

# **Chapter-1**

## **Introduction**



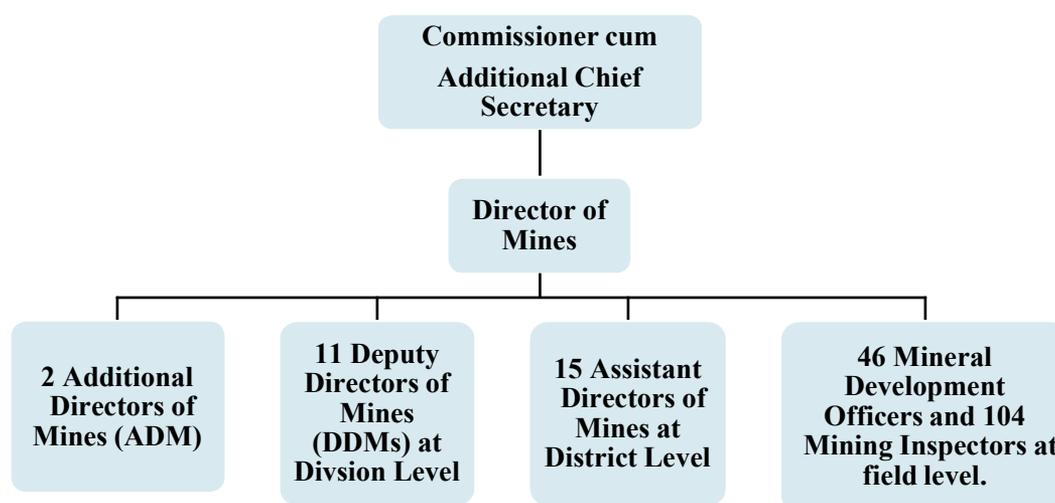
## Chapter-1

### 1.1 Introduction

Receipts<sup>1</sup> from Mines and Minerals in Bihar are administered by the Mines and Geology Department (MGD). After re-organisation of MGD in 2006, Bihar remained with limited resources of minerals like Sand, Stone, *Murram*, Earth, Limestone, Mica, Silica, Quartz and Quartzite *etc.*

Limestone is the only major mineral available in Bihar. Minor minerals found in Bihar are Sand, Stone, *Murram*, Earth and Brick Earth, Mica, Silica, Quartz and Quartzite. Mining offices are situated in all 38 districts of the State, out of which, mining operation of major mineral (Limestone) is carried out only in Rohtas district. In terms of minor minerals, stone mining operations are carried out in six districts<sup>2</sup> and sand mining operations are carried out in 32 districts<sup>3</sup>. Excavation of minerals (other than Limestone, Sand, Stone and Earth) is not being currently carried out in Bihar. Apart from regulating mining operations, the MGD regulates grant/renewal of licenses to operate stone crushers and permits for excavation of brick earth, used in brick kilns.

### 1.2 Organisational set up



(Source: Mines & Geology Department)

### 1.3 Trends of Mineral Revenue

As per Rule 475 of Bihar Financial Rules, all Controlling Officers are required to reconcile their receipts and expenditure with the Accountant General (Accounts and Entitlement). Under Rule 37 of Bihar Financial Rules, it is the primary responsibility of the departmental authority to see that all receipts are correctly assessed, realised and credited to the Government account, under proper head, without undue delay.

<sup>1</sup> Receipts from Mines and Minerals in Bihar comprise royalty, rent, application fee, penalty, fine and interest on delayed payment of dues *etc.*

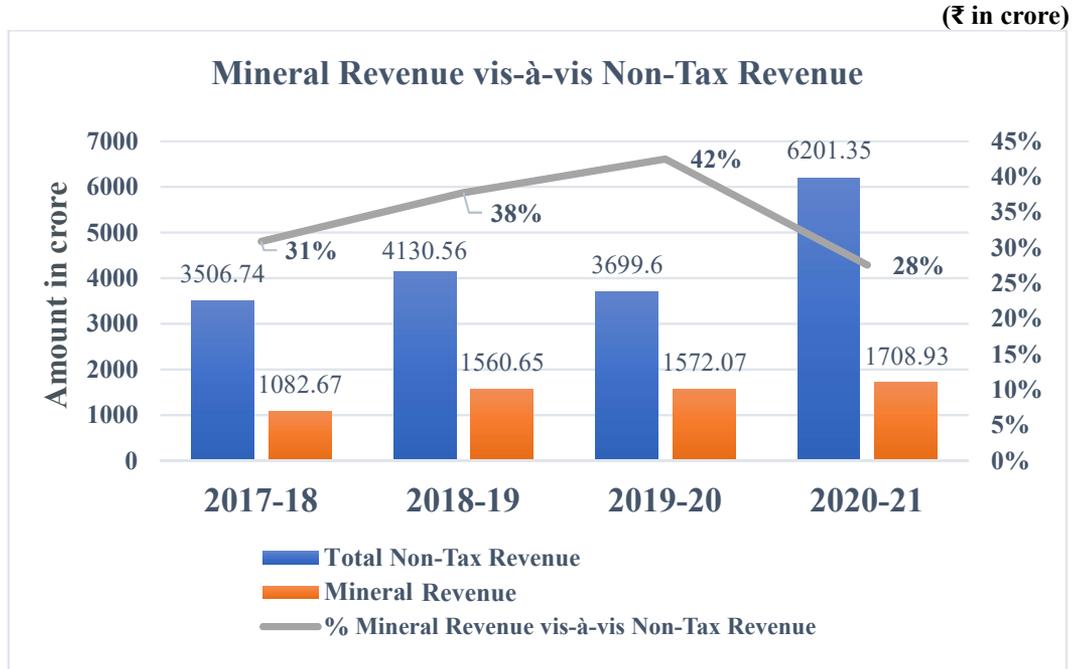
<sup>2</sup> Aurangabad, Banka, Gaya, Kaimur, Nawada and Sheikhpura.

<sup>3</sup> Arwal, Aurangabad, Banka, Begusarai, Bhagalpur, Bhojpur, Buxar, East Champaran (Motihari), Gaya, Gopalganj, Jamui, Jehanabad, Khagaria, Kaimur, Kishanganj, Lakhisarai, Madhepura, Madhubani, Munger, Muzaffarpur, Nalanda, Nawada, Patna, Rohtas, Saharsa, Saran, Sheikhpura, Sitamarhi, Siwan, Supaul, Vaishali and West Champaran (Bettiah).

- **Trends of mineral revenue vis-à-vis total non-tax revenue**

Out of total non-tax revenue for ₹ 6,201.35 crore received in the State during 2020-21, mineral revenue was ₹ 1,708.93 crore (28 per cent). The details of total mineral revenue vis-à-vis total tax and non-tax revenue of the GoB during 2017-18 to 2020-21 are shown in the **Chart-1**:

**Chart-1**  
**Trends of mineral revenue vis-à-vis total non-tax revenue**

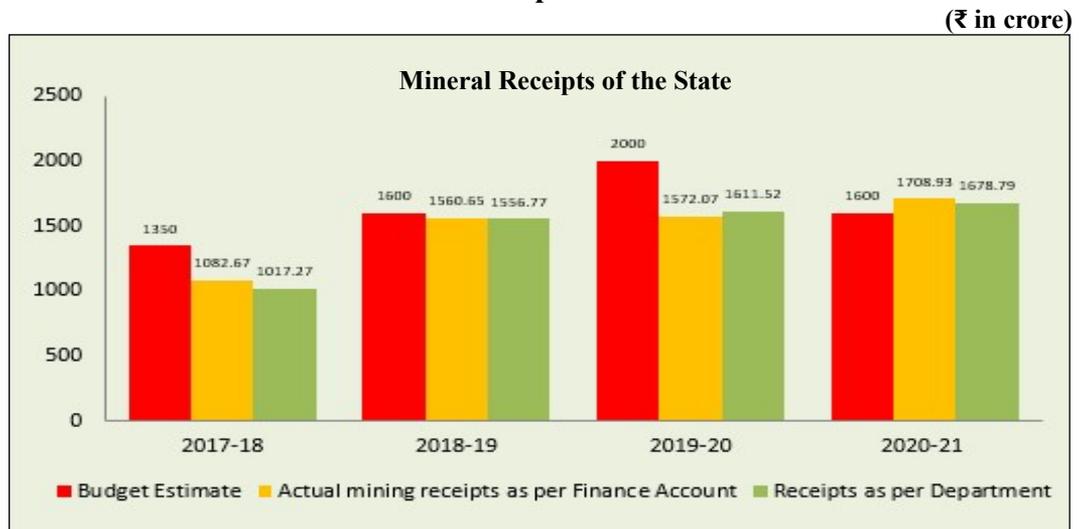


(Source: Finance Accounts, GoB)

- **Total Mineral receipts vis-à-vis the budget estimates**

The details of Budget Estimates (BEs) and Actual Receipts during 2017-18 to 2020-21 are given in **Chart-2**:

**Chart-2**  
**Mineral Receipts of the State**



(Source: Budget Estimate as per Mines and Geology Department and Actual Receipts as per Finance Accounts)

The mineral-wise receipts during that period are given in **Table-1**:

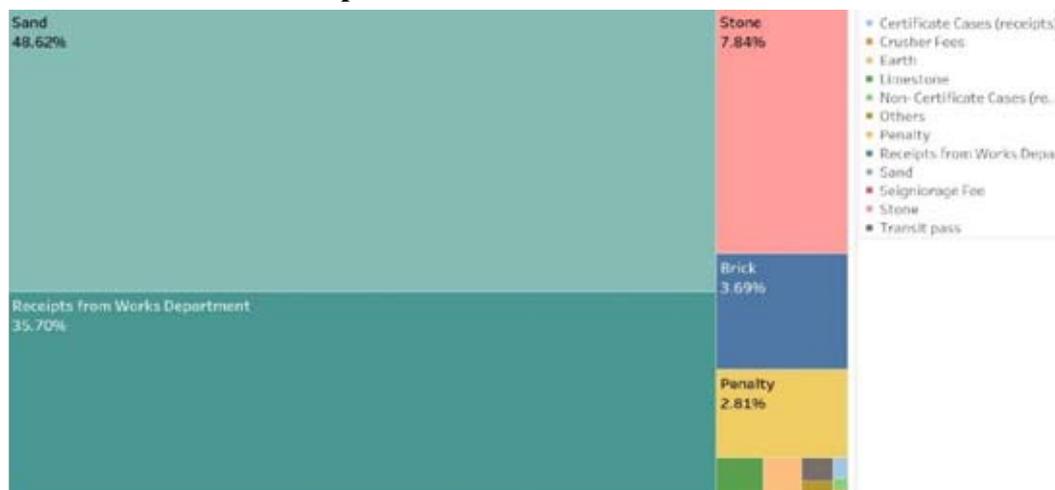
**Table -1**  
**Mineral-wise receipts**

(₹ in crore)

Receipts from minerals and others	2017-18	2018-19	2019-20	2020-21
<b>1. Minor minerals</b>				
Brick	39.34	41.55	62.18	73.08
Sand	461.67	836.58	874.31	678.65
Stone	127.35	162.44	90.87	79.11
Crusher	0.50	0.39	0.18	0.26
Earth	4.85	7.02	4.17	6.78
Seigniorage Fee	00	00	0.42	772.07
Receipts from Works Department	353.53	443.84	523.97	
Certificate cases (receipts)	0.95	1.19	1.19	0.95
Penalty	13.50	55.34	41.60	54.63
Others	2.87	1.81	1.95	1.88
Non-certificate cases (receipts)	0.79	0.72	0.64	0.58
Transit pass	10.39	00	00	00
<b>2. Major mineral</b>				
Limestone	1.53	5.89	10.04	10.80
<b>Total</b>	<b>1,017.27</b>	<b>1,556.77</b>	<b>1,611.52</b>	<b>1,678.79</b>

(Source: Data furnished by the Department)

**Chart - 3**  
**Receipts from mineral and other sources**



As evident from the table above, the State gets its mineral receipts mainly from minor minerals, which include Sand, Stone and Brick Earth while the contribution of major mineral to the receipts is negligible. The highest revenue of MGD was received from settlement of sand *ghats* followed by revenue realised from Works Department during 2017-18 to 2019-20. However, in the year 2020-21 receipts from Works Department was highest one, as most of the sand leases were not in operation and the MGD implemented the concept of Seigniorage Fee which was included as a receipt from works department in year 2020-21.

- **Non-reconciliation of Mineral revenues with Finance Accounts**

Audit observed that the MGD did not reconcile its accounts with Accountant General (Accounts and Entitlement), Bihar, Patna as required under Rule 475 of Bihar Financial Rules.

The MGD, Bihar issued directions (February 2020) to all District Mining Offices (DMOs) to deposit amount of royalty and different revenue obtained from brick kilns, certificate cases, stone, sand and works divisions to be received from field offices of the Department through Bank Draft or Demand Draft in the ICICI bank account bearing No. 057901002299 which was opened on 5 February 2020. This was temporary arrangements till 31 March 2020 as envisaged in letter.

Audit further observed in 14 sampled DMOs, that amount of royalty, fine, interest and other receipts received from different DMOs, were sent to the above bank account, but the reconciliation of the same had not been done with the concerned units as there was no record available in the MGD relating to reconciliation of the amount deposited in this bank account. Further, no correspondence was made by the concerned DMOs with the Department regarding reconciliation of the same. Due to non-reconciliation of above, Audit could not ascertain how much actual amount was deposited by different DMOs in bank account, relating to which head and neither the Department confirmed the receipts from DMOs. This is not only fraught with risk of misappropriation of revenue but also affect the revenue reconciliation process between Finance Accounts and MGD.

#### **1.4 Audit Objectives**

The objectives for the Performance Audit were to ascertain whether:

- systems, procedures for approval of mineral concessions and process for auction of mining contracts/quarrying leases were as per provisions contained in acts, rules and instructions issued by the Government from time to time;
- provision for the levy, assessment and collection of mining receipts were efficient and adequate to safeguard the revenue of the State;
- system for detection and prevention of illegal mining and its environmental impact assessment was in place;
- Mines and Mineral Development, Restoration and Rehabilitation Fund was managed and monitored as per Government instructions, acts and rules; and
- An effective internal control, monitoring mechanism and inter departmental co-ordination were in place to prevent the leakage of revenue.

#### **1.5 Audit Criteria**

The audit criteria for the performance audit were derived from the following sources:

- Mines and Minerals (Development and Regulations) Act, 1957;
- Mineral Concession (MC) Rules, 1960;
- The Indian Stamp Act, 1899 and Indian Registration Act, 1908;
- Mineral Conservation and Development (MCD) Rules, 1988;
- Bihar Minor Mineral Concession (BMMC) Rules, 1972;
- Bihar Minor Mineral Concession(BMMC) (Amendment) Rules, 2014;
- Bihar Minor Mineral Rules, 2017;
- Bihar Minerals (Prevention of illegal mining, transportation and storage) (Amendment), Rules, 2014;

- Bihar Minerals (Concession, Prevention of illegal mining, transportation and storage), Rules, 2019;
- Bihar Sand Mining Policy 2013 and 2019;
- Bihar Financial Rules ; Bihar Budget Procedure;
- Bihar District Mineral Foundation Rules, 2018 (notified on 23<sup>rd</sup> May 2018); National Mineral Exploration Trust Rules, 2015;
- Air (prevention and control of pollution) Act, 1981;
- Motor Vehicle Act, 1988 and Central Motor Vehicles Rules, 1989;
- Bihar Motor Vehicles Taxation, Rules, 1994;
- Ministry of Environment, Forest and Climate Change notification, 2016;
- Sustainable Sand Mining Management Guidelines (SSMMG) 2016;
- National Green Tribunal/Court orders;
- The Bihar and Orissa Public Demand Recovery (PDR) Act, 1914; and
- Notifications and circulars, executive and departmental orders and instructions issued by the Department from time to time.

## 1.6 Status of previous Audit Report on “Mining Receipts - Levy and Collection of Royalty, Fee and Rent”

Audit on “Mining Receipts - Levy and Collection of Royalty, Fee and Rent” for the period of 2013-14 to 2016-17 was conducted during April to June 2017 and included in the Report of the Comptroller and Auditor General of India on Revenue Sector for the year ended 31 March 2017. The objectives of the report were mainly to ascertain the non-compliances to the various rules governing mining receipts and findings of the report were mostly on non-levy of mineral receipts. The report is under consideration before Public Account Committee (PAC) for discussion.

## 1.7 Scope and Methodology

Sampling of districts was carried on the basis of the minerals as shown in **Table-2**:

**Table - 2**

Category	Major	Minor	
Mineral	Limestone	Stone	Sand
Available in districts	One	Six	32
Sample selected	One district (Rohtas) selected.	All six districts (Aurangabad, Banka, Gaya, Kaimur, Nawada and Sheikhpura) selected.	Six Districts (Bhagalpur, Bhojpur, Nalanda, Patna, Siwan and Vaishali) on the basis of Stratified Random sampling. In addition to this, sand mining also carried out in the selected six districts of stone and one district of limestone.

Thirteen mining districts<sup>4</sup> were selected on the basis of above sampling methodology. In addition to above, the apex unit *i.e.* MGD was also selected. Further, one district of Saran was also selected under sand based on the recommendation of Principal Secretary, MGD in the Entry Conference. The Entry Conference with the Principal

<sup>4</sup> Aurangabad, Banka, Bhagalpur, Bhojpur, Gaya, Kaimur, Nalanda, Nawada, Patna, Rohtas, Sheikhpura, Siwan and Vaishali.

Secretary, MGD, GoB was held on 3 September 2021 to explain the objectives of the PA, audit criteria, audit scope, methodology and to elicit views/concerns of the Department on the issue.

An Exit Conference on conclusion of the PA was held on 17 May 2022 to discuss the audit findings and for obtaining responses of the State Government on the findings. The Additional Chief Secretary cum Mines Commissioner appreciated the audit efforts and findings and assured to provide the reply of the Department at the earliest. The Department furnished reply of six paragraphs which has been incorporated in the PA Report.

The methodology adopted for attaining the audit objectives with references to audit criteria was scrutiny of records in the Department (Directorate) and in the selected districts for the years 2017-18 to 2020-21, analysis of the mining database, raising audit queries, physical verification, use of Geographic Information System (GIS) and remote sensing data, obtaining replies and discussion of audit findings with the management.

Sone river was selected for Geo-spatial study as sand *ghats* of Sone river are major contributors to sand mineral revenue. For the Geo-spatial imaging study of sand minerals of Sone river, National Institute of Technology (NIT), Patna was engaged as expert agency. For selection of sand *ghats* for GIS study, all sand *ghats* of Sone river in three districts (Patna, Bhojpur and Rohtas) were analysed through Google Earth Pro with the help of Geo-coordinates provided by the MGD, out of which eight sand *ghats* of above three districts (Area 172.10 hectare) were selected where issues like movement of earth mover's vehicles seen in outside mining leased area and extraction seen in the area where nil extraction was reported by lessee. However, the GIS study was carried out for two years only where data for six different months<sup>5</sup> was taken for the study. Due to COVID-19 pandemic in year 2020-21 and expiry of mining lease during the same period, year 2020-21 has not been considered for GIS study. Scopes of work for Geo-spatial study are as under:

- (i) Identification/verification of allotted sand mining areas.
- (ii) Comparison of Geo-coordinates between actual and approved Mining Plan.
- (iii) Comparison of Geo-coordinates between actual and approved Mining plan along with calculation of actual mining area (in hectare).
- (iv) Identification of mining in prohibited months (July, August and September).

For the preliminary analysis, areas of only five *ghats* (covering eight sand *ghats*) were selected for GIS study. As some of the sand *ghats* were nearby, three areas of interest were selected by the expert agency for analysis of mined areas through GIS images. The areas of interest covering above *ghats* have been shown in **Figure 1 to 3**. As the study demanded, the actual calculation of sand mining area, high-resolution satellite images were required to study the minute features of the selected areas. For the detail analysis, the Linear Imaging and Self Scanning Sensor (LISS-IV) images were procured by expert agency (NIT, Patna) from National Remote Sensing Centre (NRSC), Hyderabad for specific time periods and locations specified above.

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<sup>5</sup> November 2018, February 2019, June 2019, November 2019, January 2020 and March 2020.

Area of Interest

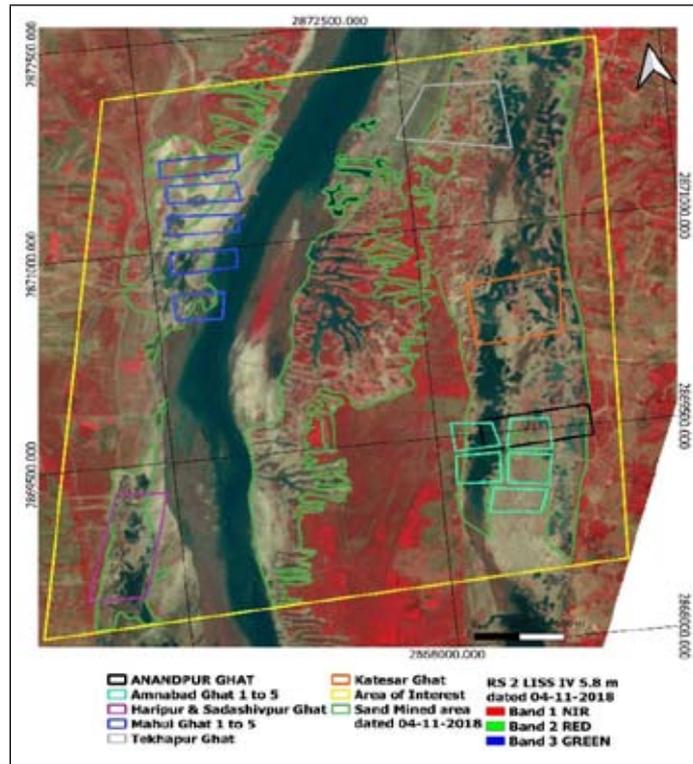


Figure 1: Area of Interest-I (AOI-I) covering Anandpur, Amnabad, Haripur and Sadashivpur, Mahui, Tekhapur and Katesar sand ghats.

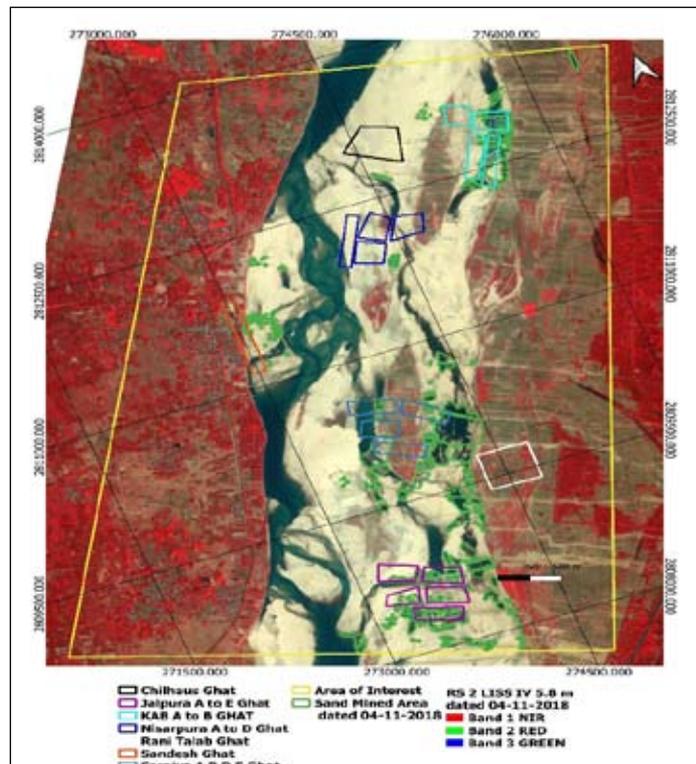
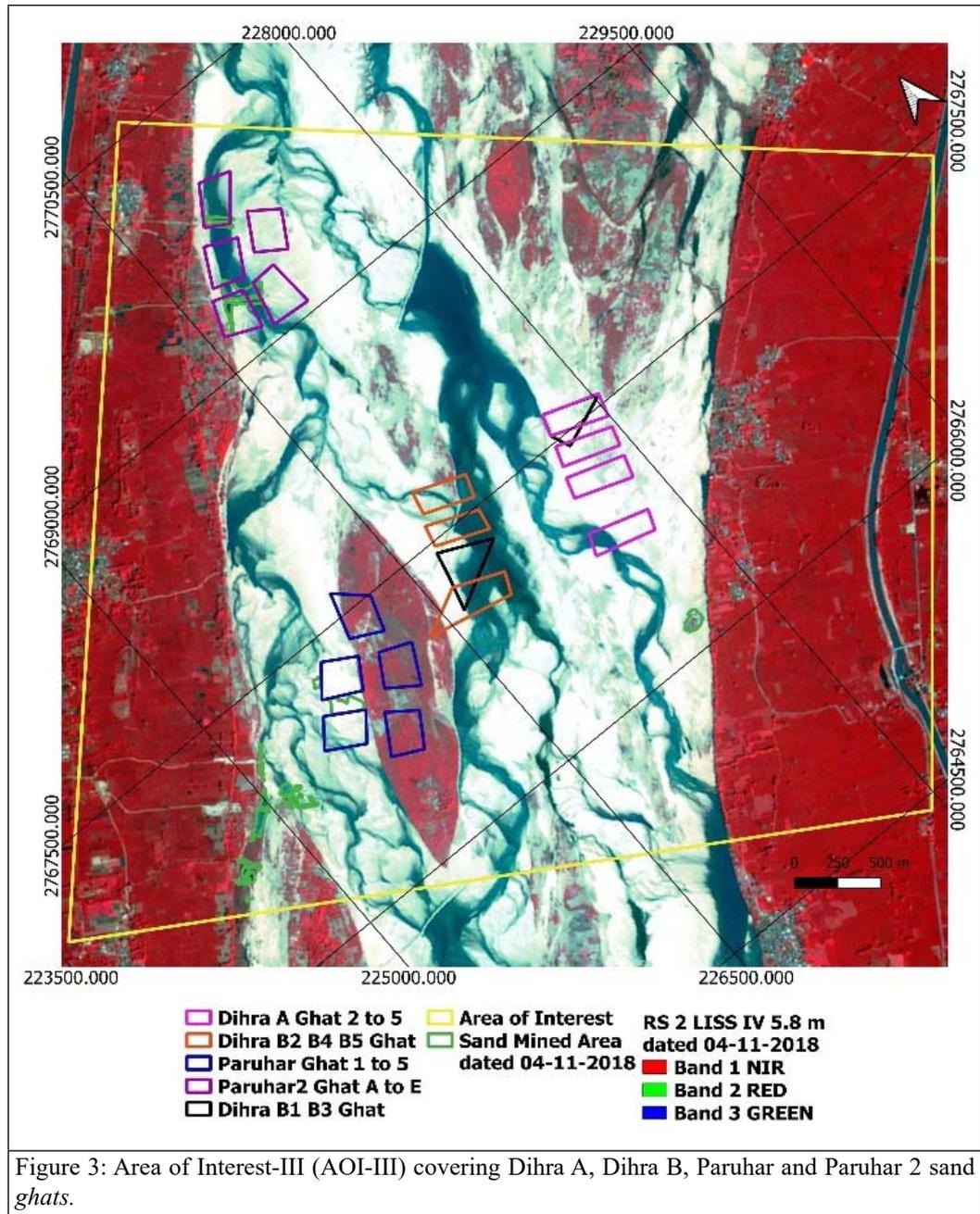


Figure 2: Area of Interest-II (AOI-II) covering Chilhaus, Jalpura, Kab and Nisarpura, Rani Talab, Sandesh, and Saraiya sand ghats.



In above GIS images, red colour denotes vegetation area, dark blue to blue colour denotes water and river sand appears in bright white to dull white (yellow).