

EXECUTIVE SUMMARY

ENVIRONMENT IMPACT ASSESSMENT AND ENVIRONMENT MANAGEMENT PLAN

(As per EIA Notification No S.O.1533 (E) dated 14th September 2006)

FOR

CONDUCT OF PUBLIC HEARING / PUBLIC CONSULTATION BY CHHATTISGARH ENVIRONMENT
CONSERVATION BOARD, RAIPUR CHHATTISGARH

ON

Expansion and Modernization of 1.20 MTPA Iron ore Crushing, Screening Plant to 1.50 MTPA Iron Ore Crushing, Screening and 1.50 MTPA Beneficiation Plant

at

Village Gidhali, Tehsil – Dondi,
District Balod, Chhattisgarh
("A" Category Project - 2 (b))

PROJECT PROPONENT

M/s. GODAWARI NATURAL RESOURCES PRIVATE LIMITED

(Registered Office, HDD - 1/255, Phase 3, Kabir Nagar, Raipur, Chhattisgarh – 492099)

PREPARED BY

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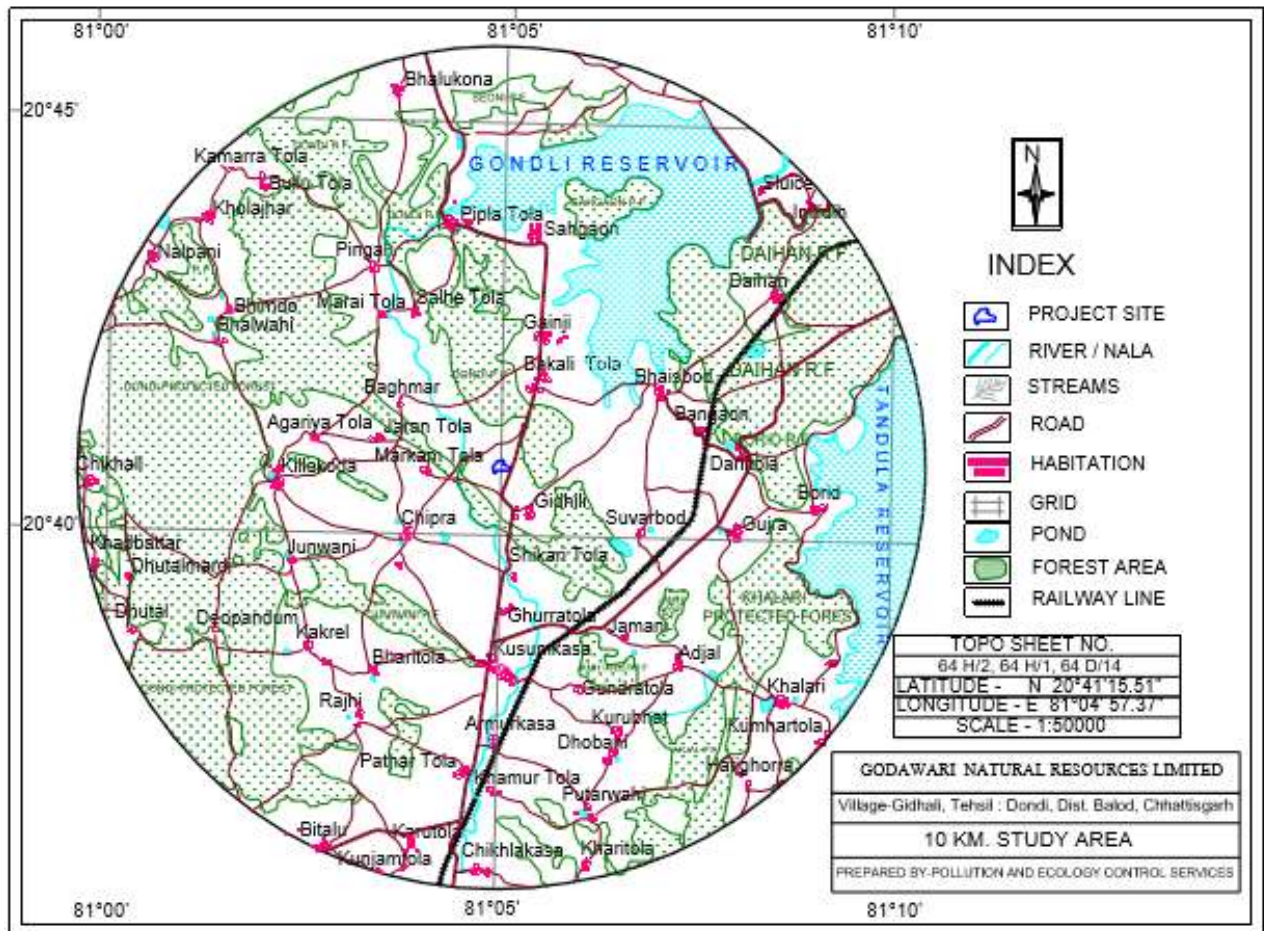
NOVEMBER 2020

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1. Project Name and Location

M/s Godawari Natural Resources Private Limited is planning to operate the plant by upgrading the facilities of the plant with increase of crushing and screening capacity to 15,00,000 TPA (1.5 MTPA) and addition of 15,00,000 TPA (1.5 MTPA) beneficiation facility at Village Gidhali, Tehsil Dondi and District Balod Chhattisgarh, land in the same premises.

The proposed expansion and modernization activities are located at Survey No. 33,35,41,46,47,51,58,59,60,61,62,63,64,65,85,49,50,53,55,56 Gidhali, Tehsil - Dondi, District - Balod, Chhattisgarh.



Specific Location of the Project Site

2. Products and Capacities

Sr. No	Product	Existing Quantity	Proposed/ Additional Quantity	Total Quantity
1	Iron Ore Crushing and screening Unit	12,00,000 TPA	3,00,000 TPA	15,00,000 TPA
2.	Iron Ore beneficiation		15,00,000 TPA	15,00,000 TPA

3. Requirement of Land, raw material, water, power, with source of supply Requirement of Land

The total project area is 27.53Ha. Out of existing area of 27.53 ha, an area of 1.966 ha. will be utilized for setting up the beneficiation plant. The existing Iron ore screening and crushing unit is developed on 1.3850 Ha. of land. No additional land will be purchased. There are some old pits within boundary of proposed project. There are no ecologically sensitive places like national park, sanctuary, biosphere reserve, heritage sites, archeological monuments, defense installation, health resorts, scenic beauty etc. around 10 Kms. radius of the site. There is no route of migratory animals within the project site.

Raw Material

The requirement of iron ore will be met from purchase from market, mines of SAIL and other non-captive mines, the same would be transported to the Iron Ore Crushing Unit where the ore would be crushed and screened to 6-20 mm & 0-6 mm and thereafter the sized ore and fines will be beneficiated in the proposed Iron Ore Beneficiation plant for further sale in the market.

Apart from above the ore of the captive mines like JNIL, BSPL, and other mines nearby shall also be beneficiated on conversion basis after their obtaining permission from State Government.

Table Raw Material Requirement

Raw Material	Annual Consumption	Sources of Supply	Method of Transportation
Raw Material for Crushing Plant			
Iron Ore lumps	1500000 TPA	Mines of SAIL and Other Non-Captive Mines (Distance : 25 km to 120 km)	In Tarpaulin covered Truck/ Tipper/ Dumper by road.
Raw Material for Iron Ore Beneficiation			
Crushed Low grade Iron Ore	1500000 TPA	From Crushing unit	Conveyor Belt

Water Requirement

The plant will require 370 KL of water per day (make-up water) for the proposed Iron Ore Beneficiation Plant.

At present there are two sources of water :-

- a. M/s. Godawari Power and Ispat Ltd "GPIL" a sanction of 250 M3/day from CGWA. M/s. GPIL and applied for revalidation for another period of two years which is under the consideration of CGWA. M/s. Godawari Natural Resources Private Limited "GNRPL" has also applied for a sanction of 370 M3/day to CGWA. Since this region is considered as safe zone by CGWB, hence the company don't anticipate any problem for getting the sanction of 370 KL per day. Once it obtains the NOC from CGWB, the earlier NOC granted to GPIL by CGWB will be surrendered.

- b. 1 MCM water was sanctioned to GPIL after execution of MOU GNRPL had approached the Water Resource Department to transfer the same, However WRD prefer to consider the application as fresh application and directed to GNRPL to get a study report from National Institute of Technology "NIT" Raipur confirm the requirement of the water . Based on the confirmation WRD will sanction the required Water from the same source to the present project proponent. The nala flows around 250 mtrs from the project boundary

To draw surface water from Keshala Nallah (also known as Jhujhara Nallah) an mini anicut needs to be constructed and on construction of the same the Ground water will be phased out gradually.

On approval the project proponent will have to deposit the entire cost of construction of an anicut which will take almost two - three years to get completed which coincides with enhancement of capacity and establishment of Beneficiation plant. In between if the sanction of 370 m³/day water from CGWA is obtain than the project proponent will operate the project at its peak capacity (1.50 MTPA)_or else it will operate its plant as per the details given in table below:-

Table: Make up Water Requirements (m³/day)

Phase	Water Requirement	Source
1 st Year	367 KLD -Industrial use	Ground Water
	3 KLD -Domestic use	Ground water
	370 KLD – Total	
2 nd Year	367 KLD -Industrial use	Ground Water
	3 KLD -Domestic use	Ground Water
	370 KLD - Total	
3 rd Year	367 KLD -Industrial use	Partial Surface water
	3 KLD -Domestic Use	and Partial Ground
	370 KLD - Total	Water

Power Requirement

The unit will consume about 2.0 MW of power. The power will be source from the State Electricity Board (CSPDCL).

Employment potential

The unit already has an existing set-up of trained manpower in all its divisions headed by professional and highly experienced executives. The company is also having a very efficient project management team.

However, on completion of the above project, the expected rise in employees will be higher from the existing number of 36 Nos employees. Hence, the number of employees are expected to rise up to 80 Nos.

- The waste water generated from the unit the dewatering screen and filter press will be collected in the settling tank and re-circulated in the process through pumps for reuse.
- The domestic wastewater will be treated in soak pit, packed type STP will be proposed (if required) .

Noise Pollution Control Measures

- Adequate measures will be taken to keep noise pollution under control, as the company would be procuring DG set equipped with acoustic enclosures.
- Silencers and mufflers on construction equipment, wherever required, will be properly fitted and maintained.
- Earmuffs / Earplugs will be provided to the operators working in the high noise areas.

Solid Waste Generation and Utilization

The iron ore beneficiation process however will generate tailing to the extent of about 15% of the input iron ore. At rated output of the plant, the annual generation of such tailing would be 2,25,000 TPA. The generated tailings will be used partially for road formation, filling of low line areas, and partially as additives in cement plants.

6. Capital Cost

The estimated cost of the project is about Rs. 25.50 Crores, the detailed split up of the same is tabulated in **Table** below

Table: Detailed Capital Cost Estimation for the Proposed Project

Particulars	Estimated Cost in Rs. Lacs
Purchase price of Unit on as is where is basis	1500
Additional Equipment for beneficiation	1050
Total	2550

7. Site Selected for the Project

No alternative site was considered as the beneficiation plant is proposed in the existing premises of the crushing and Screening plant. The general layout of the proposed plant has been developed keeping in the view the following factors:-

- Shape and size of the proposed site
- Communication approach to the plant.
- Smooth and uninterrupted flow of materials.
- Optimum lead for transport of material and for services lines.
- Logistic approach in location of technological units as well as services facilities.
- Adequate green belt all around the plant.
- Provision for future expansion.
- Availability of open space & existence of some old pits.

8. Baseline Environmental Data

Baseline Environmental status in and around the proposed activities indicates the existing quality of Air, Noise, Water, Soil and Socio-economic environment. The baseline environmental quality for the study period during the period of 26th February 2020 to 21st March 2020 and 21st April 2020 to 13th June 2020. The monitoring was discontinued from 22nd March to 20th April due to the lockdown declared by Government of India for 21 days, as a preventive measure against the COVID-19 pandemic in India. In view of this the company made a reference before MOEF&CC to consider the study period. Vide the EAC meeting dated 30th of September 2020, the committee directed to do a 4 weeks additional study. The 4 weeks study commenced from 1st of October and concluded on 30th of October 2020. A report of this period is prepared by the consultant and is incorporated in the Draft EIA report.

Air Environment

Ambient air quality (AAQ) samples were collected on basis of 24-hour sampling and twice a week at each site. The ambient air quality samples were collected for continuous 13-weeks beginning from 26th February 2020 to 13th June 2020. The ambient air quality monitored at 8 locations selected based on predominant wind

direction. The concentrations of PM₁₀, PM_{2.5}, SO₂ and NO_x were found within the National Ambient Air Quality Standards (NAAQ).

Water Environment

A total 13 samples including five surface & eight ground water samples were collected and analyzed. The water samples were analyzed as per Standard Methods for Analysis of Water and Wastewater, American Public Health Association (APHA) Publication.

The data indicates that the ground water as well as the surface water quality are below the stipulated standard for drinking water (IS 10500 – 2012).

Noise Environment

Noise levels measured nine stations are within limit of 55.0 dB (A) for Residential Area or 75.0 dB (A) for Industrial Area as given in MoEF Gazette notification for National Ambient Noise Level Standard.

Land Environment

The characteristics of the soil sample was done for respective parameters in four stations. The soil analysis report indicates that the soil in the area are capable of supporting plant growth.

9. Impact of the Project

Summary Matrix of Predicted Impacts, Mitigation Measures and Expected Residual Impacts

S.N.	Environmental Components	Predicted Impacts	Probable Source Of Impact	Mitigative Measures	Remarks And Expected Residual Impacts
Construction Phase					
1.	Ambient Air Quality	Minor negative impact on ambient air quality expected.	Dust emissions from levelling, excavation and construction at proposed Site, operation of construction vehicles.	Road compaction and water sprinkling. Covering of earthwork and construction material to minimize generation of dust. Use of good quality fuel and well maintained construction equipment	Impacts will be confined to short distances as coarse particles will settle within the short distance from activities. Minor short-term impacts for short period of time will be controlled by mitigation measures. No residual impacts expected.
2.	Noise	No significant impact expected	High noise levels during the construction activities and operation of construction equipment	Use of well-maintained equipment. Construction activity will be limited to day-time hours only, between 8 am and 8 pm to minimise nuisance on residential areas near plant boundary. Use of noise mufflers in portable DG sets and construction vehicle. Use of earplugs/muffs for workers near high noise generating equipment.	Monitored noise levels within prescribed standards. Noise generation will not be continuous and will be limited to daytime. No residual impacts expected.
3.	Surface water quality	Minor negative impact.	If any surface runoff from site	Disposal of construction debris in approved areas.	No residual impacts expected.

4.	Groundwater and Geology	No significant impact	Seepage of contaminants Site preparation work Design of structures	Secondary containment of fuel storage tanks. Spill minimization and clean-up. All structures will be designed after considering the soil and geological characteristics of the site area.	No residual impacts expected.
5.	Topography, Land use and soils.				
	Topography of site	Minor negative impact	Site development and change in topography	Green belt development	The site has been zoned for industrial development. No residual impacts expected.
	Land use Pattern	No significant impact	Site development	The existing land is in industrial use. No displacement of population due to the proposed project	The existing plant is in operation the proposed expansion will be done on the same land. No residual impacts expected.
	Soil	Minor negative impact	Soil disturbance due to land development	Silt traps to prevent soil erosion. Storage and re-use of top soil in plantation areas Prevention of soil contamination by good management practices. Storage and disposal of solid and hazardous wastes in dedicated and approved	No residual impacts expected.

				site.	
6.	Ecology - Flora and Fauna	No significant negative Impact	Site Development during construction.	None	No endangered species detected during the survey. No residual impacts.
7.	Traffic Pattern	During the construction phase, the GNRPL will contribute to minor increase of existing peak hourly traffic load. Minor negative impact.	Construction vehicles movement.	Adequate parking space for trucks and construction vehicles will be provided inside the site. Safety signs will be posted and all contractors will be under supervision of GNRPL staff to obey traffic and safety laws.	No residual impacts
8.	Social / Human Environment	Major positive impacts.	Employment generated No displacement of population.	NA	The local population will have employment opportunities due to the proposed project. The local people will be preferred during the construction phase.
OPERATION PHASE					
1.	Ambient Air Quality	Predicted concentrations are below AAQ standards. Minor negative impact on 24-hr average PM ₁₀ levels.	Prediction has been assessed based on 2007 standards of CPCB for trucks. Two way movement of truck for raw material	Since the procedure of operation is based upon wet process, therefore the chance of fugitive emissions will be negligible since the fines have been	The total concentrations (predicted + baseline) of all pollutants are within the prescribed standards. No residual impacts due to project operations

			and finished product transportation are considered.	eliminated in the process of crushing. However, the sprinkling of water will be done along the haul roads, storage area and in the plant premises to control the dust arising due to the movement of vehicular traffic. Water Pollution Control Measures	expected after implementation of mitigation measures.
2.	Noise	Baseline value of noise indicate that predicted noise levels are well within noise standards for general areas. No significant impact expected.	Noise from project operations	Use of earplugs/muffs for workers near high noise generating equipment. Use of Mufflers and vibration control on relevant buildings.	Predicted noise levels are within prescribed standards for industrial and general areas. No significant residual impacts expected.
3.	Surface water quality	No significant negative impact on surface water quality	Industrial effluent • Sewage discharge. • Surface runoff.	Process wastewater will be treated and reused within the facility to the maximum extent. Treated effluent discharge parameters below EMA discharge standards. Storm water management plan will be implemented Sewage water will be treated in packaged type STP and reused for plantation inside premises.	No residual impacts expected.

4.	Groundwater and Geology	No significant impact on groundwater quality expected. No residual impacts expected.	Material spills and leaks on land. Discharge of untreated effluent. Inadequate solid waste disposal	Paving of plant area will minimize seepage Secondary containment of all liquid material and waste storage. Use of treated sewage water only for plantation	No residual impacts expected.
5.	Topography, Land use and soils.				
	•Change in Land use Pattern and Topography of site.	No significant negative impact	Site development (covered in the construction phase impacts)	None identified	No residual impacts expected.
	• Soil	No significant negative impact	Accidental waste spills on site, contaminated surface runoff from site.	Storage of wastes in dedicated areas with secondary containment. All offsite disposal of all wastes as per defined management plan. Good housekeeping and other management measures (see Chapter 7 &10)	No residual impacts expected.
6.	Ecology - Flora and Fauna	No significant negative impact	Site operations	None.	No plant species and fauna of any significance. No endangered species detected during the survey.

					No residual Impacts expected.
7.	Traffic Pattern	The incremental traffic due to existing and proposed expansion project would not exceed 300 trucks per day and would no significant changes on the traffic load situation at project site road.	Road Traffic related to movement of raw material; staff vehicles.	Road Improvements in form of traffic signals, road widening, speed breakers, and safety signs has been carried out on approach roads by GNRPL.	No residual impacts expected.
8.	Social / Human Environment	Major Positive Impact	Employment generated No displacement of population.	NA	About 80 will be employed for the local population contributing significantly to the local economic development.

10. CSR Plan

Godawari Natural Resources Pvt. Ltd. will actively support the social issues for the betterment of society. The company strives to integrate social value within its daily business decision-making process with an aim to achieve positive and sustainable outcomes towards business, environment and the society at large. Apart from the various CSR activities, the company has taken the social initiatives towards conservation of environment, improvement of the social status of people in Chhattisgarh, contributions to relief funds, etc.

Under Corporate Social Responsibility (CSR) the needs of the nearby villages and surrounding area will periodically addressed and GNRPL is committed to further identify and continue the same in future.

In the field of Health:

GNRPL will undertake various activities to fulfill the health care requirements of the people around.

In the field of Education:

GNRPL acknowledges education as one of the building blocks of any nation and lays special emphasis on imparting quality education. As part of its social initiatives, GNRPL will provide active financial support to the meritorious and needy students, deserving students who are unable to pursue their studies due to their financial condition.

In the field of Community Development:

GNRPL will undertake the responsibility of community development in Gidhali and its nearby villages.

In the field of Environment Conservation:

An organization can only grow in a competitive environment when it addresses economic, social and environmental concerns with a focused approach. In order to make itself environment friendly at all levels, greenbelt cover in all of its plant locations. Our endeavors towards environment protection are water conservation programs and extensive tree plantation drives.

- Plantation inside & outside plant premises of Crushing Plant area
- Deepening & cleaning of Ponds in nearby villages of Gidhali

As per OM dated 01.05.2018 CER amount of Rs. 25.50 Lakhs will be spent towards various activities in co-ordination with District Administration

11. Occupational Health Measures

GNRPL will follow guidelines provided by the Directorate of Industrial Health and Safety and Labour Ministry of State which is amended time to time as directed by the authority. .

12. Post Project Monitoring Plan

Godawari Natural Resources Private Limited will carry out the Environmental Monitoring on regular basis. GNRPL will establish in-house Laboratory facility for collection and analysis of Environmental Samples.

The Ambient Air Quality, Meteorological Data, Stack Emissions, Fugitive Emissions, Water Quality, Wastewater Quality, Noise Levels etc. are being monitored as per the consent conditions. The methodologies adopted for environmental monitoring are in accordance with the CPCB procedures