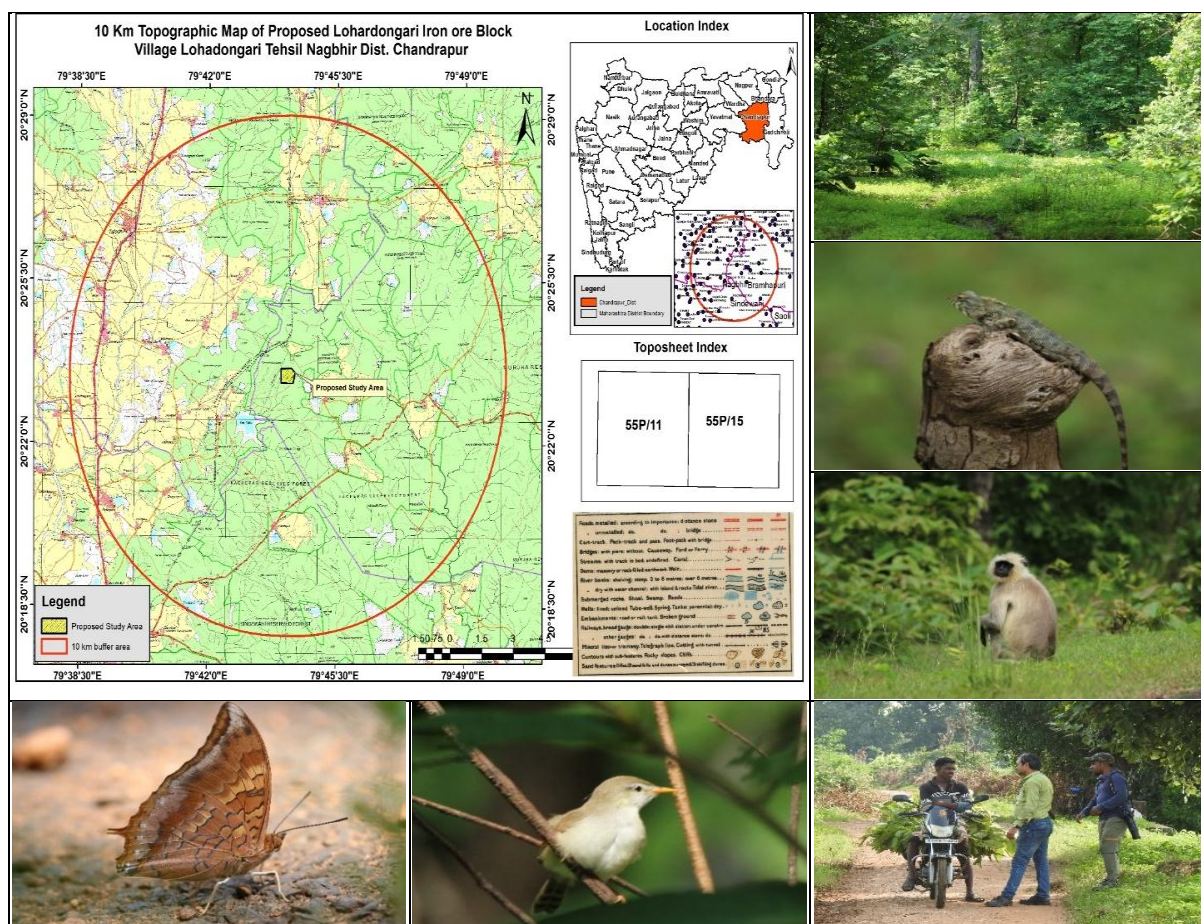


Biodiversity Status assessment and Preparation of the wildlife conservation Plan for Lohara-dongari Iron Ore Block (35.73 Ha) at Village Loharadongari, Tah – Nagbhid, District Chandrapur (MH)



Prepared By

Econsus Environmental Solutions LLP
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October 2022

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wildlife conservation Plan for Lohara-dongari Iron
Ore Block (35.73 Ha) at Village Loharadongari,
Tah – Nagbhid, District Chandrapur (MH)**

Submitted to

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October 2022

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Chapter I

INTRODUCTION

M/s Sunflag Iron & Steel Company Limited has state-of-the-art Integrated Steel Plant of capacity @ 0.75 Million TPA situated at District -Bhandara, Maharashtra having process facilities as DRI Kiln, Sinter Plant, Blast Furnace, EAF, LRF, AOD, VD, Rolling Mills, Cold Finishing Lines and Super Alloys Steel. The key products include Carbon Steel, Alloy Steel, Micro-Alloyed Steel, Free Cutting Steel, Spring Steel etc and mainly supplied to clients as Defence, Railways, OEM Automobile Parts Manufacturers and Power Sector. Bulk raw materials used for steel making are iron ore, coal and coke. The coal is sourced from captive U/G Belgaon Coal Mine. Iron ore availability is very scarce and Sunflag Steel is facing lot of problems to procure it.

Major mines of iron ore are situated in Orissa, Karnataka and Chhattisgarh. Maharashtra has limited Iron Ore Deposits in District Gadchiroli, Chandrapur and Sindhudurg. To solve iron procurement problem, Sunflag Steel entered in to auction process and become a successful Bidder by bidding 90.2 % bid price of IBM average sale price for proposed Loharadongri Iron Ore Block, which is located at 110 Km by road from Sunflag Steel Plant.

The Iron Ore Mine Proposal is applied in the name of M/s Sunflag Iron & Steel Co. Ltd (Loharadongri Iron Ore Block) to be located at Forest Compartment No. 439 (Old Forest Compartment No. 95), Village- Loharadongri, Tal- Bramhapuri, District- Chandrapur (M.S.). The forest land measuring 35.73 HaR for Iron Ore Mining and 0.21 HaR for approach road is auctioned and allotted through tendering and e-auction process by Directorate of Geology and Mining (DGM), Government of Maharashtra in May 2019.

1.1 Profile of the Project Proponent and Background

M/s Sunflag Iron & Steel Company Limited (SISCO) is a limited company, having its registered office at 33, Mount Road, Sadar, Nagpur. It has integrated steel plant, at Warthi, Bhandara. To have the assured supply of raw material i.e. iron ore to the integrated steel plant and also considering commercial aspects, the SISCO entered in to auction process and became the Project Proponent for Loharadongri Iron Ore Block located at Forest Compartment No. 439 (Old Forest Compartment No. 95), Village-

Loharadongri, Tal- Bramhapuri, District- Chandrapur M.S of an area 35.73 ha. This Forest Compartment iron Ore Block is earmarked for non-captive purpose i.e. for commercial purpose by the Maharashtra Govt.

The Project Proponent M/s Sunflag Iron & Steel Co. Ltd. is in the business of steel production since last several years. The project proponent has wide experience in the field of mining. The Project Proponent will operate the proposed iron ore mine with all precautionary measures and implement mitigation measures for environmental conservation. Project proponent is confident for the successful implementation and operation of proposed iron ore mining activity along with environmental conservation. Project proponent is known for integrity and professional management in the business circle.

1.2 Brief Description of Nature, Size, Category of Project

The proposed project is an iron ore mining activity on a small hillock existing in reserve forest land. Iron ore is a major mineral and mine lease area is 35.73 HaR. The proposed production of Iron Ore will be @ 1,40,598 TPA using opencast fully mechanized operations on single shift basis within the existing mining lease area. As per Approved Mining Plan the life of mine is 15 years.

The applied mining project is listed in EIA Notification, 2006 & Amendments thereof under Sr. No. 1(a). In the 10 km radius from the boundary of proposed mine, no notified protected forest areas under the Wildlife (Protection) Act, 1972, Critically polluted areas as identified by the CPCB from time to time, Eco-sensitive areas as notified under section 3 of the Environment (Protection) Act, 1986 and inter-State boundaries and international boundaries are existing. The proposed project falls under Category “B 1” (Mining Lease Area <100 Ha) and required environmental clearance from SEAC & SEIAA, Govt. of Maharashtra.

1.3 Importance of Project to the Country and Region

Proposed Iron Ore Mine Project will play an important role in development of Region and Country, as the mineral will be used in production of metallic iron. The integrated steel plant of project proponent is in operation near village –Warthi, Bhandara and it has a manufacturing route of Sponge Iron Plant, Mini Blast furnace, Power plant, Electric Arc Furnace, Vacuum Degassing, Continuous Casting Machine, Rolling Mills, Garret Coiler and Wire Rod Mill, Annealing and Bright Bar facilities.

To have the assured supply of raw material i.e. iron ore to their steel plant and also considering commercial aspects, the Project Proponent, entered in to auction process and became the Project Proponent for Loharadongri iron ore Mine in Taluka: Brahmpuri District: Chandrapur, Maharashtra State for an area 35.73ha.

For consuming in integrated steel plant, the project proponent demands the chemical composition of more than 60% Fe, with low silica, low alumina and low phosphorus. As per the DGM's chemical analysis, the iron ore of proposed mine project has above 60% Fe, low silica, low alumina and low phosphorus therefore, the iron ore mined will fulfil demand of their own integrated steel plant which manufactures high grade alloy steel in Bhandara District.

The iron ore will be transported to Steel plant by road. It will also be sold to buyers' ex-mine subject to availability.

1.4 Compliances; Supportive of Biodiversity Assessment

- **Standard ToR Condition (SIA/MH/MIN/63251/2021 dated 03/09/2021)**

A detailed biological study of the study area [Core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET species duly authenticated, separated for core and buffer zone should be furnished based on such primary field survey, clearly indicating the schedule of the fauna present. In case of any schedule I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with state forest and wildlife department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.

- **Specific Condition**

PP to carry out biodiversity survey in the study area, if Schedule I species are found, PP to prepare a wildlife conservation plan in consultation with the forest department and submit approved copy along with EIA/EMP report.

1.5 Rationale and Objectives for the Proposed Wildlife Conservation Plan

Terrestrial flora and fauna are important features of the environment. They are organized into natural communities with mutual dependencies among their members and show various responses and sensitivities to anthropogenic influences. The changes in biotic community are studied in the pattern of distribution, abundance, and diversity. These changes through time can be quantified and are related to the environmental condition. This peculiarity of plants can be utilized to assess the impacts of ensuing project on flora and fauna of the region, which are important components of biological environment. In this regard the baseline condition of the area needs to be studied.

Generally, biological communities are the good indicators of climatic and edaphic factors. Studies on biological aspects of ecosystems are important in Environmental Impact Assessment for safety of natural flora and fauna. Information on the impact of environmental stress on the community structure serves as an inexpensive and efficient early warning system to check the damage to a particular ecosystem. The biological environment includes mainly terrestrial ecosystem and aquatic ecosystem.

The sensitivity of animal and plant species to the changes occurring in their existing ecosystem can therefore, be used for monitoring Environmental Impact Assessment studies for the proposed Loharadongri Iron Ore Block located at Forest Compartment No. 439 (Old Forest Compartment No. 95), Village- Loharadongri, Tal- Bramhapuri, District- Chandrapur. Based on EIA output a wildlife conservation plan could be tailored to maintain the natural pace around the developmental activities in and around the proposed site.

Most significant rationale behind the proposed study of biological environment is one of the most important aspects for Environmental Impact Assessment, in view of the need for conservation of environmental quality and biodiversity. Ecological systems show complex inter-relationships between biotic and abiotic components including dependence, competition and mutualism. Biotic components comprise of both plant and animal communities which interact not only within and between themselves but also with the abiotic components viz. Physical and chemical components of the environment.

The key objectives of proposed wildlife conservation plan are as below:

- To conduct detail study of terrestrial ecology of the proposed project activity
- To conduct detail study for floral and faunal groups in the study area.

- To assess scheduled species in the proposed site and study area. (Rare, endangered, critically endangered, endemic and vulnerable).
- To identify locations and features of ecological significance.
- To identify Impact of project during operational phases on the biological environment

To prepare a detailed report on the status of wildlife and biodiversity in 10 km radial area (Study Area) around proposed Loharadongri Iron Ore Block area and assessment of impacts due to mining activity and suitable mitigation measures to protect and conserve biodiversity highlighting following scientific component.

The Components included:

- I. Floristic survey
- II. Wildlife survey (diversity and abundance)
- III. Habitat study (feeding, breeding, roosting areas)
- IV. Distribution of birds including migratory birds
- V. Rare & Endangered species of flora and fauna
- VI. Specific local characteristics of biodiversity in study area
- VII. Prediction of impacts due to mining activity and transportation of ore on biodiversity, fragmentation of habitat, blocking of migratory paths and suitable mitigation measures.
- VIII. Economic Model and its allocation for each activity of wildlife conservation plan

1.6 Regulatory and Statutory Requirements

The proposed wildlife conservation plan was designed based on various national regulatory requirements along with statutory practices applied across various wildlife conservation reserves. In absence of any national conservation regulations, international and MOEF recommendations were incorporated for the similar related projects.

The scope of the survey study is designed to establish prevailing situation relation to environment, human being and the flora and fauna in the study area. An area of 10 km radius around the project side has been considered as the study area. Biodiversity base line survey was carried out in (Post monsoon season) which includes survey of flora and fauna as per the guidelines of MOEF. The species of the flora has been listed while faunal species have been identified as per Wildlife Protection Act, 1972 and as amended subsequently and listed in conservation categories.

Figure 1.1: Study Area (10km) Around Mining Lease Area

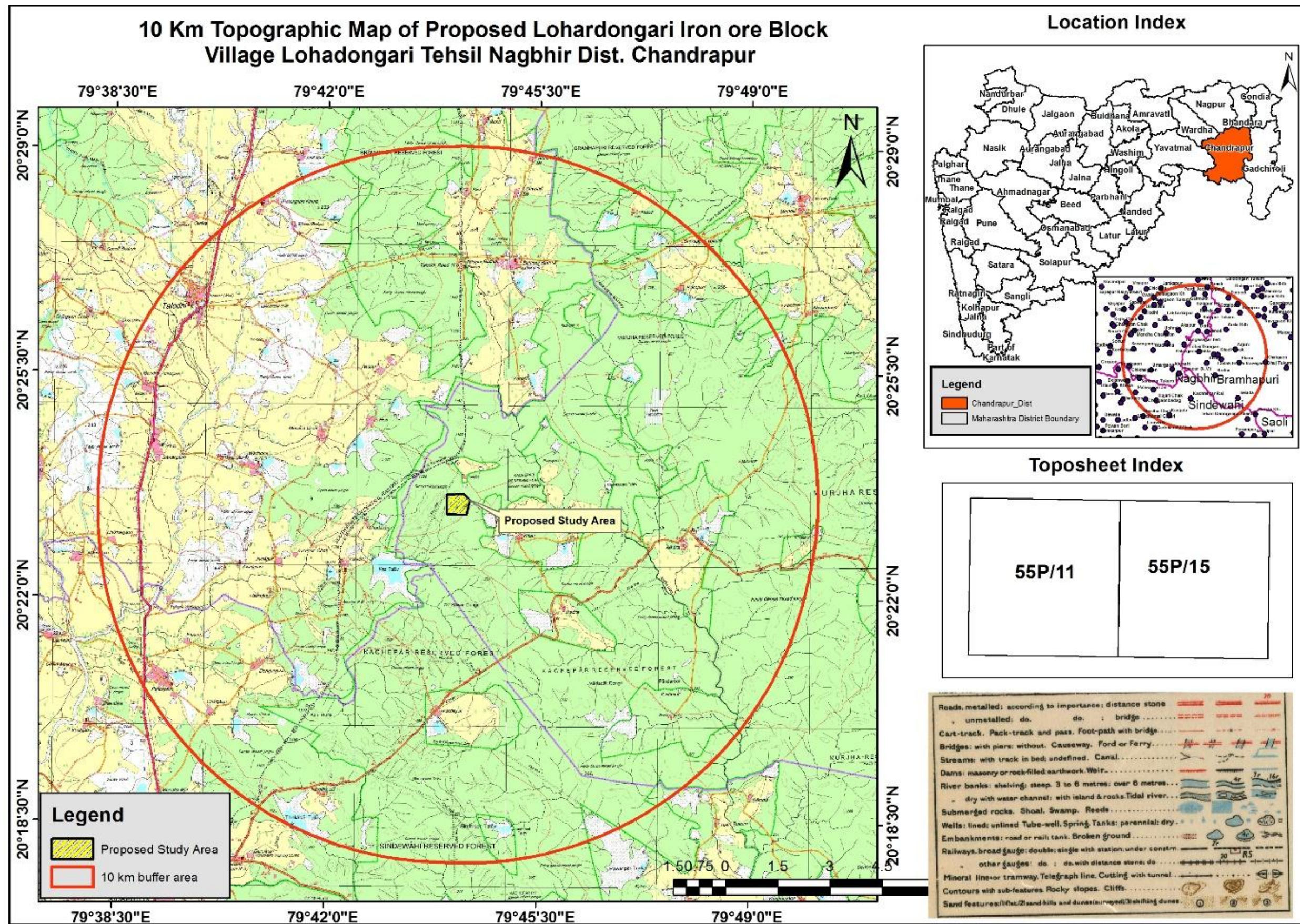


Plate 1.1: Study Area Photos for Mining Lease Area

	
Forest habitat in core zone	Forest habitat
	
Waterbody in buffer zone	Wetland in buffer zone
	
Forest patch in buffer zone	Agriculture land in buffer zone

	
Wetland in buffer zone	Wetland in buffer zone
	
Water logged/ swamp forest habitat in buffer zone	Boundary demarcation core zone

Chapter – II

ESSENCE OF THE PROJECT AREA

2.1 Brief Project Description and Reconnaissance

- The proposed iron ore mine is a medium scale project. The proposed iron ore mine will be on forest land with proposed mining lease area will be 35.73 HaR. The google image showing study area is presented in Fig. 2.1.
- The maximum production capacity of iron ore mining will be @ 1,40,598 TPA. At present, mineable iron ore reserve at proposed site are 14,35,800 Tonnes. Hence, considering average iron ore mining the life of mine is 15 years.
- At proposed site the iron ore mineralization is a hilly terrain, amenable to opencast method of mining. The mining will be by mechanized operation commencing operation at crest of the hill (313 m altitude) surface exposing the ore body and subsequently descending downward forming systematic benches of six meter high and width not less than the height i.e. six meter and slope of individual bench to 60° from horizontal.

2.2 Mining Lease Coordinates

- The proposed lease area is included in Survey of India Toposheet No. 55 P/11 between latitude (N20°23'17.65" to N20°23'37.29") and longitude (E 79°43'58.73" to E079°44'22.11"). The general altitude of the area is around 314 m from MSL.
- The below mentioned co-ordinates of boundary pillars are provided by the State Govt. along with geo co-ordinates of the boundary pillars of the proposed lease area are given in following table.

Boundary Pillars	Latitudes	Longitudes
BP-1	N 20o 23'37.17"	E 79 o 43' 58.97"
BP-2	N 20 o 23' 18.79	E 79 o 43' 58.73"
BP-3	N 20o 23'17.65"	E 79 o 44' 18.31"
BP-4	N20o 23'31.55"	E 79 o 44' 22.11"
BP-5	N20o 23'37.29"	E 79 o 44' 16.10"