

**Assessment, mitigation, and management of the impacts of Sulaipat Iron  
Ore Mines project in Mayurbhanj district of Odisha state on  
floral and faunal biodiversity**

**Report**

**Submitted to  
Forest Department of Odisha**



**Salim Ali Centre for Ornithology and Natural History  
(A Centre under the Ministry of Environment, Forest and Climate Change, Government of India)  
Anaikatty P.O., Coimbatore – 641108, Tamil Nadu**

**May 2022**

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Submitted to

**Odisha Forest Department**

Funded by

**Sulaipat Iron Ore Mines**

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## EXECUTIVE SUMMARY

While according Stage-I approval for forest diversion proposal for Sulaipat Iron Ore mines of M/s Birat Chandra Dagara, the Union Ministry of Environment Forest and Climate Change had stipulated the condition that the "State Government shall commission a study to assess the impact of the project on floral and faunal biodiversity and appropriate measures to mitigate the identified impacts". Accordingly, the environmental assessment study was taken up by SACON on request from the Odisha Forest Department. The study was initiated by SACON in March 2020 and was completed by May 2021. Although there was some delay owing to the first and second waves of the Covid-19 pandemic, the field studies could be completed by March 2021.

The study area is located at Sulaipat in the Mayurbhanj district of Odisha. The Environmental Assessment was conducted based on secondary and primary data collected on select major components of the biodiversity of the area. Detailed field studies were carried out on biological components of the environment within the selected study area of 10 km radial distance around the different mine areas. Field surveys quantifying vegetation and major faunal groups such as mammals, birds, and butterflies were undertaken. The mines are surrounded by vegetation dominated by Sal forests interspersed with dry deciduous forests and agricultural lands dotted with natural and man-made water bodies. Further long-term evaluation will be needed for a better understanding of the area.

The intensive field surveys were carried out between September 2020 and December 2020. Over 337 species of flora and fauna were recorded during the study. This included 202 species of plant, 8 species of mammal, 92 species of birds, 10 species of reptiles, 18 species of fishes, 46 species of butterflies, and 53 species of spiders. There were only a few protected or conservation-priority species (under Wild Life (Protection) Act, 1972 and IUCN Red List) present in the study area. Among the mammals, a notably priority species recorded was the Asian elephant *Elephas maximus* (Endangered). Other records during the study included Three-striped Palm Squirrel *Funambulus palmarum*, Indian grey mongoose *Herpestes edwardsi*, Indian crested porcupine *Hystrix indica*, Indian hare, *Lepus nigricollis*, Rhesus macaque *Macaca mulatta*, and Barking deer *Muntiacus muntjak*. We recorded 92 species of birds (65 terrestrial and 27 wetland birds) belonging to 35 families. Common terrestrial birds of the area were Common myna *Acridotheres tristis*, Red-vented bulbul *Pycnonotus cafer*, Black drongo *Dicrurus macrocercus*, Spotted dove *Spilopelia chinensis*, Asian pied starling *Gracupica contra*, and Plum-headed parakeet *Psittacula cyanocephala*.

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Careful planning and monitoring in consultation with an expert institution in the field of ecology and wildlife before the expansion of the current mining area is suggested for minimizing the negative impact of the mining development on the local biodiversity. Some specific guidelines are also proposed for the conservation and sustainable management of the biodiversity the Measures such as **1.** Preservation of existing green patches and water bodies around the mining area with the least disturbance, **2.** Creation of green belts with native plant species, which may act as refugia patches for the birds and mammals and **3.** Maintaining the potential habitat corridors in the landscape for the sustainable management of biodiversity of the region are suggested.

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