

# SUMMARY OF ENVIRONMENTAL IMPACT ASSESSMENT REPORT

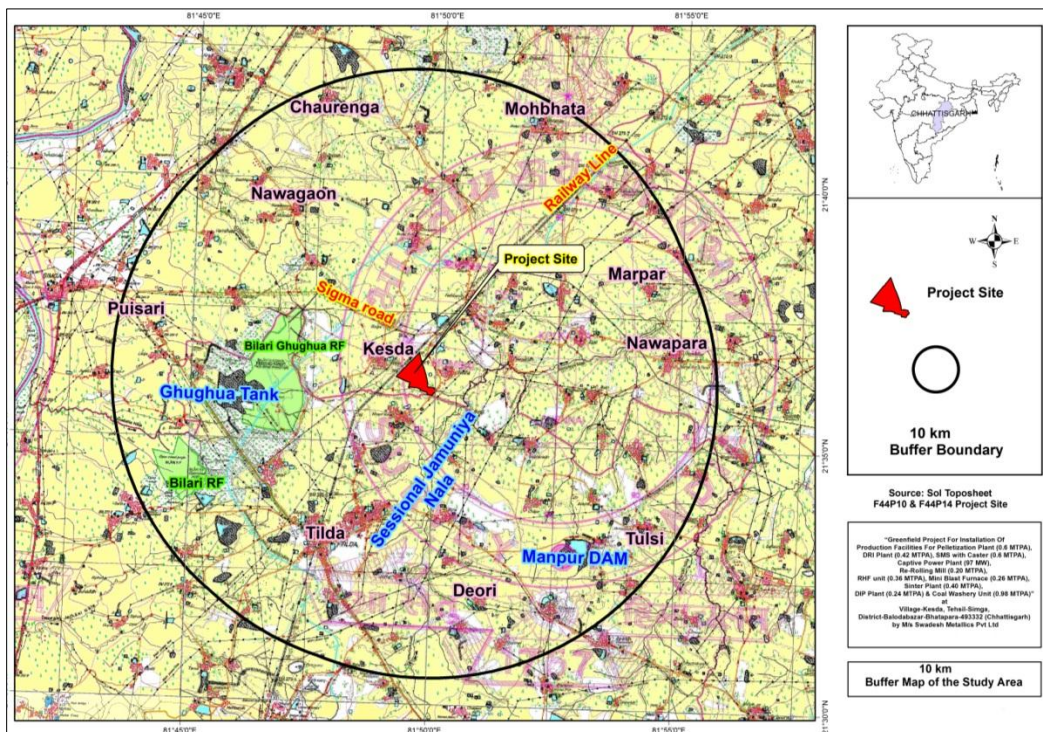
## FOR PUBLIC HEARING

### Greenfield Integrated Steel Project

#### Located At

Village-Kesda, Tehsil - Simga, District - Balodabazar -

Bhatapara, State-Chhattisgarh



Submitted By

M/s Swadesh Metallics Pvt Ltd.

Registered Office HIG-7, Sec-02, Housing Board Colony,

Shankar Nagar, Raipur- CG

JUNE-2022

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## **1.0 PROJECT DESCRIPTION**

M/s Swadesh Metallics Private Limited., has proposed Greenfield project for producing TMT bar, wire rods, coiled and de-coiled bars and Ductile Iron Pipes. Manufacturing facilities will cover iron ore Pelletization Plant (0.60 MTPA), DRI Plant (0.42 MTPA), SMS with Caster (0.60 MTPA), Captive Power Plant {(52 MW#WHRB-32 MW from DRI unit and 20 MW from RHF unit) and 45 MW coal based}}, Rolling Mill (0.20 MTPA), RHF unit (0.36 MTPA), Blast Furnace (0.26 MTPA), Sinter Plant (0.40 MTPA), DIP Plant (0.24 MTPA) & Coal Washery Unit (0.98 MTPA).

The project site is Village-Kesda, Tehsil-Simga, District-Balodabazar-Bhatapara, State-Chhattisgarh. Tilda-Simga road is abutting to project site. The nearest Railway Station is Hathbandh Railway Station, which is located about 2.8 km distance from the project site towards NE direction. The plant location is along the Mumbai-Howrah railway line. The Kesada village is at 650 m from boundary of proposed project in West direction. Newdha village is at 550 m towards east direction. Mahamaya temple is located at a distance of 0.6 km in East direction. Tilda Town is located at about 5.0 km distance from the Project site towards SW direction. The nearest Airport is Swami Vivekanand Airport, Raipur, which is situated at about 46.5 km distance in SSW direction from the project site. Manpur dam is at 7.0 km towards South-East Direction and Ghughua dam is at 5.0 km towards west direction. No nalla or road passes through the plant area. There is no village or human settlement in the plant area. The climate in the area is dry with extreme temperature variation. No National Park/sanctuary falls within 5 km of the plant area.

Application was submitted to MOEF&CC for obtaining Terms of References (TOR) for conducting the EIA studies. Accordingly, the project proponents have submitted prescribed application along with Pre-Feasibility Report to the MOEF&CC, New Delhi on dated 06.09.2021 vide proposal No:- IA/CG/IND/227899/2021 for seeking terms of references for conducting the EIA Study. Expert Appraisal Committee (Industry-1) deliberated the project during its 45th meeting held on 27th-29th September, 2021. MoEF&CC granted TOR for the project on 13th October, 2021 vide F. No. J-11011/46/2021-IA.II (I)".

“The project falls under Category ‘A’ of Schedule 3 (a), as per the EIA Notification, 2006 & its amendment till date and will be appraised by EAC (Industry-I), MoEF&CC, New Delhi”

Total land required for the project is 84.98 Ha. 29.13 Ha will be developed as greenbelt 74575 trees will be planted. Density of trees will be 2500 trees/ha as per the MoEFC&CC norms.

**Project Promoters:**

M/s Swadesh Metallics Pvt Ltd. will be managed by Directors Shri Pawan Kumar Agarwal and Shri Sushil Kumar Singhal. They are experienced and knowledgeable employees for the respective areas of operation. They are already successfully running many iron & steel manufacturing units in Chhattisgarh. The details of the above listed Directors are given below. The following are the Board of Directors of the company:-

S. No.	Name of the Directors	Work Experience
1	Shri Pawan Kumar Agarwal	All promoters have several years of experience in the field of Steel industry. The company is promoted by technically qualified and professionally experienced technocrats who crave for innovation and value addition.
2	Shri Sushil Kumar Singhal	

Land	210 Acres
Power	118 MW of electricity will be required for operation of proposed plant; 97 MW power will be sourced from CPP and remaining will be sourced from State Electricity Board.
Water	One time water requirement for current project is 58,228 KL and daily fresh water requirement for proposed project integrated steel project including domestic water will be 5,648 KLD and 53,075 water will be recycled through closed circuit cooling system.

## **2.0 DESCRIPTION OF BASELINE ENVIRONMENT**

Baseline environmental study has been carried for the period 1<sup>st</sup> Dec, 2020 to 28<sup>th</sup> February, 2021 (Winter Season). Baseline data has been collected out, by M/s. GRC India Training & Analytical Laboratory, Noida. Accredited by NABL also Recognized by MoEF&CC, New Delhi

### **Summary of Ambient Air Quality**

- Results were compared with the standard for ambient air quality monitoring as per the Ministry of Environment, Forest and Climate Change (MoEF&CC).
- During the study PM<sub>10</sub> was observed in the range of 48.2 to 70.5 µg/m<sup>3</sup>. Maximum concentration of PM<sub>10</sub> was found at Newadha Village.
- PM<sub>2.5</sub> was observed in the range of 28.8 to 40.9 µg/m<sup>3</sup>. Maximum concentration of PM<sub>2.5</sub> was found at Newadha Village.
- SO<sub>2</sub> concentration was observed in the range of 5.1 to 10.1 µg/m<sup>3</sup>, which is well within the standard limit.
- NO<sub>x</sub> concentration in was observed in the range of 11.7 to 21.7 µg/m<sup>3</sup>, which is well within the standard limit.
- Monitoring and analysis was also carried out for CO. Result for the CO was found well within the norms and was observed in the range of 210 to 580 µg/m<sup>3</sup>, which is well within the standard limit.

### **Summary of Ground Water Quality**

- pH was observed in the range of 7.06 to 7.60 which meets with desirable norms.
- Total dissolved solid were recorded in the range of 360 to 450 mg/L with minimum at Tube well water near village kesda and maximum at Tubewell water near nawagaon.
- Total hardness was in the range of 210-238 mg/L with minimum at Tube well water near nawagaon & maximum at Tube well water near village kamta.
- Total Alkalinity was found in the range of 142-189 mg/L with minimum at Tube well water near nawagaon & maximum at Tube well water near project site.
- Iron was found in the range of 0.71-0.79 mg/L with minimum at Tube well water near village-kamta and maximum at Tube well water near village kamta.
- As microbiological parameters MPN analysis was also carried out and it was found Nil.

### **Summary of Surface Water Quality**

The following description is based on the analysis of the samples:

- During the analysis pH of the samples was found in the range of 7.22 to 7.82
- TDS analysis was also carried out for surface water sample and it was found in the range of 326 to 880 mg/L.
- DO measured during analysis was found in the range of 1.1 to 6.7 mg/L.
- COD measured during analysis was found in the range of 19 to 45 mg/L.
- BOD measured during analysis was found in the range of 3.1 to 10.1 mg/L.

Soil is the media for supplying the nutrients for plant growth. Nutrients are available to plants at certain pH and pH of soils can reflect by addition of pollutants in it either by air, or by water or by solid waste or by all of these. In order to establish the baseline status of soil characteristics, soil samples were collected from 05 sampling locations. The analysis results show that soil is basic in nature as pH value ranges from 6.47 to 7.38, Iron ranges from 26.8 to 21.2 mg/kg, Bulk Density is 1.31 to 1.37 gm/cc, Water Holding Capacity is 29.4 to 33.8%, Total Nitrogen (as N) is 204.36 to 251.1 kg/Ha, Total Phosphorus (as P<sub>2</sub>O<sub>5</sub>) is 67.12 to 74.12 Kg/Ha and Available Potassium (as K) is 277.26 to 323.25 Kg/Ha. Soil texture is sandy clay loam at project site.

The baseline noise levels have been monitored at different locations in study area. In rural areas wind blowing and chirping of birds would contribute to noise levels especially during the nights. Assessment of day noise levels around the study area are ranging between 46.6 to 62.7 dB (A) during study period. Whereas the night equivalents were in the range of 33.3 to 52.6 dB (A).

There are 52 identified settlements in the study area of which 51 are villages and one town. 37 villages are located in district BalodaBazar-Bhatapara and 14 villages are in Raipur District. Tilda is the only town located in district BalodaBazar-Bhatapara.

According to Population Census 2011 the study area has a total population of 120074 of which 50.1 percent are male and the remaining 49.9 percent are female. Again, of the total population 69.5 percent live in rural area and the remaining 30.5 percent live in urban area.

The overall density of population in the study area has been worked out to 399 persons per square kilometer. It is 308 persons per square kilometer in rural area and 1198 persons per kilometer in urban area.

No schedule-I species is reported in study area. There is No national park and wild life sanctuary or any animal corridor is present in the study area.

### **3.0 ANTICIPATED ENVIRONMENTAL IMPACT & MITIGATION MEASURES**

- Raw material Dust is the main pollutant generated during ore handling.
- Water sprinklers will be used to reduce dust generation during coal handling.
- Wet dust suppression system will be installed to reduce the dust generation.
- All belt conveyors will be covered. Internal roads shall be concreted.
- Industrial vacuum cleaners will be used in workshops and other work areas.
- Mechanical road sweeping machines will be deployed for daily cleaning of all internal roads.
- There will be no industrial wastewater discharge as the plant will be designed on zero effluent discharge principle.
- Domestic waste water will be treated in STP and treated water will be used for irrigation purpose.
- Zero effluent discharge will be practiced.
- 100% of waste water will be recycled and Zero discharge condition will be maintained.
- Low noise emitting plant and machinery will be selected. 33% land area will be developed as greenbelt. The noise level at plant boundary will be maintained below 70 dBA.
- The existing truck movement pattern will not undergo any significant change. Appropriate traffic management plan will be implemented in consultation with the transport authorities.

### **4.0 ENVIRONMENTAL MONITORING PROGRAM**

Environmental Management Cell (EMC) will be set up to undertake routine environmental monitoring. Monitoring will be done to ensure compliance with the prescribed laws and standards. The Head of EMC will report to the Plant Head. Qualified staff will be recruited in EMC. Environmental monitoring of ambient air, stack emission, fugitive dust emission, noise levels, groundwater quality, surface water quality and soils will be carried out as per norms. EMC will be responsible for the following functions:-

### **Regular monitoring of:-**

- Measuring fugitive emissions, measuring PM<sub>2.5</sub> and PM<sub>10</sub> in work environment and report any abnormalities for initiating corrective and preventive actions.
- Measuring the ambient air quality at upwind and downwind direction of crusher, at plant boundary.
- Checking the wastewater quality (inlet and outlet).
- Checking the ground water quality near the project area, and surrounding villages.
- Water quality of water body present in study area at upstream and downstream of site.
- Noise monitoring at plant boundary, nearest habitation, near highway, and work areas.
- Development and maintenance of greenbelt and greenery within the plant boundary.

### **5.0 ADDITIONAL STUDIES**

Adequate fire mitigation measures will be ensured for handling fire in project area in care of emergency. Disaster Management Plan has been prepared to take care of public health and safety during any accident.

CER will be done as per CER norms. Generally, the CER amount use to spent for making classrooms in local schools, providing teaching aids, making community centres, develop drinking water facility in nearby villages, making rainwater harvesting structures like anicuts and check dams in the area, developing infrastructure facilities and equipment in primary health centres.

As per MoEF&CC Office Memorandum vide F.No.22-65/2017-IA.III dated. 30<sup>th</sup> September 2020, Rs. 7.40 Cr allocated for CER budget.

### **6.0 PROJECT BENEFITS**

The proposed project is expected to yield a positive impact on the socio-economic environment within the study area. It helps to sustain the development of this area including further development of physical infrastructural facilities.

About 200-300 people on daily wages basis will get employment during the construction stage. Approx. 2,150 persons (For Admin staff – 100, for Production – 1,800 and



Contractual -250) persons are expected to be employed during operational phase, for the skilled, semi-skilled and unskilled category. The preference will be given to local population for employment in the semi-skilled and unskilled category; this will increase the employment opportunity in the surrounding area. More revenue will be generated by the way of GST to the State & Central exchequers.

## **7.0 ENVIRONMENTAL MANAGEMENT PLAN**

Environmental Management Plan for effective management of environmental impacts and ensuring overall protection of the environment through appropriate management procedures has been developed. In order to implement the recommended mitigation measures and institutionalize the EMP, budgetary provision of Rs. 39 Cr capital expenditure has been made and Recurring annual expenditure will be Rs 5.91 Cr.

Environment Management Cell (EMC) will ensure that all air pollution control device, effluent treatment plants and water re-circulating systems function effectively. EMC will also supervise disposal of spent oil and lubricants and used batteries to the authorized vendors. Plantation will be started during the construction phase by following the guidelines issued by the Central Pollution Control Board. Schemes for resource conservation (raw materials, water, etc), rainwater harvesting and social forestry development will be taken up by EMC. Regular environmental awareness programs for the employees will be conducted.

Workers will be periodically subjected to health check-up. EMC will ensure cleanliness and industrial hygiene in the plant. EMC in association with the safety department will undertake full review of the potential hazard scenarios during plant commissioning. The review will ensure enforcement of the proposed safeguards for pollution abatement, resource conservation, accident prevention and waste minimization. The implementation of EMP would ensure that all elements of project comply with relevant environmental legislation throughout its life cycle.

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