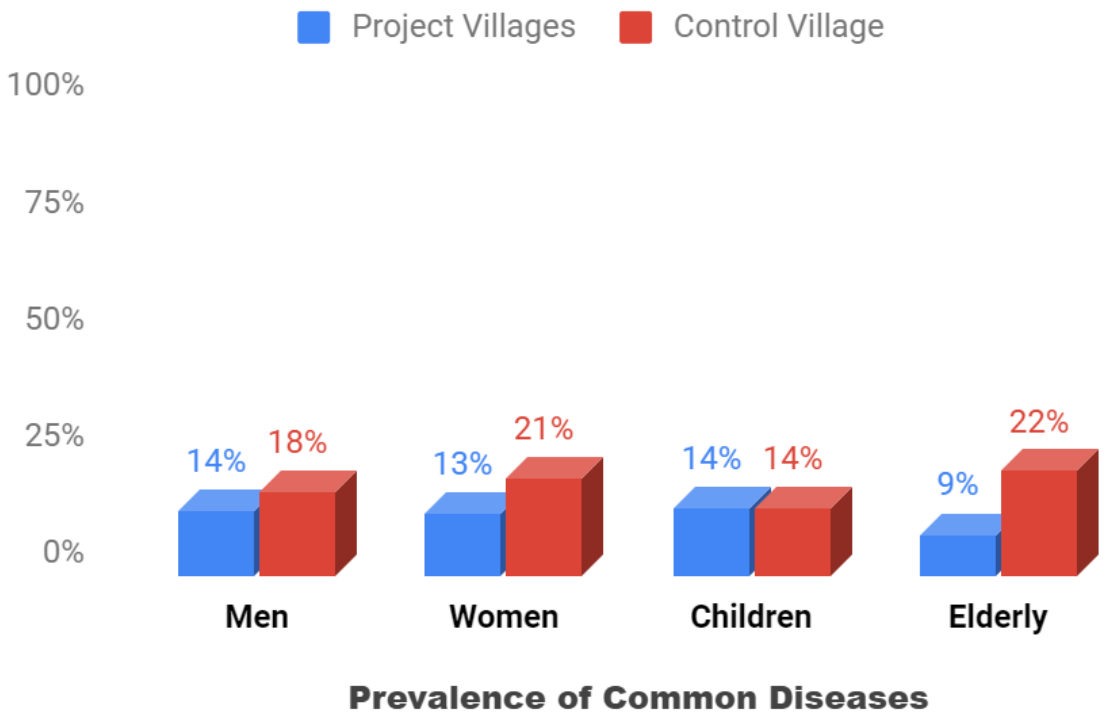
Need: To improve the rating of Drinking water in schools, NTPC Lara can provide Water coolers for students and teachers in schools. NTPC can fund the installation and the school can later take care of maintenance of the dispensers.

Impact of Healthcare Projects

NTPC Lara under healthcare intervention is running Mobile Medical Unit for the people in the 9 villages.

Impact: The intervention is impactful as 75% of respondents have said that the MMU is very helpful for them. The common diseases such as cold and cough, body ache, viral fever among Men, Women and Elderly are lower than in the control village. Figure 15 shows the comparison between the project villages and control villages in the area of common diseases in men, women and elderly.

Figure 16: Prevalence of Common Diseases



Needs: The common diseases in the project villages were equal to the control villages. The main reason behind these illnesses is malnourishment among infants and children. It was found that 20% of the children enrolled in Anganwadi centers are malnourished[15]. For children, NTPC Lara can incorporate maternal and child healthcare services to the MMUs to tackle the severely malnourished and moderately malnourished infants and children living in the villages.

Impact of Drinking Water

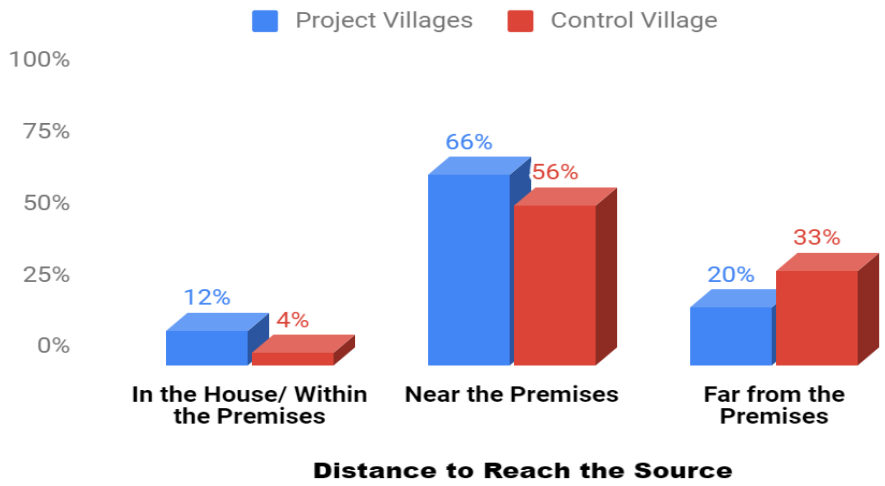
Under the water projects, NTPC Lara provided a grant for installing the hand pumps, Water ATMs and Portable Water Arrangements.

Impact: After installation of Handpumps in project villages. The intervention has resulted in the reduced distance the people travel for accessing water for drinking and household purpose. Figure 17 shows the distance to reach the water source. It was found that the source of water available in the house (12%) is higher than in the control village (4%). The same goes for

[15] Anganwadi KII

the water source that is near the premises were found higher in the villages (66%) than from the control village (56%)

Figure 17: Distance of Water Source from the Household



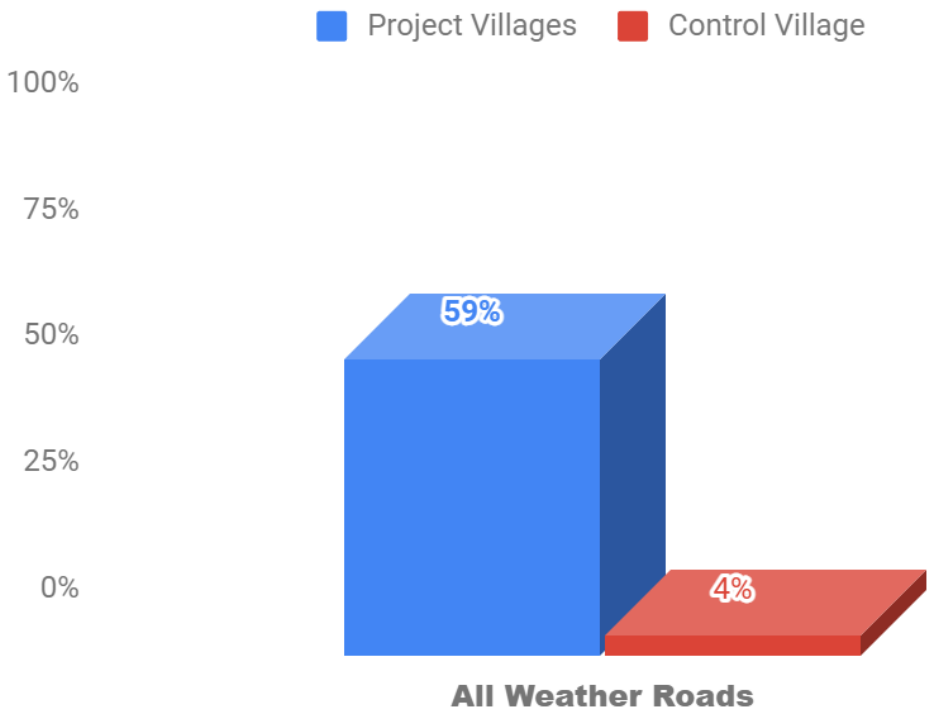
As observed in the FGDs, the women got improved quality of water. In the Project Villages, many women and girls expressed that they don't have to walk long to get water. Therefore, the intervention in drinking water has resulted in an improvement in the overall quality of life.

Impact of Rural Infrastructure Projects

In the area of rural Infrastructure, NTPC Lara has provided grants to construct all weather roads, repair and maintenance of community spaces, Construction of Community Hall and Panchayat Bhawan.

Impact: Figure 18 shows the Access to all weather roads in the project villages in comparison to control villages. Access to all weather roads have increased to 59 per cent in the villages which is very high from the vicinity village indicator (4%). Moreover, 93 per cent of the respondents have said that they have benefited from the rural infrastructure project taken by NTPC in their villages.

Figure 18: Access to All Weather Roads


Project Villages
Control Village
100%
75%
50%
25%
0%
59%
4%
All Weather Roads

Objective 3 Identify Employment needs, scope of self-employment – level of employment and agriculture development for higher economic growth and stability with predefined economic indicators, for example per capita income, expenditure, and savings etc. to assess the need in the future.

Employment and livelihood needs are major needs for people in rural areas. The field survey suggested that people in these study villages fall under 3 categories, employed, self-employed and unemployed. It was found that 14% of the people were unemployed in all the villages.

Skill Development

Employment is one of the critical issues in the rural communities and employment and livelihood needs are major needs for these communities.

Figure 19: Percentage of Unemployed people in the 10 villages

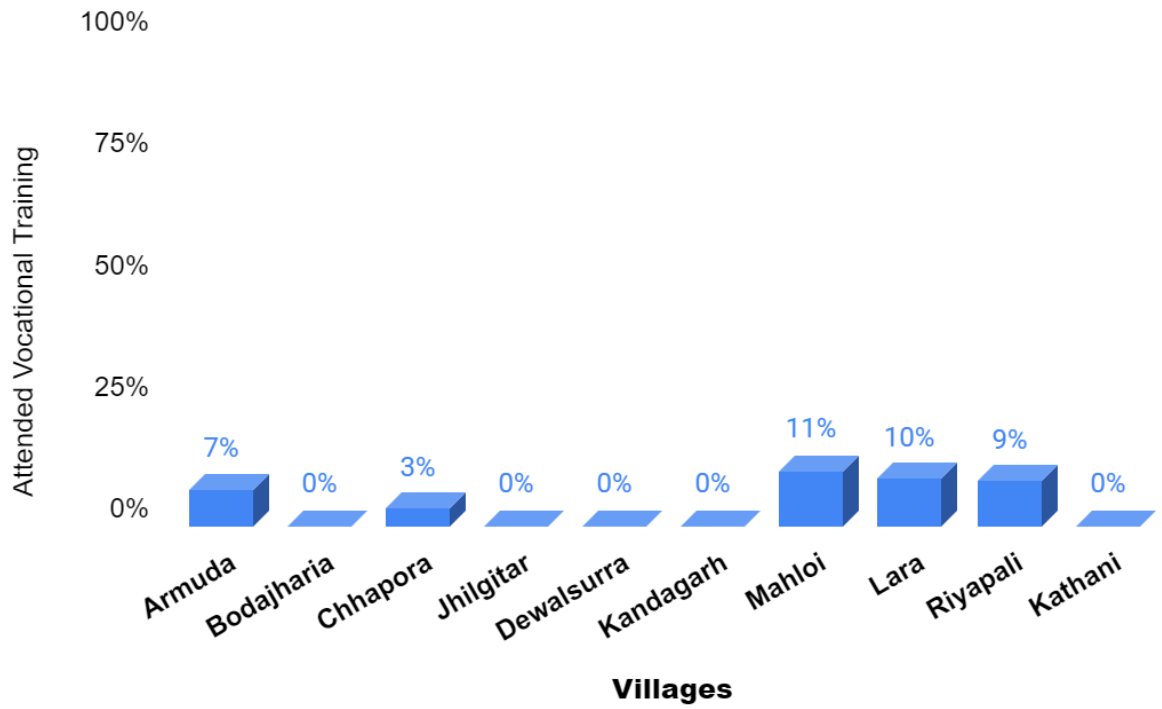
The figure 19 shows the status of employment of the 10 villages.

Findings and Observations: India's rural unemployment rate is 5.84% in the current year. Chhattisgarh unemployment rate is 8.4%[16]. In comparison to the national and state unemployment rate, the percentage of people unemployed are higher. 4 out of 9 villages have a higher percentage of people who are unemployed when compared with state unemployment rates.

At present, the percentage of unemployed people is not more than 11% in any of the villages. However, from the survey, it was found that 16% of the population does not have a sustainable source of livelihood for 365 days a year

Figure 20: Percentage of people having vocational training

Figure 20 shows the percentage of respondents that have been a part of vocational training sessions



Findings and Observation: It was found that a very small amount of respondents have been a part of vocational training. There are 5 villages where there had not been any person who

[16] CMIE Report

had received any skill development training. In the village of Amruda (7%), Chhapora (3%), Mahloi (11%), Lara (10%), and Riyapali (9%)[17], the respondents told that there were training sessions that they were part of.

The respondents from the villages stressed that a lack of permanent sources of employment is not available in the nearby areas. People work as seasonal farmers in farming seasons. For the rest of the time, they have to look for employment in other domains. It was found that people are skilled in farming techniques, labour work. Gram Pradhan's of the villages suggested various skill development training like computer training, plumbing and electrician and stitching and sewing training for women. The respondents expressed their intent to attend technical training programmes for upskilling such as auto repair mechanic course; training programme on sports; training programme on stitching, beautician. Some discussion participants seek cottage based skills for livelihood generation such as soap making, small food processing businesses or agriculture residue processing.

Household survey data reveals that 59 per cent[18] of the respondents, both males and females have asked for employment through skill development training. Regarding modes of employment, people asked for skill development training and jobs at NTPC stations.

Recommendation

To fulfil employment-related needs NTPC may channelise many sources and implement a robust training mechanism that can help reduce unemployment among the youth. NTPC may design a project which can be either linked with government programs or NTPC can collaborate with organisations that provide training to the youth[19]. In the survey, it was found that 17 per cent of the respondents lack awareness in skill development training nor are they aware of how they will get a job after training. An awareness program on various skill development training will help them to select from the available trainings in which they are interested. Through awareness programs in the village, the youth will come to know what all skill development and vocational training programs are available in the area. Later NTPC can link the trained youth to the industries and commercial services organisation for placement.

[17] Household Survey – IICA 2020
[18] Household Survey – IICA 2020
[19] Multi-Discipline Skill Development Training Model – NITI Aayog Best Practices

The silk industry is also one of the industries that's currently booming in Raigarh along with other industries producing iron ore, steel and power in the country. There are two types of silk produced in the Raigarh district; they are Tasar Silk & Malburry Silk. The production of Silk is the main livelihood for some of the villagers in this district and many of them have now started running units for producing Silk sarees and dress materials for export. NTPC should ensure training people in these sectors for getting them sustainable employment. Other sectors to focus on are industries and construction, retail trade and information technologies might be beneficial for the respondents.

The government programs like Pradhan Mantri Kaushal Vikas Yojna of the central government has opened many centres for training in rural areas. Under Pradhan Mantri Kaushal Vikas Yojana, a list of job roles is to be implemented through the Pradhan Mantri Kaushal Vikas Kendras all over India. NTPC can enrol the interested unemployed people of the villages in the areas. NTPC can provide funds to the people for paying the fees for the trainees. This will impart training to provide employment opportunities to youth at the district and state level.

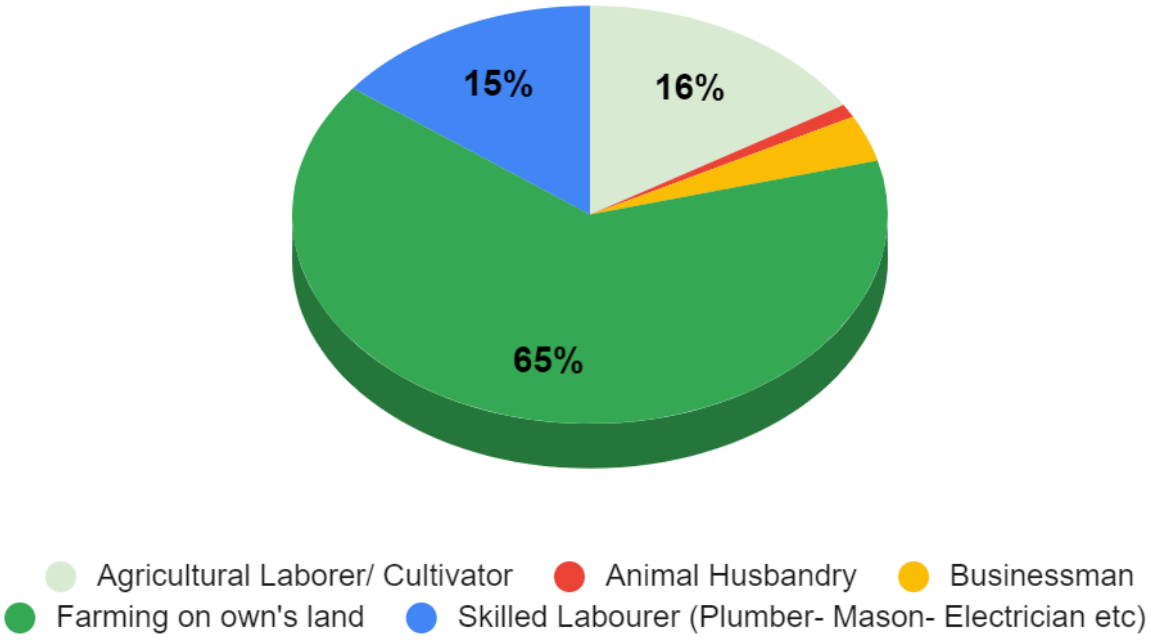
Respondents who are aware have asked for vocational training in the IT sector. NTPC Lara can identify skill training centers in Raipur and can help the people in documentation and getting them enrolled in these (more than 20) centers. The fees can be funded by NTPC Lara. Moreover, remote training through tabs can also be set up by NTPC for people living in the area.

Agricultural Development

The people in the villages are involved in many sorts of employment for their subsistence. Figure 20 shows people that are engaged in the agricultural and non-agricultural sector. Farming and agricultural labourer (80%), is seen as the prevalent mode of occupation. In the non-agricultural sector, people engaged as skilled labourers in the service sector (4%), business or other (10%) such modes of occupation are lesser in comparison to the rest of the occupation. Farming is seen as the major source of livelihood for the people of these villages.

Figure 21: People working in Agricultural and non-agricultural sector

The figure 21 shows people that are engaged in Agricultural and non-agricultural sector



Findings and Observations: People are engaged in subsistence farming with traditional means of farming. The major crop grown in the area is Rice. It was found that 61 per cent of respondent households own land. Among them, the entirety of them uses the land for farming. Only 1.04% use the land for poultry.

From the field survey, it was found that 97 per cent of land owners used their land for farming. The farmers are dependent on rainwater. 84 per cent of them said that the major issue that they are facing is lack of water for irrigation for farming

In the domain of agriculture, there are many interventions done by government and private entities. To tackle diverse challenges like lack of water for farming, capacity building of farmers, accessibility to seeds, fertilizers and awareness regarding organic farming projects have been designed and implemented in all parts of the country. Some of them are as follows:

Recommendation:

NTPC can design and implement a drip irrigation intervention in the area. A drip irrigation system for 5 acres of land will approximately cost 5.4 lacs. Firstly, NTPC can begin by

identifying the farmers who would be interested in the initiative. Second, NTPC can connect these farmers with Pradhan Mantri Krishi Sinchai Yojana by providing support in filling up forms and helping them with documentation and making farmers aware of the schemes. The scheme (on micro Irrigation) aims to provide subsidy to farmers by promoting appropriate technological interventions like drip irrigation technology.

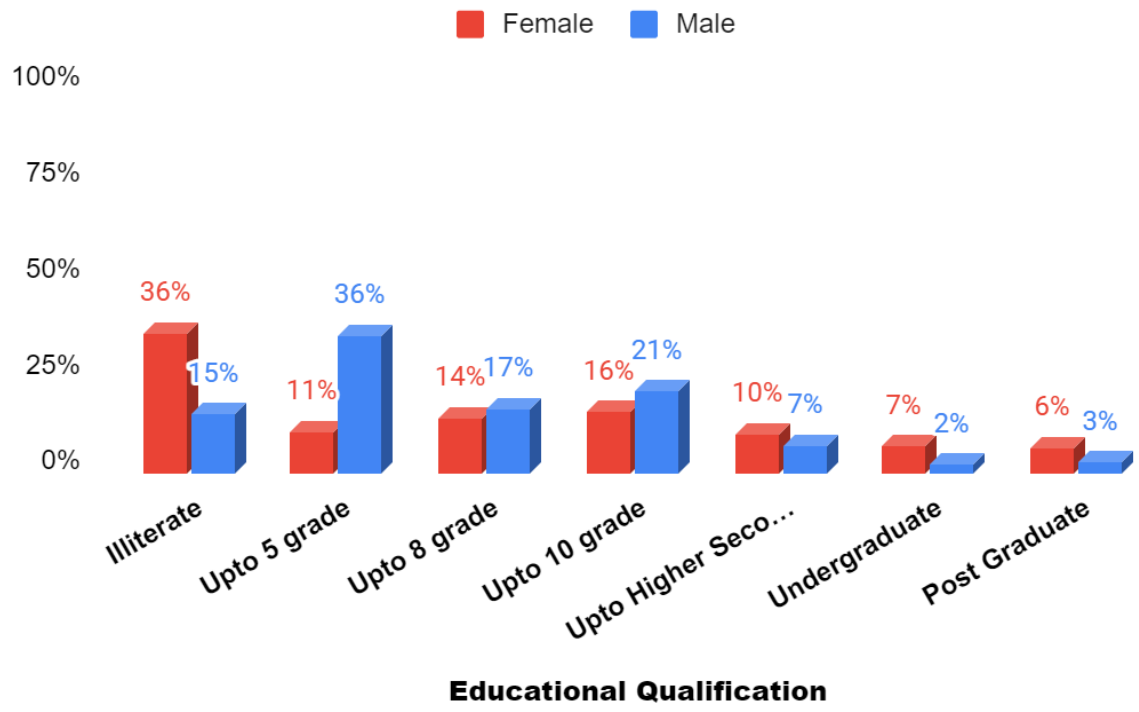
Third, in the implementation phase, NTPC can fund the rest of the cost and install the drip irrigation system in the farms. By implementing drip irrigation, will ensure economic use of water, and will improve soil water retention capacity and groundwater levels for small and large scale farmers. Seasonal farmers depending on the monsoon have been able to grow crops in both seasons with 60 per cent less water consumption coupled with increased income. Lastly, for a long term impact and sustainability, NTPC needs to do capacity building of farmers on operations and maintenance of the system.

Objective 4 To identify gender wise critical educational, health, and recreation needs with specific social indicators like literacy, education, training and skills, and opportunities for all members of the society cutting across gender, age, caste and religion to evaluate the need in the future

Gender needs are the needs of the women of the community. For women to excel in any society. It is needed that community development activities and CSR Interventions are designed in such a manner that it fosters gender equality. In the study villages, almost 1/3 of the women are found illiterates.

Figure 22: Education Level of Women

The figure 22 shows the education level of the women of the villages



Findings and Observations: In the area of Education, Illiterate women (36%) are more than men (15%). It was also found that 13 per cent of the children age 6-14 were dropped out of schools. For girls, the reasons were either the school is far away, lack of awareness regarding

menstrual hygiene or they were required for household work. 7 per cent of the respondents also said that Education is not important for girls.

In the field survey, it was found that 41 per cent of the woman respondents were found to be illiterate. Among the literate females (59%) a major portion of 43 per cent of the women has no academic qualification. They are literates with no formal education. A total of only 6 per cent of women have higher education qualifications, where 6 per cent are undergraduates and 5 per cent are Sr. Secondary pass outs.

There were multiple reasons for the persistence of widespread illiteracy among women. The social structure as well as traditional practices have been fostering this situation. The vicious cycle of women being reduced to household chores has kept them away from attaining formal education. Being a homemaker has cut them off from the outside world. Hence, there is a major lack of awareness in women of the villages towards reading and writing. It was also found that women are homemakers (35%). Eighty per cent of the female respondents have asked for education and employment through skill development training and vocational training. Mostly, women respondents have suggested training like stitching and sewing. They also had lack of awareness amongst them as they were not able to choose and decide upon what skill development training they wanted to attend.

Health

There are numerous pathways by which greater gender equality can lead to improvements in health and quality of life for women and their family members. Women with a greater agency are more likely to access health services and have control over health resources, and less likely to suffer domestic violence. Their children are more likely to survive, receive better childcare at home and receive health care when they need it. At the same time, improved health outcomes for women can help to strengthen their agency and empowerment.

In case of awareness level, pregnant women and mothers do lack awareness regarding the healthy diet and food intake they need for themselves and their infants. They do not take their health seriously. Women of the villages were not aware of the basic health benefits and women and child-centric government schemes in the area of maternal and child healthcare.

Women have asked for frequent health camps, pharmacy shops in the villages making medicines accessible for the village community. Awareness camps should be set up for women and adolescent girls in the villages. Need for accessible health facilities and effective staff for rural women.

The ambulance services in the nearby villages were not very efficient in the villages. Many women have stressed and showed their displeasure at the delayed response of arrival of the ambulance whenever needed[20]. Ambulance efficiency was one of the major concerns for the women. It was also found that the sub-centres are not equipped, people have to travel to PHC at Chhapora village. There are no private or government clinics in the villages. Women of the community have to travel long distances for small health issues which impacts their livelihood.

For catering to the needs of the women Anganwadi centres were found to have very poor infrastructure. From the field survey, it was found that Anganwadi of 4 villages had poor infrastructure. In case of awareness level, pregnant women and mothers do lack awareness regarding the healthy diet and food intake they need for themselves and their infants. They do not take their health seriously. Women of the villages were not aware of the basic health benefits and women and child-centric government schemes in the area of maternal and child healthcare[21].

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[20] Women FGD

[21] Aanganwadi KII

Objective 5 To identify areas of interventions where community development activities can bring gender equality

There are several needs that have emerged from the previous objective 2.3. In order to work towards gender equality NTPC needs to focus on interventions through a gender lens

Intervention in the Field of Education and Skill Development

Women are homemakers, occupied with their household work. With such traditional household responsibility and daily routine, formal education is not easy to achieve. To tackle the education needs of the women of the communities, NTPC needs to have focused intervention that can work along with the daily routine of the women of the villages.

NTPC can fund remote classes in collaboration with E-Voice Committee and Gram Panchayat. EVOICE committee i.e. Employees' Voluntary Organisations for Initiatives on Community Empowerment. The committee comprises the family members of the employees that are living in the township of the NTPC. These people are a big talent pool of resources that can be used for alleviating the condition of people living in the vicinity of the NTPC station.

After identifying the women eager to learn to read and write. Classes can be conducted remotely through tabs and smartphones. NTPC can work in collaboration with the Gram Panchayat to set up online classes for the women. Tabs and stationary can be provided to the women by NTPC for taking academic sessions. The teachers can take classes and schedule exams through tabs. Through tabs, women can take classes and give exams in their own free time. The tabs will also help to monitor and evaluate their progress report through tests and assignments designed along with the curriculum. A village committee can be formed for managing the batches of the women and taking care of the tabs. The tabs will be collected and maintained by the committee members. The committee members will also help in enrolling more women in the program. Through this approach, we can bring the program to their doorstep and can plan it around their domestic work schedule that they are engaged in throughout the day.

The tabs can also be used for providing a session on imparting knowledge on SHG groups. Various modules can be designed on Self Help Groups formations, how to open a bank account, maintaining registers and micro-financing. A mechanism for asking questions in the

tabs should also be installed. Women will be able to form new SHGs and able to take a positive step towards earning independently. For transportations, NTPC can provide bicycles for girl students. Through bicycles the girls will be able to go to school frequently and not miss their education.

NTPC should ensure equal participation of women in the skill development interventions at the village level. The recommended project in objective 3 should focus on both unemployed men and women of the village. Moreover, specific training and programs may be chalked out for women in both agricultural and non-agricultural sectors that are available in the state.

Intervention in the Field of Health

NTPC Lara has provided Mobile Medical Units to cater the health needs of the village communities. For improving the maternal and child healthcare, NTPC can incorporate services that will cater the needs of children and women health care in the current mobile medical unit. To cater to the needs of women and children a focused intervention should be on Maternal and Child Healthcare. It should aim at improving the health of pregnant women and infants and all the activities that are conducted pre and post-pregnancy with both the actors. In accordance with the NTPC policy on maternal and child healthcare, these services should be extended with the MMU. The maternal and child healthcare team should operate with the Mobile Medical Unit. Records of pregnant women and infants No. of antenatal care, postnatal care, immunizations should be done at Gram Panchayat level. Awareness programs on maternal and child health care, reproductive health and menstrual hygiene will improve and promote health literacy.

Secondly, it was found that in 4 out of 10 villages, Anganwadi Centers have very poor infrastructure. The Anganwadi Workers run the centers in their homes. NTPC can repair the Anganwadi Centers and can provide the basic amenities in the center like toys for children, furniture and electric appliances etc.

Objective 6 To identify infrastructural needs of the target area and prioritize them based on Social Development Indicators

Infrastructural Needs are the prime needs of the communities. There are various needs that have come out in this need assessment survey.

Intervention in the Piped Drinking Water

From the field survey, it was found that the piped drinking facilities in the villages are below the district benchmark. The people fetch water from other sources like hand pumps, bore wells, and wells.

It was found from the household survey, 24 per cent of the village respondents have agreed that there is a poor quality of water drinking. 21 per cent of the respondents have shown a lack of access to drinking water. Eight per cent of the respondents said that they invest a lot of time in collecting the water. Three per cent of the respondents said that there is a lack of proper storage of water in the village. Eighty per cent of the respondents from the villages have asked for pipe drinking water interventions. Getting clean potable water is a big priority for these village communities.

Recommendation

As per the need NTPC can fund for the system of piped drinking water in the village. The project should be designed to keep the components of the NTPC CSR policy on potable drinking water in check. To make a measurable impact, the monitoring and evaluation of the project should be done annually. NTPC can also dovetail the ‘Har Ghar Jal Scheme’ of the Government of India by providing drinking water supply through pipelines to each household through elevated storage reservoirs in every village.

Intervention in the field of Rural Infrastructure: Education and Health

In the field of education, the respondents have listed various issues. 35 per cent of the respondents have said that the quality of education is not up to the mark. New ways should be used for improving the learning levels. The lack of smart classes in the school. There is no

transport available for the students and finally, the teachers need capacity building training to adapt to new ways of teaching[22].

It was also found from the Anganwadi Center focused group discussions that Anganwadi centers have very poor infrastructure. Respondents from villages like Bodajharia, Dewalsurra, Jhilgitar, and Mahloi stated that the infrastructure of the Anganwadi Centers are poor. The respondents of the villages have suggested a better quality of education and school facilitates. Along with school the pre-primary school/Anganwadi centre available for the village community should also have better infrastructure.

Recommendation

NTPC needs design-focused intervention in providing quality education. A project on improving learning levels at primary schools designed to have quality education in government schools. To achieve that, NTPC can provide technological support for teaching through audio-visual aids. One-time installation of equipment such as Smart TV, projectors or computers.

The electronic equipment can be connected to solar power depending on the power cut at schools. Initially by targeting only the primary schools in the neighbouring villages. Teaching through films and audiovisuals have shown greater impacts on the learning abilities of students. Adding such techniques to the curriculum will have a change in the perception of students, teachers and parents, motivate them to study and engage themselves in new learning techniques.

In the field of health, another project on repairing and reconstruction of Anganwadi Centers of the villages can be up by NTPC. NTPC can target and fund 1 Anganwadi centre from each project affected villages. The project will aim at improving the health of pregnant women, adolescent girls and infants and the learning levels of the children of the village.

Moreover, Smart TV can be installed in the Anganwadi centre where children can learn through new audiovisual lessons[23]. Lectures and sessions on awareness programs on menstrual hygiene and sexual and reproductive health can be watched. The new environment of the

[22] School KII

[23] https://www.vedantaresources.com/Pages/NandGhar.aspx

Anganwadi will impact the infant mortality and maternal mortality of the villages. The enrollment of pregnant women, adolescent girls, infants and children will also increase.

Objective 7 To explore opportunities of networking / partnerships with Govt. / Local bodies' plans and intervention for spearheading overall development of the target area. Specifically, it will include the following.

- **To take stock of the development plans prepared by any government agency for the area.**
- **To review the plan and the budget available under various central / state government schemes for development of the area.**
- **To identify the gaps between the plans of the government / local bodies / NTPC and the specified indicators/goals**

There are various government programs running for the welfare of the society in the domains of education, health, skill development, rural infrastructure, water and sanitation. From the household survey it was found that there are many schemes from which the respondents have benefitted.

Programs in the area of Education

In the field of education, both the central and state government has been working on giving a better quality of education to children. Currently, the government of Chhatisgarh is working on basic education through the Samgra Siksha and Mid-Day Meal Program. The program seeks to improve the quality of education in 1.6 lakh schools and has started with a special focus on basic teaching skills. With this, children develop the ability to read with understanding and calculate basic mathematics and solve questions, which become the basis for learning other arts and subjects in their future.

Another flagship scheme is the Rashtriya Madhyamik Shiksha Abhiyan (RMSA) of the Government of India, which aims to enhance access to secondary education and improve its quality. The objective of the scheme is to envisage achieving a gross enrolment ratio of 75% from 52.26% in 2005-06 for classes IX-X within 5 years of its implementation, by providing a secondary school within a reasonable distance of any habitation.

The schemes focus on various quality interventions on which NTPC can also collaborate with the government are as follows:

a. Additional classrooms

b. Drinking water provisions

c. Focus on Science, Math and English Education

d. In-service training of teachers

e. ICT enabled education

From the data collection, it was found that 23% of teachers of the schools situated in the study villages did not get any effective learning in the classroom. Teachers of 5 out of 10 schools rated poor for clean sources of drinking water at school. For Science lab and necessary science equipment, 9 out of 10 teachers in the teacher's key informant interview rated poor.

NTPC can fulfil the gap by providing training to the teachers of the government schools. Coordinating with district and block officials, NTPC can facilitate training for the teachers and test for the students for overall performance in various subjects.

The policy of NTPC on Improving learning levels outcomes and quality of education for children studying in Government schools covers various aspects/activities of these projects that have been run by the government. NTPC after coordinating with district and block officials can chalk out plans for each school that are present in the study villages.

Programs in the area of Skill Development

In the Pussore block only 1180[24] trainees have been trained under skill development training. The gap as shown on the dashboard for Gram Panchayats for Pussore blocks is 58% moderate and 40% critical for Vocational Training Centre/Polytechnic/ITI/RSETI/DDU-GKY. The details on gaps logic can be found in the annexures. From the household data, it was found that only 23% of respondents have benefited from Pradhan Mantri Kaushal Vikas Yojana and only 1% of the respondents have benefitted from DDU-GKY,

[24] Antyodaya Dashboard

As recommended earlier in objective 2 of the report, NTPC must become a facilitator to provide skill development training in the neighbouring villages. NTPC needs to firstly, aware of the people regarding various skill development training. The people of these villages are hardly aware of the different types of training. Secondly, making the training accessible for the village people. NTPC can either provide logistics support at their stations or can coordinate with the village officials to conduct these training in the area/centres/infrastructure available inside the villages.

Programs in the area of Rural Infrastructure

In the area of Rural Infrastructure, Pradhan Mantri Awas Yojana is a housing scheme that was introduced by the central government in the year of 2015. It is a social welfare programme endorsed by the Government of India under which it intends to provide beneficiaries with housing units.

In the Pussore, Villages with <20% of kutcha houses are 25%. The number of Pradhan Mantri Awas Yojna beneficiaries are 9350. The gap as shown on the dashboard for Gram Panchayats for Pussore blocks is 67% moderate. The 67% gap means that no. of households with a kutcha wall and kutcha roof is between 20-60% in GP in 25% of the Gram Panchayat.

NTPC can bridge this gap by making more PMAY beneficiaries in the village. A list of eligible candidates must be identified from the villages through awareness programs in the sessions. Awareness and documentation camps can be set up in villages where NTPC can help the people in filling forms, gathering documents to avail the scheme. This can be done through collaboration with the village, block and district officials. A record must be maintained of the new beneficiaries of this scheme.

In the domain of drinking water, the Jal Shakti ministry aims to provide piped drinking water to all the rural households by 2024 under the Jal Jeevan Mission. In 2018-19, 9.09% of households were provided with access to piped water. It was way behind the 2017 target of providing pipe drinking water. Only 9.09% of the households have piped drinking water in Raigarh District[25]. To provide pipe drinking water by 2024 there is a long way to go.

[25] Jal Jeevan Mission Dashboard

NTPC through its Jal Jyoti mission on providing potable drinking water can support the mission in fulfilling its goal. The objective is to ensure accessibility of potable drinking water in adequate quantities on a regular and sustainable basis leading to improvement in living standards of communities in the vicinity of NTPC's Stations.

Programs in the area of Agriculture

Farming and agricultural labour is a major livelihood generation activity for many in the Pussore Block. There are various programs in the agricultural domain for farmers. Programs like Pradhan Mantri Kisan Pension Yojana and Pradhan Mantri Fasal Bima Yojana. In the data for Farmers aged 18-40, 72.7% of Gram Panchayat fall in the critical category gap type for Pradhan Mantri Kisan Pension Yojana. 53.4% of the Gram Panchayat falls in the critical category for farmers who have received a benefit under Pradhan Mantri Fasal Bima Yojana. Along with these schemes, it is also found that Watershed Development projects are also very few in the Pussore Block. 46.6% of the Gram Panchayat falls in the critical category for watershed development projects.

Farmers awareness projects must be implemented by NTPC in the study villages. NTPC can set up camps in collaboration with government authorities at the village, block and district level. Farmers can get themselves registered in these schemes through these camps. The camp will also provide awareness regarding organic farming, how to form Farmers producers organisations FPOs and primary agriculture cooperatives PACs. This practice will minimise the gaps and make farmers more aware of such benefits from the government.

Programs in the area of Health

In the domain of health, various schemes have been listed for the benefit of the people. For maternal and child health care, the government flagship program of Integrated Child Development Services. There are also various schemes listed for pregnant women and children such as Janani Shishu Suraksha Karyakaram (JSSK), Janani Suraksha Yojana (JSY), Pradhan Mantri Surakshit Matritva Abhiyan and Pradhan Mantri Matru Vandana Yojana (PMMVY). The goal of these program/schemes is to reduce maternal and neonatal mortalities by promoting institutional deliveries.

However, the benefits are not reaching the rural community for various reasons. The following is the status of Pussore Block:

Table 6: Health Status of Pussore Block

S. No.	Parameter Name	Status (Falling in Critical Category)
1.	Total no of children aged 0-3 years registered in Anganwadi - 48% Critical	1.1%
2.	No of children aged 0-3 years immunized	3.4%
4.	No. of Anemic Pregnant Women	39.8%
5.	No. of children under the age of 6 years who are Underweight	37.5%
6.	Total number of children (0-6 years) immunized under ICDS	26.1%
7.	No of pregnant women receiving services under ICDS	15.9%
8.	No of lactating mothers receiving services under ICDS	36.4%
12.	No of beneficiaries receiving benefits under Pradhan Mantri Matru Vandana Yojana	15.9%
13.	Sub Centre PHC/CHC	64.8%
14	Availability of Mother and Child Health facilities	80%

Many parameters have fallen in the critical category with a high level of percentage. NTPC through projects like mobile medical units can reduce the gaps. Through the mobile medical unit, people will have health facilities at their doorsteps. As elaborated earlier in the report, for rural areas that do not have availability and accessibility to government health facilities, where people are not aware of the schemes and programs, MMU can be a one-stop solution for all.

Moreover, as in the policy of learning levels, NTPC must work towards improving the overall physical environment of the Anganwadi Centers of the villages also for better health outcomes.

Overall Findings and Recommendation

Skill Development Training

India's rural unemployment rate is 5.84% in the current year. Chhattisgarh unemployment rate is 8.4%. In comparison to the national and state unemployment rate, the percentage of people unemployed are higher. 4 out of 9 villages have a higher percentage of people who are unemployed when compared with state unemployment rates.

Recommendation: People have asked for computer training. NTPC Lara can identify skill training centers in the Raipur district and can help the people in the documentation and getting them enrolled in these (more than 20 are present in Raigarh district) centers. The fees can be funded by NTPC Lara. Moreover, remote training through tabs can also be set up by NTPC for people living in the area.

Agriculture

From the field survey, the data showed that 80% of the respondents' occupations are in the area of agriculture. The people are either farming on their land or working as an agricultural labourer in the villages. The major crop grown in the area is rice. The farmers are dependent on rainwater. 84 per cent of them said that the major issue that they are facing is lack of water for irrigation for farming.

Recommendation: NTPC can design and implement a drip irrigation intervention in the area. By implementing drip irrigation, will ensure economic use of water, and will improve soil water retention capacity and groundwater levels for small- and large-scale farmers.

Gender wise critical education and health needs

In the area of Education, Illiterate women (36%) are more than men (15%). It was also found that 13% of the children age 6-14 were dropped out of schools. For girls, the reasons were either the school is far away, lack of awareness regarding menstrual hygiene or they were required for household work. 7% of the respondents also said that Education is not important for girls.

Recommendation: NTPC can fund remote classes for the women that are living in the villages. Through tabs and smartphones, we can bring the program to their doorstep and can plan it around their domestic work schedule that they are engaged in throughout the day.

Awareness programs in the area of girl child education and menstrual hygiene needs to be conducted in the villages. NTPC along with health front line workers can conduct these programs. For transportations, NTPC can provide bicycles for girl students. It was found that many girls travel on bicycles to attend their classes.

In the area of health, pregnant women and mothers do lack awareness regarding the healthy diet and food intake they need for themselves and their infants. They do not take their health seriously. Women of the villages were not aware of the basic health benefits and women and child-centric government schemes in the area of maternal and child healthcare.

Women have asked for frequent health camps, pharmacy shops in the villages making medicines accessible for the village community. Awareness camps should be set up for women and adolescent girls in the villages. Need for accessible health facilities and effective staff for rural women.

Recommendation: NTPC Lara has provided Mobile Medical Units to cater the health needs of the village communities. For improving the maternal and child healthcare, NTPC can incorporate services that will cater the needs of children and women health care in the current mobile medical unit. Secondly, it was found that in 4 out of 10 villages Anganwadi Centers have very poor infrastructure. NTPC can repair the Anganwadi Centers and can provide the basic amenities in the center like toys for children, furniture and electric appliances etc.

In the area of Rural Infrastructure

For the field survey, it was found that villages like Chhapora (17%) Mahloi (12%) has a pipe drinking water supply. The rest of the villages have 0-4 per cent of piped water facility. Piped drinking water supply is desired by the people living in the villages.

Recommendation: To increase the piped water coverage in the area, NTPC Lara should expedite the implementation of piped water projects as per its CSR policy. To make a measurable impact, the monitoring and evaluation of the project should be done annually. NTPC

can also dovetail the ‘Har Ghar Jal Scheme’ of the Government of India by providing drinking water supply through pipelines to each household through elevated storage reservoirs in every village.

In the field of education, the respondents have listed various issues. 30% of the respondents have said that the quality of education is not up to the mark. New ways should be used for improving the learning levels. It was also found from the Anganwadi Center focused group discussions that Anganwadi centers have very poor infrastructure. Respondents from villages like Bodajharia, Dewalsurra, Jhilgitar, and Mahloi stated that the infrastructure of the Anganwadi Centers are very poor.

A Way forward

To implement the recommended projects, an action plan is chalked out for all the domains where needs are identified. Firstly, the impact of the projects implemented by the NTPC Lara is analyzed in objective 2. After the analysis, the current gaps and the needs of the people have been explored and written down in objective 3, 4, and 5. For each need a project is designed, catering specific needs of the village people.

The projects have been detailed out in different objectives mentioned earlier in the report. The action plan also consists of a suggestive budget phasing and source of funding. Through the action plan, NTPC Lara will be able to initiate the projects in the neighbouring project villages. The action plan has been attached in Annexure 5.

Annexure 1: Village Sampling

S.No.	Name of Village	Total population	HH -Survey conducted
1	Armuda	540	1976
2	Bodajharia	724	2650
3	Chhapora	1219	4462
4	Dewalsurra	566	2072
5	Jhilgitar	159	582
6	Kandagarh	979	3583
7	Lara	1290	4721
8	Mahloi	733	2683
9	Riyapali	184	673
10	Kathani (village in vicinity)	921	3371
Total		**7315**	**366**

Annexure 2: Demographic Profile

Villages	Household	Total Population	Male	Female	Children (0-6 Years)	SC	ST
Armuda	153	540	259	281	48	118	69
Bodajharia	202	724	374	350	91	15	243
Chhapora	329	1219	589	630	116	128	229
Dewalsurra	159	566	88	71	21	29	113
Jhilgitar	39	159	289	277	51	118	11
Kandagarh	247	979	503	476	129	180	306
Lara	300	1290	379	354	86	9	0
Mahloi	175	733	649	641	164	307	282
Riyapali	48	184	94	90	25	35	148
Kathani	254	921	444	477	87	231	124
Total	1906	7315	3668	3647	818	1170	1525

Annexure 3: Status of Existing Infrastructure

Village Name	Schools	All Weather Roads	Healthcare Facility	Drinking Water	Electricity	Community Building
Armuda	Primary school	Yes	AWC	Yes	Yes	Yes
Bodajharia	Primary school	Yes	AWC	Yes	Yes	No
Chhapora	Primary school	Yes	PHC, AWC	Yes	Yes	Yes
Jhilgitar	Primary school	No	AWC	Yes	Yes	No
Dewalsurra	Middle School	Yes	AWC	Yes	Yes	No
Kandagarh	Primary school	Yes	AWC	Yes	Yes	No
Mahloi	Higher Secondary	Yes	AWC	Yes	Yes	No
Lara	Higher Secondary	Yes	AWC	Yes	Yes	Yes

Riyapali	Primary school	Yes	AWC	Yes	Yes	No
Kathani	Middle School	Yes	AWC	Yes	Yes	Yes

Annexure 4: Government Programs and its impact

Thematic Area	**Programs**	**About the Program**	**Impact**
Education			
Health	Pradhan Mantri Matru Vandana Yojana		Pussore - 83% of the pregnant women have benn beneficited from PMMVY scheme
Health ICDS	Intergrated Child Development Services % of children in ICDS CAS	Integrated Child Development Services is a program that was launched in 1975. The schemes provides, food, preschool education to children, immunization, health checkups, and referral services to children under 6	Pussore - 63%
	% of lactating mother under ICDS		Pussore - 74%
	% of Pregnant Women under ICDS		Pussore - 93%
	Child Immunized under ICDS		Pussore - 94%

		years of age and their mothers.	
Skill Development	Vocatunal Trainign Center/Polytechnic/ITI/RSETI?DDUGKY		Pussore - 1%
	No. of Trainees trained under skill development program		Pussore - 1180 beneficiaries
Agriculture and Livestock	Pradhan Mantri Kisan Pension Yojana		Pussore - >50% Farmers under PMKPY = 43%
	Pradhan Mantri Fasal Bima Yojana		Pussore - >50% Farmers under PMFBY = 35%
	Livestock Exntension Services		Pussore - 46%
	Poultry development projects		Pussore - 7%
	Goatary Development Projects		Pussore - 8%
	Piggery Development Projects		Pussore - 2%
Water and Sanitation	Jal Jivan Mission 100% habitation covered with Piped tap water	Jal Jeevan Mission, is envisioned to provide safe and adequate drinking water through individual household tap	Pussore - 17%
	50-100% Habitation covered with piped tap water		Pussore - 28%

	<50% habitation covererd with piped tap water	connections by 2024 to all households in rural India. The programme will also implement source sustainability measures as mandatory elements, such as recharge and reuse through grey water management, water conservation, rain water harvesting. The Jal Jeevan Mission will be based on a community approach to water and will include extensive Information, Education and communication as a key component of the mission. JJM looks to create a jan andolan for water, thereby making it everyone's priority.	Pussore - 23%
	>50% of households with water connection		Pussore - 5%
	>75% hoseholds with water connection		Pussore - 6%

Rural Infrastructure	No. of PMAY beneficires	Pradhan Mantri Awas Yojana is an initiative by the Government of India in which affordable housing will be provided to the urban poor with a target of building 20 million affordable houses by 31 March 2022.	Pussore - 9350
	Villages covered under any housing scheme		Pussore - 100%
Others	No of Household having Jan Dhan Accounts		Pussore - 18778 Households

Annexure 5: Suggestive Five Year Plan for CSR Activities

S.No.	Head/Activity	Justification (Refer Section)	Budgets (Rs Lacs)	Suggestive Budget phasing and source of funding (Govt./NTPC/Other) Rs. Lacs				
				1st Year	2nd Year	3rd Year	4th Year	5th Year
1	**Economic and Agricultural Development**							
1.a	Activity 1 Skill Development Training	Obj. 3 Pg. No. 42	678	135	135	135	135	135
1.b	Activity 2 Drip Irrigation	Obj. 3 Pg. No. 42	501.2	85.44	92.27	99.65	107.62	116.22
2	**Gender Empowerment - Skill Development, Education and Health**							
2.a	Activity 1 Adult Classes through Tabs	Obj 5 Pg. No. 51	20	5	5	5	5	5
2.b	Activity 2 Maternal and child healthcare in MMU	Obj 5 Pg. No. 51	351.53	70.3	70.3	70.3	70.3	70.3
3	**Rural Infrastructure**							
3.a	Activity 1 Pipe Drinking Water	Obj 6 Pg. No. 53	315	35 (for one village). Total 9 villages One time Investment				
3.b	Activity 2 Providing Tab labs in school and Repairing of Anganwadi Centers	Obj 6 Pg. No. 53	300 (per set up for tab labs) 72 lacs	30 lacs per school. Total schools – 10 8 Lac per Anganwadi center. Total Villages - 9				

Annexure 6: Village wise data in some broad Areas

Indicator to measure on objectives	National	State (Chattisgarh)	District (Raigarh)	Armuda	Bodhajharia	Chappaora	Dewalsurra	Jhilgitar
% of population below BPL[26]	21.92 % NITI Ayog SDG Dashboard, 2019-20	39.93 % NITI Ayog SDG Dashboard, 2019-20	79% Antyodhya Dashboard	96%	85%	95%	100%	100%
Per capita income	Rs 126,406 , MosPI 2018-19	Rs. 461351, MosPI 2018-19	N. A.	79956	64566	37322	34586	21333
Proportions of children (6-14 years) attending the primary school	65.6 % (ASER, 2018-19)	76.4% (ASER, 2018)	N. A.	66.67%	77.78%	95.83%	100.00%	100.00%
Net Enrollment ratio in	82.53% (SDG Dashboard, 2017-18)	89.74 (SDG Dashboard, 2017-18)	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.

[26] The average reported monthly income across the villages is in the range of Rs 2672-11976 Rs, with an average of Rs 7389 for all study villages. This information contradicts the high percentage of BPL card holders (households with an annual family income of less than 24000 Rs) in the study villages. This discrepancy in percentage of BPL card holders can be explained through yet to be updated ration card categories in the next Socio-economic Caste Census.

primary								
Proportion of pupils starting grade 1 who reach grade 5	N. A	N. A	N. A	N. A	N. A	N. A	N. A	N. A
Literacy rate of 7 + years old	77.7% (NSSO 2018)	77.3% (NSSO 2018	87%	77%	75%	71%	69%	78%
Proportion of children drop out (6-17 Years) Child not going to school (6-17 Years)	2.8% (ASER, 2018)	3.6% (ASER 2018)	N. A.	33%	22%	4%	0%	0%

% of population having higher education i.e graduation, post graduation, technical education	24.5% (MHRD 2015-16)	24.5% (MHRD 2015-16)	N. A.	7%	2%	17%	7%	11%
Training and skills available to people	N. A	N. A	N. A	7.41%	0%	3.39%	0%	0%
Number of primary school, thousand population and average distance to nearest school	78 % (Antyodaya Dashboard-2019-20)	92% (Antyodaya Dashboard-2019-20)	93% (Antyodaya Dashboard-2019-20)	Primary school	Primary school	Primary school	Primary school	Middle School
Prevalence of underweight children under 05 years of age	38.3 % (NFHS, 2015-16)	37.7 % (NFHS, 2015-16)	37.1 ((NFHS, 2015-16)	7%	10%	4%	19%	17%

Under-five mortality rate	56 (NFHS, 2015-16)	64 (NFHS, 2015-16)	67 (Annual health Survey-2013)	0	0	0	0	0
Infant Mortality Rate	46 (NFHS, 2015-16)	54 (NFHS, 2015-16)	55 (Annual Health Survey-2013)	0	0	0	0	0
% of 1 year-old children immunized. Children age 12-23 months fully immunized (BCG, measles, and 3 doses each of polio and DPT)	61.3 % (NFHS, 2015-16)	76.4 % (NFHS, 2015-16)	68.5% (NFHS, 2015-16)	74%	59%	81%	64%	89%
Maternal Mortality Rate	122 (SDG Dashboard, 2015-16)	141 (SDG Dashboard 2015-17)	261 (Bilaspur Division) (Annual Health Survey-2013)	0	0	0	0	0

% of births attended by skilled health personnel. (Births assisted by a doctor/nurse/ LHV/ANM/other health personnel)	78.0 % (NFHS, 2015-16)	78.0 % (NFHS, 2015-16)	76.7% (NFHS 2015-16)	41%	20%	53%	64%	33%
% of population under health related risk areas								
1. Tuberculosis	204 per lakh population, NITI Ayog SDG Dashboard, 2017	148 per lakh population, NITI Ayog SDG Dashboard, 2019-20	N. A.	30 people in total (Health KII)				
2. Malaria	0.18 % (SDG Dashboard 2019)	-	PHC KII/ AWC KII	23 people in total (Health KII)				

3. Measles (estimated based on substracting 100- Children age 12-23 months who have received measles vaccine (%)	19.4 % (NFHS, 2015-16)	93.3 % (NFHS, 2015-16)	PHC KII/ AWC KII	22%	44%	19%	21%	0%
4. Water borne diseases/Prevalence of diarrhoea (reported) in the last 2 weeks preceding the survey (%) (children under age 5 years):	9% (NFHS-4, 2015-16)	8.6% (NFHS-4, 2015-16)	N. A.	14%	7%	14%	32.14%	66.67%
5. HIV	0.07 per 1000 population NITI Ayog SDG Dashboard, 2019-20	0.06 per 1000 population NITI Ayog SDG Dashboard, 2019-20	N. A.	0%	0%	0%	0%	0%

6. Disability	2.21% (Census 2011)		N. A.	7%	0.00%	0.00%	0.00%	0.00%
Distance of the nearest hospital/PSC				1 PHC in Chhapora 5 to 10km avg from all the villages				
No. of beds per thousand population	7,13,986 (National Health Profile- 2019)	9412 (National Health Profile 2019		15 beds availabe in the PHC				
Ratio of girls to boys in primary, secondary and tertiary education.	Primary: 35.4 (B): 27.8 (G) Secondary: 61.6 (B): 68.4 (G) Tertiary: 55.7 (B): 59.0(G)	HH Survey/Panchay at KII	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.
Ratio of literate women to men	61.5 (F), 82.6 (M) NFHS-4, 2015-16	61.3 (F), 83.1 (M) NFHS-4, 2015-16	67.7% (F) 86.2 (M) NFHS-4, 2015-16		N. A.	N. A.	N. A.	N. A.
% of women in wage employment in the non-agricultural sector.	28.2 % Census, 2011	-	HH Survey/Panchay at KII	11.11%	12.20%	5.08%	3.57%	0.00%

% of seats held by women in government decision-making bodies (Seats held by women in legislative assemblies)	8.32% (NITI Ayog SDG Dashboard, 2019-20)	14.44% (NITI Ayog SDG Dashboard, 2019-20)	HH Survey/Panchayat KII	0	1 (Panchayat)	0	1 (Panchayat)	0
% of women brought into SHG fold.	25 % (Antodaya Dashboard	25 % (Antodaya Dashboard	24 % (Antodaya Dashboard	37.04%	29.27%	13.56%	17.86%	44.44%
% of population having house/ shelter	40.5 % (NFHS-4, 2015-16)	90.21% (Census, 2011)	HH Survey/Panchayat KII	100%	95%	92%	100%	100%
% of population having Pacca House.	56.3 % (NFHS-4, 2015-16)	35.9% (NFHS-4, 2015-16)	HH Survey/Panchayat KII	85%	51%	59%	71%	100%

% of population with sustainable access to an improved water source (within their premises & near to premises).	95.81% (SDG Dashboard 2019)	99.2% (SDG Dashboard 2019)	HH Survey/Panchay at KII	100% HH Survey	100% HH Survey	100% HH Survey	100% HH Survey	100% HH Survey
% of households provided with piped drinking water.	18.4% (NFHS, 2015-16)	89.2 (NFHS, 2015-16)	12% (100% habitation covered with piped water) 25% (50% habitation covered with piped water)	4%	2%	17%	0%	0%
Proportion of population with access to improved sanitation (Toilet Facilities)	48.4% (NFHS-4, 2015-16)	32.7 (NFHS-4, 2015-16)	26.7% (NFHS 2015-16)	96%	85%	78%	89%	100%

% of households having electricity connection.	88.2% (NFHS-4, 2015-16)	95.6 (NFHS-4, 2015-16)	95.1% (NFHS 2015-16)	96%	80%	90%	100%	100%
Language and habits of communication	-	-		Hindi and Odia	Hindi and Odia	Hindi and Odia	Hindi and Odia	Hindi and Odia
Cultural characteristics: traditions, values, beliefs, etc.	-	-	-					
Knowledge, attitudes and behaviours with respect to the development problem to be dealt.	-	-	-					
Level of employment and agriculture development	-	-	-	-	-			

Kinds of occupations prevalent	-	-	-	Farmers Agricutlure Labourers Skilled Workers and Business Man	Farmers Agricutlure Labourers Skilled Workers and Business Man	Farmers Agricutlure Labourers Skilled Workers and Business Man	Farmers Agricutlure Labourers Skilled Workers and Business Man	Farmers Agricutlure Labourers Skilled Workers and Business Man

Indicator to measure on objectives	**National**	**State (Chattisgarh)**	**District (Raigarh)**	**Makhdumnagar**	**Lara**	**Mahloi**	**Riyapali**	**Kathani**
% of population below BPL	21.92 % NITI Ayog SDG Dashboard, 2019-20	39.93 % NITI Ayog SDG Dashboard, 2019-20	79% Antyodhya Dashboard	84%	86%	95%	91%	87%
Per capita income	Rs 126,406 , MosPI 2018-19	Rs. 461351, MosPI 2018-19	N. A.	49592	47239	71571	26618	79154
Proportions of children (6-14 years) attending the primary school	65.6 % (ASER, 2018-19)	76.4% (ASER, 2018)	N. A.	88.89%	60.00%	92.86%	100.00%	100.00%

Net Enrollment ratio in primary	82.53% (SDG Dashboard, 2017-18)	89.74 (SDG Dashboard, 2017-18)	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.
Proportion of pupils starting grade 1 who reach grade 5	N. A	N. A	N. A	N. A	N. A	N. A	N. A	N. A
Literacy rate of 7 + years old	77.7% (NSSO 2018)	77.3% (NSSO 2018	87%	71%	67%	76%	68%	79%
Proportion of children drop out (6-17 Years) Child not going to school (6-17 Years)	2.8% (ASER, 2018)	3.6% (ASER 2018)	N. A.	11%	0%	40%	7%	0%

% of population having higher education i.e graduation, post graduation, technical education	24.5% (MHRD 2015-16)	24.5% (MHRD 2015-16)	N. A.	6%	0%	2%	9%	4%
Training and skills available to people	N. A	N. A	N. A	0%	11.27%	9.52%	9.09%	0%
Number of primary school, thousand population and average distance to nearest school	78 % (Antyodaya Dashboard-2019-20)	92% (Antyodaya Dashboard-2019-20)	93% (Antyodaya Dashboard-2019-20)	Primary school	Higher Secondary	Higher Secondary	Primary school	Middle School
Prevalence of underweight children under 05 years of age	38.3 % (NFHS, 2015-16)	37.7 % (NFHS, 2015-16)	37.1 ((NFHS, 2015-16)	7%	5%	17%	2%	10%

Under-five mortality rate	56 (NFHS, 2015-16)	64 (NFHS, 2015-16)	67 (Annual health Survey-2013)	2	0	0	0	0
Infant Mortality Rate	46 (NFHS, 2015-16)	54 (NFHS, 2015-16)	55 (Annual Health Survey-2013)	2	0	0	0	0
% of 1 year-old children immunized. Children age 12-23 months fully immunized (BCG, measles, and 3 doses each of polio and DPT)	61.3 % (NFHS, 2015-16)	76.4 % (NFHS, 2015-16)	68.5% (NFHS, 2015-16)	69%	80%	71%	64%	87%
Maternal Mortality Rate	122 (SDG Dashboard, 2015-16)	141 (SDG Dashboard 2015-17)	261 (Bilaspur Division) (Annual Health Survey-2013)	0	0	0	0	0

% of births attended by skilled health personnel. (Births assisted by a doctor/nurse/ LHV/ANM/other health personnel)	78.0 % (NFHS, 2015-16)	78.0 % (NFHS, 2015-16)	76.7% (NFHS 2015-16)	14%	42%	51%	64%	72.73%
% of population under health related risk areas								
1. Tuberculosis	204 per lakh population, NITI Ayog SDG Dashboard, 2017	148 per lakh population, NITI Ayog SDG Dashboard, 2019-20	N. A.					
2. Malaria	0.18 % (SDG Dashboard 2019)	-	PHC KII/ AWC KII					

3. Measles (estimated based on substracting 100- Children age 12-23 months who have received measles vaccine (%)	19.4 % (NFHS, 2015-16)	93.3 % (NFHS, 2015-16)	PHC KII/ AWC KII	38.78%	11.54%	25.35%	14.29%	9.09%
4. Water borne diseases/Prevalence of diarrhoea (reported) in the last 2 weeks preceding the survey (%) (children under age 5 years):	9% (NFHS-4, 2015-16)	8.6% (NFHS-4, 2015-16)	N. A.	18.37%	3.85%	28.17%	11.90%	36.36%
5. HIV	0.07 per 1000 population NITI Ayog SDG Dashboard, 2019-20	0.06 per 1000 population NITI Ayog SDG Dashboard, 2019-20	N. A.	0%	0%	0%	0%	0%

6. Disability	2.21% (Census 2011)		N. A.	0.00%	1.92%	16.90%	9.52%	0.00%
Distance of the nearest hospital/PSC								
No. of beds per thousand population	7,13,986 (National Health Profile- 2019)	9412 (National Health Profile 2019						
Ratio of girls to boys in primary, secondary and tertiary education.	Primary: 35.4 (B): 27.8 (G) Secondary: 61.6 (B): 68.4 (G) Tertiary: 55.7 (B): 59.0(G)	HH Survey/Panchay at KII	N. A.	N. A.	N. A.	N. A.	N. A.	N. A.
Ratio of literate women to men	61.5 (F), 82.6 (M) NFHS-4, 2015-16	61.3 (F), 83.1 (M) NFHS-4, 2015-16	67.7% (F) 86.2 (M) NFHS-4, 2015-16	N. A.	N. A.	N. A.	N. A.	N. A.
% of women in wage employment in the non-agricultural sector.	28.2 % Census, 2011	-	HH Survey/Panchay at KII	6.12%	19.23%	11.27%	0.00%	9.09%

% of seats held by women in government decision-making bodies (Seats held by women in legislative assemblies)	8.32% (NITI Ayog SDG Dashboard, 2019-20)	14.44% (NITI Ayog SDG Dashboard, 2019-20)	HH Survey/Panchayat KII	0	0	0	1 (Panchayat)	1 (Panchayat)
% of women brought into SHG fold.	25 % (Antodaya Dashboard	25 % (Antodaya Dashboard	24 % (Antodaya Dashboard	32.65%	44.23%	32.39%	16.67%	54.55%
% of population having house/ shelter	40.5 % (NFHS-4, 2015-16)	90.21% (Census, 2011)	HH Survey/Panchayat KII	92%	92%	98%	100%	100%
% of population having Pacca House.	56.3 % (NFHS-4, 2015-16)	35.9% (NFHS-4, 2015-16)	HH Survey/Panchayat KII	45%	65%	44%	50%	27%

% of population with sustainable access to an improved water source (within their premises & near to premises).	95.81% (SDG Dashboard 2019)	99.2% (SDG Dashboard 2019)	HH Survey/Panchay at KII	100% HH Survey	100% HH Survey	100% HH Survey	100% HH Survey	100% HH Survey
% of households provided with piped drinking water.	18.4% (NFHS, 2015-16)	89.2 (NFHS, 2015-16)	12% (100% habitation covered with piped water) 25% (50% habitation covered with piped water)	4%	1%	12%	0%	2%
Proportion of population with access to improved sanitation (Toilet Facilities)	48.4% (NFHS-4, 2015-16)	32.7 (NFHS-4, 2015-16)	26.7% (NFHS 2015-16)	98%	85%	83%	91%	65%

% of households having electricity connection.	88.2% (NFHS-4, 2015-16)	95.6 (NFHS-4, 2015-16)	95.1% (NFHS 2015-16)	76%	81%	96%	98%	100%
Language and habits of communication	-	-		Hindi and Odia	Hindi and Odia	Hindi and Odia	Hindi and Odia	Hindi and Odia
Cultural characteristics: traditions, values, beliefs, etc.	-	-	-					
Knowledge, attitudes and behaviours with respect to the development problem to be dealt.	-	-	-					
Level of employment and agriculture development	-	-	-					

Kinds of occupations prevalent	-	-	-	Farmers Agricutlure Labourers Skilled Workers and Business Man	Farmers Agricutlure Labourers Skilled Workers and Business Man	Farmers Agricutlure Labourers Skilled Workers and Business Man	Farmers Agricutlure Labourers Skilled Workers and Business Man	Farmers Agricutlure Labourers Skilled Workers and Business Man

NTPC Limited
(A Government of India Enterprise)
Lara

Format for quarterly reporting of water consumption data and compliance with respect to the limit notified vide notification dated 07.12.2015 for coal/lignite based thermal power plants

Name of the Power Plant : Lara Super Thermal Power Station

State : Chhattisgarh

Capacity : 1600MW

Unit-wise Capacity : U#1 - 800MW
U#2 – 800MW

Available SWC Standard : 3.0 m3/MWh

Month	Power Generation (MW)	Water Consumption (m^3)	Sp. Water Consumption (Daily Avg. in m^3/MWh)
April 2024	1126112 (A)	2924974 (B)	2.60
May 2024	1162131 (C)	2949317 (D)	2.54
June 2024	1091939 (E)	2841115(F)	2.60
Quarterly Summary	(A+C+E)	(B+D+F)	(B+D+F)/(A+C+E)
TOTAL	3380182	8715406	2.58

Remarks: Water withdrawal data from plant reservoir.

Date: 15.07.2024

(SUDHIR DAHIYA)

AGM (ENVIRONMENT MANAGEMENT GROUP)

NTPC LARA

डॉ. सुधीर दहिया
Dr. SUDHIR DAHIYA
अपर महाप्रबंधक (पर्यावरण प्रबंधन)
Addl. General Manager (EMG)
एनटीपीसी-लारा, रायगढ़ (छ.ग.)
NTPC-LARA, Raigarh (C.G.)

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Month	Power Generation (MW)	Water Consumption (m^3)	Sp. Water Consumption (Daily Avg. in m^3/MWh)
July 2024	1098093 (A)	2544737 (B)	2.32
August 2024	1109420 (C)	2589642(D)	2.33
September 2024	851376 (E)	1998846 (F)	2.35
Quarterly Summary	(A+C+E)	(B+D+F)	(B+D+F)/(A+C+E)
TOTAL	3058889	7133225	2.33

Remarks: Water withdrawal data from plant reservoir.

Date: 14.10.2024

(SUDHIR DAHIYA)

AGM (ENVIRONMENT MANAGEMENT GROUP)

NTPC LARA

डॉ. सुधीर दहिया
Dr. SUDHIR DAHIYA
अपर महाप्रबंधक (पर्यावरण प्रबंधन)
Addl. General Manager (EMG)
एनटीपीसी-लारा, रायगढ़ (छ.ग.)
NTPC-LARA, Raigarh (C.G.)

MONTHLY ENVIRONMENTAL PERFORMANCE REPORT

MONTH : APRIL-2024

1.0 (a) Ground water Quality Plant nearby village:- **Devalsura**

Parameters	Unit	Ground Water 03.04.2024
Temperature	degree C	25.3 deg. C
pH Value		7.8
Electrical Conductivity	microS/cm	520
TDS	mg/lit	346
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	124
Mg-Hardness as CaCO3	mg/lit	67
BOD	mg/lit	1.0
COD	mg/lit	3.1
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.39
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	3.2
E-coli	MPN/100ml	Absent

1.0 (b) Ground water Quality near Ash Dyke village: **Kandagarh**

Parameters	Unit	Ground Water 03.04.2024
Temperature	degree C	25.5 deg. C
pH Value		7.5
Electrical Conductivity	microS/cm	530
TDS	mg/lit	353
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	106
Mg-Hardness as CaCO3	mg/lit	51
BOD	mg/lit	0.9
COD	mg/lit	2.8
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.47
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	4.9
E-coli	MPN/100ml	Absent

1.0 (c) Ground water Quality Plant nearby village:- **Bodajhariya**

Parameters	Unit	Ground Water 03.04.2024
Temperature	degree C	25.2 deg. C
pH Value		7.3
Electrical Conductivity	microS/cm	524
TDS	mg/lit	349
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	118
Mg-Hardness as CaCO3	mg/lit	65
BOD	mg/lit	1.0
COD	mg/lit	2.9
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.38
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	4.3
E-coli	MPN/100ml	Absent

1.0 (d) Ground water Quality near Ash Dyke village: **Jhilgitar**

Parameters	Unit	Ground Water 03.04.2024
Temperature	degree C	25.7 deg. C
pH Value		7.6
Electrical Conductivity	microS/cm	508
TDS	mg/lit	338
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	112
Mg-Hardness as CaCO3	mg/lit	60
BOD	mg/lit	1.1
COD	mg/lit	3.0
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.51
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	4.3
E-coli	MPN/100ml	Absent

1.0 (e) Ground water Quality Plant nearby village: **Mehloi**

Parameters	Unit	Ground Water 03.04.2024
Temperature	degree C	25.8 deg. C
pH Value		7.8
Electrical Conductivity	microS/cm	515
TDS	mg/lit	343
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	130
Mg-Hardness as CaCO3	mg/lit	67
BOD	mg/lit	1.2
COD	mg/lit	3.1
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.44
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	4.1
E-coli	MPN/100ml	Absent

1.0 (f) Ground water Quality near Plant nearby village: **Chhapora**

Parameters	Unit	Ground Water 04.04.2024
Temperature	degree C	25.9 deg. C
pH Value		7.2
Electrical Conductivity	microS/cm	525
TDS	mg/lit	350
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	122
Mg-Hardness as CaCO3	mg/lit	65
BOD	mg/lit	1.1
COD	mg/lit	3.0
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.53
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	3.8
E-coli	MPN/100ml	Absent

1.0 (g) Surface water : **Chhapora Nala Down stream**

Parameters	Unit	Surface Water 03.04.2024
Temperature	degree C	24.2 deg. C
pH Value		7.8
Electrical Conductivity	microS/cm	480
TDS	mg/lit	320
TSS	mg/lit	48
Ca-Hardness as CaCO3	mg/lit	114
Mg-Hardness as CaCO3	mg/lit	58
BOD	mg/lit	4.1
COD	mg/lit	12.5
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.58
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	47
E-coli	MPN/100ml	Absent

1.0 (h) Surface water : **Chhapora Nala Up stream**

Parameters	Unit	Surface Water 03.04.2024
Temperature	degree C	24.7 deg. C
pH Value		7.4
Electrical Conductivity	microS/cm	518
TDS	mg/lit	345
TSS	mg/lit	38
Ca-Hardness as CaCO3	mg/lit	120
Mg-Hardness as CaCO3	mg/lit	58
BOD	mg/lit	3.8
COD	mg/lit	12.1
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.48
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	43
E-coli	MPN/100ml	Absent

1.0 (i) Surface water : **Kelo river Down Stream Water**

Parameters	Unit	Surface Water 03.04.2024
Temperature	degree C	24.5 deg. C
pH Value		7.9
Electrical Conductivity	microS/cm	505
TDS	mg/lit	336
TSS	mg/lit	30
Ca-Hardness as CaCO3	mg/lit	128
Mg-Hardness as CaCO3	mg/lit	65
BOD	mg/lit	2.3
COD	mg/lit	5.4
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.46
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	38
E-coli	MPN/100ml	Absent

2.0 **AAQ monitoring at Nearby Villages:**

Parameters	Limit*	Chhapora 01.04.2024	Chhapora 04.04.2024	Chhapora 08.04.2024	Chhapora 11.04.2024	Chhapora 15.04.2024	Chhapora 18.04.2024
SO_2 (µg/m^3)	80	22.52	21.65	20.22	17.32	18.87	23.36
NO2 (µg/m^3)	80	24.37	23.21	22.81	19.60	20.93	24.61
PM 10 (µg/m^3)	100	49.38	44.73	50.32	42.64	45.11	42.14
PM 2.5 (µg/m^3)	60	25.68	23.66	26.12	22.31	24.48	21.04
Ozone (µg/m^3)	180	46.21	42.73	47.84	39.63	40.18	35.66
CO (mg /m^3)	4	0.44	0.48	0.40	0.38	0.43	0.36
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Chhapora 22.04.2024	Chhapora 25.04.2024	Chhapora 29.04.2024	Kandagarh 01.04.2024	Kandagarh 04.04.2024	Kandagarh 08.04.2024
SO_2 (µg/m^3)	80	21.43	20.37	19.47	16.21	20.47	22.52
NO2 (µg/m^3)	80	22.87	22.69	21.54	17.89	21.52	24.62
PM 10 (µg/m^3)	100	40.48	44.50	43.87	49.59	52.86	50.58
PM 2.5 (µg/m^3)	60	20.14	23.78	22.90	25.69	27.96	26.82
Ozone (µg/m^3)	180	40.62	47.90	38.41	39.60	43.73	44.84
CO (mg /m^3)	4	0.50	0.41	0.35	0.42	0.47	0.40
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Kandagarh 11.04.2024	Kandagarh 15.04.2024	Kandagarh 18.04.2024	Kandagarh 22.04.2024	Kandagarh 25.04.2024	Kandagarh 29.04.2024
SO_2 (µg/m^3)	80	23.74	22.41	21.52	23.64	20.72	22.32
NO2 (µg/m^3)	80	25.83	24.71	22.74	25.12	22.16	24.26
PM 10 (µg/m^3)	100	55.81	51.86	50.63	48.12	46.38	47.32
PM 2.5 (µg/m^3)	60	30.32	27.48	26.21	25.58	23.37	24.61
Ozone (µg/m^3)	180	42.76	38.77	41.09	45.39	43.59	38.52
CO (mg /m^3)	4	0.45	0.43	0.41	0.43	0.44	0.38
Hydrocarbons(PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Devalsura 02.04.2024	Devalsura 05.04.2024	Devalsura 09.04.2024	Devalsura 12.04.2024	Devalsura 16.04.2024	Devalsura 19.04.2024
SO_2 (µg/m^3)	80	20.38	21.59	22.84	19.39	18.49	21.74
NO2 (µg/m^3)	80	22.58	23.84	24.51	21.05	20.42	23.69
PM 10 (µg/m^3)	100	50.38	46.75	51.53	42.53	48.39	41.40
PM 2.5 (µg/m^3)	60	26.75	24.85	27.59	22.49	25.42	22.70
Ozone (µg/m^3)	180	43.76	36.70	40.32	39.60	47.39	42.89
CO (mg /m^3)	4	0.41	0.45	0.36	0.44	0.38	0.52
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Devalsura 23.04.2024	Devalsura 26.04.2024	Devalsura 30.04.2024	Rengalpali 02.04.2024	Rengalpali 05.04.2024	Rengalpali 09.04.2024
SO_2 (µg/m^3)	80	23.12	20.59	17.50	22.44	20.37	21.51
NO2 (µg/m^3)	80	24.76	22.32	19.32	24.72	22.31	23.22
PM 10 (µg/m^3)	100	54.52	49.54	46.49	48.20	46.86	42.49
PM 2.5 (µg/m^3)	60	31.39	26.10	24.31	26.50	24.43	22.70
Ozone (µg/m^3)	180	37.80	48.39	38.55	43.43	39.49	38.90
CO (mg /m^3)	4	0.45	0.40	0.49	0.44	0.40	0.36
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Rengalpali 12.04.2024	Rengalpali 16.04.2024	Rengalpali 19.04.2024	Rengalpali 23.04.2024	Rengalpali 26.04.2024	Rengalpali 30.04.2024
SO_2 (µg/m^3)	80	19.46	18.32	21.70	20.48	21.15	21.42
NO2 (µg/m^3)	80	21.23	20.78	23.32	21.42	22.86	24.60
PM 10 (µg/m^3)	100	47.43	50.43	44.97	47.86	46.87	43.49
PM 2.5 (µg/m^3)	60	25.71	27.16	23.21	26.45	24.10	22.80
Ozone (µg/m^3)	180	40.43	49.38	41.73	39.58	37.64	38.65
CO (mg /m^3)	4	0.32	0.39	0.43	0.49	0.35	0.40
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Main plant area 06.04.2024	Coal Handling plant area 20.04.2024	Bhatanpali road 13.04.2024
SO_2 (µg/m^3)	80	20.51	18.43	17.25
NO2 (µg/m^3)	80	22.16	20.84	19.54
PM 10 (µg/m^3)	100	47.37	56.42	49.57
PM 2.5 (µg/m^3)	60	24.97	32.85	25.85
Ozone (µg/m^3)	180	41.52	44.85	35.42
CO (mg /m^3)	4	0.40	0.46	0.33
Hydrocarbons (PPM)		<0.5	<0.5	<0.5

Parameters	Limit*	Chhapora 29.04.2024	Kandagarh 29.04.2024	Devalsura 30.04.2024	Rengalpali 30.04.2024
Mercury (µg/m^3)		<0.05	<0.05	<0.05	<0.05

* 24 hour weighted average for SO2, NO2, PM10, PM2.5 and 1 hour weighted average for CO & Ozone.

3.0 **Noise Level:**

Location	Date	Noise Level [dB (A)]	
		Day Time	Night Time
1. Plant Locations			
Township Area	27.04.2024	40.2	34.1
CHP Area	27.04.2024	49.7	44.6
CCR Area	27.04.2024	55.2	50.4
Material Gate	27.04.2024	48.3	43.2
Main Gate Area	27.04.2024	45.1	41.8
2. Nearby Villages			
Kandagarh	27.04.2024	40.3	34.5
Jhilgitar	27.04.2024	37.6	32.7
Chhapora	27.04.2024	37.4	34.2
Armuda	27.04.2024	38.5	32.9
Devalsura	27.04.2024	40.1	36.6

MONTHLY ENVIRONMENTAL PERFORMANCE REPORT

MONTH: MAY-2024

1.0 (a) Ground water Quality Plant nearby village :- **Mehloi**

Parameters	Unit	Ground Water 22.05.2024
Temperature	degree C	26.1 deg. C
pH Value		7.4
Electrical Conductivity	microS/cm	495
TDS	mg/lit	330
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	150
Mg-Hardness as CaCO3	mg/lit	78
BOD	mg/lit	0.9
COD	mg/lit	3.0
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.44
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	3.1
E-coli	MPN/100ml	Absent

Parameters	Unit	Ground Water 22.05.2024
Temperature	degree C	26.1
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.157
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (b) Ground water Quality near Ash Dyke village: **Kandagarh**

Parameters	Unit	Ground Water 22.05.2024
Temperature	degree C	25.4 deg. C
pH Value		7.4
Electrical Conductivity	microS/cm	510
TDS	mg/lit	348
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	136
Mg-Hardness as CaCO3	mg/lit	74
BOD	mg/lit	1.2
COD	mg/lit	3.2
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.43
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	3.8
E-coli	MPN/100ml	Absent

Parameters	Unit	Ground Water 22.05.2024
Temperature	degree C	25.4
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.113
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (c) Ground water Quality Plant nearby village:- **Chhapora**

Parameters	Unit	Ground Water 22.05.2024
Temperature	degree C	25.8 deg. C
pH Value		7.9
Electrical Conductivity	microS/cm	518
TDS	mg/lit	345
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	122
Mg-Hardness as CaCO3	mg/lit	65
BOD	mg/lit	1.1
COD	mg/lit	3.2
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.38
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	2.9
E-coli	MPN/100ml	Absent

Parameters	Unit	Ground Water 22.05.2024
Temperature	degree C	25.8
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.165
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (d) Ground water Quality near Ash Dyke village: **Jhilgitar**

Parameters	Unit	Ground Water 22.05.2024
Temperature	degree C	25.6 deg. C
pH Value		7.8
Electrical Conductivity	microS/cm	505
TDS	mg/lit	336
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	140
Mg-Hardness as CaCO3	mg/lit	74
BOD	mg/lit	1.2
COD	mg/lit	3.3
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.53
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	3.5
E-coli	MPN/100ml	Absent

Parameters	Unit	Ground Water 22.05.2024
Temperature	degree C	25.6
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.131
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (e) Ground water Quality Plant nearby village: **Bodajhariya**

Parameters	Unit	Ground Water 22.05.2024
Temperature	degree C	25.7 deg. C
pH Value		7.1
Electrical Conductivity	microS/cm	525
TDS	mg/lit	350
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	110
Mg-Hardness as CaCO3	mg/lit	58
BOD	mg/lit	0.8
COD	mg/lit	2.3
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.31
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	5.2
E-coli	MPN/100ml	Absent

Parameters	Unit	Ground Water 22.05.2024
Temperature	degree C	25.7
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.153
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (f) Ground water Quality Plant nearby village: **Dewalsura**

Parameters	Unit	Ground Water 22.05.2024
Temperature	degree C	25.8 deg. C
pH Value		7.6
Electrical Conductivity	microS/cm	545
TDS	mg/lit	363
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	126
Mg-Hardness as CaCO3	mg/lit	65
BOD	mg/lit	1.0
COD	mg/lit	3.1
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.48
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	4.1
E-coli	MPN/100ml	Absent

Parameters	Unit	Ground Water 22.05.2024
Temperature	degree C	25.8
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.130
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (g) Ground water Quality Plant nearby village: **Charpali**

Parameters	Unit	Ground Water 22.05.2024
Temperature	degree C	25.7 deg. C
pH Value		7.2
Electrical Conductivity	microS/cm	535
TDS	mg/lit	356
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	130
Mg-Hardness as CaCO3	mg/lit	72
BOD	mg/lit	1.2
COD	mg/lit	3.3
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.49
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	3.7
E-coli	MPN/100ml	Absent

Parameters	Unit	Ground Water 22.05.2024
Temperature	degree C	25.7
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.115
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (h) Surface water:- **Chhapora Nala Down stream**

Parameters	Unit	Surface Water 22.05.2024
Temperature	degree C	28.8 deg. C
pH Value		7.2
Electrical Conductivity	microS/cm	505
TDS	mg/lit	336
TSS	mg/lit	45
Ca-Hardness as CaCO3	mg/lit	120
Mg-Hardness as CaCO3	mg/lit	62
BOD	mg/lit	5.7
COD	mg/lit	15.4
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.51
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	42
E-coli	MPN/100ml	Absent

Temperature	degree C	28.8
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.172
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (i) Surface water : **Chhapora Nala Up stream**

Parameters	Unit	Surface Water 22.05.2024
Temperature	degree C	28.5 deg. C
pH Value		7.5
Electrical Conductivity	microS/cm	498
TDS	mg/lit	332
TSS	mg/lit	41
Ca-Hardness as CaCO3	mg/lit	114
Mg-Hardness as CaCO3	mg/lit	55
BOD	mg/lit	5.1
COD	mg/lit	15.1
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.38
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	46
E-coli	MPN/100ml	Absent

Temperature	degree C	28.5
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.188
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (j) Surface water : **Kelo river Downstream water**

Parameters	Unit	Surface Water 22.05.2024
Temperature	degree C	28.7 deg. C
pH Value		7.7
Electrical Conductivity	microS/cm	515
TDS	mg/lit	343
TSS	mg/lit	36
Ca-Hardness as CaCO3	mg/lit	114
Mg-Hardness as CaCO3	mg/lit	58
BOD	mg/lit	2.9
COD	mg/lit	6.9
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.52
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	44
E-coli	MPN/100ml	Absent

Temperature	degree C	28.7
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.197
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (k) Surface water : **Mahanadi river Downstream water**

Parameters	Unit	Surface Water 22.05.2024
Temperature	degree C	28.5 deg. C
pH Value		7.6
Electrical Conductivity	microS/cm	415
TDS	mg/lit	276
TSS	mg/lit	31
Ca-Hardness as CaCO3	mg/lit	122
Mg-Hardness as CaCO3	mg/lit	65
BOD	mg/lit	2.3
COD	mg/lit	6.0
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.45
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	40
E-coli	MPN/100ml	Absent

Temperature	degree C	28.5
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.172
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (I) Ground water : **Solid waste storage area- I**

Parameters	Unit	Ground Water 22.05.2024
Temperature	degree C	25.3 deg. C
pH Value		7.6
Electrical Conductivity	microS/cm	528
TDS	mg/lit	352
TSS	mg/lit	BQL (LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	146
Mg-Hardness as CaCO3	mg/lit	72
BOD	mg/lit	0.9
COD	mg/lit	2.9
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.47
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	4.5
E-coli	MPN/100ml	Absent

Temperature	degree C	25.3
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.086
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (m) Ground water : **Solid waste storage area- II**

Parameters	Unit	Ground Water 22.05.2024
Temperature	degree C	25.8 deg. C
pH Value		7.4
Electrical Conductivity	microS/cm	520
TDS	mg/lit	346
TSS	mg/lit	BQL (LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	136
Mg-Hardness as CaCO3	mg/lit	70
BOD	mg/lit	1.0
COD	mg/lit	3.0
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.54
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	4.2
E-coli	MPN/100ml	Absent

Temperature	degree C	25.8
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.098
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (n) Ground water : **Solid waste storage area- III**

Parameters	Unit	Ground Water 22.05.2024
Temperature	degree C	25.7 deg. C
pH Value		7.7
Electrical Conductivity	microS/cm	514
TDS	mg/lit	342
TSS	mg/lit	BQL (LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	118
Mg-Hardness as CaCO3	mg/lit	63
BOD	mg/lit	1.3
COD	mg/lit	3.2
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.48
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	4.7
E-coli	MPN/100ml	Absent

Temperature	degree C	25.7
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.120
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (o) Ground water : **Solid waste storage area- IV**

Parameters	Unit	Ground Water 22.05.2024
Temperature	degree C	25.1 deg. C
pH Value		7.8
Electrical Conductivity	microS/cm	528
TDS	mg/lit	352
TSS	mg/lit	BQL (LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	122
Mg-Hardness as CaCO3	mg/lit	65
BOD	mg/lit	1.1
COD	mg/lit	3.1
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.50
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	3.8
E-coli	MPN/100ml	Absent

Temperature	degree C	25.1
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.112
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0(p) Ground water Hazardous Waste Storage Area:- Sample-1

Parameters	Unit	22.05.2024
Temperature	degree C	25.4 deg. C
pH Value		7.3
Electrical Conductivity	microS/cm	515
TDS	mg/lit	343
TSS	mg/lit	BQL (LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	142
Mg-Hardness as CaCO3	mg/lit	74
BOD	mg/lit	0.9
COD	mg/lit	2.9
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.41
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	3.1
E-coli	MPN/100ml	Absent

Ground water Hazardous Waste Storage Area (Heavy Metal):- Sample-1

Parameters	Unit	22.05.2024
Mercury	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa Cr6+	mg/lit	BQL (LOQ:0.05)
Iron	mg/lit	0.196
Copper	mg/lit	BQL (LOQ :0.0005)
Chromium Total	mg/lit	BQL (LOQ :0.0005)
Zinc	mg/lit	BQL (LOQ :0.0005)
Cadmium	mg/lit	BQL (LOQ :0.0005)
Lead	mg/lit	BQL (LOQ :0.0005)
Arsenic	mg/lit	BQL (LOQ :0.0005)

1.0(q) Ground water Hazardous Waste Storage Area:- Sample-2

Parameters	Unit	22.05.2024
Temperature	degree C	25.6 deg. C
pH Value		7.1
Electrical Conductivity	microS/cm	540
TDS	mg/lit	360
TSS	mg/lit	BQL (LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	148
Mg-Hardness as CaCO3	mg/lit	78
BOD	mg/lit	1.2
COD	mg/lit	3.0
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.54
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	4.5
E-coli	MPN/100ml	Absent

Ground water Hazardous Waste Storage Area (Heavy Metal):- Sample-2

Parameters	Unit	22.05.2024
Mercury	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa Cr6+	mg/lit	BQL (LOQ:0.05)
Iron	mg/lit	0.174
Copper	mg/lit	BQL (LOQ :0.0005)
Chromium Total	mg/lit	BQL (LOQ :0.0005)
Zinc	mg/lit	BQL (LOQ :0.0005)
Cadmium	mg/lit	BQL (LOQ :0.0005)
Lead	mg/lit	BQL (LOQ :0.0005)
Arsenic	mg/lit	BQL (LOQ :0.0005)

1.0(r) Ground water Hazardous Waste Storage Area:- Sample-3

Parameters	Unit	22.05.2024
Temperature	degree C	25.3 deg. C
pH Value		7.6
Electrical Conductivity	microS/cm	525
TDS	mg/lit	350
TSS	mg/lit	BQL (LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	130
Mg-Hardness as CaCO3	mg/lit	68
BOD	mg/lit	1.1
COD	mg/lit	3.1
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.56
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	3.6
E-coli	MPN/100ml	Absent

Ground water Hazardous Waste Storage Area (Heavy Metal):- Sample-3

Parameters	Unit	22.05.2025
Mercury	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa Cr6+	mg/lit	BQL (LOQ:0.05)
Iron	mg/lit	0.168
Copper	mg/lit	BQL (LOQ :0.0005)
Chromium Total	mg/lit	BQL (LOQ :0.0005)
Zinc	mg/lit	BQL (LOQ :0.0005)
Cadmium	mg/lit	BQL (LOQ :0.0005)
Lead	mg/lit	BQL (LOQ :0.0005)
Arsenic	mg/lit	BQL (LOQ :0.0005)

1.0(s) **Ground water Hazardous Waste Storage Area:- Sample-4**

Parameters	Unit	22.05.2024
Temperature	degree C	25.2 deg. C
pH Value		7.5
Electrical Conductivity	microS/cm	510
TDS	mg/lit	340
TSS	mg/lit	BQL (LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	144
Mg-Hardness as CaCO3	mg/lit	75
BOD	mg/lit	1.0
COD	mg/lit	3.2
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.52
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	4.0
E-coli	MPN/100ml	Absent

Ground water Hazardous Waste Storage Area (Heavy Metal):- Sample-4

Parameters	Unit	22.05.2024
Mercury	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa Cr6+	mg/lit	BQL (LOQ:0.05)
Iron	mg/lit	0.185
Copper	mg/lit	BQL (LOQ:0.0005)
Chromium Total	mg/lit	BQL (LOQ:0.0005)
Zinc	mg/lit	BQL (LOQ:0.0005)
Cadmium	mg/lit	BQL (LOQ:0.0005)
Lead	mg/lit	BQL (LOQ:0.0005)
Arsenic	mg/lit	BQL (LOQ:0.0005)

2.0 AAQ monitoring at Nearby Villages:-

Parameters	Limit*	Chhapora 02.05.2024	Chhapora 06.05.2024	Chhapora 09.05.2024	Chhapora 13.05.2024	Chhapora 16.05.2024	Chhapora 20.05.2024
SO_2 (µg/m^3)	80	23.66	22.17	24.40	18.24	21.13	19.56
NO2 (µg/m^3)	80	24.90	23.85	25.15	20.59	23.45	21.64
PM 10 (µg/m^3)	100	40.14	38.97	44.58	48.17	41.88	45.50
PM 2.5 (µg/m^3)	60	21.85	20.15	23.45	25.40	22.54	23.91
Ozone (µg/m^3)	180	48.14	44.54	41.65	47.44	45.10	39.18
CO (mg /m^3)	4	0.49	0.45	0.53	0.50	0.44	0.41
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Chhapora 23.05.2024	Chhapora 27.05.2024	Chhapora 30.05.2024	Kandagarh 02.05.2024	Kandagarh 06.05.2024	Kandagarh 09.05.2024
SO_2 (µg/m^3)	80	24.10	22.55	23.17	15.89	17.75	20.20
NO2 (µg/m^3)	80	25.05	24.84	24.93	17.43	19.06	21.93
PM 10 (µg/m^3)	100	39.46	42.10	40.46	53.40	50.63	62.49
PM 2.5 (µg/m^3)	60	20.17	22.41	21.50	25.41	24.67	32.10
Ozone (µg/m^3)	180	42.49	46.61	43.50	38.43	41.69	43.70
CO (mg /m^3)	4	0.47	0.42	0.40	0.49	0.39	0.43
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Kandagarh 13.05.2024	Kandagarh 16.05.2024	Kandagarh 20.05.2024	Kandagarh 23.05.2024	Kandagarh 27.05.2024	Kandagarh 30.05.2024
SO_2 (µg/m^3)	80	18.11	16.46	19.83	20.01	15.43	17.32
NO2 (µg/m^3)	80	20.40	18.78	21.69	22.10	17.46	19.56
PM 10 (µg/m^3)	100	54.37	48.51	57.74	51.38	45.87	52.39
PM 2.5 (µg/m^3)	60	28.34	25.48	29.17	27.31	23.85	27.46
Ozone (µg/m^3)	180	39.18	40.76	37.48	42.27	39.68	36.12
CO (mg /m^3)	4	0.40	0.38	0.35	0.41	0.43	0.37
Hydrocarbons(PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Devalsura 03.05.2024	Devalsura 07.05.2024	Devalsura 10.05.2024	Devalsura 14.05.2024	Devalsura 17.05.2024	Devalsura 21.05.2024
SO_2 (µg/m^3)	80	19.48	18.70	21.44	23.80	17.20	16.74
NO2 (µg/m^3)	80	21.70	20.45	22.63	24.87	19.13	18.61
PM 10 (µg/m^3)	100	45.24	42.33	38.50	40.74	43.80	47.04
PM 2.5 (µg/m^3)	60	23.38	22.40	20.84	21.68	22.50	24.61
Ozone (µg/m^3)	180	41.70	44.53	43.18	40.28	42.10	39.23
CO (mg /m^3)	4	0.40	0.44	0.38	0.36	0.42	0.45
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Devalsura 24.05.2024	Devalsura 28.05.2024	Devalsura 31.05.2024	Rengalpali 03.05.2024	Rengalpali 07.05.2024	Rengalpali 10.05.2024
SO_2 (µg/m^3)	80	20.12	21.18	19.87	21.56	23.10	22.13
NO2 (µg/m^3)	80	22.44	23.38	21.49	23.10	25.20	24.54
PM 10 (µg/m^3)	100	45.80	55.58	46.78	50.54	48.64	53.72
PM 2.5 (µg/m^3)	60	23.84	29.70	24.48	26.46	25.40	27.90
Ozone (µg/m^3)	180	37.56	35.58	54.73	40.72	43.13	37.40
CO (mg /m^3)	4	0.35	0.43	0.37	0.41	0.44	0.39
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Rengalpali 14.05.2024	Rengalpali 17.05.2024	Rengalpali 21.05.2024	Rengalpali 24.05.2024	Rengalpali 28.05.2024	Rengalpali 31.05.2024
SO_2 (µg/m^3)	80	18.38	23.40	20.91	19.13	23.18	20.13
NO2 (µg/m^3)	80	19.85	24.55	22.13	21.44	24.48	22.64
PM 10 (µg/m^3)	100	58.10	47.13	41.50	45.44	50.22	52.75
PM 2.5 (µg/m^3)	60	32.44	25.10	22.19	23.85	28.52	29.45
Ozone (µg/m^3)	180	44.55	48.50	42.10	43.12	39.74	45.10
CO (mg /m^3)	4	0.42	0.40	0.38	0.43	0.46	0.37
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Main Plant Area 11.05.2024	Coal Handling Plant Area 18.05.2024
SO_2 (µg/m^3)	80	22.74	19.57
NO2 (µg/m^3)	80	24.89	21.66
PM 10 (µg/m^3)	100	53.60	58.52
PM 2.5 (µg/m^3)	60	28.51	30.11
Ozone (µg/m^3)	180	44.88	48.32
CO (mg /m^3)	4	0.48	0.41
Hydrocarbons (PPM)		<0.5	<0.5

Parameters	Limit*	Chhapora 27.05.2024	Kandagarh 30.05.2024	Devalsura 28.05.2024	Rengalpali 28.05.2024
Mercury (µg/m^3)		<0.05	<0.05	<0.05	<0.05

* 24 hour weighted average for SO2, NO2, PM10, PM2.5 and 1 hour weighted average for CO & Ozone.

3.0 Noise Level: -

Location	Date	Noise Level [dB (A)]	
		Day Time	Night Time
1. Plant Locations			
Township Area	25.05.2024	38.2	34.7
CHP Area	25.05.2024	47.1	43.8
CCR Area	25.05.2024	54.9	48.4
Material Gate	25.05.2024	49.4	42.1
Main Gate Area	25.05.2024	44.3	40.2
2.			
Kandagarh	25.05.2024	39.7	33.8
Jhilgitar	25.05.2024	38.0	31.1
Chhapora	25.05.2024	36.6	33.6
Armuda	25.05.2024	37.4	31.3
Devalsura	25.05.2024	39.2	35.5

MONTHLY ENVIRONMENTAL PERFORMANCE REPORT

MONTH : JUNE-2024

1.0 (a) Ground water Quality Plant nearby village:- **Devalsura**

Parameters	Unit	Ground Water 05.06.2024
Temperature	degree C	26.4 deg. C
pH Value		7.7
Electrical Conductivity	microS/cm	525
TDS	mg/lit	350
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	120
Mg-Hardness as CaCO3	mg/lit	63
BOD	mg/lit	0.9
COD	mg/lit	2.8
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.41
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	4.7
E-coli	MPN/100ml	Absent

1.0 (b) Ground water Quality near Ash Dyke village: **Kandagarh**

Parameters	Unit	Ground Water 05.06.2024
Temperature	degree C	26.2 deg. C
pH Value		7.3
Electrical Conductivity	microS/cm	497
TDS	mg/lit	331
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	130
Mg-Hardness as CaCO3	mg/lit	68
BOD	mg/lit	1.1
COD	mg/lit	3.3
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.48
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	4.8
E-coli	MPN/100ml	Absent

1.0 (c) Ground water Quality Plant nearby village:- **Bodajhariya**

Parameters	Unit	Ground Water 05.06.2024
Temperature	degree C	26.3 deg. C
pH Value		7.5
Electrical Conductivity	microS/cm	515
TDS	mg/lit	343
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	122
Mg-Hardness as CaCO3	mg/lit	64
BOD	mg/lit	1.2
COD	mg/lit	3.4
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.39
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	5.4
E-coli	MPN/100ml	Absent

1.0 (d) Ground water Quality near Ash Dyke village: **Jhilgitar**

Parameters	Unit	Ground Water 05.06.2024
Temperature	degree C	26.1 deg. C
pH Value		7.4
Electrical Conductivity	microS/cm	520
TDS	mg/lit	346
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	134
Mg-Hardness as CaCO3	mg/lit	70
BOD	mg/lit	1.0
COD	mg/lit	3.1
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.50
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	5.2
E-coli	MPN/100ml	Absent

1.0 (e) Ground water Quality Plant nearby village: **Mehloi**

Parameters	Unit	Ground Water 05.06.2024
Temperature	degree C	26.2 deg. C
pH Value		7.5
Electrical Conductivity	microS/cm	510
TDS	mg/lit	340
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	142
Mg-Hardness as CaCO3	mg/lit	74
BOD	mg/lit	1.1
COD	mg/lit	3.2
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.49
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	3.9
E-coli	MPN/100ml	Absent

1.0 (f) Ground water Quality near Plant nearby village: **Chhapora**

Parameters	Unit	Ground Water 05.06.2024
Temperature	degree C	26.3 deg. C
pH Value		7.6
Electrical Conductivity	microS/cm	528
TDS	mg/lit	352
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	128
Mg-Hardness as CaCO3	mg/lit	67
BOD	mg/lit	1.0
COD	mg/lit	3.0
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.58
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	3.1
E-coli	MPN/100ml	Absent

1.0 (g) Surface water : **Chhapora Nala Down stream**

Parameters	Unit	Surface Water 05.06.2024
Temperature	degree C	29.8 deg. C
pH Value		7.4
Electrical Conductivity	microS/cm	528
TDS	mg/lit	352
TSS	mg/lit	43
Ca-Hardness as CaCO3	mg/lit	128
Mg-Hardness as CaCO3	mg/lit	66
BOD	mg/lit	4.3
COD	mg/lit	12.7
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.55
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	49
E-coli	MPN/100ml	Absent

1.0 (h) Surface water: **Chhapora Nala Up stream**

Parameters	Unit	Surface Water 05.06.2024
Temperature	degree C	30.1 deg. C
pH Value		7.6
Electrical Conductivity	microS/cm	512
TDS	mg/lit	341
TSS	mg/lit	40
Ca-Hardness as CaCO3	mg/lit	120
Mg-Hardness as CaCO3	mg/lit	63
BOD	mg/lit	4.1
COD	mg/lit	12.5
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.46
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	52
E-coli	MPN/100ml	Absent

1.0 (i) Surface water: **Kelo river Down Stream Water**

Parameters	Unit	Surface Water 05.06.2024
Temperature	degree C	30.3 deg. C
pH Value		7.8
Electrical Conductivity	microS/cm	535
TDS	mg/lit	356
TSS	mg/lit	33
Ca-Hardness as CaCO3	mg/lit	130
Mg-Hardness as CaCO3	mg/lit	68
BOD	mg/lit	3.2
COD	mg/lit	10.1
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.41
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	58
E-coli	MPN/100ml	Absent

2.0 AAQ monitoring at Nearby Villages:

Parameters	Limit*	Chhapora 03.06.2024	Chhapora 06.06.2024	Chhapora 10.06.2024	Chhapora 13.06.2024	Chhapora 17.06.2024	Chhapora 20.06.2024
SO_2 (µg/m^3)	80	17.75	20.20	18.11	17.32	15.43	20.01
NO2 (µg/m^3)	80	19.06	21.93	20.40	19.56	17.46	22.14
PM 10 (µg/m^3)	100	43.49	54.87	47.90	44.80	50.73	52.43
PM 2.5 (µg/m^3)	60	22.80	30.10	26.44	23.50	27.16	29.77
Ozone (µg/m^3)	180	54.70	38.98	40.13	42.10	39.18	37.50
CO (mg /m^3)	4	0.37	0.43	0.34	0.45	0.42	0.36
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Chhapora 24.06.2024	Chhapora 27.06.2024	Kandagarh 03.06.2024	Kandagarh 06.06.2024	Kandagarh 10.06.2024	Kandagarh 13.06.2024
SO_2 (µg/m^3)	80	19.83	16.80	21.18	20.12	16.74	17.20
NO2 (µg/m^3)	80	21.90	18.95	23.38	22.41	18.61	19.13
PM 10 (µg/m^3)	100	42.52	46.80	50.48	57.74	61.54	54.13
PM 2.5 (µg/m^3)	60	22.80	24.50	26.40	31.35	35.10	28.85
Ozone (µg/m^3)	180	43.77	45.10	43.50	46.61	42.49	45.10
CO (mg /m^3)	4	0.38	0.44	0.40	0.42	0.47	0.44
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Kandagarh 17.06.2024	Kandagarh 20.06.2024	Kandagarh 24.06.2024	Kandagarh 27.06.2024	Devalsura 04.06.2024	Devalsura 07.06.2024
SO_2 (µg/m^3)	80	23.80	21.44	18.70	19.48	20.13	23.18
NO2 (µg/m^3)	80	24.87	22.63	20.45	21.70	22.64	24.50
PM 10 (µg/m^3)	100	51.55	44.57	48.77	46.50	50.48	45.30
PM 2.5 (µg/m^3)	60	26.65	23.14	25.45	24.70	28.11	23.70
Ozone (µg/m^3)	180	39.18	47.44	41.65	48.14	43.50	46.74
CO (mg /m^3)	4	0.41	0.50	0.53	0.49	0.42	0.40
Hydrocarbons(PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Devalsura 11.06.2024	Devalsura 14.06.2024	Devalsura 18.06.2024	Devalsura 21.06.2024	Devalsura 25.06.2024	Devalsura 28.06.2024
SO_2 (µg/m^3)	80	19.20	21.75	23.44	18.28	22.18	23.15
NO2 (µg/m^3)	80	21.30	23.33	24.65	19.80	24.40	25.10
PM 10 (µg/m^3)	100	41.81	47.48	43.63	40.93	44.35	42.64
PM 2.5 (µg/m^3)	60	22.85	25.30	23.13	22.85	23.50	22.74
Ozone (µg/m^3)	180	42.54	39.38	45.20	48.85	41.70	44.78
CO (mg /m^3)	4	0.47	0.41	0.44	0.50	0.52	0.45
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Rengalpali 04.06.2024	Rengalpali 07.06.2024	Rengalpali 11.06.2024	Rengalpali 14.06.2024	Rengalpali 18.06.2024	Rengalpali 21.06.2024
SO_2 (µg/m^3)	80	16.38	15.44	20.28	19.05	16.50	18.44
NO2 (µg/m^3)	80	18.50	17.41	22.34	21.73	18.65	20.45
PM 10 (µg/m^3)	100	46.54	49.84	54.80	41.11	48.63	42.18
PM 2.5 (µg/m^3)	60	27.30	26.10	30.25	22.38	25.77	22.58
Ozone (µg/m^3)	180	38.60	48.25	42.78	37.54	47.40	39.82
CO (mg /m^3)	4	0.49	0.40	0.45	0.52	0.38	0.44
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Rengalpali 25.06.2024	Rengalpali 28.06.2024
SO_2 (µg/m^3)	80	20.65	17.10
NO2 (µg/m^3)	80	21.85	18.90
PM 10 (µg/m^3)	100	51.94	46.75
PM 2.5 (µg/m^3)	60	27.46	24.50
Ozone (µg/m^3)	180	40.33	36.24
CO (mg /m^3)	4	0.36	0.45
Hydrocarbons (PPM)		<0.5	<0.5

Parameters	Limit*	Main plant area 08.06.2024	Coal Handling plant area 22.06.2024
SO_2 ($\mu g/m^3$)	80	21.60	22.84
NO2 ($\mu g/m^3$)	80	23.44	24.18
PM 10 ($\mu g/m^3$)	100	50.48	55.64
PM 2.5 ($\mu g/m^3$)	60	27.16	31.43
Ozone ($\mu g/m^3$)	180	46.70	50.10
CO (mg /m^3)	4	0.53	0.44
Hydrocarbons (PPM)		<0.5	<0.5

Parameters	Limit*	Chhapora 27.06.2024	Kandagarh 27.06.2024	Devalsura 28.06.2024	Rengalpali 28.06.2024
Mercury ($\mu g/m^3$)		<0.05	<0.05	<0.05	<0.05

* 24 hour weighted average for SO2, NO2, PM10, PM2.5 and 1 hour weighted average for CO & Ozone.

3.0 Noise Level:

Location	Date	Noise Level [dB (A)]	
		Day Time	Night Time
1. Plant Locations			
Township Area	29.06.2024	41.7	37.3
CHP Area	29.06.2024	50.2	45.9
CCR Area	29.06.2024	57.1	50.6
Material Gate	29.06.2024	52.1	45.4
Main Gate Area	29.06.2024	48.3	43.6
2. Nearby Villages			
Kandagarh	29.06.2024	41.8	35.7
Jhilgitar	29.06.2024	42.4	37.7
Chhapora	29.06.2024	39.8	35.3
Armuda	29.06.2024	40.2	34.5
Devalsura	29.06.2024	42.7	38.2

MONTHLY ENVIRONMENTAL PERFORMANCE REPORT

MONTH : JULY-2024

1.0 (a) Ground water Quality Plant nearby village:- **Devalsura**

Parameters	Unit	Ground Water 17.07.2024
Temperature	degree C	26.1 deg. C
pH Value		7.9
Electrical Conductivity	microS/cm	510
TDS	mg/lit	340
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	140
Mg-Hardness as CaCO3	mg/lit	70
BOD	mg/lit	1.0
COD	mg/lit	3.1
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.48
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	2.8
E-coli	MPN/100ml	Absent

1.0 (b) Ground water Quality near Ash Dyke village: **Kandagarh**

Parameters	Unit	Ground Water 17.07.2024
Temperature	degree C	26.1 deg. C
pH Value		7.6
Electrical Conductivity	microS/cm	505
TDS	mg/lit	336
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	134
Mg-Hardness as CaCO3	mg/lit	63
BOD	mg/lit	1.2
COD	mg/lit	3.1
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.35
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	3.9
E-coli	MPN/100ml	Absent

1.0 (c) Ground water Quality Plant nearby village:- **Bodajhariya**

Parameters	Unit	Ground Water 17.07.2024
Temperature	degree C	25.9 deg. C
pH Value		7.2
Electrical Conductivity	microS/cm	495
TDS	mg/lit	330
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	136
Mg-Hardness as CaCO3	mg/lit	68
BOD	mg/lit	0.9
COD	mg/lit	3.0
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.31
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	3.1
E-coli	MPN/100ml	Absent

1.0 (d) Ground water Quality near Ash Dyke village: **Jhilgitar**

Parameters	Unit	Ground Water 17.07.2024
Temperature	degree C	26.0 deg. C
pH Value		7.7
Electrical Conductivity	microS/cm	500
TDS	mg/lit	333
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	120
Mg-Hardness as CaCO3	mg/lit	62
BOD	mg/lit	1.1
COD	mg/lit	3.3
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.53
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	4.1
E-coli	MPN/100ml	Absent

1.0 (e) Ground water Quality Plant nearby village: **Mehloi**

Parameters	Unit	Ground Water 17.07.2024
Temperature	degree C	26.1 deg. C
pH Value		7.3
Electrical Conductivity	microS/cm	535
TDS	mg/lit	356
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	126
Mg-Hardness as CaCO3	mg/lit	65
BOD	mg/lit	1.2
COD	mg/lit	3.4
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.42
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	2.1
E-coli	MPN/100ml	Absent

1.0 (f) Ground water Quality near Plant nearby village: **Chhapora**

Parameters	Unit	Ground Water 17.07.2024
Temperature	degree C	26.2 deg. C
pH Value		7.4
Electrical Conductivity	microS/cm	490
TDS	mg/lit	326
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	122
Mg-Hardness as CaCO3	mg/lit	60
BOD	mg/lit	0.9
COD	mg/lit	2.9
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.40
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	2.5
E-coli	MPN/100ml	Absent

1.0 (g) Surface water : **Chhapora Nala Down stream**

Parameters	Unit	Surface Water 17.07.2024
Temperature	degree C	28.5 deg. C
pH Value		7.2
Electrical Conductivity	microS/cm	540
TDS	mg/lit	360
TSS	mg/lit	56
Ca-Hardness as CaCO3	mg/lit	96
Mg-Hardness as CaCO3	mg/lit	56
BOD	mg/lit	4.7
COD	mg/lit	14.1
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.48
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	25.5
E-coli	MPN/100ml	Absent

1.0 (h) Surface water : **Chhapora Nala Up stream**

Parameters	Unit	Surface Water 17.07.2024
Temperature	degree C	28.7 deg. C
pH Value		7.5
Electrical Conductivity	microS/cm	510
TDS	mg/lit	340
TSS	mg/lit	52
Ca-Hardness as CaCO3	mg/lit	98
Mg-Hardness as CaCO3	mg/lit	50
BOD	mg/lit	4.2
COD	mg/lit	13.7
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.42
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	28.7
E-coli	MPN/100ml	Absent

1.0 (i) Surface water : **Kelo river Down Stream Water**

Parameters	Unit	Surface Water 17.07.2024
Temperature	degree C	28.2 deg. C
pH Value		7.7
Electrical Conductivity	microS/cm	515
TDS	mg/lit	343
TSS	mg/lit	50
Ca-Hardness as CaCO3	mg/lit	90
Mg-Hardness as CaCO3	mg/lit	48
BOD	mg/lit	4.1
COD	mg/lit	12.8
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.53
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	32
E-coli	MPN/100ml	Absent

2.0 **AAQ monitoring at Nearby Villages:**

Parameters	Limit*	Chhapora 01.07.2024	Chhapora 04.07.2024	Chhapora 08.07.2024	Chhapora 11.07.2024	Chhapora 15.07.2024	Chhapora 18.07.2024
SO_2 (µg/m^3)	80	20.59	17.50	23.12	21.70	18.55	19.42
NO2 (µg/m^3)	80	22.30	19.32	24.76	23.65	20.47	21.10
PM 10 (µg/m^3)	100	43.80	44.55	40.10	42.00	45.20	41.60
PM 2.5 (µg/m^3)	60	22.91	23.70	21.74	21.84	24.50	22.35
Ozone (µg/m^3)	180	38.60	37.74	39.50	41.77	49.40	40.48
CO (mg /m^3)	4	0.40	0.35	0.38	0.43	0.39	0.32
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Chhapora 22.07.2024	Chhapora 25.07.2024	Chhapora 29.07.2024	Kandagarh 01.07.2024	Kandagarh 04.07.2024	Kandagarh 08.07.2024
SO_2 (µg/m^3)	80	22.80	21.51	16.42	23.60	22.55	20.12
NO2 (µg/m^3)	80	24.44	23.70	18.56	24.95	23.84	22.40
PM 10 (µg/m^3)	100	50.25	39.80	46.20	52.70	50.22	45.85
PM 2.5 (µg/m^3)	60	26.30	20.10	25.73	29.40	28.74	23.80
Ozone (µg/m^3)	180	38.75	39.55	36.50	38.65	37.50	40.80
CO (mg /m^3)	4	0.36	0.40	0.44	0.35	0.40	0.49
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Kandagarh 11.07.2024	Kandagarh 15.07.2024	Kandagarh 18.07.2024	Kandagarh 22.07.2024	Kandagarh 25.07.2024	Kandagarh 29.07.2024
SO_2 (µg/m^3)	80	21.10	18.35	19.80	24.70	17.44	21.65
NO2 (µg/m^3)	80	23.50	20.24	21.10	25.35	19.72	22.90
PM 10 (µg/m^3)	100	60.40	48.24	51.84	46.35	49.64	43.70
PM 2.5 (µg/m^3)	60	32.35	25.44	27.10	24.13	26.74	24.90
Ozone (µg/m^3)	180	41.55	49.70	48.50	39.90	43.44	45.13
CO (mg /m^3)	4	0.43	0.39	0.32	0.36	0.44	0.46
Hydrocarbons(PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Devalsura 02.07.2024	Devalsura 05.07.2024	Devalsura 09.07.2024	Devalsura 12.07.2024	Devalsura 16.07.2024	Devalsura 19.07.2024
SO_2 (µg/m^3)	80	17.51	20.80	18.48	16.40	19.55	20.35
NO2 (µg/m^3)	80	18.95	21.65	20.50	18.60	21.80	22.40
PM 10 (µg/m^3)	100	40.50	42.15	39.65	45.84	41.74	48.93
PM 2.5 (µg/m^3)	60	21.62	22.55	20.10	23.90	22.44	25.35
Ozone (µg/m^3)	180	38.50	48.40	37.42	42.64	47.25	39.70
CO (mg /m^3)	4	0.39	0.40	0.45	0.42	0.38	0.44
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Devalsura 23.07.2024	Devalsura 26.07.2024	Devalsura 30.07.2024	Rengalpali 02.07.2024	Rengalpali 05.07.2024	Rengalpali 09.07.2024
SO_2 (µg/m^3)	80	15.55	16.44	17.30	23.90	22.55	24.11
NO2 (µg/m^3)	80	17.44	18.40	19.13	24.85	23.20	25.15
PM 10 (µg/m^3)	100	38.70	44.62	37.88	55.61	46.80	45.84
PM 2.5 (µg/m^3)	60	20.28	23.38	19.40	29.65	24.50	23.70
Ozone (µg/m^3)	180	40.15	36.47	38.56	36.50	39.68	37.38
CO (mg /m^3)	4	0.36	0.41	0.45	0.37	0.43	0.41
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Rengalpali 12.07.2024	Rengalpali 16.07.2024	Rengalpali 19.07.2024	Rengalpali 23.07.2024	Rengalpali 26.07.2024	Rengalpali 30.07.2024
SO_2 (µg/m^3)	80	21.40	19.60	18.35	24.10	20.98	23.74
NO2 (µg/m^3)	80	23.55	21.70	20.60	25.30	22.80	24.95
PM 10 (µg/m^3)	100	47.15	43.28	40.35	38.77	42.54	45.68
PM 2.5 (µg/m^3)	60	24.50	25.10	21.27	20.60	22.38	23.80
Ozone (µg/m^3)	180	42.24	40.75	38.58	43.62	41.84	35.25
CO (mg /m^3)	4	0.35	0.40	0.38	0.42	0.39	0.36
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Main plant area 13.07.2024	Coal Handling plant area 20.07.2024	Bhatanpali Road 06.07.2024
SO_2 ($\mu g/m^3$)	80	22.48	18.52	19.44
NO2 ($\mu g/m^3$)	80	24.77	20.14	21.75
PM 10 ($\mu g/m^3$)	100	53.61	57.32	45.66
PM 2.5 ($\mu g/m^3$)	60	28.82	32.54	24.35
Ozone ($\mu g/m^3$)	180	49.21	54.88	33.90
CO (mg /m^3)	4	0.42	0.51	0.30
Hydrocarbons (PPM)		<0.5	<0.5	<0.5

Parameters	Limit*	Chhapora 29.07.2024	Kandagarh 29.07.2024	Devalsura 30.07.2024	Rengalpali 30.07.2024
Mercury ($\mu g/m^3$)		<0.05	<0.05	<0.05	<0.05

* 24 hour weighted average for SO2, NO2, PM10, PM2.5 and 1 hour weighted average for CO & Ozone.

3.0 **Noise Level:**

Location	Date	Noise Level [dB (A)]	
		Day Time	Night Time
1. Plant Locations			
Township Area	27.07.2024	40.5	36.9
CHP Area	27.07.2024	49.3	44.1
CCR Area	27.07.2024	56.1	49.4
Material Gate	27.07.2024	51.9	44.2
Main Gate Area	27.07.2024	47.5	42.7
2. Nearby Villages			
Kandagarh	27.07.2024	40.7	34.8
Jhilgitar	27.07.2024	41.6	36.5
Chhapora	27.07.2024	38.8	34.9
Armuda	27.07.2024	39.1	33.2
Devalsura	27.07.2024	41.2	37.5

MONTHLY ENVIRONMENTAL PERFORMANCE REPORT

MONTH: AUGUST-2024

1.0 (a) Ground water Quality Plant nearby village :- **Mehloi**

Parameters	Unit	Ground Water 21.08.2024
Temperature	degree C	25.1 deg. C
pH Value		7.7
Electrical Conductivity	microS/cm	515
TDS	mg/lit	343
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	142
Mg-Hardness as CaCO3	mg/lit	74
BOD	mg/lit	1.0
COD	mg/lit	3.1
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.35
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	4.5
E-coli	MPN/100ml	Absent

Parameters	Unit	Ground Water 21.08.2024
Temperature	degree C	25.1
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.146
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (b) Ground water Quality near Ash Dyke village: **Kandagarh**

Parameters	Unit	Ground Water 21.08.2024
Temperature	degree C	25.2 deg. C
pH Value		7.8
Electrical Conductivity	microS/cm	533
TDS	mg/lit	355
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	132
Mg-Hardness as CaCO3	mg/lit	70
BOD	mg/lit	1.0
COD	mg/lit	3.0
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.38
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	4.1
E-coli	MPN/100ml	Absent

Parameters	Unit	Ground Water 21.08.2024
Temperature	degree C	25.2
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.105
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (c) Ground water Quality Plant nearby village:- **Chhapora**

Parameters	Unit	Ground Water 21.08.2024
Temperature	degree C	24.9 deg. C
pH Value		7.8
Electrical Conductivity	microS/cm	528
TDS	mg/lit	352
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	130
Mg-Hardness as CaCO3	mg/lit	70
BOD	mg/lit	1.2
COD	mg/lit	3.3
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.47
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	2.8
E-coli	MPN/100ml	Absent

Parameters	Unit	Ground Water 21.08.2024
Temperature	degree C	24.9
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.151
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (d) Ground water Quality near Ash Dyke village: **Jhilgitar**

Parameters	Unit	Ground Water 21.08.2024
Temperature	degree C	24.3 deg. C
pH Value		7.5
Electrical Conductivity	microS/cm	492
TDS	mg/lit	328
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	130
Mg-Hardness as CaCO3	mg/lit	65
BOD	mg/lit	1.3
COD	mg/lit	3.4
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.50
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	3.7
E-coli	MPN/100ml	Absent

Parameters	Unit	Ground Water 21.08.2024
Temperature	degree C	24.3
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.140
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (e) Ground water Quality Plant nearby village: **Bodajhariya**

Parameters	Unit	Ground Water 21.08.2024
Temperature	degree C	25.1 deg. C
pH Value		7.6
Electrical Conductivity	microS/cm	522
TDS	mg/lit	348
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	128
Mg-Hardness as CaCO3	mg/lit	62
BOD	mg/lit	1.1
COD	mg/lit	3.2
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.42
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	3.2
E-coli	MPN/100ml	Absent

Parameters	Unit	Ground Water 21.08.2024
Temperature	degree C	25.1
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.143
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (f) Ground water Quality Plant nearby village: **Dewalsura**

Parameters	Unit	Ground Water 21.08.2024
Temperature	degree C	24.8 deg. C
pH Value		7.4
Electrical Conductivity	microS/cm	540
TDS	mg/lit	360
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	118
Mg-Hardness as CaCO3	mg/lit	60
BOD	mg/lit	0.9
COD	mg/lit	2.9
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.31
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	2.2
E-coli	MPN/100ml	Absent

Parameters	Unit	Ground Water 21.08.2024
Temperature	degree C	24.8
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.124
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (g) Ground water Quality Plant nearby village: **Charpali**

Parameters	Unit	Ground Water 21.08.2024
Temperature	degree C	24.8 deg. C
pH Value		7.7
Electrical Conductivity	microS/cm	520
TDS	mg/lit	346
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	124
Mg-Hardness as CaCO3	mg/lit	68
BOD	mg/lit	1.1
COD	mg/lit	3.0
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.44
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	3.1
E-coli	MPN/100ml	Absent

Parameters	Unit	Ground Water 21.08.2024
Temperature	degree C	24.8
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.128
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (h) Surface water:- **Chhapora Nala Down stream**

Parameters	Unit	Surface Water 21.08.2024
Temperature	degree C	26.6 deg. C
pH Value		7.4
Electrical Conductivity	microS/cm	525
TDS	mg/lit	350
TSS	mg/lit	74
Ca-Hardness as CaCO3	mg/lit	88
Mg-Hardness as CaCO3	mg/lit	46
BOD	mg/lit	6.3
COD	mg/lit	19.2
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.32
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	28.8
E-coli	MPN/100ml	Absent

Temperature	degree C	26.6
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.171
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (i) Surface water : **Chhapora Nala Up stream**

Parameters	Unit	Surface Water 21.08.2024
Temperature	degree C	26.9 deg. C
pH Value		7.9
Electrical Conductivity	microS/cm	535
TDS	mg/lit	356
TSS	mg/lit	70
Ca-Hardness as CaCO3	mg/lit	82
Mg-Hardness as CaCO3	mg/lit	44
BOD	mg/lit	6.1
COD	mg/lit	18.7
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.37
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	26.1
E-coli	MPN/100ml	Absent

Temperature	degree C	26.9
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.177
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (j) Surface water : **Kelo river Downstream water**

Parameters	Unit	Surface Water 21.08.2024
Temperature	degree C	26.4 deg. C
pH Value		7.2
Electrical Conductivity	microS/cm	495
TDS	mg/lit	330
TSS	mg/lit	63
Ca-Hardness as CaCO3	mg/lit	98
Mg-Hardness as CaCO3	mg/lit	50
BOD	mg/lit	5.8
COD	mg/lit	18.0
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.42
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	30.4
E-coli	MPN/100ml	Absent

Temperature	degree C	26.4
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.189
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (k) Surface water : **Mahanadi river Downstream water**

Parameters	Unit	Surface Water 21.08.2024
Temperature	degree C	26.1 deg. C
pH Value		7.4
Electrical Conductivity	microS/cm	450
TDS	mg/lit	300
TSS	mg/lit	58
Ca-Hardness as CaCO3	mg/lit	110
Mg-Hardness as CaCO3	mg/lit	56
BOD	mg/lit	4.8
COD	mg/lit	14.5
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.38
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	36.5
E-coli	MPN/100ml	Absent

Temperature	degree C	26.1
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.186
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (I) Ground water : **Solid waste storage area- I**

Parameters	Unit	Ground Water 21.08.2024
Temperature	degree C	24.5 deg. C
pH Value		7.9
Electrical Conductivity	microS/cm	510
TDS	mg/lit	340
TSS	mg/lit	BQL (LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	136
Mg-Hardness as CaCO3	mg/lit	70
BOD	mg/lit	1.2
COD	mg/lit	3.4
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.52
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	4.1
E-coli	MPN/100ml	Absent

Temperature	degree C	24.5
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.094
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (m) Ground water : **Solid waste storage area- II**

Parameters	Unit	Ground Water 21.08.2024
Temperature	degree C	24.7 deg. C
pH Value		7.8
Electrical Conductivity	microS/cm	515
TDS	mg/lit	343
TSS	mg/lit	BQL (LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	122
Mg-Hardness as CaCO3	mg/lit	66
BOD	mg/lit	1.1
COD	mg/lit	3.1
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.47
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	3.8
E-coli	MPN/100ml	Absent

Temperature	degree C	24.7
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.069
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (n) Ground water : **Solid waste storage area- III**

Parameters	Unit	Ground Water 21.08.2024
Temperature	degree C	24.6 deg. C
pH Value		7.6
Electrical Conductivity	microS/cm	535
TDS	mg/lit	356
TSS	mg/lit	BQL (LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	128
Mg-Hardness as CaCO3	mg/lit	68
BOD	mg/lit	1.0
COD	mg/lit	2.9
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.39
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	5.1
E-coli	MPN/100ml	Absent

Temperature	degree C	24.6
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.108
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

1.0 (o) Ground water : **Solid waste storage area- IV**

Parameters	Unit	Ground Water 21.08.2024
Temperature	degree C	24.2 deg. C
pH Value		7.2
Electrical Conductivity	microS/cm	520
TDS	mg/lit	346
TSS	mg/lit	BQL (LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	116
Mg-Hardness as CaCO3	mg/lit	60
BOD	mg/lit	0.9
COD	mg/lit	3.0
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.44
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	4.7
E-coli	MPN/100ml	Absent

Temperature	degree C	24.2
Mercury as Hg	mg/lit	BQL (LOQ:0.0005)
Chromium Hexa as Cr6	mg/lit	BQL (LOQ:0.05)
Iron as Fe	mg/lit	0.120
Copper as Cu	mg/lit	BQL (LOQ:0.0005)
Chromium Total as Cr	mg/lit	BQL (LOQ:0.0005)
Zinc as Zn	mg/lit	BQL (LOQ:0.0005)
Cadmium as Cd	mg/lit	BQL (LOQ:0.0005)
Lead as Pb	mg/lit	BQL (LOQ:0.0005)
Arsenic as As	mg/lit	BQL (LOQ:0.0005)

2.0 AAQ monitoring at Nearby Villages:-

Parameters	Limit*	Chhapora 01.08.2024	Chhapora 05.08.2024	Chhapora 08.08.2024	Chhapora 12.08.2024	Chhapora 15.08.2024	Chhapora 19.08.2024
SO_2 ($\mu g/m^3$)	80	23.17	22.50	21.69	19.41	18.75	17.40
NO2 ($\mu g/m^3$)	80	24.93	25.10	23.17	21.44	20.35	19.45
PM 10 ($\mu g/m^3$)	100	40.46	42.15	39.35	45.48	41.80	48.13
PM 2.5 ($\mu g/m^3$)	60	21.50	22.41	21.40	24.80	22.66	25.75
Ozone ($\mu g/m^3$)	180	43.50	46.61	42.54	39.22	45.35	47.65
CO (mg /m^3)	4	0.42	0.40	0.47	0.41	0.44	0.50
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Chhapora 22.08.2024	Chhapora 26.08.2024	Chhapora 29.08.2024	Kandagarh 01.08.2024	Kandagarh 05.08.2024	Kandagarh 08.08.2024
SO_2 ($\mu g/m^3$)	80	23.18	24.20	20.38	16.82	19.13	15.50
NO2 ($\mu g/m^3$)	80	25.25	26.50	22.55	18.80	21.95	17.56
PM 10 ($\mu g/m^3$)	100	44.95	55.17	50.30	46.73	42.94	44.80
PM 2.5 ($\mu g/m^3$)	60	23.55	31.60	26.45	23.40	21.85	22.48
Ozone ($\mu g/m^3$)	180	41.80	44.85	48.05	35.20	41.90	43.77
CO (mg /m^3)	4	0.53	0.45	0.49	0.38	0.42	0.39
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Kandagarh 12.08.2024	Kandagarh 15.08.2024	Kandagarh 19.08.2024	Kandagarh 22.08.2024	Kandagarh 26.08.2024	Kandagarh 29.08.2024
SO_2 ($\mu g/m^3$)	80	20.18	17.16	18.44	20.24	17.80	21.05
NO2 ($\mu g/m^3$)	80	22.40	19.10	20.43	22.00	19.33	23.11
PM 10 ($\mu g/m^3$)	100	40.68	41.19	50.90	47.85	60.55	54.74
PM 2.5 ($\mu g/m^3$)	60	20.95	21.47	26.63	25.10	31.85	28.40
Ozone ($\mu g/m^3$)	180	38.54	40.84	42.20	37.68	39.10	36.44
CO (mg /m^3)	4	0.36	0.41	0.37	0.43	0.35	0.40
Hydrocarbons(PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Devalsura 02.08.2024	Devalsura 06.08.2024	Devalsura 09.08.2024	Devalsura 13.08.2024	Devalsura 16.08.2024	Devalsura 20.08.2024
SO_2 ($\mu g/m^3$)	80	23.70	20.50	24.15	18.40	19.75	21.83
NO2 ($\mu g/m^3$)	80	24.90	22.89	25.93	20.75	21.84	23.67
PM 10 ($\mu g/m^3$)	100	45.74	42.10	38.84	40.80	43.90	47.74
PM 2.5 ($\mu g/m^3$)	60	24.17	22.44	20.64	21.58	24.35	25.75
Ozone ($\mu g/m^3$)	180	36.10	41.93	43.95	38.70	40.84	42.15
CO (mg /m^3)	4	0.36	0.42	0.39	0.40	0.36	0.41
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Devalsura 23.08.2024	Devalsura 27.08.2024	Devalsura 30.08.2024	Rengalpali 02.08.2024	Rengalpali 06.08.2024	Rengalpali 09.08.2024
SO_2 ($\mu g/m^3$)	80	24.50	22.10	25.22	22.35	23.53	18.13
NO2 ($\mu g/m^3$)	80	25.80	24.55	26.15	24.15	25.61	19.44
PM 10 ($\mu g/m^3$)	100	45.93	46.30	53.48	42.80	44.53	40.85
PM 2.5 ($\mu g/m^3$)	60	23.80	24.50	28.10	22.70	23.44	21.30
Ozone ($\mu g/m^3$)	180	37.42	39.73	36.40	44.78	41.60	48.71
CO (mg /m^3)	4	0.43	0.37	0.35	0.45	0.52	0.50
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Rengalpali 13.08.2024	Rengalpali 16.08.2024	Rengalpali 20.08.2024	Rengalpali 23.08.2024	Rengalpali 27.08.2024	Rengalpali 30.08.2024
SO_2 ($\mu g/m^3$)	80	20.44	21.78	19.10	23.28	20.25	24.80
NO2 ($\mu g/m^3$)	80	23.72	22.40	20.45	24.62	23.75	26.10
PM 10 ($\mu g/m^3$)	100	45.63	47.50	50.65	46.35	48.55	52.38
PM 2.5 ($\mu g/m^3$)	60	24.58	25.18	27.05	26.70	25.65	29.90
Ozone ($\mu g/m^3$)	180	45.53	39.13	42.64	46.85	43.66	40.10
CO (mg /m^3)	4	0.44	0.41	0.47	0.40	0.42	0.41
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Main Plant Area 10.08.2024	Coal Handling Plant Area 17.08.2024
SO_2 ($\mu g/m^3$)	80	23.60	20.30
NO2 ($\mu g/m^3$)	80	25.35	22.25
PM 10 ($\mu g/m^3$)	100	48.40	52.80
PM 2.5 ($\mu g/m^3$)	60	25.68	27.95
Ozone ($\mu g/m^3$)	180	45.88	48.43
CO (mg /m^3)	4	0.50	0.45
Hydrocarbons (PPM)		<0.5	<0.5

Parameters	Limit*	Chhapora 29.08.2024	Kandagarh 29.08.2024	Devalsura 30.08.2024	Rengalpali 30.08.2024
Mercury ($\mu g/m^3$)		<0.05	<0.05	<0.05	<0.05

* 24 hour weighted average for SO2, NO2, PM10, PM2.5 and 1 hour weighted average for CO & Ozone.

3.0 **Noise Level: -**

Location	Date	Noise Level [dB (A)]	
		Day Time	Night Time
1. Plant Locations			
Township Area	31.08.2024	40.2	34.1
CHP Area	31.08.2024	49.7	44.6
CCR Area	31.08.2024	55.2	50.4
Material Gate	31.08.2024	48.3	43.2
Main Gate Area	31.08.2024	45.1	41.8
2.			
Kandagarh	31.08.2024	40.3	34.5
Jhilgitar	31.08.2024	37.6	32.7
Chhapora	31.08.2024	37.4	34.2
Armuda	31.08.2024	38.5	32.9
Devalsura	31.08.2024	40.1	36.6

MONTHLY ENVIRONMENTAL PERFORMANCE REPORT

MONTH : SEPT-2024

1.0 (a) Ground water Quality Plant nearby village:- **Devalsura**

Parameters	Unit	Ground Water 18.09.2024
Temperature	degree C	24.7 deg. C
pH Value		7.3
Electrical Conductivity	microS/cm	510
TDS	mg/lit	340
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	130
Mg-Hardness as CaCO3	mg/lit	70
BOD	mg/lit	1.1
COD	mg/lit	3.1
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.45
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	2.5
E-coli	MPN/100ml	Absent

1.0 (b) Ground water Quality near Ash Dyke village: **Kandagarh**

Parameters	Unit	Ground Water 18.09.2024
Temperature	degree C	24.9 deg. C
pH Value		7.4
Electrical Conductivity	microS/cm	545
TDS	mg/lit	363
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	120
Mg-Hardness as CaCO3	mg/lit	64
BOD	mg/lit	0.9
COD	mg/lit	2.9
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.48
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	3.1
E-coli	MPN/100ml	Absent

1.0 (c) Ground water Quality Plant nearby village:- **Bodajhariya**

Parameters	Unit	Ground Water 18.09.2024
Temperature	degree C	24.8 deg. C
pH Value		7.5
Electrical Conductivity	microS/cm	530
TDS	mg/lit	353
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	118
Mg-Hardness as CaCO3	mg/lit	56
BOD	mg/lit	1.3
COD	mg/lit	3.3
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.39
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	2.8
E-coli	MPN/100ml	Absent

1.0 (d) Ground water Quality near Ash Dyke village: **Jhilgitar**

Parameters	Unit	Ground Water 18.09.2024
Temperature	degree C	24.0 deg. C
pH Value		7.2
Electrical Conductivity	microS/cm	520
TDS	mg/lit	346
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	134
Mg-Hardness as CaCO3	mg/lit	70
BOD	mg/lit	1.0
COD	mg/lit	3.1
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.53
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	4.3
E-coli	MPN/100ml	Absent

1.0 (e) Ground water Quality Plant nearby village: **Mehloi**

Parameters	Unit	Ground Water 18.09.2024
Temperature	degree C	24.7 deg. C
pH Value		7.9
Electrical Conductivity	microS/cm	535
TDS	mg/lit	356
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	110
Mg-Hardness as CaCO3	mg/lit	60
BOD	mg/lit	1.2
COD	mg/lit	2.9
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.28
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	2.1
E-coli	MPN/100ml	Absent

1.0 (f) Ground water Quality near Plant nearby village: **Chhapora**

Parameters	Unit	Ground Water 18.09.2024
Temperature	degree C	24.6 deg. C
pH Value		7.6
Electrical Conductivity	microS/cm	495
TDS	mg/lit	330
TSS	mg/lit	BQL(LOQ:5.0)
Ca-Hardness as CaCO3	mg/lit	116
Mg-Hardness as CaCO3	mg/lit	64
BOD	mg/lit	1.1
COD	mg/lit	2.8
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.30
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	3.7
E-coli	MPN/100ml	Absent

1.0 (g) Surface water : **Chhapora Nala Down stream**

Parameters	Unit	Surface Water 18.09.2024
Temperature	degree C	26.1 deg. C
pH Value		7.6
Electrical Conductivity	microS/cm	510
TDS	mg/lit	340
TSS	mg/lit	53
Ca-Hardness as CaCO3	mg/lit	110
Mg-Hardness as CaCO3	mg/lit	58
BOD	mg/lit	7.2
COD	mg/lit	21.4
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.38
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	25.9
E-coli	MPN/100ml	Absent

1.0 (h) Surface water : **Chhapora Nala Up stream**

Parameters	Unit	Surface Water 18.09.2024
Temperature	degree C	26.3 deg. C
pH Value		7.3
Electrical Conductivity	microS/cm	530
TDS	mg/lit	353
TSS	mg/lit	49
Ca-Hardness as CaCO3	mg/lit	95
Mg-Hardness as CaCO3	mg/lit	48
BOD	mg/lit	6.9
COD	mg/lit	18.1
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.22
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	25.4
E-coli	MPN/100ml	Absent

1.0 (i) Surface water : **Kelo river Down Stream Water**

Parameters	Unit	Surface Water 18.09.2024
Temperature	degree C	25.9 deg. C
pH Value		7.8
Electrical Conductivity	microS/cm	515
TDS	mg/lit	343
TSS	mg/lit	45
Ca-Hardness as CaCO3	mg/lit	120
Mg-Hardness as CaCO3	mg/lit	64
BOD	mg/lit	5.8
COD	mg/lit	15.5
Oil & Grease	mg/lit	BQL (LOQ:2.5)
Fluoride (as F)	mg/lit	0.30
Boron (as B)	mg/lit	BQL (LOQ:0.0005)
Total Coliform	MPN/100ml	28.6
E-coli	MPN/100ml	Absent

2.0 AAQ monitoring at Nearby Villages:

Parameters	Limit*	Chhapora 02.09.2024	Chhapora 05.09.2024	Chhapora 09.09.2024	Chhapora 12.09.2024	Chhapora 16.09.2024	Chhapora 19.09.2024
SO_2 (µg/m^3)	80	16.88	19.87	20.18	15.50	17.45	18.25
NO2 (µg/m^3)	80	18.80	21.95	22.20	17.55	19.68	20.50
PM 10 (µg/m^3)	100	46.84	42.64	52.55	50.84	44.95	47.80
PM 2.5 (µg/m^3)	60	24.65	22.93	28.88	27.30	23.64	26.48
Ozone (µg/m^3)	180	45.17	43.84	37.60	39.28	42.15	40.30
CO (mg /m^3)	4	0.44	0.39	0.37	0.42	0.45	0.34
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Chhapora 23.09.2024	Chhapora 26.09.2024	Chhapora 30.09.2024	Kandagarh 02.09.2024	Kandagarh 05.09.2024	Kandagarh 09.09.2024
SO_2 (µg/m^3)	80	20.35	18.10	16.22	22.25	20.94	23.78
NO2 (µg/m^3)	80	21.78	19.40	18.15	24.40	22.28	25.30
PM 10 (µg/m^3)	100	55.75	43.40	59.10	47.70	46.84	48.35
PM 2.5 (µg/m^3)	60	30.45	22.85	29.62	24.85	23.50	25.60
Ozone (µg/m^3)	180	38.80	54.68	50.55	38.55	43.68	45.64
CO (mg /m^3)	4	0.43	0.46	0.48	0.44	0.38	0.43
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Kandagarh 12.09.2024	Kandagarh 16.09.2024	Kandagarh 19.09.2024	Kandagarh 23.09.2024	Kandagarh 26.09.2024	Kandagarh 30.09.2024
SO_2 (µg/m^3)	80	21.65	19.90	18.74	17.80	22.52	24.44
NO2 (µg/m^3)	80	22.84	23.40	21.83	20.90	24.10	26.90
PM 10 (µg/m^3)	100	50.80	52.55	56.70	61.45	52.50	45.88
PM 2.5 (µg/m^3)	60	26.33	27.64	28.55	30.60	27.80	22.45
Ozone (µg/m^3)	180	41.23	38.80	42.85	44.10	46.40	48.73
CO (mg /m^3)	4	0.41	0.47	0.45	0.40	0.49	0.42
Hydrocarbons(PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Devalsura 03.09.2024	Devalsura 06.09.2024	Devalsura 10.09.2024	Devalsura 13.09.2024	Devalsura 17.09.2024	Devalsura 20.09.2024
SO_2 (µg/m^3)	80	17.40	20.84	23.20	21.80	18.35	19.58
NO2 (µg/m^3)	80	19.44	22.64	24.35	23.58	20.28	21.10
PM 10 (µg/m^3)	100	46.54	49.85	54.65	41.50	48.72	45.42
PM 2.5 (µg/m^3)	60	24.40	26.25	30.55	22.38	25.50	22.84
Ozone (µg/m^3)	180	38.70	48.88	37.60	42.75	47.58	39.93
CO (mg /m^3)	4	0.49	0.45	0.42	0.52	0.38	0.47
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Devalsura 24.09.2024	Devalsura 27.09.2024	Rengalpali 03.09.2024	Rengalpali 06.09.2024	Rengalpali 10.09.2024	Rengalpali 13.09.2024
SO_2 (µg/m^3)	80	22.15	16.18	19.37	18.45	21.30	23.10
NO2 (µg/m^3)	80	24.75	18.80	21.84	20.42	22.68	24.77
PM 10 (µg/m^3)	100	53.30	46.15	49.10	46.60	44.75	51.45
PM 2.5 (µg/m^3)	60	27.10	24.95	25.50	24.85	23.40	26.34
Ozone (µg/m^3)	180	41.50	36.44	48.25	47.55	41.60	39.20
CO (mg /m^3)	4	0.36	0.48	0.47	0.53	0.41	0.50
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Rengalpali 17.09.2024	Rengalpali 20.09.2024	Rengalpali 24.09.2024	Rengalpali 27.09.2024
SO_2 (µg/m^3)	80	17.57	16.22	20.64	18.33
NO2 (µg/m^3)	80	19.10	18.34	23.18	20.14
PM 10 (µg/m^3)	100	56.95	60.35	53.50	58.15
PM 2.5 (µg/m^3)	60	29.63	31.28	27.44	30.12
Ozone (µg/m^3)	180	45.35	46.86	42.73	43.80
CO (mg /m^3)	4	0.44	0.46	0.43	0.40
Hydrocarbons (PPM)		<0.5	<0.5	<0.5	<0.5

Parameters	Limit*	Main plant area 14.09.2024	Coal Handling plant area 21.09.2024
SO_2 ($\mu g/m^3$)	80	20.40	22.65
NO2 ($\mu g/m^3$)	80	22.55	24.15
PM 10 ($\mu g/m^3$)	100	56.65	48.15
PM 2.5 ($\mu g/m^3$)	60	29.10	25.35
Ozone ($\mu g/m^3$)	180	43.75	52.85
CO (mg $/m^3$)	4	0.46	0.40
Hydrocarbons (PPM)		<0.5	<0.5

Parameters	Limit*	Chhapora 30.09.2024	Kandagarh 30.09.2024	Devalsura 27.09.2024	Rengalpali 27.09.2024
Mercury ($\mu g/m^3$)		<0.05	<0.05	<0.05	<0.05

* 24 hour weighted average for SO2, NO2, PM10, PM2.5 and 1 hour weighted average for CO & Ozone.

3.0 **Noise Level:**

Location	Date	Noise Level [dB (A)]	
		Day Time	Night Time
1. Plant Locations			
Township Area	28.09.2024	41.3	35.7
CHP Area	28.09.2024	50.1	45.9
CCR Area	28.09.2024	56.2	51.0
Material Gate	28.09.2024	49.8	44.1
Main Gate Area	28.09.2024	46.7	42.4
2. Nearby Villages			
Kandagarh	28.09.2024	41.9	36.5
Jhilgitar	28.09.2024	38.4	33.8
Chhapora	28.09.2024	39.0	34.3
Armuda	28.09.2024	39.6	33.6
Devalsura	28.09.2024	41.5	37.2

Stack Emission Monitoring:

Unit	Installed capacity	Date of Monitoring	PM (mg/Nm^3)	SO_2 * (mg/Nm^3)	NOx (mg/Nm^3)	Hg (mg/Nm^3)
	Limit		**30**			
Unit-I	800 MW	12.04.2024	24.94	1026	338	0.0006
Unit-I	800 MW	24.04.2024	29.10	1150	302	0.0008
Unit-II	800 MW	12.04.2024	23.75	1083	312	0.0005
Unit-II	800 MW	24.04.2024	28.52	1196	295	0.0003

Unit	Installed capacity	Date of Monitoring	PM (mg/Nm^3)	SO_2 * (mg/Nm^3)	NOx (mg/Nm^3)	Hg (mg/Nm^3)
	Limit		**30**			
Unit-I	800 MW	13.05.2024	23.04	1220	287	0.0003
Unit-I	800 MW	28.05.2024	20.65	1190	314	0.0005
Unit-II	800 MW	13.05.2024	29.26	1055	332	0.0004
Unit-II	800 MW	28.05.2024	27.41	1105	305	0.0003

Unit	Installed capacity	Date of Monitoring	PM (mg/Nm^3)	SO_2 * (mg/Nm^3)	NOx (mg/Nm^3)	Hg (mg/Nm^3)
	Limit		**30**			
Unit-I	800 MW	12.06.2024	28.76	1115	290	0.0004
Unit-I	800 MW	28.06.2024	22.44	1095	328	0.0007
Unit-II	800 MW	12.06.2024	21.15	1215	322	0.0008
Unit-II	800 MW	28.06.2024	24.20	1150	307	0.0005

Unit	Installed capacity	Date of Monitoring	PM (mg/Nm^3)	SO_2 * (mg/Nm^3)	NOx (mg/Nm^3)	Hg (mg/Nm^3)
	Limit		**30**			
Unit-I	800 MW	09.07.2024	21.45	1150	340	0.0008
Unit-I	800 MW	29.07.2024	26.20	1010	310	0.0004
Unit-II	800 MW	09.07.2024	22.60	1075	314	0.0003
Unit-II	800 MW	29.07.2024	28.35	1180	290	0.0006

Unit	Installed capacity	Date of Monitoring	PM (mg/Nm^3)	SO_2 * (mg/Nm^3)	NOx (mg/Nm^3)	Hg (mg/Nm^3)
	Limit		**30**			
Unit-I	800 MW	08.08.2024	29.10	1070	283	0.0007
Unit-I	800 MW	21.08.2024	27.85	1205	300	0.0004
Unit-II	800 MW	08.08.2024	23.15	1028	304	0.0004
Unit-II	800 MW	21.08.2024	20.80	1130	338	0.0002

Unit	Installed capacity	Date of Monitoring	PM (mg/Nm^3)	SO_2 * (mg/Nm^3)	NOx (mg/Nm^3)	Hg (mg/Nm^3)
	Limit		**30**			
Unit-I	800 MW	11.09.2024	22.60	1110	320	0.0008
Unit-II	800 MW	11.09.2024	29.50	1225	295	0.0003
Unit-II	800 MW	25.09.2024	27.95	1178	318	0.0005