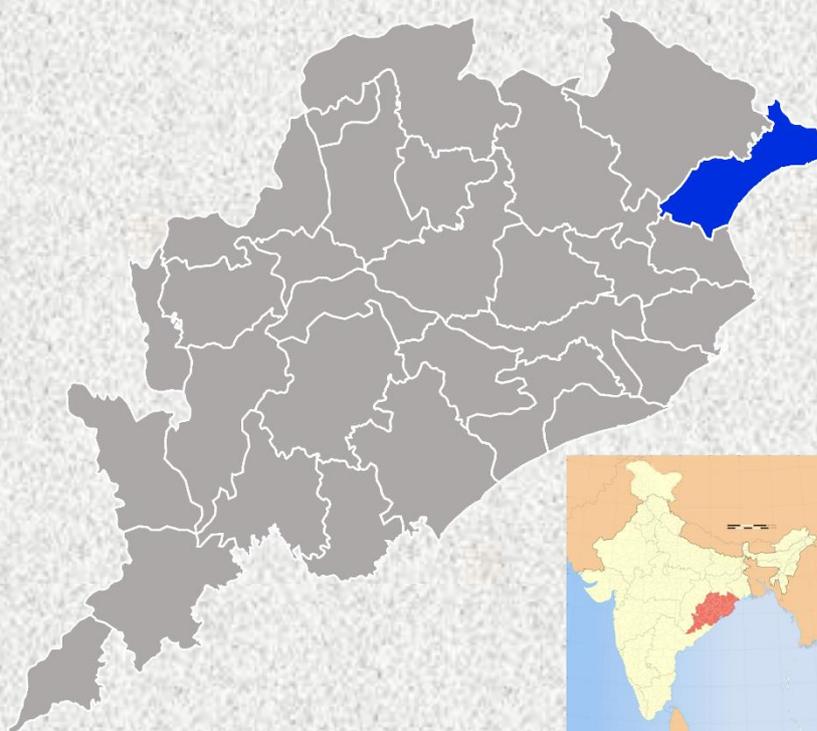




DISTRICT SURVEY REPORT (DSR) OF BALASORE DISTRICT, ODISHA FOR RIVER SAND MINING

As per Notification No. S.O. 141(E), 15th January, 2016 & S.O. 3611(E), 25th July, 2018, New Delhi, MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE (MoEF & CC)



**COLLECTORATE BALASORE
NOVEMBER-2024**

CONTENTS		
Point No.	DESCRIPTION	Page No.
00	PREFACE	01-02
01	INTRODUCTION	03-04
02	OVERVIEW OF MINING ACTIVITY IN THE DISTRICT.	05
03	LIST OF MINING LEASE IN THE DISTRICT WITH LOCATION, AREA AND PERIOD OF VALIDITY.	06-12
04	DETAILS OF ROYALTY OR REVENUE RECEIVED IN LAST THREE YEARS	13-14
05	DETAILS OF PRODUCTION OF SAND IN LAST THREE YEARS	14-15
06	PROCESS OF DEPOSITION OF SEDIMENTS IN THE RIVERS OF THE DISTRICT	15-20
07	GENERAL PROFILE OF THE DISTRICT.	21-30
08	LAND UTILIZATION PATTERN IN THE DISTRICT: FOREST, AGRICULTURE, HORTICULTURE, MINING ETC.	31-34
09	PHYSIOGRAPHY OF THE DISTRICT	35
10	RAINFALL: MONTH-WISE	36
11	GEOLOGY AND MINERAL WEALTH	37-40

LIST OF TABLES

SI No.	DESCRIPTION	Page No.
01	The list of mining leases in the district with location, area & period of validity.	6-12
02	Details of royalty or revenue received in last three years.	13-14
03	Detail of production of sand in last three years	14-15
04	Rainfall Data	36
05	Salient Features of Important Rivers & Streams	56-75

LIST OF ANNEXURE

SI No.	DESCRIPTION		Page No.
01	Annexure-I	Details of Sand/M-Sand Sources	48
02	Annexure-II	List of Potential Mining Leases (existing & proposed)	49-55
03	Annexure-III	Cluster & Contiguous Cluster details	56-58
04	Annexure-IV	Transportation Routes for individual leases and leases in Cluster	59-65
05	Annexure-V	Final List of Potential Mining Leases (existing & proposed)	66-72
06	Annexure-VI	Final List of Cluster & Contiguous Cluster	73-75
07	Annexure-VI	Final Transportation Routes for Individual leases and leases in Cluster	76-82

0. PREFACE

Odisha is one of the Major Mineral rich State in India. Balasore is a unique District in Odisha lies on the Northern most part of the State with rich and varied mineral resource. It is a paradise for Geoscientists of India and abroad. It has preserved many important rock groups from the earliest of crust formation to the geologically recent times. The landmass constituting the Balasore District, explorers to many Entrepreneurs on account of its diverse geological setting and rich and varied mineral resources.

The Erstwhile Ministry of Environment and Forests(MoEF), (the Government of India, made Environmental Clearance (EC) for mining of minerals mandatory through its Notification of 27th January, 1994 under the provisions of Environment Protection Act, 1986. Keeping in view the experience gained in environmental clearance process over a period of one decade, the Ministry came out with Environmental Impact Notification, SO 1533 (E), dated 14th September 2006. The Ministry of Environment, Forests & Climate Change (MoEF&CC), Government of India had amended the said vide notification S.O. 141(E) Dated 15th January, 2016. Now again Ministry of Environment, Forests & Climate Change (MoEF & CC), Government of India amended the notification S.O. 141(E) Dated 15th January, 2016 vide S.O. 3611(E) Dated 25th July, 2018. It has been made mandatory to obtain environmental clearance for different kinds of development projects as listed in Appendix-X of the Notification. In compliance to the notification issued by the Ministry of Environment and Forest and Climate Change Notification no. S.O.3611 (E) NEW DELHI dated 25-07-2018 the preparation of district survey report of sand mining has been prepared in accordance with Clause II of Appendix X of the notification. Every effort has been made to cover river sand mining locations, future potential areas and overview of sand mining activities in the district with all its relevant features pertaining to geology and mineral wealth. This report will act as a compendium of available mineral resources, geological set up, environmental and ecological set up of the district and based on data of various departments like Revenue, Water Resources, Forest, Geology and Mining in the district as well as statistical data uploaded by various state Government departments for preparation for district survey report. The main purpose of preparation of District Survey Report is to identify the mineral resources and developing the mining activities along with other relevant data of the District.

The Main objective of the preparation of District Survey Report is to ensure the following:-

1. Identification of Mineral Resources in the District.
2. Identification of areas of minor minerals having the potentiality where mining can be allowed.
3. Identification of area and proximity to infrastructure and installations where mining should be prohibited.

01. INTRODUCTION

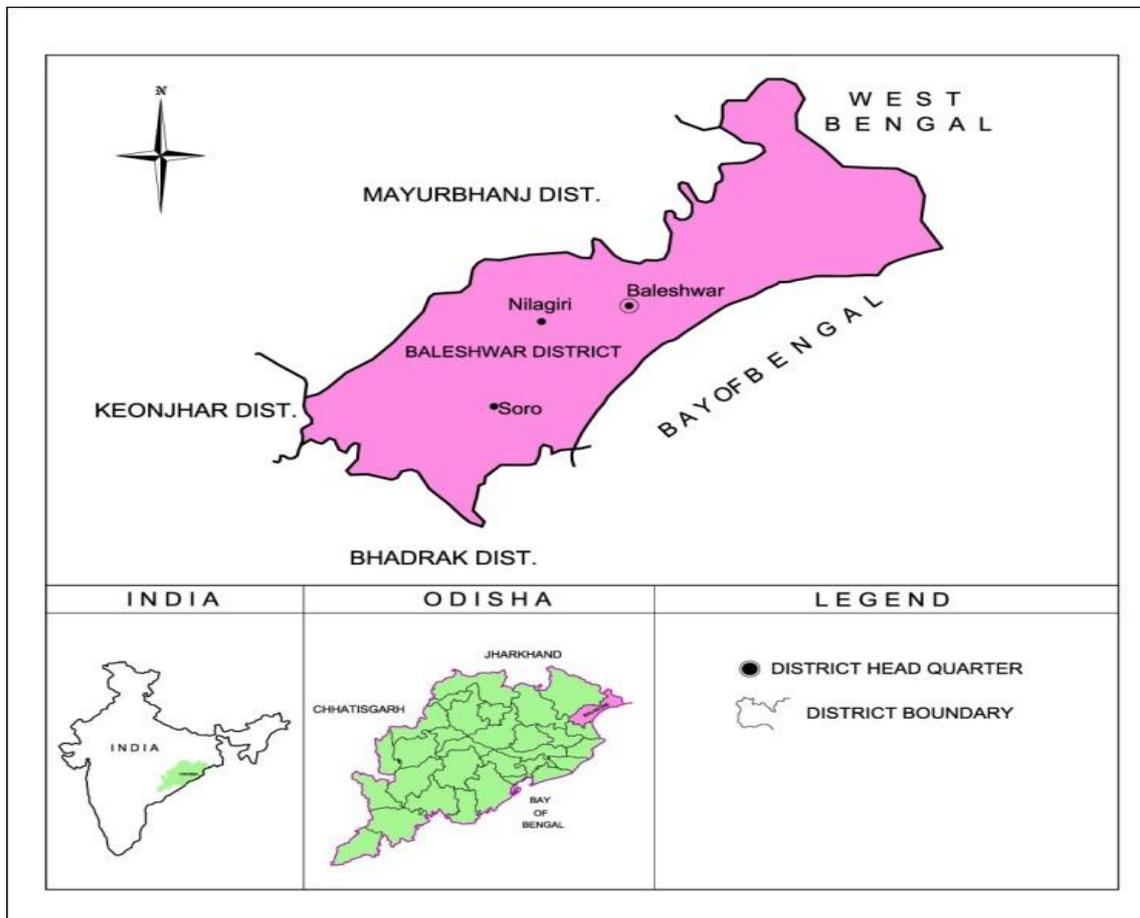
Balasore is one of the coastal Districts of Odisha. It lies on the northern most part of the state. It was a part of the ancient Kalinga which later became a territory of Toshal or Utkal, till the death of Mukunda Dev. Balasore as a separate District was created in October 1828. originally it was in Bengal presidency.

Balasore also gets its name from the Persian word Bala–e–Shore, meaning 'Town in the sea'. Historical legend ascribes the naming of this District as per Lord Baneshwar (Lord Shiva) of the town, which subsequently changed to Balasore during the Mughul rule. There are many historical monuments in the Balasore District. Some of the major monuments in Balasore District includes the rich sculptural remains found in Ayodhya. The ruin of the old Buddhist monastery and temple is there in Kupali in Balasore District. Some of the ruined forts at the Jayachandi forests in Raibania are also there in the District. The major religious monument found in the District is the Lord Chandaneswar Shrine.

There are beautiful sea beaches and many temples attract local and national tourists. Chandipur, Talasari sea beach, Chawmukh sea beach, Kashaphal sea beach are the famous sea beaches of the District. Temples like Panchalingeswar, Khirochora Gopinath, Langaleswar, Laxmannath, Chandaneswar, Maninageswar are the point of attractions.

Balasore is the District Head Quarter, spreading over an area of 3634 sq.km lies between 20° 48' North to 21° 59' North latitudes and 86°16' to 87°29' East longitudes. The District is surrounded by Medinipur District of West Bengal on its Northern side, Bay of Bengal on its East, Bhadrak District on its South and Mayurbhanj & Keonjhar Districts lies on its Western side. It is best known for Chandipur Beach. The Indian Ballistic Missile Defense Program's Integrated Test Range is located at a distance of 18 km towards South of Balasore. It is the largest city of North Odisha. This District consists of two Sub-Divisions namely Balasore and Nilgiri. There are 12 Tahasils for 12 Blocks of this District. Balasore is the main town as well as the Centre of Economic Growth in the district. The primary occupation of people in the District is cultivation. This District is mainly known for cultivation of paddy. Industries, Agriculture, Fishing and Tourism are the four major Revenue

sources of Balasore District. Birla Tyres, Balasore Alloys Limited, Emami Paper Mills Limited and Polar Pharma India Limited are some of the Large–Scale Industries functioning in this District. Balasore occupies a unique position being endowed with lush green vegetation, different fauna & flora and rich Cultural Heritage. The District has a rich mineral base of river sand, and Road Metal which are mainly used in construction purpose in the District. The huge deposits of granite stones at Nilgiri, Khaira, Soro region provides tremendous scope for development of few more Industries based on these resources. Except these, no major mineral in large quantity which can be explored for commercial purpose found in the District. The location of the District has been presented in a map below.



02. OVERVIEW OF MINING ACTIVITY IN THE DISTRICT.

Balasore District has transitional landform features between coastal plain and hilly region. Most of the mineralized area coming under Eco-Sensitive Zone (Kuldiha Wildlife Sanctuary). Thus mining activities are confined only to the areas outside of Eco-Sensitive Zone. The mining activity in the District is restricted only to Minor Mineral i.e. of sand, road metal, decorative stone and brick clays. These are being given to various user agencies as lease agreement governed and regulated by Revenue Department under the legal provision stated under Odisha Minor Mineral Concession Rules, 2016. There is no lease of Major Mineral in the District. At present Leases of stone, sand and bricks making units are operational in the District. Stone chips, ordinary sand constitute the principal mining activity of Soro, Khaira, Jaleswar, Nilgiri area etc. of Balasore District. Huge granite stone deposits as road metal are available in Khaira, Nilgiri, Soro area and major sand sources having good potential are available in Jaleswar, Remuna and Nilagiri area of the District. These sources have been providing tremendous scope for development of few more Industries based on these Resources.

03. THE LIST OF MINING LEASES IN THE DISTRICT WITH LOCATION, AREA & PERIOD OF VALIDITY.

Sl.No.	Name of River/Stream	Name of the Mineral	Name of the Lessee	Address & Contact No. of lessee	Mining lease Grant Order No. & date	Area of Mining lease (in AC/HC)	Period of Mining lease (Initial)		Date of commencement of mining operation	Status (Working Non Working/Temp. working for dispatch etc.)	Obtained Environmental clearance (Y/N) if Y letter No. with date of grant of E.C	Location of the mining lease Land Schedule and (Latitude & Longitude)
							From	To				
1	2	3	4	5	6	7	8	9	10	11	13	14
A. Name of the Tahasil:-Basta												
A1	SUBARNA REKHA	AMBAKURUCHI SAND SOURCE	PANKAJ KUMAR JENA	AT:- SEKHBAD,P.O.:- JALESWAR, P.S.:- JALESWAR, DIST. BALASORE	Letter no-1537/19-06-2020	7.40 acre/2.69Ha	14-Dec-20	13-Dec-25	14-Dec-20	Working	YES SIA/OR/MIN/2962 13/2023 & 02-May-2023	MOUZA AMBAKURUCHI KHATA NO :304, PLOT: 1450, (AREA 7.400 AC),KISSAM :NADI, Longitude 87°12'05.4" TO 87°12'16.5",Latitude 21°43'54.7" TO 21°43'46.6"
A2	SUBARNA REKHA	DEVOG SAND SOURCE	NIRANJAN PRADHAN	AT:- DATUNDA, P.O.:- DEBHOG, P.S.:- BALIAPAL, DIST. BALASORE	Letter no-1633/26-06-2020	12.35 acre/4.5 Ha	23-Nov-20	22-Nov-25	23-Nov-20	Working	YES SIS\OR\MIN\296 213\2023 & 02-May-2023	MOUZA DEVOG KHATA NO :392, PLOT: 1178, (AREA 12.350 AC),KISSAM :NADI,Longitude 87°12'30.00" TO 87°12'42.8",Latitude 21°44'05.1" TO 21°44'16.3"
A3	SUBARNA REKHA	DHITPURA SAND SOURCE	SAWMYADIP CHAKRABARTY	AT:- KHAGADAPAL, P.O.:- BADASIMULIA, P.S.:- BALIAPAL, DIST. BALASORE	Docs Not Available	12.35 acre./4.5Ha	29-Jan-21	28-Jan-26	29-Jan-21	Working	YES SIA/OR/MIN/2962 42/2023 & 28-Dec-2023	MOUZA DHITPURA, KHATA NO :97, PLOT: 214, (AREA 12.350 AC),KISSAM :NADI, Longitude 87°11'01.5" TO 87°11'14.3",Latitude 21°45'05.1" TO 21°45'9.7"
A4	SUBARNA REKHA	KADARAYAN SAND SOURCE	BHABESH KUMAR GHOSH	AT-DHARASTOCK,P O/PS-JALESWAR	Letter no-1536/19-06-2020	12.350 acre./4.5Ha	02-Dec-20	01-Dec-25	02-Dec-20	Working	YES SIA/OR/MIN/2962 40/2023 20-12-2023	MOUZA KADRAYAN, KHATA NO :257, PLOT: 1, (AREA 12.350 AC),KISSAM :NADI,Longitude87°12'29.76" TO87°12'43.22",Latitude 21°44'52.57" TO 21°45'02.43"
A5	JALAKA RIVER	MATHANI & PUNSITA SAND BED	AMULYA BEHERA	AT-WARD NO 12,MAHAPUR, PO-KABARPUR,DIST-JAJPUR	Letter no-2621/20-11-2021	3.08 acre./1.246Ha				Non-Working	YES SIA/OR/MIN/2343 97/2021&30-04-2022	MOUZA MATHANI & PUNSITA, KHATA NO :143,227, PLOT: 37,25, (AREA 3.08 AC),KISSAM :NADI,Longitude87°03'53.2" TO 87°04'01.9",Latitude 21°40'08.2" TO 21°40'25.8"
A6	SUBARNA REKHA	BENAPURA-II SAND SOURCE				14.52 acre/5.876Ha				Non-Working		MOUZA BENAPUR, KHATA NO:152, PLOT: 285, (AREA 14.52 AC), KISSAM: NADI, lat- 21° 45' 26.53910" to 21° 45' 39.04554", long- 87° 10' 03.41272" to 87° 10' 16.94709"

A7	SUBARNA REKHA	BENAPURA-I SAND SOURCE				12.45acre/5.014 Ha					Non-Working		MOUZA-BENAPUR, KHATA-150, PLOT-142, KISSAM-NAYANJARI, LAT-21.772, LONG- 87.163
NEW SOURCE													
A8	SUBARNA REKHA	GOPINATHPUR SAND SOURCE				12.355acre/ 5.0 Ha							Mouza-Gopinathpur, Khata- 153, Plot- 340, Area- 5Ha Out Of 22.743Ha,LAT-21.742, LONG-87.214
B. Name of the Tahasil:-Remuna													
B1	SUNAI	PURUKHI SAND SOURCE	RAGHUNATH DAS	AT-KALYANI PS-NILGIRI DIST-BALASORE	Letter no-6387/08-12-2021	12.300 acre/4.997Ha	20-Dec-23	19-Dec-28	20-Dec-23	Working	YES SIA/OR/MIN/300142/2023 & 28-07-2023	MOUZA PURUKHI, KHATA NO:420, PLOT: 1340, (AREA 12.300 AC),KISSAM:NADI, Longitude86°47'37.9" TO 86°48'2.00", Latitude 21°34'15.10" TO 21°34'20.50"	
B2	BUDHABA LAGA	SAHUPADA & DUMUDA SAND SOURCE	MADHUSUDAN JENA	At-Gobindapur. Po- Sahupada, PS- Sadar, Dist.- Balasore, odisha. Pin-756003	Letter no-2678/22-06-2020	12.35 acre/5.00Ha	21-Feb-24	13-Dec-29	21-Feb-24	Non-Working	YES SIA/OR/MIN/468301/2024 & 17-Jun-2024	MOUZA SAHUPADA & DUMUDA, KHATA NO:223,281, PLOT: 237,238,239,240,15, (AREA 12.35 acers KISSAM:NADI, Longitude-86°54'51.6" TO 86°55'13.2", Latitude -21°33'51.6" TO 21°33'56.2"	
B3	BUDHABA LAGA	AMBULKUDA SAND SOURCE	BIMBADHARA SAMAL	AT-DALOGOHIRA,P OST- UDAMBER, P.S- REMUNA, DIST- BALASORE	Letter no-5990/22-11-2021	12.300 acre/4.997Ha	30-Dec-23	29-Dec-28	30-Dec-23	Working	YES SIA/OR/MIN/300111/2023 & 28-07-2023	AMBULAKUDA, KHATA NO:133, PLOT: 531, (AREA 12.300 acre AC), KISSAM: NADI, Longitude86°54'11.20" TO 86°54'16.80", Latitude 21°35'4.10" TO21°35'18.50"	
B4	SUNAI	Hatiagand Mukundapur Patripal sand sairat				12.35 acre/4.99Ha				Non-Working	YES SIA/OR/MIN/249820/2022 & 31-03-2022	HATIAGAND, MUKUNDAPUR, PATRIPAL, KHATA NO:313,197,69, PLOT: 223,1121,3,1 (AREA-12.35 acre AC), KISSAM: NADI, Longitude86°51'37.00" TO 86°51'58.00", Latitude 21°32'57.00" TO 21°33'02.00"	
B5	SUNAI	Udambar sand sairat source				8.20 acre/3.318Ha				Non-Working	YES AEIAA-1788/08-2021 & 28-09-2021	UDAMBER, KHATA NO: 211, PLOT: 1 (AREA 8.20 acre), KISSAM: NADI, Longitude 86°53'35.50" TO 86°53'57.1", Latitude 21°33'17.1" TO 21°33'22.6"	
B6	BUDHABA LAGA	Makanda sand sairat source	Sri Pradeep Kumar Dash (MOBALASORE)	Plot no-VIP-113, Nayapalli,Dist- Khurda,Bhubaneswar,751015	Letter no-5989/22-11-2021	12.22 acre/4.945Ha				Non-Working	YES SEIAA-1794/08-2021 & 07-10-2021	MAKANDA, KHATA NO:337 PLOT: 691,692 (AREA 12.22 acre), KISSAM: NADI, Longitude 86°54'37.00" TO 86°54'54.00", Latitude 21°34'51.00" TO 21°34'57.00"	

B7	BUDHABALANGA	GAMBHARIA SAND SOURCE				94.99 acre/38.44Ha					Non-Working	MOUZA- GAMBHARIA, RUDRAGOPALPUR SAMIL NAHARPATANA, KHATA NO 430,236 PLOT: 574,722,1,510 (AREA 94.99 acre), KISSAM: NADI, LAT- 21.704, LONG- 87.23
B8	SUNAI	BAITABANK A SAND SOURCE	UPENDRA KUMAR SINGH	At-DEULASAH,CHURCHGALI,PO-BARIPADA,PS-BARIPADA,DIST-MAYURBHANJ	Letter no-6388/08-12-2021	12.20 acre/4.937Ha					Non-Working	YES SIA/OR/MIN/300132/2023 & 28-07-2023 Mouza: GHUNGIA, KHATA NO 261,261 PLOT: 338,440 (AREA 12.20 acre), KISSAM: NADI, Longitude-86°49'21.0" TO 86°54'43.70", Latitude 21°33'32.7" TO 21°33'48.8"
B9	BUDHABALANGA	KATHASANGADA SAND SOURCE-2				2.60 acre/1.052Ha					Non-Working	YES SEIAA-1703/05-2021 & 28-09-2021 Mouza: KATHASANDASA, HALADIA, KHATA NO- 286 PLOT: 106(AREA 2.60 acre), KISSAM: NADI, Longitude -86°54'35.8" TO 86°54'42.3", Latitude 21°33'29.0" TO 21°33'43.8"
B10	BUDHABALANGA	KATHASANGADA SAND SOURCE-1	SAUMYA RANJAN BEHERA JADAV	At-AKATPUR,PO-SUNHAT,DIST-BALASORE	Letter no-6957/24-12-2021	9.75 acre/3.945Ha					Non-Working	YES SIA/OR/MIN/301023/2023 & 12-07-2023 Mouza: KATHASANDASA, HALADIA, KHATA NO 286,458 PLOT: 123,145,1952 (AREA 9.75 acre), KISSAM: NADI, Longitude -86°54'42.40" TO 86°54'49.70", Latitude -21°33'18.40" TO 21°33'34.30"

C. Name of the Tahasil: -Nilgiri

C1	SUNAI	PUNDAL-1 SAND BED	PADMALOSHAN JENA	S/O-ANANTA CH. JENA AT-BHASKARGANJA, BALASORE	Letter no-2572/18-06-2020	12.350 acre/5.00Ha	10-Feb-21	09-Feb-26	10-Feb-21	Working	YES SIA/OR/MIN/464921/2024 14-05-2025 MOUZA: PUNDAL, KHATA NO 556, PLOT:1347/1 (AREA 12.350 acre), KISSAM: NADI, Longitude-86°46'24.40" TO 86°46'35.00", Latitude -21°34'40.70"TO21°34'48.70"
C2	SUNAI	PUNDAL-2 SAND BED	BIKRAMANANDA MOHANTY	AT-POSTAL COLONY,PO-AZIMABAD ,BALASORE	Letter no-2573/18-06-2020	3.40Ac/1.37Ha	09-02-2021	08-02-2026	09-02-2021	Non-Working	YES SEIAA-857/11-2020&02.02.2021 MOUZA: PUNDAL, KHATA NO 556, PLOT:1347(AREA 3.40 acre), KISSAM: NADI, Longitude -86°46'47.5" TO 86°46'52.3", Latitude 21°34'35.6" TO 21°34'41.6"
C3	SUNAI	DUMAGANDIRA-LAICHHANPUR SAND BED	ASHOK KUMAR NAYAK	S/O-NITYANANDA NAYAK AT/PO-PUNDAL, NILGIRI, BALASORE	Letter no-2571/18-06-2020	12.350 acre/5.00Ha	09-Dec-20	08-Dec-25	09-Dec-20	Working	YES SIA/OR/MIN/296273/2023 & 02-May-2023 MOUZA: DUMAGANDIRA,LAICHHANPUR KHATA NO 157,155 PLOT:385,36 (AREA 12.350 acre), KISSAM: NADI, Longitude -86°48'50.80" TO 86°49'04.50", Latitude 21°34'21.40" TO 21°34'27.50"

C4	SUNAI	BAINCHAN ARANPUR-1 SAND BED	HARA PRASAD SENAPATI	S/O- JADUMANI SENAPATI AT- BAPUJINAGAR, BHUBANESWAR	Letter no- 5057/08 -12-2021	12.35 acre/4.9 9Ha	20-Jan-22	19-Jan-27	20-Jan-22	Working	YES SIA/OR/MIN/-300312/2023 & 30-01-2024	MOUZA: BAINCHANARANPUR KHATA NO 266 PLOT:383 ,384(AREA12.35acre), KISSAM: NADI, Longitude 86°42'51.90" TO 86°43'01.50", Latitude 21°34'57.10" TO 21°35'11.50"
C5	SUNAI	BALIPAL SAND BED				12.300 acre./4. 97Ha				Non-Working		MOUZA: BALIPAL KHATA NO 156,156 PLOT:7,495(AREA 12.350 acre AC), KISSAM: NADI, Longitude 86°44'34.00" TO 86°44'34.20", Latitude 21°34'30.60"TO 21°34'32.00"
C6	SUNAI	PRATAPPUR SAND BED	KAMALAKAN TA PATRA	S/O- PRANAKRUSHNA PATRA AT/PO- KAHALIA, PS- NILGIRI DIST.- BALASORE	Letter no- 1191/08 -03-2021	12.250 acre/4.9 5Ha.	31-Mar-21	30-Mar-26	31-Mar-21	Working	YES SIA/OR/MIN/2962 90/2023 & 02-05-20223	MOUZA: AJODHYA (PRATAPPUR) KHATA NO 814, PLOT:388(AREA 12.25 AC), KISSAM: NADI, Longitude - 86°44'53.4" TO 86°45'12.9", Latitude 21°34'19.9" TO 21°35'27.8"
C7	SUNAI	BAINCHAN ARANPUR-3 SAND BED				8.70Ac/ 3.520Ha				Non-Working	SIA/ORMIN/2653 32/2022 & APPLY Dt.- 03.04.2022	MOUZA: BAINCHANARANPUR KHATA NO 266 PLOT: 516 (AREA 8.700 AC), KISSAM: NADI, Longitude 86°42'20.2" TO 86°42'35.5", Latitude 21°34'10.5" TO 21°35'14.1"
C8	SUNAI	AJODHYA SAND BED	M/S BRIJ GOPAL CONSTRUCTION COMPANY(P) LIMITED	AT-DAHISADA, PO/PS-SORO, BALASORE	Letter no- 517/04-03-2022	12.35 acre./5. 00Ha	30/03/20 22	29/03/2 027	30/03/2 022	Non-Working	YES SIA/OR/MIN/2682 47/2022 & 04-05-2022	MOUZA: AJODHYA KHATA NO 814 PLOT:1412 (AREA 12.35 AC), KISSAM: NADI, Longitude 86°45'32.36" TO 86°45'39.90", Latitude 21°34'05.20" TO 21°34'20.22"
D. Name of the Tahasil:-Jaleswar												
D1	SUBARNA REKHA	SIKHARPUR SAND SOURCE	The Orissa Chrome Export & Mining Company Limited A/R Manas R.Mohapatra	At- jagannathpur. Po- Janhia(Manatri) , PS- Soro, Dist.- Balasore, odisha. Pin- 756045	Letter no- 506/15-03-2024	11.99Ac / 4.856 Ha	12-Jun-24	11-Jun-29	12-Jun-24	Working	YES EC24C0107OR56 83073T / SIA/OR/MIN/4681 79/2024 & 09-Apr-2024	MOUZA: SHIKHARPUR KHATA NO 496 PLOT: 1910, 1900 (AREA 10.62 AC), KISSAM: NADI, Longitude 87°12'21.30" TO 87°12'38.00", Latitude 21°47'50.9" TO 21°48'03.1"
D2	SUBARNA REKHA	RAJNAGAR SAND SOURCE	LAXMIPRIYA PRUSTY	AT/PO- BALARAMPRAS AD PS- MOTUNGA DIST- DHENKANAL, STATE-ODISHA	Letter no- 2207/05 -07-2019	13.55 acre./5. 48 Ha	13/07/20 23	07-12-2028	13/07/2 023	Working	YES SIA/OR/MIN/5463 4/2020 & 16-12-2020 OR EC23B001OR110 281 & 23/06/2023	MOUZA: RAJNAGAR KHATA NO 377, PLOT: 1295/1300 (AREA 13.55 AC), KISSAM: NADI, Longitude 87°12'43.2" TO 87°12'52.2", Latitude 21°48'20.9" TO 21°48'30.9"

D3	SUBARNA REKHA	GOBARDH ANPUR SAND SOURCE				12.00 acre/ 4.85Ha				Non-Working	YES SEIAA-1791/08-2021 & 07-10-2021	MOUZA: GABARDHANPUR KHATA NO 358, PLOT: 1094 (AREA 12.00 AC), KISSAM: NADI, Longitude 87°12'6.5" E TO 87°12'17.5" E, Latitude 21°43'2.2" N TO 21°43'14.6"N
D4	SUBARNA REKHA	SEKH SARAI SAND SOURCE(KA)				14.00 acre/ 5.66Ha				Non-Working	YES SIA/OR/MIN/6576 1/2021 & 07-09-2021	MOUZA: SEKHSARAI KHATA NO 142, PLOT: 2 (AREA 14.00 AC), KISSAM: NADI, Longitude 87°10'17.8" E TO 87°10'20.9" E, Latitude 21°45'26.1" N TO 21°45'29.5"N
D5	SUBARNA REKHA	CHALANTI SAND SOURCE				14.00 acre/ 5.66Ha				Non-Working	YES SEIAA-63714/1823-NCM/04-2017 & 19.08.2021	MOUZA: CHALANTI KHATA NO 384, PLOT: 738 (AREA 14.00 AC), KISSAM: NADI, Longitude 87°09'58" TO 87°10'10.2", Latitude 21°46'53" TO 21°47'2.8"
D6	SUBARNA REKHA	BALIKBAD SAND SOURCE				14.85 acre/ 6.009Ha				Non-Working		MOUZA: BALIKBAD KHATA NO 399, PLOT: 49 (AREA 14.85 AC), KISSAM: NADI, Longitude 87°13'26.2" TO 87°13'40", Latitude 21°42'39" TO 21°42'49"
D7	SUBARNA REKHA	BALIAPAL SAND SOURCE				12.00 acre/ 4.856 Ha				Non-Working		MOUZA: BALIAPAL KHATA NO 578, PLOT: 2949 (AREA 12.00 AC), KISSAM: NADI, LAT- 21.704, LONG - 87.23
D8	SUBARNA REKHA	SEKH SARAI SAND SOURCE(Kha)				15.00 acre/ 6.07 Ha				Non-Working		MOUZA: SEKHSARAI KHATA NO 142, PLOT:2 (AREA 15.00 AC), KISSAM: NADI, Lat- 21° 46' 55.41738" to 21° 47 '10.17105" , Long- 87° 09' 48.89645" to 87 °10' 00.83122"
D9	SUBARNA REKHA	RIVER BLOCK - KHA				13.00 acre/ 5.26 Ha				Non-Working	YES SIA/OR/MIN/2208 19/2021&SIA/OR/MIN/221007/2021 & 08-09-2021	MOUZA: RIVER BLOCK -KHA KHATA NO 175, PLOT: 1 (AREA 13.00 AC), KISSAM: NADI, Longitude 87°12'56.5" TO 87°13'6.1", Latitude 21°48'51.5" TO 21°49'1.9"
D10	SUBARNA REKHA	PRAHARAJ PUR (KA)				13.00 acre/ 5.26 Ha				Non-Working		MOUZA: PRAHARAJ PUR KHATA NO 466, PLOT: 1923 (AREA 13.00 AC), KISSAM: NADI, Longitude 87°15'9.7" TO 87°15'15.2", Latitude 21°52'17.5" TO 21°52'33.2",
D11	SUBARNA REKHA	MANKIDIA SAND SOURCE (GA)				35 acre/ 14.16Ha				Non-Working		MOUZA: MANKIDIA KHATA NO 618, PLOT:1677 (AREA 35.00 AC), KISSAM: NADI, Lat- 21 55 44.92255 to 21 55 59.74183, Long- 87 14 35.04486 to 87 14 49.84273

D12	SUBARNA REKHA	CHORMARA (CHANDI BASTI)	KANHNU CHARAN PRAMANIK	AT/PO-BADASIMULIA,PS - BALIAPAL,BALASORE	Letter no-4868/13-12-2021	10.00 acre/4.05 Ha				Non-Working	YES SIA/OR/MIN/3000 38/2023 & 28-07-2023	MOUZA: CHORMARA KHATA NO 692, PLOT: 182 (AREA 10.00 AC), KISSAM: NADI, Longitude 87°12'25.8"E, TO 87°12'.40.4"E, Latitude 21°42'53.5"N TO 21°42'59.9"N
D13	SUBARNA REKHA	MANKIDIA SAND SOURCE (KHA)				40 acre/16.187Ha				Non-Working		MOUZA: MANKIDIA KHATA NO 618, PLOT:1677(AREA 40.00 AC), KISSAM: NADI, Lat- 21° 55' 58.36270" to 21° 56' 09.73843", Long- 87 °14' 25.21103" to 87 °14' 36.75807"
D14	SUBARNA REKHA	MAKRAMPUR SAND SOURCE				15.00 acre/6.07 Ha				Non-Working		MOUZA: MAKRAMPUR KHATA NO 1, PLOT: 6 (AREA 15.00 AC), KISSAM: NADI, Longitude 87°14'31.16"E, TO 87°14'.43.90"E, Latitude 21°51'22.21"N TO 21°51'32.12"N
D15	SUBARNA REKHA	GOBARGHATA SAND SOURCE				17.50 acre/7.08Ha				Non-Working		MOUZA: GOBARGHATA KHATA NO 1414, PLOT: 3236 (AREA 17.50 AC), KISSAM: NADI, Longitude 87°10'.17.8"E, TO 87°10'.20.9"E, Latitude 21°45'26.1"N TO 21°45'29.5"N
D16	SUBARNA REKHA	PRAHARAJPUR SAND SOURCE (KHA)				15 acre/6.07Ha				Non-Working		MOUZA: PRAHARAJPUR KHATA NO 466, PLOT: 1923 (AREA 15.00 AC), KISSAM: NADI, LAT- 21.876, LONG-87.251
D17	SUBARNA REKHA	MANKIDIA-KA				20.00 acre/8.09 Ha				Non-Working	YES SIA/OR/MIN/4562 07/2023 & 03/04/2024	MOUZA: MAKIDIA KHATA NO 818, PLOT: 1 (AREA 20.00AC), KISSAM: NADI, Longitude 87°14'13.8"E, TO 87°14'28.4"E, Latitude 21°56'21"N TO 21°56'32.2"N
D 18	SUBARNA REKHA	RIVER BLOCK-KA				14.00 acre / 5.665 Ha				Non-Working	YES LETTER NUMBER SEIAA/2681 & 08.09.2021	MOUZA: RIVER BLOCK KHATA NO 175, PLOT: 01 (AREA 14.00 AC), KISSAM: NADI, Longitude 87°13'.3.8"E, TO 87°13'.14.8"E, Latitude 21°48'32.9"N TO 21°48'41.8"N
D19	SUBARNA REKHA	BILASHPUR SAND SOURCE				80.20 acre/32.456 Ha				Non-Working		MOUZA: BILASHPUR KHATA NO 53, PLOT: 120 (AREA 80.20 AC), KISSAM: NADI, LAT- 21.958, LONG- 87.229
NEW SOURCE												
D20	SUBARNA REKHA	MALIPAL SAND BED				12.355acre/ 5.0 Ha						Mouza-Malipal, Khata- 501, Plot-2277, Area- 5Ha Out Of 38.82 Ha, LAT-21.854, LONG-87.220

D21	SUBARNA REKHA	RAYMCHA NDRAPUR SAND BED				12.355a cre/ 5.0 Ha						Mouza-Ektali, Khata- 463, Plot- 1922, Area- 5Ha Out Of 41.67 Ha, LAT- 21.752648, LONG-84.197339
E. Name of the Tahasil:-Baliapal												
E1	SUBARNA REKHA	PALABEGU NIA SAND BED	SAWMYADIP CHAKRABART Y	AT:- KHAGADAPAL, P.O.:- BADASIMULIA, P.S.:- BALIAPAL, DIST. BALASORE	Letter no- 4258/26 -11-2021	8.88 acre/ 3.59 Ha				Non- Working	YES SIA/OR/MIN/3000 88/2023 & 28-07- 2023	MOUZA: PALABEGUNIA KHATA NO 470, PLOT: 270,377,378,786,793,799 (AREA 8.88 AC), KISSAM: NADI, Longitude 87°14'22.62"E, TO 87°14'.33.34"E, Latitude 21°41'13.87"N TO 21°41'41.91"N
E2	SUBARNA REKHA	BADHAPAL SAND BED				8.36acr e/ 3.38Ha				Non- Working	YES SIA/OR/MIN/3003 59/2023 & 28-07- 2023	MOUZA: BEDHAPAL KHATA NO 717,718, PLOT: 973,973/2548,989,955,956,969,990,11 93,1194,1198,1199,1200,1201,1205,14 98 (AREA 8.36 AC), KISSAM: NADI, Longitude 87°17'50.5"E, TO 87°18'.02.2"E, Latitude 21°41'13.7"N TO 21°41'25.5"N
F. Name of the Tahasil:-Balasore												
F1	BUDHABA LANGA	KASABA - DAHAPADA SAND SOURCE				101.35 acre/ 41.015H a				Non- Working		MOUZA: KASABA-DAHAPADA KHATA NO 653,143, PLOT: 209,210,1429,1483,124,837 (AREA 101.35 AC), KISSAM: NADI, Longitude 86°55'23.1"E, TO 86°56'26.2"E, Latitude 21°31'55.9"N TO 21°32'48.2"N

*NB: in the above table omitted Columns are,
Column-12 Use (Captive/ Non-Captive) - All Non-Captive
Column- 15 Method of Mining (Opencast/Underground) - All Open cast*

04. DETAILS OF ROYALTY OR REVENUE RECEIVED IN LAST THREE YEARS.

Sl. No.	Name of the Tahasil	Name of Source	Revenue Collected for last three years (in Rs)		
			2021-22	2022-23	2023-24
A1	BASTA	AMBAKURUCHI SAND SOURCE	30,66,572.33	NA	1,75,331.48
A2		DEVOG SAND SOURCE	43,96,771.61	NA	8,17,711.68
A3		DHITPURA SAND SOURCE	79,82,451.00	NA	2,49,246.00
A4		KADARAYAN SAND SOURCE	44,07,612.50	NA	NA
A5		MATHANI & PUNSI	NA	NA	NA
A6		BENAPURA -II SAND SOURCE	77,60,445		
A7		BENAPURA-I SAND SOURCE	NA	NA	NA
B1	REMUNA	PURUKHI SAND SOURCE			8,79,530.00
B2		SAHUPADA & DUMUDA SAND SOURCE	NA	NA	NA
B3		AMBULKUDA SAND SOURCE			5,33,935.00
B4		Hatiagand Mukundapur Patripal sand sairat	NA	NA	NA
B5		Udambar sand sairat source	NA	NA	NA
B6		Makanda sand sairat source	NA	NA	NA
B7		GAMBHARIA RUDRAGOPALPUR SAMIL NAHARPATANA	NA	NA	NA
B8		BAITABANKA SAND SOURCE	NA	NA	NA
B9		KATHASANGADA SAND SOURCE-2	12,60,760		
B10		KATHASANGADA SAND SOURCE-1	NA	NA	NA
C1	NILGIRI	PUNDAL-1 SAND BED	48,76,722.00		5,08,878.00
C2		PUNDAL-2 SAND BED	22,37,550	NA	NA
C3		DUMAGANDIRA-LAICHHANPUR SAND BED	26,88,133.70		2,16,810.90
C4		BAINCHANARANPUR-I SAND BED	NA	4459500	14,87,700.00
C5		BALIPAL SAND BED	NA		
C6		PRATAPPUR SAND BED	31,77,648.00	NA	9,66,769.20
C7		BAINCHANARANPUR-3 SAND BED	NA	NA	NA
C8		AJODHYA SAND BED		5,98,136	
D1	JALESWAR	SIKHARPUR SAND SOURCE	NA	NA	NA
D2		RAJNAGAR SAND SOURCE			9,16,781.50
D3		GOBARDHANPUR SAND SOURCE	NA	NA	NA
D4		SEKH SARAI SAND SOURCE(KA)	NA	NA	NA
D5		CHALANTI SAND SOURCE	16,48,126	31,64,400	
D6		BALIKBAD SAND SOURCE			
D7		BALIAPAL SAND SOURCE	NA	NA	NA
D8		SEKH SARAI SAND SOURCE(Kha)			
D9		RIVER BLOCK -KHA			
D10		PRAHARAJPUR (KA)	NA	NA	NA
D11		MANKIDIA SAND SOURCE (GA)	NA	NA	NA
D12		CHORMARA (CHANDI BASTI)	NA	NA	NA
D13		MANKIDIA SAND SOURCE (KHA)	NA	NA	NA
D14		MAKRAMPUR SAND SOURCE	NA	NA	NA
D15		GOBARGHATA SAND SOURCE	NA	NA	NA
D16		PRAHARAJPUR SAND SOURCE (KHA)	NA	NA	NA
D17		MANKIDIA-KA	NA	NA	NA

D18		RIVER BLOCK-KA			
D19		BILASHPUR SAND SOURCE	NA	NA	NA
E1	BALIAPAL	BADHAPAL SAND BED	NA	NA	NA
E2		PALABEGUNIA SAND BED	NA	NA	NA
F1	BALASORE	KASABA - DAHAPADA SAND SOURCE	2119256	2119256	

05. DETAIL OF PRODUCTION OF SAND IN LAST THREE YEARS.

Sl. No.	Name of the Tahasil	Name of Source & Location	Production for last three years(in Cum)		
			2021-22 MGQ	2022-23 MGQ	2023-24 MGQ
1	BASTA	AMBAKURUCHI SAND SOURCE	15,000.00	NA	784
2		DEVOG SAND SOURCE	26,667.99	NA	5,160.00
3		DHITPURA SAND SOURCE	18,000.00	NA	500
4		KADARAYAN SAND SOURCE	17,500.00	NA	NA
5		MATHANI & PUNSITA	NA	NA	NA
6		BENAPURA -II SAND SOURCE	1,44,450		
7		BENAPURA-I SAND SOURCE	NA	NA	NA
8	REMUNA	PURUKHI SAND SOURCE			1,875.00
9		SAHUPADA & DUMUDA SAND SOURCE	NA	NA	NA
10		AMBULKUDA SAND SOURCE			1,500.00
11		Hatiagand Mukundapur Patripal sand sairat	NA	NA	NA
12		Udambar sand sairat source	NA	NA	NA
13		Makanda sand sairat source	NA	NA	NA
14		GAMBHARIA RUDRAGOPALPUR SAMIL NAHARPATANA	NA	NA	NA
15		BAITABANKA SAND SOURCE	NA	NA	NA
16		KATHASANGADA SAND SOURCE-2	2,000		
17		KATHASANGADA SAND SOURCE-1	NA	NA	NA
18	NILGIRI	PUNDAL-1 SAND BED	20,833.00		2,167.00
19		PUNDAL-2 SAND BED	10,000	10,000	10,000
20		DUMAGANDIRA-LAICHHANPUR SAND BED	13,333.00		1,081.00
21		BAINCHANARANPUR-I SAND BED	NA	6,000.00	2,000.00
22		BALIPAL SAND BED	NA		
23		PRATAPPUR SAND BED	15,600.00	NA	4,740.00
24		BAINCHANARANPUR-3 SAND BED	NA	NA	NA
25		AJODHYA SAND BED		1,000	
26	JALESWAR	SIKHARPUR SAND SOURCE	NA	NA	NA
27		RAJNAGAR SAND SOURCE			2,175.00
28		GOBARDHANPUR SAND SOURCE	NA	NA	NA
29		SEKH SARAI SAND SOURCE(KA)	NA	NA	NA
30		CHALANTI SAND SOURCE	15,000	15,000	
31		BALIKBAD SAND SOURCE	2,520		
32		BALIAPAL SAND SOURCE	NA	NA	NA
33		SEKH SARAI SAND SOURCE(Kha)			
34		RIVER BLOCK -KHA	20,000	20,000	
35		PRAHARAJPUR (KA)	NA	NA	NA

36		MANKIDIA SAND SOURCE (GA)	NA	NA	NA
37		CHORMARA (CHANDI BASTI)	NA	NA	NA
38		MANKIDIA SAND SOURCE (KHA)	NA	NA	NA
39		MAKRAMPUR SAND SOURCE	NA	NA	NA
40		GOBARGHATA SAND SOURCE	NA	NA	NA
41		PRAHARAJPUR SAND SOURCE (KHA)	NA	NA	NA
42		MANKIDIA-KA	NA	NA	NA
43		RIVER BLOCK-KA	20,000	20,000	
44		BILASHPUR SAND SOURCE	NA	NA	NA
45	BALIAPAL	PALABEGUNIA SAND BED	NA	NA	NA
46		BADHAPAL SAND BED	NA	NA	NA
47	BALASORE	KASABA - DAHAPADA SAND SOURCE	37400	37712	

06. PROCESS OF DEPOSITION OF SEDIMENTS IN THE RIVERS OF THE DISTRICT.

Balasore District is enriched with several rivers, which play a vital role in the region's agriculture, culture, and economy. The major rivers flowing through Balasore are:

a. Subarnarekha River:

The deposition of sediments in the Subarnarekha River within Balasore District is a complex process influenced by natural forces, seasonal variations, and human activities. Here's an outline of how sediment deposition occurs in this river:

- **Upstream Erosion:** The Subarnarekha River originates in the Chota Nagpur Plateau in Jharkhand, where erosion of rocky terrain and soil releases sediments, including silt, sand, clay, and organic matter, into the river. Rainfall and natural wear from the flow of water loosen and carry these materials downstream.
- **Human Activities:** Mining activities in Jharkhand and West Bengal contribute to sedimentation by releasing waste materials into the river. Additionally, deforestation and agricultural runoff from these areas add sediments, especially during the rainy season.
- **Monsoon Season:** Heavy rainfall during the monsoon increases the river's flow rate, enhancing its capacity to carry larger amounts of sediments downstream. However, when the river reaches flatter terrain in Balasore

District, the flow slows, and the river can no longer hold as much sediment, leading to deposition.

- **Dry Season:** During the dry season, water levels and flow rates decrease, which further encourages sediment deposition along the riverbanks and in shallow areas.
 - **Meanders and Floodplains:** As the Subarnarekha meanders through Balasore, sediments are deposited along the inner curves of bends (meanders) where the water flow slows. Floodplains, which are areas adjacent to the river that flood periodically, also accumulate large amounts of sediment during high-flow events.
 - **Delta Formation:** Near its mouth at the Bay of Bengal, the river's flow rate slows dramatically, resulting in the deposition of finer sediments like silt and clay. This creates a delta, gradually extending the land into the sea.
 - **Tidal Influence:** In the coastal areas of Balasore, tidal actions from the Bay of Bengal push back the river's flow, especially during high tides. This backflow causes the suspended sediments to settle, leading to deposition near the river mouth.
 - **Backflow During Cyclones:** Storm surges and cyclones also influence sediment deposition, as they increase backflow, which deposits additional sediments in the coastal and delta areas.
- b. Budhabalanga River:** The Budhabalanga River, flowing through Balasore District, undergoes a natural process of sediment deposition influenced by the river's journey from the hills, seasonal changes, and human activities. Here's an outline of how sediment deposition occurs in the Budhabalanga River:
- **Upstream Erosion:** The steep gradient and rocky terrain lead to significant erosion, causing sediments such as sand, silt, gravel, and clay to enter the river. These materials are carried downstream as the river flows towards Balasore.
 - **Runoff from Slopes:** As the river descends from the hills, rainwater runoff adds more sediment. This runoff picks up soil particles, minerals, and organic matter, increasing the river's sediment load.

- **Monsoon Season:** During the monsoon, heavy rains increase the river's flow rate and its sediment-carrying capacity. Fast-flowing water picks up more sediment from the hills and surrounding areas, transporting it downstream toward Balasore. As the river flow slows in the flatter areas, these sediments begin to settle and deposit.
 - **Dry Season:** When the water levels drop in the dry season, the river's flow weakens, causing finer sediments like silt and clay to settle on the riverbed and banks. The lower flow rate encourages deposition, especially in bends, shallow areas, and floodplains.
 - **Meanders and Floodplains:** As the Budhabalanga meanders through the district, sediments accumulate on the inner curves of bends where water flow is slower. Floodplains, which are periodically flooded areas along the river, receive deposits of finer sediments during floods, enriching the soil with nutrients.
 - **Sandbar and Island Formation:** Slower flow in the river's lower course sometimes leads to sandbars or small islands forming in the middle of the river, creating natural obstacles that further slow the flow and promote additional sediment deposition.
 - **Tidal Influence:** As Budhabalanga approaches the Bay of Bengal, tidal movements influence the river flow. During high tide, seawater pushes back into the river, causing suspended sediments to settle in the river mouth area. This backflow promotes the formation of silt and clay deposits near the estuary, creating a delta-like effect.
 - **Cyclones and Storm Surges:** Cyclonic storms and high tides associated with them can intensify backflow, depositing additional sediments along the riverbanks and in coastal areas, sometimes reshaping the river mouth and nearby floodplains.
- c. **Jalaka River:** The Jalaka River, a tributary of the Budhabalanga River, experiences sediment deposition processes influenced by seasonal changes, local geography, and human activities. Here's an outline of how sediment deposition occurs in the Jalaka River within Balasore District:

- **Local Erosion and Runoff:** The Jalaka River originates in the foothills and plains of Odisha, and receives sediment mainly through local soil erosion and agricultural runoff. The river collects fine sediments such as clay, silt, and sand from its surrounding banks, especially during heavy rains.
 - **Agricultural Runoff:** Agricultural activities along the Jalaka's banks contribute significantly to sediment load. During rainfall, soil from fields, along with fertilizers and organic matter, is washed into the river, adding to the sediment volume, especially during the monsoon season.
 - **Monsoon Season:** During the monsoon, heavy rains increase water flow in the Jalaka, allowing it to carry more sediment downstream. However, the river's capacity to transport sediment decreases as it flows through flatter regions in Balasore, leading to a significant buildup of sediment.
 - **Frequent Flooding:** The Jalaka is known for flooding during the monsoon, which causes overflow into nearby agricultural lands. When the floodwaters recede, they leave behind layers of fine sediment (silt and clay) on the floodplains, enriching the soil in these areas.
 - **Tidal Influence from Budhabalanga:** Though less significant than in larger rivers, minor tidal influence from the nearby Budhabalanga River (which the Jalaka joins) can cause some sediment deposition near the confluence. Backflow during high tides causes sediment to settle at the mouth of the Jalaka, especially fine particles like silt and clay.
 - **Floodplain Deposition:** During high-flow events, the Jalaka frequently spills over into the surrounding floodplains. When the water recedes, sediments are left behind on these plains, creating nutrient-rich soils that support agriculture.
- d. **Sono River:** The deposition of sediments in the Sono River, a smaller river in Balasore District, is influenced by local factors such as erosion, seasonal variations, and human activity in the surrounding area. Here is an outline of how sediment deposition occurs in the Sono River:
- **Local Erosion:** The Sono River collects sediments from erosion along its banks and from the surrounding areas. This erosion, especially in the hilly or undulating areas upstream, contributes silt, sand, and clay into the river system.

- **Runoff from Agricultural Lands:** Agricultural lands near the river contribute to the sediment load through runoff, particularly during the rainy season. Soil, fertilizers, and organic material are washed into the river, increasing the sediment content.
 - **Monsoon Season:** During the monsoon, heavy rainfall increases the river's flow and sediment-carrying capacity. The fast-flowing water erodes soil and rocks from the riverbanks and transports this sediment downstream. However, as the river moves through flatter areas in Balasore, its flow slows, causing sediments to settle.
 - **Decreased Gradient and Flow Rate:** As the Sono River approaches the plains of Balasore, the gradient becomes gentler and the flow slows. The reduced speed causes heavier particles, such as sand and gravel, to settle along the riverbed.
 - **Formation of Floodplains:** During periods of high water, the Sono River floods its banks, spilling water and suspended sediments onto adjacent land. When the floodwaters recede, they leave behind nutrient-rich sediments, especially silt, on the floodplains.
 - **Tidal Backflow:** Although the Sono River is smaller and less affected by tides than larger rivers, minor tidal effects from nearby rivers or the Bay of Bengal can still influence sedimentation near its mouth. High tides can push back against the river's flow, causing fine sediments to settle in the lower course
- e. **Panchupada River:** The Panchupada River in Balasore District experiences sediment deposition driven by natural processes, seasonal rainfall, and local human activities. Here's an outline of how sediment deposition occurs in the Panchupada River:
- **Local Erosion:** The Panchupada River collects sediment primarily from soil erosion along its banks and the surrounding catchment areas. Rainfall and natural erosion loosen materials like sand, silt, and clay, which are carried downstream.
 - **Agricultural Runoff:** Farming activities near the river contribute to sedimentation through soil erosion. During the rainy season, agricultural runoff adds loose soil

particles, organic matter, and sometimes fertilizers into the river, especially during heavy rains.

- **Decreased Gradient:** As the Panchupada River moves through flatter terrain in Balasore District, the flow rate decreases, allowing heavier particles such as sand to settle on the riverbed. This reduction in velocity makes it more difficult for the river to carry larger sediment particles.
- **Floodplain Deposition:** During periods of heavy rainfall and high water levels, the Panchupada River overflows its banks, spilling sediment-rich water onto the surrounding floodplains. When floodwaters recede, they leave behind layers of fine sediments, enriching the floodplain soils.
- **Soil Erosion from Agriculture:** Farming along the Panchupada River's banks, without soil conservation practices, leads to increased soil erosion during the rainy season, adding to the sediment load.
- **Tidal Backflow:** Although the Panchupada River is not a major river, it may experience minor tidal influences from larger rivers nearby or the Bay of Bengal. High tides can push back into the river's lower course, causing finer sediments like silt and clay to settle near the river mouth

07. GENERAL PROFILE OF THE DISTRICT.

a) Geographical Location:- Topographically, Balasore district is situated at approximately 20° 48' North to 21° 59' North latitudes and 86°16' to 87°29' East longitudes. It shares boundaries with Mayurbhanj district to the west, Bhadrak to the south, and is bordered by the Bay of Bengal to the east. Two major rivers, the Subarnarekha and Budhabalanga, flow through the region, providing essential water resources that support the district's agricultural activities. The climate in Balasore is tropical, characterized by hot summers, a humid monsoon season, and mild winters, creating a diverse environment for both agriculture and biodiversity.

b) Area & Population :-

Balasore district covers a Geographical area of approximately **3,806 square kilometers** from which **332.21 square kilometers** falling under Forest area. As of the 2011 census, it had a population of around **2.3 million** people. The district has a relatively high population density, reflecting its role as an important agricultural and industrial region within Odisha. Additionally, Balasore has a literacy rate higher than the national average, with a balanced rural and urban population distribution.

c) Climate:-

It's climate is generally hot with high humidity. May is the hottest month and December is the coolest one. Monsoon generally arrives in the district from 14th of June every year. The average rainfall of the District is 1568.4 mm. The rainfall during June to December constitutes at least 75 Percent of the total rainfall that this District experiences and it has an average of 62 rainy days in the year.

d) Administrative units:

Balasore Town is the Administrative Headquarter of Balasore District. It is located at a distance of 194 km from Bhubaneswar, the State capital of Odisha. It is the 2nd largest district in area among the costal districts of Odisha. It has 2952 villages covering 12 Blocks, 12 Tahasils and 2 Sub-Divisions.

Description	Number
No. of Sub-Divisions:	02
No. of Tehsils:	12
No. of Municipalities:	01
No. of N.A.Cs:	03
No. of Blocks:	12
No. of Police Station:	23
No. of Grampanchayat:	289
No. of Inhabited Villages:	2587
No. of Uninhabited Villages:	365
No. of Villages:	2952

The population of the District is 23,17,419 according to the 2011 Census. The District accounts for 5.53% of the State's territory and about 5.50% of State's population. The density of population of the District is 532 per square km as against 610 per square km of the State. As per 2011 Census, the population of Scheduled Caste is 1,84,682 (7.30%), and Scheduled Tribe is 14,79,576 (58.7%). The literacy percentage of the District covers 79.18 against 84.67 of the State.

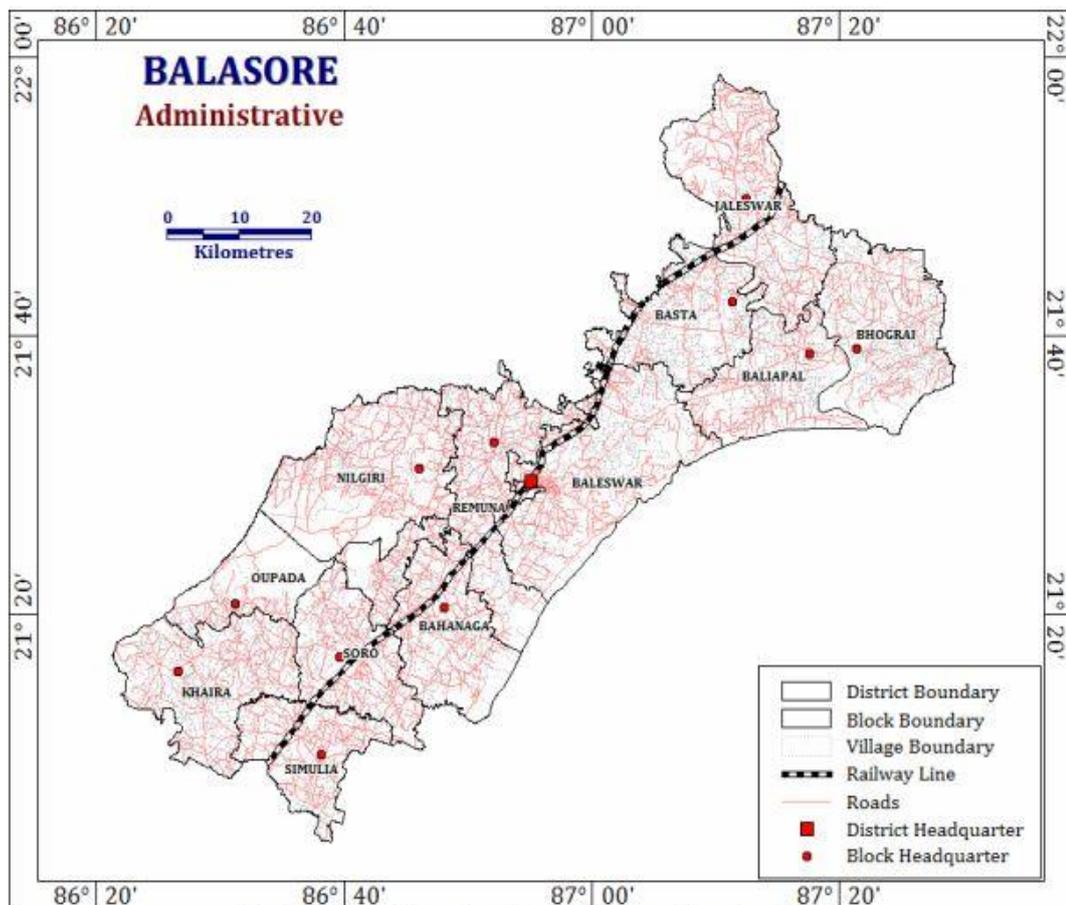
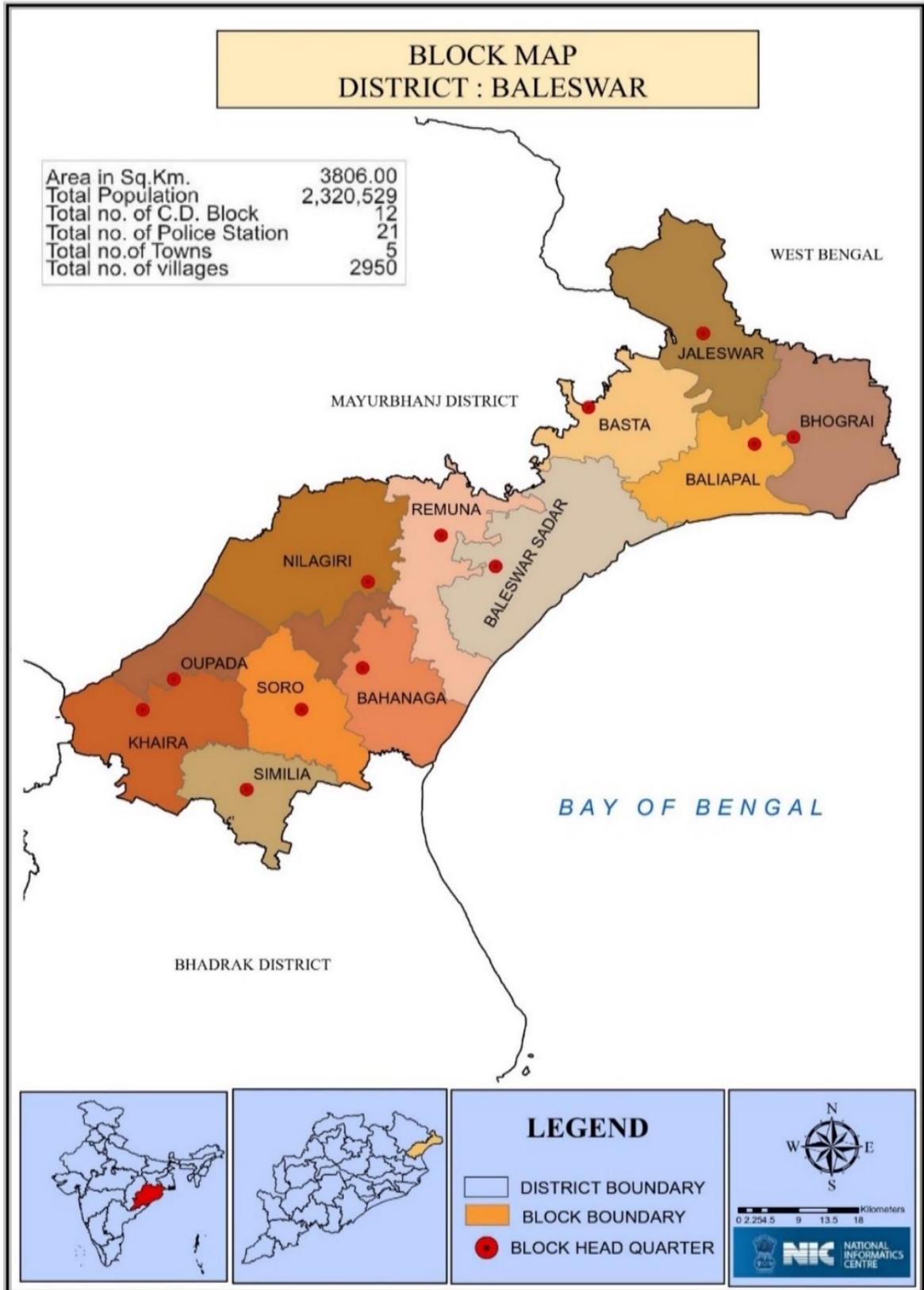


Fig 1.4b : Administrative Map of Balasore District, Odisha



e) Connectivity facilities:-

Road Network

The District is well served by a network of good roads and has been called the motorists paradise. The chief roads NH-16 and NH-60 pass through the District. Balasore Town is about 60 Kms from Baripada, 122 Kms from Kharagpur, 199 Kms from Jamshedpur, 177 Kms from Cuttack, 199 Kms from Bhubaneswar and 361 Kms from Rourkela. It is also connected with other cities such as Sambalpur, Puri, Bolangir, Bhadrak, Jhargram, Angul, Ranchi and Kolkata via road.

Rail Network

Balasore District is well connected by Rail link to different places. Balasore Railway Station is a busy station on the Howrah-Chennai main line of the South Eastern Railway. The distance to Kolkata is approximately 232 km, while the distance to Bhubaneswar is about 206 km; the city of Balasore is well connected to many places in India like Baripada, Bhubaneswar, Kolkata, Jamshedpur and Cuttack

Air Network

At present, Balasore has no connection by Airway. The site selection for Aerodrome is presently under process. The nearest Airport is Biju Patnaik International Airport, Bhubaneswar which is situated 200 Kms far from Balasore. Netaji Subhas Chandra Bose International Airport in Kolkata is 232 kms far from Balasore.

Other:- The district's coastal location also offers proximity to Dhamra and Paradip ports, facilitating trade for local industries. Communication infrastructure is well-developed, with extensive mobile network coverage from major telecom providers offering 4G & 5G services, along with high-speed internet and fiber-optic options in urban areas. Postal services are comprehensive, with numerous post offices across the district, ensuring mail and courier access even in remote locations. Public transport facilities like bus terminals in key towns, along with local transport options such as auto-rickshaws and limited app-based cab services, make commuting convenient.

With its strategic location, Balasore's robust transportation and communication facilities support economic growth, daily commutes, and tourism in the district.



f) Industry & Mining:-

Balasore district has a diverse industrial and mining landscape, contributing significantly to Odisha's economy. The district's industrial sector includes small and medium-scale industries like rice mills, cashew processing units, and fish processing plants, which support the agricultural backbone of the region. Additionally, Balasore is home to Balasore Alloys, a significant industrial player in the production of ferroalloys, particularly in manufacturing high-carbon ferrochrome, which is essential for steel production.

The district's strategic location and proximity to the Bay of Bengal also support a growing marine and seafood processing industry, which exports

products both domestically and internationally. Balasore has developed an industrial belt, particularly in areas around Balasore town, and hosts several industrial estates that cater to manufacturing, logistics, and engineering services.

In terms of mining, Balasore has limited mineral resources compared to some other districts in Odisha. However, sand and stone quarries are present in certain areas, providing raw materials for construction and local infrastructure projects. Additionally, the district's rivers, such as the Subarnarekha, contribute to small-scale sand mining activities, though this is often regulated due to environmental concerns.

The presence of the Integrated Test Range (ITR) at Chandipur also adds strategic value to Balasore's industrial landscape, supporting defense research and testing activities that indirectly contribute to the local economy by attracting auxiliary industries and services. Balasore's industrial and mining activities collectively bolster the local economy, providing employment and promoting economic growth in the region.

g) Tourist Places:-

Balasore district is home to a variety of tourist attractions, including scenic beaches, historic temples, and nature spots that attract visitors year-round. Here are some popular tourist places in Balasore:

- **Chandipur Beach**

Known for its unique phenomenon where the sea recedes up to 5 km during low tide, Chandipur Beach is a major tourist attraction. Visitors can walk on the seabed, observe marine life, and enjoy beautiful sunsets. The calm environment and distinct tidal behavior make it one of Odisha's most unusual beaches.

- **Khirachora Gopinath Temple, Remuna**

This 13th-century temple dedicated to Lord Krishna (Gopinath) is a revered pilgrimage site. Known for its spiritual atmosphere, the temple offers visitors "khira" (a type of sweetened condensed milk) as prasad, which adds to its cultural significance.

- **Panchalingeshwar Temple**

Located on a hilltop amidst lush greenery, Panchalingeshwar Temple is dedicated to Lord Shiva. The temple has five Shiva lingams submerged in a small stream, which visitors touch by feeling under the water. The scenic location, along with the serene atmosphere, makes it a popular destination for nature lovers and devotees alike.

- **Talsari Beach**

Situated near the Odisha-West Bengal border, Talsari Beach is a tranquil spot known for its palm-lined shores and scenic beauty. The beach is ideal for those seeking peace and solitude and offers breathtaking sunrise and sunset views.

- **Devkund Waterfall**

Located within the Simlipal Biosphere, Devkund Waterfall is a hidden gem surrounded by dense forests. The trek to the waterfall takes visitors through lush greenery and diverse wildlife, making it an ideal destination for nature enthusiasts and trekkers.

- **Nilgiri**

The town of Nilgiri houses the historic Nilgiri Palace, which belonged to the Nilgiri royal family. Nearby, the Jagannath Temple in Nilgiri is another popular religious site. The area is known for its scenic beauty, temples, and heritage structures.

- **Kuldiha Wildlife Sanctuary**

This sanctuary is a haven for wildlife enthusiasts, offering sightings of animals like elephants, leopards, and various bird species. Kuldiha is part of the larger Simlipal Biosphere, and it features rich biodiversity, making it a popular destination for safaris and nature walks.

- **Bichitrapur Mangrove Forest**

Located near the coast, this mangrove forest offers boat rides through dense mangrove trees and a chance to explore a unique ecosystem. It's an excellent spot for bird-watching, with migratory and native birds commonly seen in the area.

- **Chandaneswar Temple**

Close to Talsari Beach, Chandaneswar Temple is an ancient temple dedicated to Lord Shiva. It is particularly popular during the annual Maha Vishuva Sankranti festival, attracting thousands of devotees from Odisha and neighboring West Bengal.

- **Kasaphal Beach**

Another relatively unexplored beach, Kasaphal Beach is known for its serene environment and is an ideal spot for a quiet, undisturbed day by the sea. This beach is popular with locals and a growing number of tourists looking to avoid the crowds.

- **Integrated Test Range (ITR), Chandipur**

Although entry is restricted for security reasons, the ITR at Chandipur is one of India's key missile testing sites. Visitors often visit Chandipur Beach nearby, from where glimpses of missile launches are sometimes visible, making it an interesting stop for those curious about India's defence technology.

h) Health:-

Balasore district has a range of healthcare facilities providing medical services to its urban and rural population. The primary healthcare provider is the **District Headquarters Hospital (DHH) in Balasore town**, a government-run facility that offers a range of healthcare services, including emergency care, maternity and child care, surgery, and specialist consultations. The DHH is equipped with diagnostic tools like X-ray and ultrasound machines, as well as an intensive care unit (ICU) and emergency facilities, catering to both local residents and patients from nearby regions.

In addition to the DHH, Balasore has a network of **Community Health Centers (CHCs)**, **Primary Health Centers (PHCs)**, and **Sub-Centers** spread across its rural areas. These centers offer basic healthcare services, immunization, maternal and child health services, and support for disease control programs. The government also provides mobile health units to serve remote villages, ensuring healthcare access in rural parts of the district.

Balasore district is also home to several private hospitals, nursing homes, and clinics that complement public healthcare services. These private facilities offer specialized services, including gynecology, pediatrics, orthopedics, and dental care, making healthcare more accessible for residents. For emergency cases, the **108 ambulance service** operates across the district, providing timely medical assistance and transport to hospitals. Additionally, Balasore has a growing number of diagnostic centers and pharmacies that offer essential healthcare support, with modern diagnostics, pathology labs, and 24-hour medical stores.

The district also emphasizes public health programs, including regular health camps, awareness campaigns, and preventive healthcare initiatives run by the Odisha Health Department, which focus on issues like tuberculosis, malaria, maternal health, and nutrition. These combined efforts contribute to a steadily improving healthcare landscape in Balasore, offering a range of services to meet the needs of its population.

i) Economy

Balasore District is one of the economically strong District in Odisha, which is privileged in both agriculture and industry. In spite of being an agrarian economy, agriculture is the main stay of the people of Balasore. The District lies in the coastal part of Odisha and is blessed with hot and humid climate with alluvium soil and intersected by the perennial rivres, which collectively provides conducive infrastructure for the growth of agriculture in this region. In the recent years, the utilization of the wasteland for ensuring the economic development of Balasore District has been taken into consideration and it is being used for the production of coconut and betel. The local economy of Balasore District largely depends on the cultivation of paddy and wheat.

Industries, Agriculture, Fishing and Tourism are the four major revenue sources of Balasore District. Birla Tyres, Balasore Alloys Limited, Emami Paper Mills Limited and Polar Pharma India Limited are some of the large-scale industries functioning in this district.

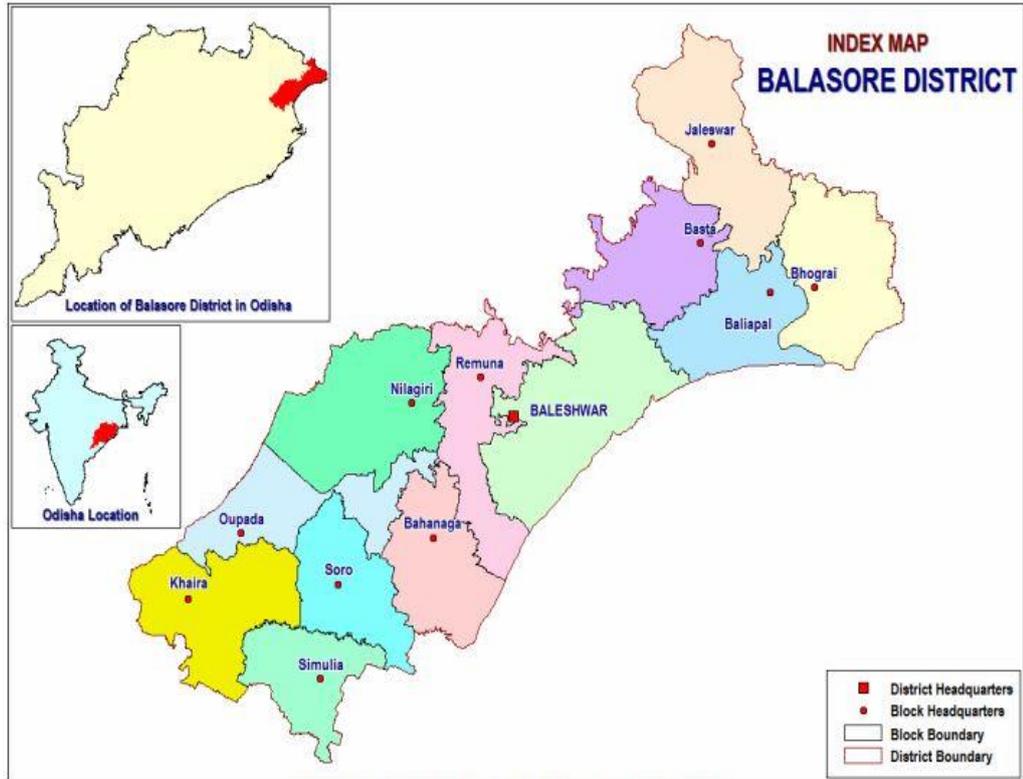


Figure 1.4a : Index Map of Balasore District, Odisha



8. LAND UTILIZATION PATTERN IN THE DISTRICT: FOREST, AGRICULTURE, HORTICULTURE, MINING ETC.

Forest:

The forest of Balasore District is full of varieties of medicinal plant. Kendu leaves, Bamboo, Sal, Teak, other timber species and a wide range of carnivorous & herbivorous wild animals live in the forest. The District has one Wildlife Sanctuary known as Kuldiha Wildlife Sanctuary, which even hosts elephants. The area of the sanctuary is 26886 hectares. In the Sanctuary, the principal animals that are found are Elephant, Bear, Nilgai, Sambhar, Peacock, Wild Boar and Deer, together with variety of snakes and birds.

District-wise Forest Cover Area in Odisha (Area in Km²)

District	Geographical Area (GA)	2019 Assessment				% of GA	Change wrt 2017 assessment	Scrub
		Very Dense Forest	Mod. Dense Forest	Open Forest	Total			
Anugul	6,375	371.01	1,380.00	1,031.62	2,782.63	43.65	27.63	84.18
Balangir	6,575	70.00	224.00	841.26	1,135.26	36.64	4.26	143.16
Baleshwar [†]	3,806	23.00	133.38	226.18	382.56	5.82	2.56	46.59
Bargarh	5,837	175.01	374.14	501.31	1,050.46	27.60	19.46	40.57
Baudh	3,098	262.91	562.04	465.99	1,290.94	51.53	1.94	57.39
Bhadrak	2,505	0.00	8.70	69.30	78.00	1.34	3.00	0.00
Cuttack	3,932	53.00	226.00	525.38	804.38	20.46	8.38	67.80
Debagarh	2,940	191.00	667.41	618.75	1,477.16	50.23	5.16	14.08
Dhenkanal	4,452	173.99	420.38	851.24	1,445.61	32.47	28.61	83.88
Gajapati [†]	4,325	84.16	1,490.09	947.12	2,521.37	58.30	1.37	262.88
Ganjam	8,206	164.39	1,074.32	866.69	2,105.40	25.66	2.40	655.00
Jagatsinghapur	1,668	0.00	4.64	131.64	136.28	8.17	0.28	0.00
Jajapur	2,899	6.00	71.99	228.09	306.08	10.56	3.08	49.78
Jharsuguda	2,114	3.00	173.82	155.82	332.64	15.74	10.64	29.21
Kalahandi [†]	7,920	361.64	734.19	1,323.97	2,419.80	30.55	1.80	371.69
Kandhamal [†]	8,021	660.95	2,593.23	2,143.53	5,397.71	65.01	5.71	385.51
Kendrapara	2,644	83.40	88.54	139.36	311.30	3.88	6.30	1.99
Kendujhar [†]	8,303	288.78	1,420.07	1,513.31	3,222.16	121.87	10.16	53.24
Khordha	2,813	21.00	186.00	260.09	467.09	16.60	10.09	90.47
Koraput [†]	8,807	94.48	740.41	1,263.38	2,098.27	23.83	9.27	947.86
Malkangiri [†]	5,791	158.00	712.76	1,465.41	2,336.17	40.34	-5.83	45.90
Mayurbhanj [†]	10,418	1,334.95	1,717.24	1,041.98	4,094.17	39.30	14.17	37.57

District	Geographical Area (GA)	2019 Assessment				% of GA	Change wrt 2017 assessment	Scrub
		Very Dense Forest	Mod. Dense Forest	Open Forest	Total			
Nabarangapur ^T	5,291	172.63	447.04	527.08	1,146.75	29.48	43.75	48.62
Nayagarh	3,890	189.00	965.00	559.75	1,713.75	44.49	3.75	171.36
Nuapada	3,852	86.01	481.69	706.76	1,274.46	24.09	1.46	108.82
Puri	3,479	0.00	59.73	165.36	225.09	6.47	11.09	10.79
Rayagada ^T	7,073	419.54	853.42	1,873.55	3,146.51	44.49	20.51	359.91
Sambalpur ^T	6,624	498.99	1,696.32	1,096.98	3,292.29	49.70	12.29	40.55
Subarnapur	2,337	2.00	187.00	161.85	350.85	15.01	0.85	29.22
Sundargarh ^T	9,712	1,020.87	1,858.38	1,394.12	4,273.37	44.00	9.37	88.89
Grand Total	1,55,707	6,969.71	21,551.93	23,096.87	51,618.51	33.15	273.51	4,326.91

(Source: India State of forest report 2017-Odisha)

The major portion of the District is covered by forest (5.82 % of TGA) and has scattered settlement pattern. The forest is full of variety of medicinal plants, kendu leaves, bamboo, Sal, teak and other timber species. The District has considerably flat land, which provides suitable site for agricultural use. The hilly areas are mostly under forest with patches of cultivation on scarp areas. Major crops grown in the District are rice and pulses. Only 12.50 percent area of agricultural use are net irrigated and major source of irrigations are wells and tube wells.

Agriculture Land:

The primary objective of Agriculture Department is to increase the production as well as productivity of major crops like Paddy, Groundnut, Mustard, Mung, Biri & vegetables which is widely cultivated in this District in both Kharif & Rabi season. Another key objective is to bring all round development among farming community of the District. The Chief District Agriculture officer is the head of office so far as agriculture is concerned. Under him there are 5 District Agriculture Officers & the block under them. As it has already been pointed out that agriculture is the main livelihood of the people in Balasore District, it is therefore designated as the food bowl of Odisha. Rice is the principal crop grown in this District, followed by other cereals, pulses, oilseeds, vegetables,

spices and sugarcane. The agricultural statistics for the District is shown in tables below:

Crop Coverage Area of Balasore District, Odisha

Crop	Khariff		Rabi		Annual	TOTAL	
	Area (ha)	(%of Cropped Area)	Area (ha)	% of Cropped Area	Area (ha)	Gross Cropped Area (ha)	% of Gross Cropped Area
Rice	206.1	91.62	33.47	34.38	-	239.61	72.03
Cereals	0.31	0.14	0.79	0.82	-	1.10	0.33
Pulses	0.48	0.21	21.64	22.55	-	22.12	6.65
Oilseeds	0.13	0.06	14.38	20.20	-	19.51	5.87
Vegetables	13.04	5.80	16.14	16.82	-	29.18	8.77
Fibres	2.20	0.98	-	-	-	2.20	0.66
Spices	2.69	1.19	4.25	4.25	-	6.77	2.04
Sugarcane	-	-	0.46	0.48	-	0.46	0.14
Tobacco	-	-	-	-	-	-	-
Fruits	-	-	-	-	11.68	11.68	3.51
TOTAL	224.99	100	95.96	100	11.68	332.63	100

Horticulture Land:

The primary objective of Horticulture Department is to increase of production as well as productivity of major fruits like Mango, Guava, Citrus etc., which is widely covered in the District. Another key objective is the all-round development of the farming community of the District. The horticulture statistics for the District is shown in subsequent tables below:

Horticulture crop	Total Area (hectares)
Mango	4.39
Citrus	0.80
Papaya	0.06
Pineapple	0.04
Guava	0.32
Sapota	0.07

Mining:

Balasore District has transitional landform features between coastal plain and hilly region. Most of the mineralized area coming under Eco-Sensitive Zone (Kuldiha Wildlife Sanctuary). Thus mining activities are confined only to the areas outside of Eco-Sensitive Zone. The mining activity in the District is restricted only to Minor Mineral i.e. of sand, road metal, decorative stone and brick clays. These are being given to various user agencies as lease agreement governed and regulated by Revenue Department under the legal provision stated under Odisha Minor Mineral Concession Rules, 2016. There is no lease of Major Mineral in the District. At present Leases of stone, sand and bricks making units are operational in the District. Stone chips, ordinary sand constitute the principal mining activity of Soro, Khaira, Jaleswar, Nilgiri area etc. of Balasore District. Huge granite stone deposits as road metal are available in Khaira, Nilgiri, Soro area and major sand sources having good potential are available in Jaleswar, Remuna and Nilagiri area of the District. These sources have been providing tremendous scope for development of few more Industries based on these Resources.

9. PHYSIOGRAPHY OF THE DISTRICT.

The physiography of Balasore district, Odisha is characterized by a varied topography, including a mountain range, plains, and small hill ranges:

- **Nilgiri Mountain:** The central part of the district is dominated by the Nilgiri Mountain, which is made up of highlands, plateaus, and valleys.
- **Tertiary Plain:** The eastern part of the district is made up of the Tertiary Plain.
- **Alluvial Plain:** Another physiographic unit in the district is the Alluvial Plain.
- **Small hill ranges:** There are some small hill ranges in the southwest of the district. One of these is Tiger Hill, which has an open area at the top.
- **Subarnarekha River:** The main river in the district is the Subarnarekha, which empties into the Bay of Bengal.

The district's soil is mostly alluvial laterite, but the central region is mostly clay, clay loam, and sandy loam, which is fertile for farming. The major rock types in the district include Nilgiri Granite Gneiss, Quartzite, Orthoquartzite, Arkose, Shale, Phyllite, Gabbro, and Px-granite. The district's major mineral resource is vanadiferous/magnetite.

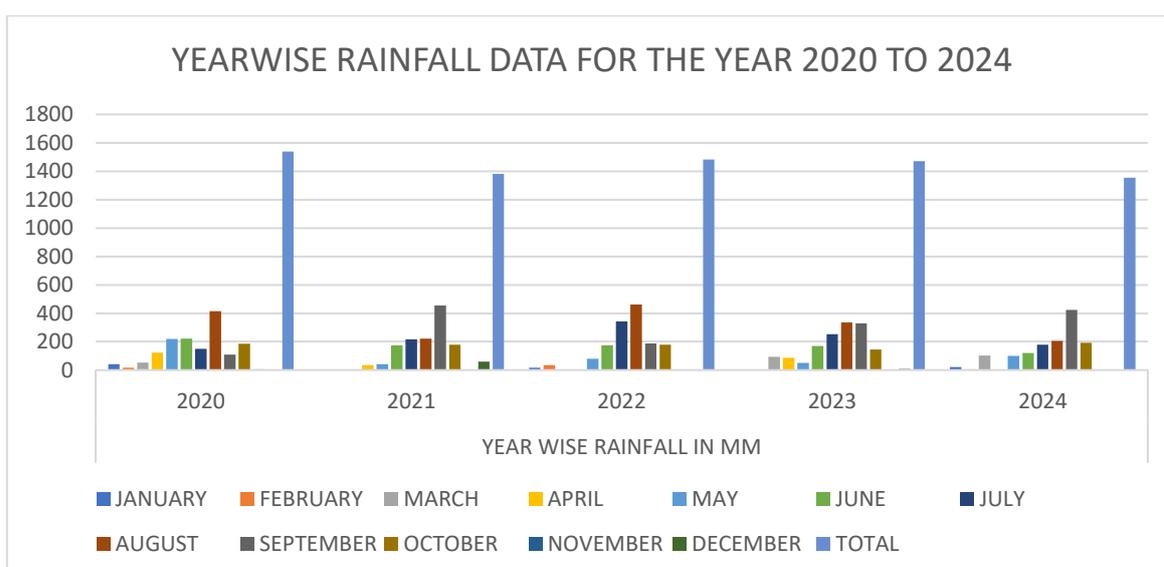
Balasore is a coastal district located in the northeast of Odisha. It's bordered by the Bay of Bengal to the east, Bhadrak district to the south, and Mayurbhanj and Keonjhar districts to the west.

10. RAINFALL: MONTH-WISE.

The district is generally hot with high humidity during April and May and cold during December and January. The monsoon generally breaks during the month of July and continues till end of October. The temperature goes as high as up to 45°C in the summer and up to 7° -8° C during peak winter.

The rainfall statistics of the district for last four years is given below:

YEARWISE RAINFALL DATA FOR THE YEAR 2020 TO 2024					
MONTH	YEAR WISE RAINFALL IN MM				
	2020	2021	2022	2023	2024
JANUARY	41.71	0	17.67	0	20.5
FEBRUARY	16.48	0	35.92	0.25	6.33
MARCH	52	0	0	92.43	102.09
APRIL	123.25	34.75	3.37	87.1	2.58
MAY	218.73	41.38	80.53	50.84	100.1
JUNE	221.9	175.22	173.32	169.75	121.07
JULY	149.18	216.24	342.52	251.9	178.4
AUGUST	414.25	220.58	462.68	335.5	205.68
SEPTEMBER	109.43	456.05	187.33	328.82	424.15
OCTOBER	185.24	177.94	179.43	145.92	192.35
NOVEMBER	6	0.92	0	0.75	
DECEMBER	0	58.46	0	8.59	
TOTAL	1538.17	1381.54	1482.77	1471.85	1353.25



11. GEOLOGY AND MINERAL WEALTH.

Geology of the Balasore district:

The geology of Balasore district in Odisha is shaped by its position on the coastal plains of eastern India, with features like alluvial deposits, coastal sands, and occasional lateritic formations. Below is a detailed look at Balasore's geological makeup:

□ **Alluvial Deposits**

- Balasore's landscape is primarily formed by Quaternary alluvial deposits, supplied by rivers such as the Subarnarekha, Budhabalanga, and Jalaka, which carry sediments from the Chotanagpur Plateau and surrounding areas.
- These alluvial soils, rich in silt, clay, and sand, are highly fertile and support extensive agricultural activities. The deposits are deep, providing ideal conditions for crop cultivation across the district.

□ **Coastal Sands and Marine Deposits**

- A prominent feature along Balasore's Bay of Bengal coastline is the presence of coastal sands and marine deposits. These formations result from marine and wind-driven (aeolian) processes that have shaped the district's beaches and coastal dunes.
- Composed mainly of silicate minerals, the coastal sands display layering and patterns from tidal action. These unique formations are especially notable at Chandipur beach, where tidal variations expose large stretches of sand during low tide.

□ **Lateritic Deposits**

- Patches of laterite are found, particularly in the upland areas of the district. Laterite forms from the intense weathering and leaching of rocks in tropical and subtropical climates, resulting in a high concentration of iron and aluminum oxides.
- These lateritic soils, though less fertile than alluvial soils, are commonly used as a building material due to their strength and durability when cut and dried.

□ **Subsurface Rock Formations**

- While recent alluvial layers cover most of Balasore, deeper drilling and subsurface studies have revealed ancient rock formations, including gneiss and schist, especially toward the west near the Chotanagpur Plateau.
- The presence of crystalline bedrock at greater depths points to an ancient geological foundation beneath the district, overlain by younger sedimentary deposits.

□ **Riverine and Deltaic Formations**

- The district's river systems contribute to the formation of deltaic deposits, where sediment accumulates as rivers approach the coast. These deltaic regions, enriched by periodic flood deposits, consist of silt and clay layers that renew the soil's fertility.
- This dynamic riverine activity helps shape Balasore's landscape and supports the district's wetlands and agricultural zones within the floodplain areas.

Summary

Balasore's geology is dominated by recent alluvial and coastal deposits, with lateritic soil patches and deeper crystalline rock formations. This geological diversity supports Balasore's agricultural economy and influences the distinct coastal and riverine landscapes that define the district.

Stratigraphy:

Holocene: Sand dune, newer alluvium Older alluvium

Laterite Quaternary: Recent to sub Recent Laterites and lateritic gravels

~~~~~ Unconformity ~~~~~

Tertiary: Mio Pliocene Brown, yellowish and grey sand, gravel and clays, gritty sandstones.

Miocene: Grey Clays, sand, Lime stones with molluscan shells

~~~~~ Unconformity ~~~~~

Archaean to Proterozoic: Associated intrusives, Nilgiri granites, Quartzite and phyllite, amphibolites, unclassified gneisses.

Mineral Resources: -

Minerals like soft stones, limestone, stone chips are available in the District, which are mainly used in industrial units in the District. The huge deposits of granite stones at Nilgiri, Khaira, Soro area which provides tremendous scope for development of few more industries based on these resources. Except these, no minerals in large quantity which can be explored for commercial purpose found in the District.

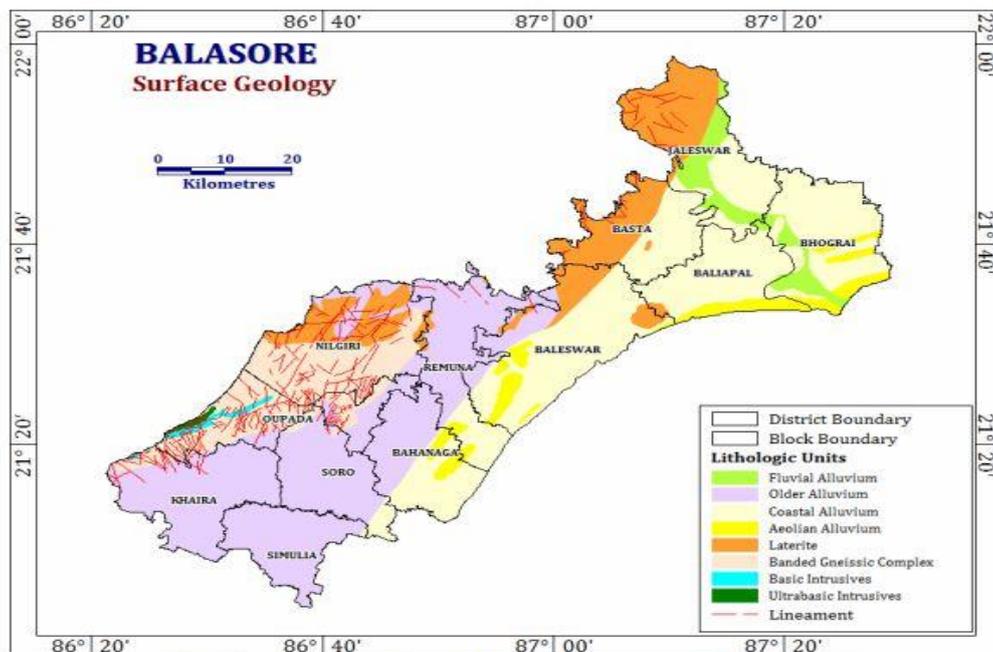
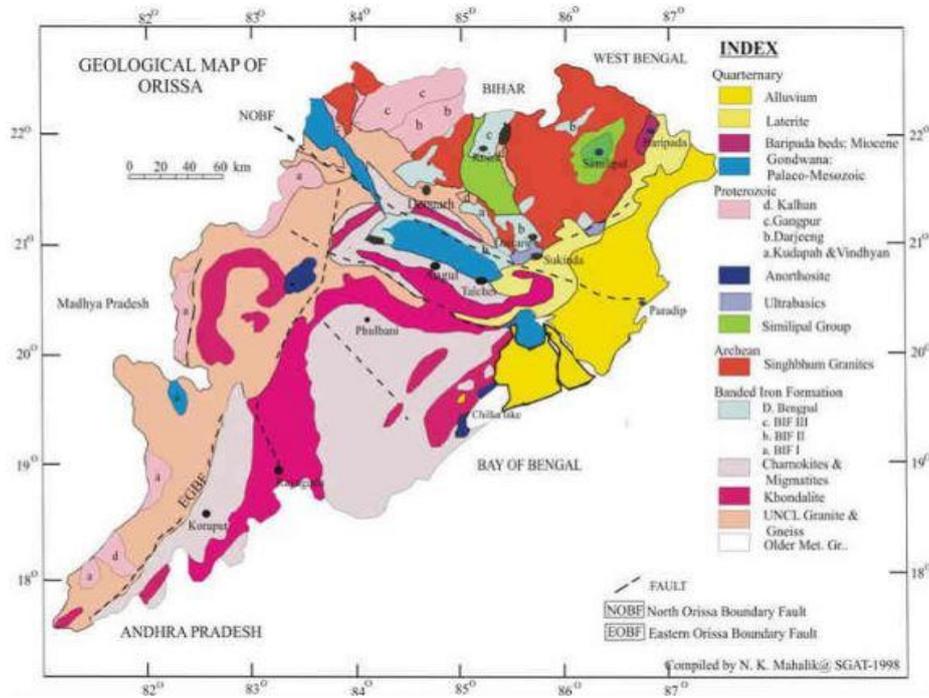


Figure - 4.1 : Lithological Map of Balasore District, Odisha

Mineral wealth of the Balasore district:

Balasore district in Odisha is not known for extensive mineral resources compared to other parts of the state; however, it does have some valuable mineral deposits and natural resources that contribute to the local economy. Here's an overview of the mineral wealth of Balasore:

Sand and Silica Resources:- Balasore has abundant coastal sand deposits, which are rich in silica. Silica sand is an important industrial material used in glass-making, construction, ceramics, and foundry industries.

Some parts of the district have silica-rich sands suitable for processing, and their proximity to the coastline makes extraction and transportation relatively convenient.

Laterite:- Laterite deposits are found in upland areas of Balasore. Laterite is a source of iron and aluminum oxides, though in limited quantities. These deposits are often used locally in construction for bricks and other building materials due to their strength and durability.

The lateritic soils also hold potential for small-scale mining of iron, though this is not widely commercialized in Balasore.

Clay Deposits:- The alluvial and riverine plains of Balasore have clay-rich soils, which are utilized locally in pottery, brick-making, and other small-scale industries. The clay deposits contribute to the local handicraft industry and construction materials sector.

Minor Minerals:- In addition to sand and clay, Balasore has minor minerals like gravel and pebbles, often extracted from riverbeds for use in construction, particularly in road building and concrete production.

Groundwater Resources:-

While not a mineral in the conventional sense, groundwater is a crucial natural resource for Balasore. The district's alluvial soils and riverine deposits create favorable conditions for groundwater storage, which supports irrigation and drinking water supplies.

Salient Features of Important Rivers & Streams:

| Sl. No. | Name of the River or Stream | Total length in the District(in Km) | Place of origin | Altitude at Origin | Portion of the River or Stream Recommended for Mineral Concession | Length of area recommended for mineral concession(in Km) | Average width of area recommended for mineral concession(in Km) | Area recommended for mineral concession(in Sq. M) | Mineable mineral potential (in Cum) (60% of total mineral potential) |
|---------|-----------------------------|-------------------------------------|---|--------------------|---|--|---|---|--|
| A1 | SUBARNAREKHA | 79 | NAGRI VILLAGE IN RANCHI DISTRICT OF JHARKHAND | 718 | AMBAKURUCHI SAND SOURCE | 0.28 | 0.1 | 29947 | 14,029 |
| A2 | SUBARNAREKHA | 79 | NAGRI VILLAGE IN RANCHI DISTRICT OF JHARKHAND | 718 | DEVOG SAND SOURCE | 0.37 | 0.14 | 49979 | 99,657 |
| A3 | SUBARNAREKHA | 79 | NAGRI VILLAGE IN RANCHI DISTRICT OF JHARKHAND | 718 | DHITPURA SAND SOURCE | 0.31 | 0.14 | 49979 | 1,06,875 |
| A4 | SUBARNAREKHA | 79 | NAGRI VILLAGE IN RANCHI DISTRICT OF JHARKHAND | 718 | KADARAYAN SAND SOURCE | 0.31 | 0.18 | 49979 | 84,510 |
| A5 | SUBARNAREKHA | 79 | NAGRI VILLAGE IN RANCHI DISTRICT OF JHARKHAND | 718 | MATHANI & PUNSIITA | 0.61 | 0.02 | 12464 | 4,630 |
| A6 | SUBARNAREKHA | 79 | NAGRI VILLAGE IN RANCHI DISTRICT OF JHARKHAND | 718 | BENAPURA -II SAND SOURCE | 0.35 | 0.15 | 58760 | 35,256 |
| A7 | SUBARNAREKHA | 79 | NAGRI VILLAGE IN RANCHI DISTRICT OF JHARKHAND | 718 | BENAPURA-I SAND SOURCE | 0.26 | 0.04 | 50400 | 30,240 |

| | | | | | | | | | |
|-----|--------------|--------|--|-----|--|-------|-------|--------|----------|
| A8 | SUBARNAREKHA | 79 | NAGRI VILLAGE
IN RANCHI
DISTRICT OF
JHARKHAND | 718 | GOPINATHPUR SAND SOURCE | 0.26 | 0.19 | 50000 | 30,000 |
| B1 | SUNAI | 40 | UDALA
MAYURBHANJ
DISTRICT | 160 | PURUKHI SAND SOURCE | 0.62 | 0.08 | 49776 | 38,248 |
| B2 | BUDHABALANGA | 198.75 | SIMILIPAL IN THE
MAYURBHANJ
DISTRICT | 776 | SAHUPADA & DUMUDA SAND SOURCE | 0.548 | 0.091 | 49979 | 44,177 |
| B3 | BUDHABALANGA | 198.75 | SIMILIPAL IN THE
MAYURBHANJ
DISTRICT | 776 | AMBULKUDA SAND SOURCE | 0.36 | 0.11 | 49776 | 36,065 |
| B4 | SUNAI | 40 | UDALA
MAYURBHANJ
DISTRICT | 160 | HATIAGAND MUKUNDAPUR PATRIPAL
SAND SAIRAT | 0.21 | 0.07 | 49979 | 15,700 |
| B5 | SUNAI | 40 | UDALA
MAYURBHANJ
DISTRICT | 160 | UDAMBAR SAND SAIRAT SOURCE | 0.46 | 0.072 | 33184 | 27,324 |
| B6 | BUDHABALANGA | 198.75 | SIMILIPAL IN THE
MAYURBHANJ
DISTRICT | 776 | MAKANDA SAND SAIRAT SOURCE | 0.64 | 0.078 | 49453 | 23,736 |
| B7 | BUDHABALANGA | 198.75 | SIMILIPAL IN THE
MAYURBHANJ
DISTRICT | 776 | GAMBHARIA RUDRAGOPALPUR SAMIL
NAHARPATANA | 0.32 | 0.11 | 384411 | 2,30,647 |
| B8 | SUNAI | 40 | UDALA
MAYURBHANJ
DISTRICT | 160 | BAITABANKA SAND SOURCE | 0.451 | 0.109 | 49372 | 28,216 |
| B9 | BUDHABALANGA | 198.75 | SIMILIPAL IN THE
MAYURBHANJ
DISTRICT | 776 | KATHASANGADA SAND SOURCE-2 | 0.45 | 0.023 | 10522 | 7,840 |
| B10 | BUDHABALANGA | 198.75 | SIMILIPAL IN THE
MAYURBHANJ
DISTRICT | 776 | KATHASANGADA SAND SOURCE-1 | 0.44 | 0.086 | 39457 | 24,074 |
| C1 | SUNAI | 40 | UDALA
MAYURBHANJ
DISTRICT | 160 | PUNDAL-1 SAND BED | 0.25 | 0.198 | 49979 | 39,591 |
| C2 | SUNAI | 40 | UDALA
MAYURBHANJ
DISTRICT | 160 | PUNDAL-2 SAND BED | 0.35 | 0.14 | 49979 | 15,370 |

| | | | | | | | | | |
|----|--------------|----|--|-----|----------------------------------|-------|-------|-------|--------|
| C3 | SUNAI | 40 | UDALA
MAYURBHANJ
DISTRICT | 160 | DUMAGANDIRA-LAICHHANPUR SAND BED | 0.398 | 0.125 | 49979 | 5,088 |
| C4 | SUNAI | 40 | UDALA
MAYURBHANJ
DISTRICT | 160 | BAINCHANARANPUR-I SAND BED | 0.57 | 0.13 | 49979 | 51,975 |
| C5 | SUNAI | 40 | UDALA
MAYURBHANJ
DISTRICT | 160 | BALIPAL SAND BED | 0.52 | 0.06 | 49776 | 29,866 |
| C6 | SUNAI | 40 | UDALA
MAYURBHANJ
DISTRICT | 160 | PRATAPPUR SAND BED | 0.61 | 0.09 | 49574 | 12,343 |
| C7 | SUNAI | 40 | UDALA
MAYURBHANJ
DISTRICT | 160 | BAINCHANARANPUR-3 SAND BED | 0.39 | 0.09 | 35200 | 15,845 |
| C8 | SUNAI | 40 | UDALA
MAYURBHANJ
DISTRICT | 160 | AJODHYA SAND BED | 452 | 110 | 49979 | 33,581 |
| D1 | SUBARNAREKHA | 79 | NAGRI VILLAGE
IN RANCHI
DISTRICT OF
JHARKHAND | 718 | SIKHARPUR SAND SOURCE | 0.55 | 0.12 | 42978 | 35,666 |
| D2 | SUBARNAREKHA | 79 | NAGRI VILLAGE
IN RANCHI
DISTRICT OF
JHARKHAND | 718 | RAJNAGAR SAND SOURCE | 0.28 | 0.19 | 54835 | 19,353 |
| D3 | SUBARNAREKHA | 79 | NAGRI VILLAGE
IN RANCHI
DISTRICT OF
JHARKHAND | 718 | GOBARDHANPUR SAND SOURCE | 0.19 | 0.3 | 48562 | 81,848 |
| D4 | SUBARNAREKHA | 79 | NAGRI VILLAGE
IN RANCHI
DISTRICT OF
JHARKHAND | 718 | SEKH SARAI SAND SOURCE(KA) | 0.28 | 0.18 | 56656 | 37,874 |
| D5 | SUBARNAREKHA | 79 | NAGRI VILLAGE
IN RANCHI
DISTRICT OF
JHARKHAND | 718 | CHALANTI SAND SOURCE | 0.3 | 0.18 | 56656 | 15,000 |

| | | | | | | | | | |
|-----|--------------|----|--|-----|-----------------------------|------|-------|--------|----------|
| D6 | SUBARNAREKHA | 79 | NAGRI VILLAGE
IN RANCHI
DISTRICT OF
JHARKHAND | 718 | BALIKBAD SAND SOURCE | 0.28 | 0.19 | 60096 | 1,08,680 |
| D7 | SUBARNAREKHA | 79 | NAGRI VILLAGE
IN RANCHI
DISTRICT OF
JHARKHAND | 718 | BALIAPAL SAND SOURCE | 0.29 | 0.16 | 48562 | 29,137 |
| D8 | SUBARNAREKHA | 79 | NAGRI VILLAGE
IN RANCHI
DISTRICT OF
JHARKHAND | 718 | SEKH SARAI SAND SOURCE(KHA) | 0.36 | 0.12 | 60703 | 36,422 |
| D9 | SUBARNAREKHA | 79 | NAGRI VILLAGE
IN RANCHI
DISTRICT OF
JHARKHAND | 718 | RIVER BLOCK -KHA | 0.32 | 0.16 | 52609 | 20,000 |
| D10 | SUBARNAREKHA | 79 | NAGRI VILLAGE
IN RANCHI
DISTRICT OF
JHARKHAND | 718 | PRAHARAJPUR (KA) | 0.38 | 0.12 | 52609 | 48,740 |
| D11 | SUBARNAREKHA | 79 | NAGRI VILLAGE
IN RANCHI
DISTRICT OF
JHARKHAND | 718 | MANKIDIA SAND SOURCE (GA) | 0.29 | 0.17 | 141640 | 84,984 |
| D12 | SUBARNAREKHA | 79 | NAGRI VILLAGE
IN RANCHI
DISTRICT OF
JHARKHAND | 718 | CHORMARA (CHANDI BASTI) | 0.38 | 0.12 | 40469 | 66,380 |
| D13 | SUBARNAREKHA | 79 | NAGRI VILLAGE
IN RANCHI
DISTRICT OF
JHARKHAND | 718 | MANKIDIA SAND SOURCE (KHA) | 0.39 | 0.22 | 161874 | 97,124 |
| D14 | SUBARNAREKHA | 79 | NAGRI VILLAGE
IN RANCHI
DISTRICT OF
JHARKHAND | 718 | MAKRAMPUR SAND SOURCE | 0.33 | 0.17 | 60703 | 52,743 |
| D15 | SUBARNAREKHA | 79 | NAGRI VILLAGE
IN RANCHI
DISTRICT OF
JHARKHAND | 718 | GOBARGHATA SAND SOURCE | 0.23 | 0.305 | 70820 | 20,00 |

| | | | | | | | | | |
|-----|--------------|--------|--|-----|-------------------------------|-------|-------|--------|----------|
| D16 | SUBARNAREKHA | 79 | NAGRI VILLAGE
IN RANCHI
DISTRICT OF
JHARKHAND | 718 | PRAHARAJPUR SAND SOURCE (KHA) | 0.66 | 0.17 | 60703 | 36,422 |
| D17 | SUBARNAREKHA | 79 | NAGRI VILLAGE
IN RANCHI
DISTRICT OF
JHARKHAND | 718 | MANKIDIA-KA | 0.51 | 0.13 | 80938 | 1,78,528 |
| D18 | SUBARNAREKHA | 79 | NAGRI VILLAGE
IN RANCHI
DISTRICT OF
JHARKHAND | 718 | RIVER BLOCK-KA | 0.34 | 0.18 | 56656 | 20,000 |
| D19 | SUBARNAREKHA | 79 | NAGRI VILLAGE
IN RANCHI
DISTRICT OF
JHARKHAND | 718 | BILASHPUR SAND SOURCE | 0.78 | 0.35 | 324558 | 1,94,735 |
| D20 | SUBARNAREKHA | 79 | NAGRI VILLAGE
IN RANCHI
DISTRICT OF
JHARKHAND | 718 | MALIPAL SAND BED | 0.26 | 0.19 | 50000 | 30,000 |
| D21 | SUBARNAREKHA | 79 | NAGRI VILLAGE
IN RANCHI
DISTRICT OF
JHARKHAND | 718 | EKTALI SAND BED | 0.26 | 0.19 | 50000 | 30,000 |
| E1 | SUBARNAREKHA | 79 | NAGRI VILLAGE
IN RANCHI
DISTRICT OF
JHARKHAND | 718 | PALABEGUNIA SAND BED | 0.62 | 0.058 | 35936 | 59,808 |
| E2 | SUBARNAREKHA | 79 | NAGRI VILLAGE
IN RANCHI
DISTRICT OF
JHARKHAND | 718 | BADHAPAL SAND BED | 0.226 | 0.15 | 33832 | 41,902 |
| F1 | BUDHABALANGA | 198.75 | SIMILIPAL IN THE
MAYURBHANJ
DISTRICT | 776 | KASABA - DAHAPADA SAND SOURCE | 3.698 | 0.103 | 410149 | 77,912 |

Mineral Potential:

| Boulder(MT) | Bajari(MT) | Total Mineable Mineral Potential(cum) | Annual Deposition |
|-------------|------------|---------------------------------------|-------------------|
| NA | NA | 454356.7 | - |

| SI No. | River or Stream | Portion of the river or stream recommended for mineral concession | Length of area recommended for mineral concession(in km) | Average width of area recommended for mineral concession(in mt.) | Area recommended for mineral concession(in sq. m) | Mineable mineral potential (in CuM) (60% of total mineral potential) |
|--------|-----------------|---|--|--|---|--|
| A1 | SUBARNAREKHA | AMBAKURUCHI SAND SOURCE | 0.28 | 0.1 | 29946.7 | 14029 |
| A2 | SUBARNAREKHA | DEVOG SAND SOURCE | 0.37 | 0.14 | 49978.7 | 99657 |
| A3 | SUBARNAREKHA | DHITPURA SAND SOURCE | 0.31 | 0.14 | 49978.7 | 106875 |
| A4 | SUBARNAREKHA | KADARAYAN SAND SOURCE | 0.31 | 0.18 | 49978.7 | 84510 |
| A5 | SUBARNAREKHA | MATHANI & PUNSIITA | 0.61 | 0.02 | 12464.3 | 4630 |
| A6 | SUBARNAREKHA | BENAPURA -II SAND SOURCE | 0.35 | 0.15 | 58760.4 | 35256 |
| A7 | SUBARNAREKHA | BENAPURA-I SAND SOURCE | 0.26 | 0.04 | 50400.0 | 30240 |
| A8 | SUBARNAREKHA | GOPINATHPUR SAND SOURCE | 0.26 | 0.19 | 50000.0 | 30000 |
| B1 | SUNAI | PURUKHI SAND SOURCE | 0.62 | 0.08 | 49776.3 | 38248 |
| B2 | BUDHABALANGA | SAHUPADA & DUMUDA SAND SOURCE | 0.548 | 0.091 | 49978.7 | 44177 |
| B3 | BUDHABALANGA | AMBULKUDA SAND SOURCE | 0.36 | 0.11 | 49776.3 | 36065 |
| B4 | SUNAI | HATIAGAND MUKUNDAPUR PATRIPAL SAND SAIRAT | 0.21 | 0.07 | 49978.7 | 15700 |
| B5 | SUNAI | UDAMBAR SAND SAIRAT SOURCE | 0.46 | 0.072 | 33184.2 | 27324 |
| B6 | BUDHABALANGA | MAKANDA SAND SAIRAT SOURCE | 0.64 | 0.078 | 49452.6 | 23736 |
| B7 | BUDHABALANGA | GAMBHARIA RUDRAGOPALPUR SAMIL NAHARPATANA | 0.32 | 0.11 | 384410.9 | 230647 |
| B8 | SUNAI | BAITABANKA SAND SOURCE | 0.451 | 0.109 | 49371.7 | 28216 |
| B9 | BUDHABALANGA | KATHASANGADA SAND SOURCE-2 | 0.45 | 0.023 | 10521.8 | 7840 |
| B10 | BUDHABALANGA | KATHASANGADA SAND SOURCE-1 | 0.44 | 0.086 | 39456.9 | 24074 |
| C1 | SUNAI | PUNDAL-1 SAND BED | 0.25 | 0.198 | 49978.7 | 39591 |
| C2 | SUNAI | PUNDAL-2 SAND BED | 0.35 | 0.14 | 49978.7 | 15370 |

| | | | | | | |
|-----|--------------|----------------------------------|-------|-------|----------|----------|
| C3 | SUNAI | DUMAGANDIRA-LAICHHANPUR SAND BED | 0.398 | 0.125 | 49978.7 | 5088 |
| C4 | SUNAI | BAINCHANARANPUR-I SAND BED | 0.57 | 0.13 | 49978.7 | 51975 |
| C5 | SUNAI | BALIPAL SAND BED | 0.52 | 0.06 | 49776.3 | 29866 |
| C6 | SUNAI | PRATAPPUR SAND BED | 0.61 | 0.09 | 49574.0 | 12343 |
| C7 | SUNAI | BAINCHANARANPUR-3 SAND BED | 0.39 | 0.09 | 35200.0 | 15845 |
| C8 | SUNAI | AJODHYA SAND BED | 452 | 110 | 49978.7 | 33581 |
| D1 | SUBARNAREKHA | SIKHARPUR SAND SOURCE | 0.55 | 0.12 | 42977.6 | 35666 |
| D2 | SUBARNAREKHA | RAJNAGAR SAND SOURCE | 0.28 | 0.19 | 54834.9 | 19353 |
| D3 | SUBARNAREKHA | GOBARDHANPUR SAND SOURCE | 0.19 | 0.3 | 48562.3 | 81848 |
| D4 | SUBARNAREKHA | SEKH SARAI SAND SOURCE(KA) | 0.28 | 0.18 | 56656.0 | 37874 |
| D5 | SUBARNAREKHA | CHALANTI SAND SOURCE | 0.3 | 0.18 | 56656.0 | 15000 |
| D6 | SUBARNAREKHA | BALIKBAD SAND SOURCE | 0.28 | 0.19 | 60095.8 | 1,08,680 |
| D7 | SUBARNAREKHA | BALIAPAL SAND SOURCE | 0.29 | 0.16 | 48562.3 | 29137.4 |
| D8 | SUBARNAREKHA | SEKH SARAI SAND SOURCE(KHA) | 0.36 | 0.12 | 60702.8 | 36421.7 |
| D9 | SUBARNAREKHA | RIVER BLOCK -KHA | 0.32 | 0.16 | 52609.1 | 20000 |
| D10 | SUBARNAREKHA | PRAHARAJPUR (KA) | 0.38 | 0.12 | 52609.1 | 48740 |
| D11 | SUBARNAREKHA | MANKIDIA SAND SOURCE (GA) | 0.29 | 0.17 | 141640.0 | 84984 |
| D12 | SUBARNAREKHA | CHORMARA (CHANDI BASTI) | 0.38 | 0.12 | 40468.6 | 66380 |
| D13 | SUBARNAREKHA | MANKIDIA SAND SOURCE (KHA) | 0.39 | 0.22 | 161874.0 | 97124.4 |
| D14 | SUBARNAREKHA | MAKRAMPUR SAND SOURCE | 0.33 | 0.17 | 60702.8 | 52743 |
| D15 | SUBARNAREKHA | GOBARGHATA SAND SOURCE | 0.23 | 0.305 | 70820.0 | 20,00 |
| D16 | SUBARNAREKHA | PRAHARAJPUR SAND SOURCE (KHA) | 0.66 | 0.17 | 60702.8 | 36421.7 |
| D17 | SUBARNAREKHA | MANKIDIA-KA | 0.51 | 0.13 | 80900.0 | 1,78,528 |
| D18 | SUBARNAREKHA | RIVER BLOCK-KA | 0.34 | 0.18 | 56656.0 | 20000 |
| D19 | SUBARNAREKHA | BILASHPUR SAND SOURCE | 0.78 | 0.35 | 324557.9 | 194734.7 |
| D20 | SUBARNAREKHA | MALIPAL SAND BED | 0.26 | 0.19 | 50000.0 | 30000 |
| D21 | SUBARNAREKHA | EKTALI SAND BED | 0.26 | 0.19 | 50000.0 | 30000 |
| E1 | SUBARNAREKHA | PALABEGUNIA SAND BED | 0.62 | 0.058 | 35936.1 | 59808 |
| E2 | SUBARNAREKHA | BADHAPAL SAND BED | 0.226 | 0.15 | 33831.7 | 41902 |
| F1 | BUDHABALANGA | KASABA - DAHAPADA SAND SOURCE | 3.698 | 0.103 | 410148.9 | 77912 |

Details of Sand/M-Sand Sources

a) Rivers:

| River Name/M-sand Plant | Total Sterch of River (in K.M) | Type of River (Perennial/Non-perennial) |
|-------------------------|--------------------------------|---|
| Budhabalanga | 300 K.M | Perennial |
| Subarnarekha | 1075K.M | Perennial |
| Jalaka | 330 K.M | Perennial |
| Sona | 255 K.M | Perennial |
| Kansabansa | 721 K.M | Perennial |

b) De-Siltation Location: (Lakes/Ponds/Dams etc.)

| name of Reservoir/
Dams | Maitain/ Controlled by
State Govt./PSU etc. | Location | District | Tahasil | Village | Size (Ha.) |
|----------------------------|--|-----------|----------|----------|-----------|------------|
| RISSIA DAM | Govt. | Kuldiha | Balasore | Nilagiri | Kuldiha | 97.9 |
| KHUMKUT DAM | Govt. | Gudi Sahi | Balasore | Oupada | Gudi Sahi | 8.1 |
| SINDHU DAM | Govt. | Sindhua | Balasore | Oupada | Sindhua | 11.9 |

c) Patta Lands/Khatedari Land:

| Owner | Sy. No. | Area (Ha.) | District | Tahasil | Village | Agricultural Land (Yes/No.) |
|-------|---------|------------|----------|---------|---------|-----------------------------|
| | | | | | | |

Not applicable for Balasore District

d) M-Sand Plants:

| Plant name | Owner | District | Tahasil | Village | Geo-location | Quantity
Tonnes/Annum |
|------------|-------|----------|---------|---------|--------------|--------------------------|
| | | | | | | |

Not applicable for Balasore District

Annexure-II

List of Potential Mining Leases (existing & proposed)

Rivers:

| Lease No. | River Details | Lease Details | Area (in Ac/Ha) | Distance (in KM) from PA/BR/WC/ | Distance from Forest Area (in KM) | Mining leases within 500 meters (if yes cluster area) | Total excavation in cum /Annum considering digging depth max as 3 meters | Mineral to be mined (Sand/Bajri/RBM etc.) | Existing/ Proposed |
|-----------|---------------|---|--------------------|---------------------------------|-----------------------------------|---|--|---|--------------------|
| A1 | Subarnarekha | Ambakuruchi Sand Source, MOUZA AMBAKURUCHI KHATA NO :304, PLOT: 1450, (AREA 7.400 AC),KISSAM :NADI, Longitude 87°12'05.4" TO 87°12'16.5",Latitude 21°43'54.7" TO 21°43'46.6" | 7.40 acre/2.69Ha | PA/WC-56.65/BR-7.61 | 56.65 | YES | 784 | sand | Existing |
| A2 | Subarnarekha | Devog Sand Source, MOUZA DEVOG KHATA NO :392, PLOT: 1178, (AREA 12.350 AC),KISSAM :NADI,Longitude 87°12'30.00" TO 87°12'42.8",Latitude 21°44'05.1" TO 21°44'16.3" | 12.35 acre/4.5 Ha | PA/WC-57.38/BR-6.6 | 57.38 | YES | 5160 | sand | Existing |
| A3 | Subarnarekha | Dhitpura Sand Source, MOUZA DHITPURA, KHATA NO :97, PLOT: 214, (AREA 12.350 AC),KISSAM :NADI, Longitude 87°11'01.5" TO 87°11'14.3",Latitude 21°45'05.1" TO 21°45'9.7" | 12.35 acre./4.5Ha | PA/WC-55.62/BR-0.56 | 55.62 | | 500 | sand | Existing |
| A4 | Subarnarekha | Kadarayan Sand Source, MOUZA KADRAYAN, KHATA NO :257, PLOT: 1, (AREA 12.350 AC),KISSAM :NADI,Longitude87°12'29.76" TO87°12'43.22",Latitude 21°44'52.57" TO 21°45'02.43" | 12.350 acre./4.5Ha | PA/WC-58.28/BR-5.09 | 58.28 | | | sand | Existing |
| A5 | Subarnarekha | Mathani Punsita Sand Source, MOUZA MATHANI & PUNSITA, KHATA NO :143,227, PLOT: 37,25, (AREA 3.08 AC),KISSAM :NADI,Longitude87°03'53.2" TO 87°04'01.9",Latitude 21°40'08.2" TO 21°40'25.8" | 3.08 acre./1.246Ha | PA/WC-22.21/BR-0.19 | 22.21 | | | sand | Existing |
| A6 | Subarnarekha | Benapura-II Sand Quarry, MOUZA BENAPUR, KHATA NO:152, PLOT: 285, (AREA 14.52 AC), KISSAM: NADI, lat- 21° 45' 26.53910" to 21° 45' | 14.52 acre/5.876Ha | PA/WC-56.02/BR-0.15 | 56.02 | YES | | sand | Existing |

| | | | | | | | | | |
|----|--------------|---|---------------------|---------------------|-------|--|------|------|----------|
| | | 39.04554", long- 87° 10' 03.41272" to 87° 10' 16.94709" | | | | | | | |
| A7 | Subarnarekha | Benapura-I Sand Source, MOUZA-BENAPUR, KHATA-150, PLOT-142, KISSAM-NAYANJARI, LAT-21.772, LONG- 87.163 | 5.00 Ha | PA/WC-56.25/BR-2.56 | 56.25 | | | sand | Existing |
| A8 | SUBARNAREKHA | GOPINATHPUR SAND SOURCE, Mouza-Gopinathpur, Khata- 153, Plot- 340, Area-5Ha Out Of 22.743Ha | 12.355acre/ 5.0 Ha | PA/WC-32.57/BR-6.1 | 32.57 | | | sand | PROPOSED |
| B1 | SUNAI | Purukhi Sand Quarry, Mouza. Purukhi, Khata No. 420, Plot No. 1340 Area Ac 12.30 dec
Latitude 21°34' 15.1" N to 21° 34' 20.5"N,
Longitude 86° 47' 37.9"E to 86° 48' 2.0"E | 12.300 acre/4.997Ha | PA/WC- 13.4/BR-2.11 | 13.4 | | 1875 | sand | Existing |
| B2 | Budhabalanga | Sahupada & Dumuda Sand Quarry, MOUZA SAHUPADA & DUMUDA, KHATA NO:223,281, PLOT: 237,238,239,240,15, (AREA 12.35 acers KISSAM:NADI, Longitude-86°54'51.6" TO 86°55'13.2", Latitude -21°33'51.6" TO 21°33'56.2" | 12.35 acre/5.00Ha | PA/WC-21.89/BR-1.5 | 21.89 | | | sand | Existing |
| B3 | Budhabalanga | Ambulakuda Sand Source, Mouza-Ambulakuda Khata No. 133, Plot No. 531 Area Ac 12.30 dec
Latitude 21°35' 4.1" N to 21° 35' 18.5"N,
Longitude 86° 54' 11.2"E to 86° 54' 16.8"E | 12.300 acre/4.997Ha | PA/WC-22.21/BR-3 | 22.27 | | 1500 | sand | Existing |
| B4 | SUNAI | Hatigand Sand Quarry, Mouza-Hatiaganda Khata No-313 Plot No 223, 1121 Kisam Nadi, Mukundapur Khata No-197 PlotNo-3 Kisam Nadi, Patripal Khata No-69 Plot No-1 Kisam Nadi
Latitude 21°32' 57.4" N to 21° 33' 2.7"N,
Longitude 86° 51' 38.9"E to 86° 51' 58.8"E | 12.35 acre/4.99Ha | PA/WC-16.03/BR-0.44 | 16.03 | | | sand | Existing |
| B5 | SUNAI | Udambar Sand Quarry, Mouza. Udambar Khata No. 211, Plot No. 1 Area Ac 8.20 dec
Latitude 21°33' 17.1" N to 21° 33' 22.6"N,
Longitude 86° 53' 35.5"E to 86° 53' 57.1"E | 8.20 acre/3.318Ha | PA/WC-19.68/BR-2.71 | 19.68 | | | sand | Existing |
| B6 | Budhabalanga | Makanda Sand Quarry, Mouza- Makanda Khata No. 337, Plot No. 691 Area Ac 8.40 dec & Plot No. 692 Latitude 21°34' 47.5" N to 21° 34'54.9"N, Longitude 86°54' 32.8"E to 86° 54' 57.9"E | 12.22 acre/4.945Ha | PA/WC-22.27/BR-2.4 | 22.27 | | | sand | Existing |

| | | | | | | | | | |
|-----|--------------|---|--------------------|----------------------|-------|-----|-------|------|----------|
| B7 | Budhabalanga | Gambharia Sand Quarry, Mouza-Gambharia Khata No-430 Plot No-574, 722 Kisam Nadi, Rudragopalpur Samil Naharpatna Khata No 236 Plot No-1 & 510 Kisam Nadi
Latitude 21°32' 14.0" N to 21° 33' 01"N,
Longitude 86° 54' 55"E to 86° 55' 16"E | 94.99 acre/38.44Ha | PA/WC- 20.7/BR-0.42 | 20.7 | | | sand | Existing |
| B8 | SUNAI | Boitabanka Sand Quarry, Mouza-. Ghungi Khata No. 261, Plot No. 338 Area Ac 5.00 dec , Plot No. 440 Area Latitude 21°33' 31.9" N to 21° 33' 48.8"N, Longitude 86°49' 21.0"E to 86° 49' 43.7"E | 12.20 acre/4.937Ha | PA/WC- 15.11/BR-0.19 | 15.11 | | | sand | Existing |
| B9 | Budhabalanga | Kathasangada-II Sand Quarry , Mouza-. Kathasangada, Khata No. 286, Plot No. 106 Area Ac 2.60 dec
Latitude 21°33' 29" N to 21° 33' 43.8"N,
Longitude 86° 54' 35.8"E to 86°54' 42.3"E | 2.60 acre/1.052Ha | PA/WC- 21.06/BR-1.29 | 21.06 | YES | | sand | Existing |
| B10 | Budhabalanga | Kathasangada-I Sand Quarry, Mouza-Kathasangada, Khata No. 286, Plot No. 123 Area Ac 0.30 dec, Plot No. 145, Area Ac. 1.52 dec & Mz. Haladia, Khata No. 458, Plot No. 1456 area Ac 6.00 dec, Plot No. 1952 area Ac 7.93
Latitude 21°33' 18.4" N to 21° 33' 34.3"N,
Longitude 86°54' 42.4"E to 86° 54' 49.7"E | 9.75 acre/3.945Ha | PA/WC- 21.02/BR-0.89 | 21.02 | YES | | sand | Existing |
| C1 | SUNAI | Pundal-1 Sand bed , MOUZA: PUNDAL, KHATA NO 556, PLOT:1347/1 (AREA 12.350 acre), KISSAM: NADI, Longitude-86°46'24.40" TO 86°46'35.00", Latitude - 21°34'40.70" TO 21°34'48.70" | 12.350 acre/5.00Ha | PA/WC- 12.94/BR-1.04 | 12.94 | | 2167 | sand | Existing |
| C2 | SUNAI | Pundal-2 Sand bed, MOUZA: PUNDAL, KHATA NO 556, PLOT:1347 (AREA 3.40 acre), KISSAM: NADI, Longitude -86°46'47.5" TO 86°46'52.3", Latitude 21°34'35.6" TO 21°34'41.6" | 3.40Ac/1.37Ha | PA/WC- 12.98/BR-1.63 | 12.98 | | 10000 | sand | Existing |
| C3 | SUNAI | Dumagandira Sand bed, MOUZA: DUMAGANDIRA, LAICHHANPUR KHATA NO 157, 155 PLOT:385,36 (AREA 12.350 acre), KISSAM: NADI, Longitude -86°48'50.80" TO 86°49'04.50", Latitude 21°34'21.40" TO 21°34'27.50" | 12.350 acre/5.00Ha | PA/WC- 15.4/BR-1.41 | 15.4 | | 1081 | sand | Existing |

| | | | | | | | | | |
|----|--------------|--|---------------------|---------------------|-------|-----|------|------|----------|
| C4 | SUNAI | Bainchanaranpur-1 Sand bed, MOUZA: BAINCHANARANPUR KHATA NO 266 PLOT:383 ,384(AREA12.35acre), KISSAM: NADI, Longitude 86°42'51.90" TO 86°43'01.50", Latitude 21°34'57.10" TO 21°35'11.50" | 12.35 acre/4.99Ha | PA/WC-12.71/BR-0.34 | 12.71 | | 2000 | sand | Existing |
| C5 | SUNAI | Balipal Sand bed, MOUZA: BALIPAL KHATA NO 156,156 PLOT:7,495(AREA 12.350 acre AC), KISSAM: NADI, Longitude 86°44'34.00" TO 86°44'34.20", Latitude 21°34'30.60" TO 21°34'32.00" | 12.300 acre./4.97Ha | PA/WC- 12.5/BR-0.22 | 12.5 | | | sand | Existing |
| C6 | SUNAI | Pratappur Sand bed, MOUZA: AJODHYA(PRATAPPUR) KHATA NO 814, PLOT:388(AREA 12.25 AC), KISSAM: NADI, Longitude -86°44'53.4" TO 86°45'12.9", Latitude 21°34'19.9" TO 21°35'27.8" | 12.250 acre/4.95Ha. | PA/WC-12.37/BR-1.34 | 12.37 | | 4740 | sand | Existing |
| C7 | SUNAI | Bainchanaranpur-3 Sand bed, MOUZA: BAINCHANARANPUR KHATA NO 266 PLOT: 516 (AREA 8.700 AC), KISSAM: NADI, Longitude 86°42'20.2" TO 86°42'35.5", Latitude 21°34'10.5" TO 21°35'14.1" | 8.70Ac/3.520Ha | PA/WC-12.61/BR-1.19 | 12.61 | | | sand | Existing |
| C8 | SUNAI | Ajodhya Sand bed, MOUZA: AJODHYA KHATA NO 814 PLOT:1412 (AREA 12.35 AC), KISSAM: NADI, Longitude 86°45'32.36" TO 86°45'39.90", Latitude 21°34'05.20" TO 21°34'20.22" | 12.35 acre./5.00Ha | PA/WC-11.36/BR-2.66 | 11.36 | | | sand | Existing |
| D1 | Subarnarekha | Sikharpur Sand Source Mouza-Sikharpur, Khata No- 496 Plot No- 1910, 1900 Kissam- Nadi, Latitude 21°47' 44.4" N to 21° 47' 58.2"N, Longitude 87° 12' 20"E to 87° 12' 38.9"E | 11.99Ac/ 4.856 Ha | PA/WC-61.23/BR-0.89 | 61.23 | YES | | sand | Existing |
| D2 | Subarnarekha | Rajnagar Sand Bed, Mouza-Rajnagar, Khata No- 377 Plot No- 1295/1300 Latitude-21°48' 20.9" N to 21°48' 30.9"N Longitude-87°12' 43.2" E to 87°12' 52.2"E | 13.55 acre./5.48 Ha | PA/WC-62.13/BR-1.86 | 62.13 | YES | 2175 | sand | Existing |
| D3 | Subarnarekha | Gobardhanpur Sand Sairat Source Mouza-Gobardhanpur, Khata No- 358 Plot No-1094, Area Ac. 12.00 dec out of Ac. 88.25 dec, Latitude- 21°43'2.2" N to 21° 43'14.6" N, Longitude- 87°12'6.5" E to 87°12'17.5"E | 12.00 acre/ 4.85Ha | PA/WC-55.81/BR-9.04 | 55.81 | | | sand | Existing |

| | | | | | | | | | |
|-----|--------------|--|----------------------|----------------------|-------|-----|--|------|----------|
| D4 | Subarnarekha | Sekhsarai Ka Sand Source Mouza-Sekhsarai, Khata No-142 Plot No-02 Kissam Nadi, Latitute 21°45' 26.1" N to 21° 45' 29.5"N, Longitude 87° 10' 17.8"E to 87° 10' 20.9"E | 14.00 acre/ 5.66Ha | PA/WC-56.80/BR-1.46 | 56.8 | YES | | sand | Existing |
| D5 | Subarnarekha | Chalanti Sand Source Mouza-Chalanti, Latitute 21°46' 53" N to 21° 47' 2.8"N, Longitude 87° 09' 58"E to 87° 10' 10.2"E Khata No-384 Plot No-738 kissam Nadi | 14.00 acre/ 5.66Ha | PA/WC-55.75/BR-1.11 | 55.75 | | | sand | Existing |
| D6 | Subarnarekha | Balikbad Sand Source , Mouza-Balikbadk, Khata No- 399 Plot No- 49 Kissam Nadi, Latitute 21°42' 39" N to 21° 42' 49"N, Longitude 87° 13' 26.2"E to 87° 13' 40"E | 14.85 acre/ 6.009Ha | PA/WC-57.71/BR-11.83 | 57.71 | | | sand | Existing |
| D7 | Subarnarekha | BALIAPAL SAND SOURCE , Mouza-Baliapal, Khata No- 578 Plot No- 2949, Area Ac. 03.00 dec out of Ac. 33.28 dec , | 12.00 acre/ 4.856 Ha | PA/WC-57.48/BR-12.98 | 57.48 | | | sand | Existing |
| D8 | Subarnarekha | Sekhsarai Kha Sand Source Mouza-Sekhsarai, Khata No- 142 Plot No- 2Kissam Nadi, Latitute 21°46' 38.9" N to 21° 46' 56.3"N, Longitude 87° 09' 45"E to 87° 09' 58.3"E | 15.00 acre/ 6.07 Ha | PA/WC-57.33/BR-1.98 | 57.33 | YES | | sand | Existing |
| D9 | Subarnarekha | River Block Kha Sand Source Mouza-River Block, Khata No- 175 Plot No- 1 Kissam - Nadi, Latitute 21°48' 51.5" N to 21° 49' 1.9"N, Longitude 87° 12' 56.5"E to 87° 13' 6.1"E | 13.00 acre/ 5.26 Ha | PA/WC-63.26/BR-2.82 | 63.26 | YES | | sand | Existing |
| D10 | Subarnarekha | Praharajpur Ka Sand Source, Latitute 21°52' 17.5" N to 21° 52' 33.2"N, Longitude 87° 15' 9.7"E to 87° 15' 15.2"E Mouza-Praharajpur, Khata No- 466 Plot No- 1923 Kissam Nadi | 13.00 acre/ 5.26 Ha | PA/WC-70.79/BR-5.83 | 70.79 | YES | | sand | Existing |
| D11 | Subarnarekha | Mankidia Sand Source "Ga" Mouza-Mankidia, Khata No- 618 Plot No- 1677 Lat- 21° 55' 44.92255 to 21° 55' 59.74183, Long- 87° 14' 35.04486 to 87° 14' 49.84273 | 35 acre/ 14.16Ha | PA/WC-74.91/BR-14.20 | 74.91 | YES | | sand | Existing |
| D12 | Subarnarekha | Chandibasti Sand Source Mouza-Chormara, Khata No- 692 Plot No- 182, Area Ac. 10.00 dec out of Ac. 47.50 dec Latitude- 21°42'53.5"N to 21°42'59.9"N, Longitude 87°12'25.8"E to 87°12'40.4"E | 10.00 acre/ 4.05 Ha | PA/WC-56.33/BR-10.09 | 56.33 | | | sand | Existing |
| D13 | Subarnarekha | Mankidia Sand Source "Kha" Mouza-Mankidia, Khata No- 618 Plot No- 1677 | 40 acre/ 16.187Ha | PA/WC-74.84/BR-14.79 | 74.84 | YES | | sand | Existing |

| | | | | | | | | | |
|-----|--------------|--|-----------------------|----------------------|-------|-----|--|------|----------|
| D14 | Subarnarekha | Makrampur Sand Source , Mouza-Makrampur, Khata No-01 Plot No- 06 Kissam Nadi, Latitute 21°51' 22.21" N to 21° 51' 32.12"N, Longitude 87° 14' 31.16"E to 87° 14' 43.90"E | 15.00 acre/ 6.07 Ha | PA/WC-68.62/BR-3.97 | 68.62 | | | sand | Existing |
| D15 | Subarnarekha | Gobarghata Sand Source Mouza-Gobarghata, Khata No- 1414 Plot No- 3236 Kissam Nadi, Latitute 21°51' 10.5" N to 21° 51' 23.8"N, Longitude 87° 14' 17.7"E to 87° 14' 29.5"E | 17.50 acre/ 7.08Ha | PA/WC-67.75/BR-3.04 | 67.75 | | | sand | Existing |
| D16 | Subarnarekha | Praharajpur Kha Sand Source, Mouza-Praharajpur, Khata No- 466, Plot No- 1923, LAT- 21.876, LONG- 87.251 | 15 acre/ 6.07Ha | PA/WC-71.14/BR-6.30 | 71.14 | YES | | sand | Existing |
| D17 | Subarnarekha | Mankidia Sand Source "Ka", Mouza-Mankidia, Khata No-818 Plot No-01, Longitude 87° 14' 13.8"E to 87° 14' 28.4"E 21° 56' 21" N to 21° 56' 32.2"N, | 20.00 acre/ 8.09 Ha | PA/WC-74.97/BR-13.59 | 74.97 | YES | | sand | Existing |
| D18 | Subarnarekha | River Block Ka sand source Mouza-River Block, Khata No- 175 Plot No- 01, Kissam Nadi, Latitute 21°48'32.9" N to 21° 48' 41.8"N, Longitude 87° 13' 3.8"E to 87° 13' 14.8"E | 14.00 acre / 5.665 Ha | PA/WC-63.09/BR-3.27 | 63.09 | YES | | sand | Existing |
| D19 | Subarnarekha | Bilaspur Sand Source Mouza-Bilaspur, Khata No- 53 , Plot No- 120 | 80.20 acre/ 32.456 Ha | PA/WC-75.82/BR-11.27 | 75.82 | | | sand | Existing |
| D20 | SUBARNAREKHA | Malipal SAND BED, Mouza-Malipal, Khata-501, Plot- 2277, Area- 5Ha Out Of 38.82 Ha, LAT-21.854, LONG-87.220 | 12.355acre/ 5.0 Ha | PA/WC-30.61/BR-1.6 | 30.61 | | | sand | PROPOSED |
| D21 | SUBARNAREKHA | EKTALI SAND BED, Mouza-Ektali, Khata- 463, Plot- 1922, Area- 5Ha Out Of 41.67 Ha, LAT-21.752648, LONG-84.197339 | 12.355acre/ 5.0 Ha | PA/WC-30.98/BR-3.64 | 30.98 | | | sand | PROPOSED |
| E1 | Subarnarekha | Palbegunia Sand Source, MOUZA: PALABEGUNIA KHATA NO 470, PLOT: 270,377,378,786,793,799 (AREA 8.88 AC), KISSAM: NADI, Longitude 87°14'22.62"E, TO 87°14'.33.34"E, Latitude 21°41'13.87"N TO 21°41'41.91"N | 8.88 acre/ 3.59 Ha | PA/WC-58.49/BR-4 | 58.49 | | | sand | Existing |
| E2 | Subarnarekha | Badhupal Sand Source, MOUZA: BEDHAPAL KHATA NO 717,718, PLOT: 973,973/2548,989,955,956,969,990,1193,1194,1198,1199,1200,1201,1205,1498 (AREA 8.36 | 8.36acre/ 3.38Ha | PA/WC-63.06/BR-1 | 63.06 | | | sand | Existing |

| | | | | | | | | | |
|----|------------------|--|--------------------------|------------------------|-------|--|--|------|----------|
| | | AC), KISSAM: NADI, Longitude 87°17'50.5"E, TO 87°18'.02.2"E, Latitude 21°41'13.7"N TO 21°41'25.5"N | | | | | | | |
| F1 | Budhabalan
ga | Kasaba Dahapada Sand Source, MOUZA: KASABA-DAHAPADA KHATA NO 653,143, PLOT: 209,210,1429,1483,124,837 (AREA 101.35 AC), KISSAM: NADI, Longitude 86°55'23.1"E, TO 86°56'26.2"E, Latitude 21°31'55.9"N TO 21°32'48.2"N | 101.35 acre/
41.015Ha | PA/WC-
22.37/BR-1.1 | 22.37 | | | sand | Existing |

Patta Lands/Khatedari Land: (existing & proposed)

| Owner | Sy. No | Area | District | Tehsil | Village | Total Reserve (MT) | Total Mineral to be mined (MT) | Existing /Proposed |
|-------|--------|------|----------|--------|---------|--------------------|--------------------------------|--------------------|
| NA | NA | NA | NA | NA | NA | NA | NA | NA |

De-Siltation Location: (Lakes/Ponds/Dams etc.) (Existing & proposed)

| Name of Reservoir/Dams | Maintain /Controlled by State Govt./PSU etc. | Location | District | Tehsil | Village | Size (Ha) | Quantity MT/Year | Existing /Proposed |
|------------------------|--|----------|----------|--------|---------|------------|------------------|--------------------|
| NA | NA | NA | NA | NA | NA | NA | NA | NA |

M-Sand Plants:(existing & proposed)

| Plant Name | Owner | District | Tehsil | Village | Geo- location | Quantity Tonnes/Annum | Existing/Proposed |
|------------|-------|----------|--------|---------|---------------|-----------------------|-------------------|
| NA | NA | NA | NA | NA | NA | NA | NA |

Cluster & Contiguous Cluster details

Clusters:

| River Name | Cluster No. | Lease No | Location (Riverbed / Patta Land) | Village | Area (in Ha) | Total Excavation (Cum) | Total Mineral Excavation (Cum) |
|--------------|-------------|----------|---|-------------------------|--------------|------------------------|--------------------------------|
| Subarnarekha | 1 | A1 | Ambakuruchi Sand Source, MOUZA AMBAKURUCHI KHATA NO :304, PLOT: 1450, (AREA 7.400 AC),KISSAM :NADI, Longitude 87°12'05.4" TO 87°12'16.5",Latitude 21°43'54.7" TO 21°43'46.6" | MOUZA- AMBAKURUCHI | 2.69Ha | 18499 | 14029 |
| | | A2 | Devog Sand Source, MOUZA DEVOG KHATA NO :392, PLOT: 1178, (AREA 12.350 AC),KISSAM :NADI,Longitude 87°12'30.00" TO 87°12'42.8",Latitude 21°44'05.1" TO 21°44'16.3" | MOUZA-DEVOG | 4.5 Ha | 124188 | 99657 |
| Subarnarekha | 2 | A6 | Benapura-II Sand Quarry, MOUZA BENAPUR, KHATA NO:152, PLOT: 285, (AREA 14.52 AC), KISSAM: NADI, | MOUZA -BENAPUR | 5.876Ha | 58760 | 35256 |
| | | D5 | Chalanti Sand Source Mouza-Chalanti, Latitute 21°46' 53" N to 21° 47' 2.8"N, Longitude 87° 09' 58"E to 87° 10' 10.2"E° Khata No-384 Plot No-738 kissam Nadi | MOUZA-CHALANTI | 5.66Ha | 18130 | 15000 |
| Budhabalanga | 3 | B2 | SAHUPADA & DUMUDA SAND SOURCE , MOUZA SAHUPADA & DUMUDA, KHATA NO:223,281, PLOT: 237,238,239,240,15, (AREA 12.35 acers KISSAM:NADI, Longitude-86°54'51.6" TO 86°55'13.2", Latitute -21°33'51.6" TO 21°33'56.2" | MOUZA SAHUPADA & DUMUDA | 5.00Ha | 51821 | 44177 |
| | | B10 | Kathasangada-I Sand Quarry, Mouza- Kathasangada, Khata No. 286, Plot No. 123 Area Ac 0.30 dec, Plot No. 145, Area Ac. 1.52 dec & Mz. Haladia, Khata No. 458, Plot No. 1456 area Ac 6.00 dec, Plot No. 1952 area Ac 7.93 Latitute 21°33' 18.4" N to 21° 33' 34.3"N, Longitude 86°54' 42.4"E to 86° 54' 49.7"E° | MOUZA-. KATHASANGADA | 5.26 Ha | 27875 | 24074 |

| | | | | | | | |
|--------------|---|-----|--|-------------------|----------|--------|-------|
| Subarnarekha | 4 | D1 | Sikharpur Sand Source Mouza-
Sikharpur, Khata No- 496
Plot No- 1910, 1900 Kissam- Nadi, Latitute
21°47' 44.4" N to 21° 47' 58.2"N, Longitude
87° 12' 20"E to 87° 12' 38.9"E | MOUZA-SIKHARPUR | 4.856 Ha | 46040 | 35666 |
| | | D2 | Rajnagar Sand Bed, Mouza-Rajnagar,
Khata No- 377 Plot No- 1295/1300
Latitude- 21°48' 20.9" N to 21°48' 30.9"N
Longitude-87°12' 43.2" E to 87°12' 52.2"E | MOUZA-RAJNAGAR | 5.48 Ha | 27122 | 19353 |
| Subarnarekha | 5 | D4 | Sekhsarai Ka Sand Source Mouza-
Sekhsarai, Khata No-142
Plot No-02 Kissam Nadi, Latitute 21°45'
26.1" N to 21° 45' 29.5"N, Longitude 87° 10'
17.8"E to 87° 10' 20.9"E | MOUZA-SEKHSARAI | 5.66Ha | 42487 | 37874 |
| | | D8 | Sekhsarai Kha Sand Source
Mouza-Sekhsarai, Khata No- 142
Plot No- 2 Kissam Nadi, Latitute 21°46'
38.9" N to 21° 46' 56.3"N, Longitude 87° 09'
45"E to 87° 09' 58.3"E | MOUZA-SEKHSARAI | 6.07 Ha | 60703 | 36422 |
| Subarnarekha | 6 | D9 | River Block Kha Sand Source Mouza-
River Block, Khata No- 175
Plot No- 1 Kissam -Nadi, Latitute 21°48'
51.5" N to 21° 49' 1.9"N, Longitude 87° 12'
56.5"E to 87° 13' 6.1"E | MOUZA-RIVER BLOCK | 5.26 Ha | 23763 | 20000 |
| | | D18 | River Block Ka sand source Mouza-
River Block, Khata No- 175
Plot No- 01, Kissam Nadi, Latitute
21°48'32.9" N to 21° 48' 41.8"N, Longitude
87° 13' 3.8"E to 87° 13' 14.8"E | MOUZA-RIVER BLOCK | 5.665 Ha | 23525 | 20000 |
| Subarnarekha | 7 | D10 | Praharajpur Ka Sand Source, Latitute
21°52' 17.5" N to 21° 52' 33.2"N, Longitude
87° 15' 9.7"E to 87° 15' 15.2"E Mouza-
Praharajpur, Khata No- 466
Plot No- 1923 Kissam Nadi | MOUZA-PRAHARAJPUR | 5.26 Ha | 55440 | 48740 |
| | | D16 | Praharajpur Kha Sand Source, Mouza-
Praharajpur, Khata No- 466,
Plot No- 1923 | MOUZA-PRAHARAJPUR | 6.07Ha | 60703 | 36422 |
| Subarnarekha | 8 | D11 | Mankidia Sand Source "Ga" Mouza-
Mankidia, Khata No- 618
Plot No- 1677 | MOUZA-MANKIDIA | 14.16Ha | 141640 | 84984 |

| | | | | | | |
|--|-----|---|----------------|----------|----------|----------|
| | D13 | Mankidia Sand Source "Kha" Mouza-Mankidia, Khata No- 618
Plot No- 1677 | MOUZA-MANKIDIA | 16.187Ha | 161874 | 97124 |
| | D17 | Mankidia Sand Source "Ka", Mouza-Mankidia, Khata No-818 Plot No-01, Longitude 87° 14' 13.8"E to 87° 14' 28.4"E 21° 56' 21" N to 21° 56' 32.2"N, | MOUZA-MANKIDIA | 8.09 Ha | 2,02,325 | 1,78,528 |

Contiguous Clusters:

| River Name | Contiguous Cluster No. | Cluster No | Number of leases in the cluster | Location (Riverbed/ Patta Land) | Distance between clusters | Village | Area of Cluster (Ha) | Total Mineral Excavation. (Ton) |
|------------|------------------------|------------|---------------------------------|---------------------------------|---------------------------|---------|----------------------|---------------------------------|
| NA | NA | NA | NA | NA | NA | NA | NA | NA |

Transportation Routes for individual leases and leases in Cluster

| Lease No. | Transportation Route No. | Number of tippers/day of lease | Number of tippers/day of all the lease on route | Length of route in KM | Type of road(Black Topped/unpaved) | Recommendation for road (Black Topped/unpaved) | The road will be Constructed by Govt/Lease Owner | Route Map & Location | |
|-----------|---|--------------------------------|---|-----------------------|------------------------------------|--|--|----------------------|--------------------------------|
| A1 | Ambakuruchi Sand Source, MOUZA AMBAKURUCHI KHATA NO :304, PLOT: 1450, (AREA 7.400 AC),KISSAM :NADI, Longitude 87°12'05.4" TO 87°12'16.5",Latitude 21°43'54.7" TO 21°43'46.6" | NH-16 | 1 | 4 | 10.2 | Black Topped | Black Topped | Govt | MOUZA AMBAKURUCHI, NH-16 |
| A2 | Devog Sand Source, MOUZA DEVOG KHATA NO :392, PLOT: 1178, (AREA 12.350 AC),KISSAM :NADI,Longitude 87°12'30.00" TO 87°12'42.8",Latitude 21°44'05.1" TO 21°44'16.3" | NH-16 | 2 | | 8.9 | Black Topped | Black Topped | Govt | MOUZA DEVOG, NH-16 |
| A3 | Dhitpura Sand Source, MOUZA DHITPURA, KHATA NO :97, PLOT: 214, (AREA 12.350 AC),KISSAM :NADI, Longitude 87°11'01.5" TO 87°11'14.3",Latitude 21°45'05.1" TO 21°45'9.7" | NH-16 | 1 | | 0.71 | Black Topped | Black Topped | Govt | MOUZA DHITPURA, NH-16 |
| A4 | Kadarayan Sand Source, MOUZA KADRAYAN, KHATA NO :257, PLOT: 1, (AREA 12.350 AC),KISSAM :NADI,Longitude87°12'29.76" TO87°12'43.22",Latitude 21°44'52.57" TO 21°45'02.43" | NH-16 | | | 7.3 | Black Topped | Black Topped | Govt | MOUZA KADRAYAN, NH-16 |
| A5 | Mathani Punsita Sand Source, MOUZA MATHANI & PUNSITA, KHATA NO :143,227, PLOT: 37,25, (AREA 3.08 AC),KISSAM :NADI,Longitude87°03'53.2" TO 87°04'01.9",Latitude 21°40'08.2" TO 21°40'25.8" | NH-16 | | | | Black Topped | Black Topped | Govt | MOUZA MATHANI & PUNSITA, NH-16 |
| A6 | Benapura-II Sand Quarry, MOUZA BENAPUR, KHATA NO:152, PLOT: 285, (AREA 14.52 AC), KISSAM: NADI, | NH-16 | | | 2.8 | Black Topped | Black Topped | Govt | MOUZA BENAPUR, NH-16 |
| A7 | Benapura-I Sand Source,MOUZA-BENAPUR, KHATA-150, PLOT-142, KISSAM-NAYANJARI, LAT-21.772, LONG- 87.163 | NH-16 | | | 3.2 | Black Topped | Black Topped | Govt | MOUZA BENAPUR, NH-16 |
| A8 | GOPINATHPUR SAND SOURCE, Mouza-Gopinathpur, Khata- 153, Plot- 340, Area- 5Ha Out Of 22.743Ha | NH- 16 | | | | Black Topped | Black Topped | Govt | Mouza-Gopinathpur |
| B1 | Purukhi Sand Quarry, Mouza. Purukhi, Khata No. 420, Plot No. 1340 Area Ac 12.30 dec | SH-NH16 | 1 | 1 | 15.15 | Black Topped | Black Topped | Govt | Mouza. Purukhi,NH-16 |

| | | | | | | | | | |
|----|--|----------|---|---|------|--------------|--------------|------|-----------------------------|
| | Latitude 21°34' 15.1" N to 21° 34' 20.5"N, Longitude 86° 47' 37.9"E to 86° 48' 2.0"E | | | | | | | | |
| B2 | Sahupada & Dumuda Sand Quarry, MOUZA SAHUPADA & DUMUDA, KHATA NO:223,281, PLOT: 237,238,239,240,15, (AREA 12.35 acers KISSAM:NADI, Longitude-86°54'51.6" TO 86°55'13.2", Latitude - 21°33'51.6" TO 21°33'56.2" | NH-18 | | | 3.2 | Black Topped | Black Topped | Govt | Mouza-Sahupada, NH-18 |
| B3 | Ambulakuda Sand Source, Mouza- Ambulakuda Khata No. 133, Plot No. 531 Area Ac 12.30 dec Latitude 21°35' 4.1" N to 21° 35' 18.5"N, Longitude 86° 54' 11.2"E to 86° 54' 16.8"E | NH-18 | 1 | 1 | 5.2 | Black Topped | Black Topped | Govt | Mouza- Ambulakuda, NH-18 |
| B4 | Hatigand Sand Quarry, Mouza-Hatiaganda Khata No-313 Plot No 223, 1121 Kisam Nadi, Mukundapur Khata No-197 PlotNo-3 Kisam Nadi,Patripal Khata No-69 Plot No-1 Kisam Nadi Latitude 21°32' 57.4" N to 21° 33' 2.7"N, Longitude 86° 51' 38.9"E to 86° 51' 58.8"E | NH-16 | | | 10.2 | Black Topped | Black Topped | Govt | Mouza- Hatiaganda, NH-16 |
| B5 | Udambar Sand Quarry, Mouza. Udambar Khata No. 211, Plot No. 1 Area Ac 8.20 dec Latitude 21°33' 17.1" N to 21° 33' 22.6"N, Longitude 86° 53' 35.5"E to 86° 53' 57.1"E | NH-16 | | | 3.68 | Black Topped | Black Topped | Govt | Mouza. Udambar, NH-16 |
| B6 | Makanda Sand Quarry, Mouza- Makanda Khata No. 337, Plot No. 691 Area Ac 8.40 dec & Plot No. 692 Area Latitude 21°34' 47.5" N to 21° 34'54.9"N, Longitude 86°54' 32.8"E to 86° 54' 57.9"E | NH-18 | | | 4.1 | Black Topped | Black Topped | Govt | Mouza- Makanda, NH-18 |
| B7 | Gambharia Sand Quarry, Mouza-Gambharia Khata No-430 Plot No-574, 722 Kisam Nadi, Rudragopalpur Samil Naharpatna Khata No 236 Plot No-1 &510 Kisam Nadi Latitude 21°32' 14.0" N to 21° 33' 01"N, Longitude 86° 54' 55"E to 86° 55' 16"E | NH-16 | | | 1.2 | Black Topped | Black Topped | Govt | Mouza- Gambharia, NH-16 |
| B8 | Boitabanka Sand Quarry, Mouza-. Ghungi Khata No. 261, Plot No. 338 Area Ac 5.00 dec , Plot No. 440 Area Latitude 21°33' 31.9" N to 21° 33' 48.8"N, Longitude 86°49' 21.0"E to 86° 49' 43.7"E | SN-NH 16 | | | 12.5 | Black Topped | Black Topped | Govt | Mouza-. Ghungi , NH-16 |
| B9 | Kathasangada-II Sand Quarry , Mouza-. Kathasangada, Khata No. 286, Plot No. 106 Area Ac 2.60 dec Latitude 21°33' 29" N to 21° 33' 43.8"N, Longitude 86° 54' 35.8"E to 86°54' 42.3"E | NH-16 | | | 1.97 | Black Topped | Black Topped | Govt | Mouza-. Kathasangada, NH-16 |

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|-----|--|----------|---|---|-------|--------------|--------------|------|----------------------------------|
| B10 | Kathasangada-I Sand Quarry, Mouza-Kathasangada, Khata No. 286, Plot No. 123 Area Ac 0.30 dec, Plot No. 145, Area Ac. 1.52 dec & Mz. Haladia, Khata No. 458, Plot No. 1456 area Ac 6.00 dec, Plot No. 1952 Latitude 21°33' 18.4" N to 21° 33' 34.3"N, Longitude 86°54' 42.4"E to 86° 54' 49.7"E | NH-16 | | | 1.53 | Black Topped | Black Topped | Govt | Mouza-Kathasangada, NH-16 |
| C1 | Pundal-1 Sand bed , MOUZA: PUNDAL, KHATA NO 556, PLOT:1347/1 (AREA 12.350 acre), KISSAM: NADI, Longitude-86°46'24.40" TO 86°46'35.00", Latitude - 21°34'40.70"TO21°34'48.70" | SH-NH 16 | 1 | 4 | 19.7 | Black Topped | Black Topped | Govt | MOUZA: PUNDAL, NH-16 |
| C2 | Pundal-2 Sand bed, MOUZA: PUNDAL, KHATA NO 556, PLOT:1347(AREA 3.40 acre), KISSAM: NADI, Longitude - 86°46'47.5" TO 86°46'52.3", Latitude 21°34'35.6" TO 21°34'41.6" | SH-NH16 | 1 | | 18.38 | Black Topped | Black Topped | Govt | MOUZA: PUNDAL,NH-16 |
| C3 | Dumagandira Sand bed, MOUZA: DUMAGANDIRA,LAICHHANPUR KHATA NO 157,155 PLOT:385,36 (AREA 12.350 acre), KISSAM: NADI, Longitude -86°48'50.80" TO 86°49'04.50", Latitude 21°34'21.40" TO 21°34'27.50" | SH-NH16 | 1 | | 19.8 | Black Topped | Black Topped | Govt | MOUZA: DUMAGANDIRA,NH-16 |
| C4 | Bainchanaranpur-1 Sand bed, MOUZA: BAINCHANARANPUR KHATA NO 266 PLOT:383 ,384(AREA12.35acre), KISSAM: NADI, Longitude 86°42'51.90" TO 86°43'01.50", Latitude 21°34'57.10" TO 21°35'11.50" | SH-NH16 | 1 | | 22.87 | Black Topped | Black Topped | Govt | MOUZA: BAINCHANARANPUR, NH-16 |
| C5 | Balipal Sand bed, MOUZA: BALIPAL KHATA NO 156,156 PLOT:7,495(AREA 12.350 acre AC), KISSAM: NADI, Longitude 86°44'34.00" TO 86°44'34.20", Latitude 21°34'30.60"TO 21°34'32.00" | SH-NH16 | | | 21.68 | Black Topped | Black Topped | Govt | MOUZA: BALIPAL, NH-16 |
| C6 | Pratappur Sand bed, MOUZA: AJODHYA(PRATAPPUR) KHATA NO 814, PLOT:388(AREA 12.25 AC), KISSAM: NADI, Longitude -86°44'53.4" TO 86°45'12.9", Latitude 21°34'19.9" TO 21°35'27.8" | SH-NH16 | 1 | 1 | 18.81 | Black Topped | Black Topped | Govt | MOUZA: AJODHYA(PRATAPPUR), NH-16 |
| C7 | Bainchanaranpur-3 Sand bed, MOUZA: BAINCHANARANPUR KHATA NO 266 PLOT: 516 (AREA 8.700 AC), KISSAM: NADI, Longitude 86°42'20.2" TO 86°42'35.5", Latitude 21°34'10.5" TO 21°35'14.1" | SH-NH16 | | | 22.94 | Black Topped | Black Topped | Govt | MOUZA: BAINCHANARANPUR,NH-16 |
| C8 | Ajodhya Sand bed, MOUZA: AJODHYA KHATA NO 814 PLOT:1412 (AREA 12.35 AC), KISSAM: NADI, Longitude 86°45'32.36" TO 86°45'39.90", Latitude 21°34'05.20" TO 21°34'20.22" | SH-NH-16 | | | 19.26 | Black Topped | Black Topped | Govt | MOUZA: AJODHYA,NH-16 |

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| D1 | Sikharpur Sand Source Mouza-Sikharpur, Khata No-496 Plot No- 1910, 1900 Kissam- Nadi, Latitute 21°47' 44.4" N to 21° 47' 58.2"N, Longitude 87° 12' 20"E to 87° 12' 38.9"E | NH-16 | | | 3.2 | Black Topped | Black Topped | Govt | Mouza-Sikharpur,NH-16 |
| D2 | Rajnagar Sand Bed, Mouza-Rajnagar, Khata No- 377 Plot No- 1295/1300 Latitude- 21°48' 20.9" N to 21°48' 30.9"N Longotude-87°12' 43.2" E to 87°12' 52.2"E | NH-16 | 1 | 1 | 3.9 | Black Topped | Black Topped | Govt | Mouza-Rajnagar,NH-16 |
| D3 | Gobardhanpur Sand Sairat Source Mouza-Gobardhanpur, Khata No- 358 Plot No- 1094, Area Ac. 12.00 dec out of Ac. 88.25 dec, Latitude- 21°43'2.2" N to 21° 43'14.6" N, Longitude- 87°12'6.5" E to 87°12'17.5"E | NH-16 | | | 8.8 | Black Topped | Black Topped | Govt | Mouza-Gobardhanpur, NH-16 |
| D4 | Sekhsarai Ka Sand Source Mouza-Sekhsarai, Khata No-142 Plot No-02 Kissam Nadi, Latitute 21°45' 26.1" N to 21° 45' 29.5"N, Longitude 87° 10' 17.8"E to 87° 10' 20.9"E | NH-16 | | | 4.9 | Black Topped | Black Topped | Govt | Mouza-Sekhsarai, NH-16 |
| D5 | Chalanti Sand Source Mouza-Chalanti, Latitute 21°46' 53" N to 21° 47' 2.8"N, Longitude 87° 09' 58"E to 87° 10' 10.2"E Khata No-384 Plot No-738 kissam Nadi | NH-16 | | | 1.3 | Black Topped | Black Topped | Govt | Mouza-Chalanti, NH-16 |
| D6 | Balikbad Sand Source , Mouza-Balikbadk, Khata No- 399 Plot No- 49 Kissam Nadi, Latitute 21°42' 39" N to 21° 42' 49"N, Longitude 87° 13' 26.2"E to 87° 13' 40"E | NH-16 | | | 9.9 | Black Topped | Black Topped | Govt | Mouza-Balikbadk, NH-16 |
| D7 | BALIAPAL SAND SOURCE , Mouza-Baliapal, Khata No-578 Plot No- 2949, Area Ac. 03.00 dec out of Ac. 33.28 dec , | NH-16 | | | 15.3 | Black Topped | Black Topped | Govt | Mouza-Baliapal, NH-16 |
| D8 | Sekhsarai Kha Sand Source ,Mouza-Sekhsarai, Khata No- 142 , Plot No- 2 Kissam Nadi, Latitute 21°46' 38.9" N to 21° 46' 56.3"N, Longitude 87° 09' 45"E to 87° 09' 58.3"E | NH-16 | | | 5.2 | Black Topped | Black Topped | Govt | Mouza-Sekhsarai, NH-16 |
| D9 | River Block Kha Sand Source Mouza-River Block, Khata No- 175 Plot No- 1 Kissam -Nadi, Latitute 21°48' 51.5" N to 21° 49' 1.9"N, Longitude 87° 12' 56.5"E to 87° 13' 6.1"E | NH-16 | | | 5.7 | Black Topped | Black Topped | Govt | Mouza-River Block, NH-16 |
| D10 | Praharajpur Ka Sand Source, Latitute 21°52' 17.5" N to 21° 52' 33.2"N, Longitude 87° 15' 9.7"E to 87° 15' 15.2"E Mouza-Praharajpur, Khata No- 466 Plot No-1923 Kissam Nadi | NH-16 | | | 1.5 | Black Topped | Black Topped | Govt | Mouza-Praharajpur, NH-16 |

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| D1
1 | Mankidia Sand Source "Ga" Mouza-Mankidia, Khata No- 618 Plot No- 1677 | NH-16 | | | 8.7 | Black Topped | Black Topped | Govt | Mouza-Mankidia, NH-16 |
| D1
2 | Chandibasti Sand Source, Mouza-Chormara, Khata No- 692 ,Plot No- 182, Area Ac. 10.00 dec out of Ac. 47.50 dec Latitude- 21°42'53.5"N to 21°42'59.9"N, Longitude 87°12'25.8"E to 87°12'40.4"E | NH-16 | | | 11.2 | Black Topped | Black Topped | Govt | Mouza-Chormara, NH-16 |
| D1
3 | Mankidia Sand Source "Kha" Mouza-Mankidia, Khata No- 618 Plot No- 1677 | NH-16 | | | 9.1 | Black Topped | Black Topped | Govt | Mouza-Mankidia, NH-16 |
| D1
4 | Makrampur Sand Source , Mouza-Makrampur, Khata No- 01 Plot No- 06 Kissam Nadi, Latitute 21°51' 22.21" N to 21° 51' 32.12"N, Longitude 87° 14' 31.16"E to 87° 14' 43.90"E | NH-16 | | | 2.9 | Black Topped | Black Topped | Govt | Mouza-Makrampur, NH-16 |
| D1
5 | Gobarghata Sand Source Mouza-Gobarghata, Khata No- 1414 Plot No- 3236 Kissam Nadi, Latitute 21°51' 10.5" N to 21° 51' 23.8"N, Longitude 87° 14' 17.7"E to 87° 14' 29.5"E | NH-16 | | | 4.5 | Black Topped | Black Topped | Govt | Mouza-Gobarghata, NH-16 |
| D1
6 | Praharajpur Kha Sand Source, Mouza-Praharajpur, Khata No- 466, Plot No- 1923 | NH-16 | | | 1.5 | Black Topped | Black Topped | Govt | Mouza-Praharajpur, NH-16 |
| D1
7 | Mankidia Sand Source "Ka", Mouza-Mankidia, Khata No-818 Plot No-01, Longitude 87° 14' 13.8"E to 87° 14' 28.4"E 21°56' 21" N to 21° 56' 32.2"N, | NH-16 | | | 8.1 | Black Topped | Black Topped | Govt | Mouza-Mankidia, NH-16 |
| D1
8 | River Block Ka sand source Mouza-River Block, Khata No- 175 Plot No- 01, Kissam Nadi, Latitute 21°48'32.9" N to 21° 48' 41.8"N, Longitude 87° 13' 3.8"E to 87° 13' 14.8"E | NH-16 | | | 5.1 | Black Topped | Black Topped | Govt | Mouza-River Block, NH-16 |
| D1
9 | Bilaspur Sand Source Mouza-Bilaspur, Khata No- 53 , Plot No- 120 | NH-16 | | | 4.2 | Black Topped | Black Topped | Govt | Mouza-Bilaspur |
| D2
0 | MALIPAL SAND BED, Mouza-Malipal, Khata- 501, Plot- 2277, Area- 5Ha Out Of 38.82 Ha | NH-16 | | | 3.69 | Black Topped | Black Topped | Govt | Mouza-Malipal |
| D2
1 | EKTALI SAND BED, GP- Raymchandrapur, Mouza-Ektali, Khata- 463, Plot- 1922, Area- 5Ha Out Of 41.67 Ha | NH-16 | | | 2.56 | Black Topped | Black Topped | Govt | Mouza-Ektali |
| E1 | Palbegunia Sand Source, MOUZA:PALABEGUNIA KHATA NO 470, PLOT: 270,377,378,786,793,799 (AREA 8.88 AC), | NH-16 | | | 16.1 | Black Topped | Black Topped | Govt | MOUZA:PALABEGUNIA, NH-16 |

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| | KISSAM: NADI, Longitude 87°14'22.62"E, TO 87°14'.33.34"E, Latitude 21°41'13.87"N TO 21°41'41.91"N | | | | | | | | |
| E2 | Badhapal Sand Source, MOUZA:BEDHAPAL KHATA NO 717,718, PLOT: 973,973/2548,989,955,956,969,990,1193,1194,1198,1199,1200,1201,1205,1498 (AREA 8.36 AC), KISSAM: NADI, Longitude 87°17'50.5"E, TO 87°18'.02.2"E, Latitude 21°41'13.7"N TO 21°41'25.5"N | NH-16 | | | 10.3 | Black Topped | Black Topped | Govt | MOUZA:BEDHAPAL , NH-16 |
| F1 | Kasaba Dahapada Sand Source, MOUZA: KASABA-DAHAPADA KHATA NO 653,143, PLOT: 209,210,1429,1483,124,837 (AREA 101.35 AC), KISSAM: NADI, Longitude 86°55'23.1"E, TO 86°56'26.2"E, Latitude 21°31'55.9"N TO 21°32'48.2"N | NH-16 | | | 1.6 | Black Topped | Black Topped | Govt | MOUZA: KASABA-DAHAPADA, NH-16 |

| Cluster No. | Transportation Route No. | Number of tippers/day of cluster | Number of tippers/ day of all the cluster on route | Length of route in KM | Type of road (Black Topped/unpaved) | Recommendation for road (Black Topped/unpaved) | The road will be Constructed by Govt/Lease Owner | Route Map & Location |
|-------------|--------------------------|----------------------------------|--|-----------------------|-------------------------------------|--|--|-----------------------------|
| 1 | NH-16 | 1 | 2 | 10.2 | Black Topped | Black Topped | Govt | MOUZA AMBAKURUCHI, NH-16 |
| | NH-16 | 2 | | 8.9 | Black Topped | Black Topped | Govt | MOUZA DEVOG, NH-16 |
| 2 | NH-16 | | | 2.8 | Black Topped | Black Topped | Govt | MOUZA BENAPUR, NH-16 |
| | NH-16 | | | 9.9 | Black Topped | Black Topped | Govt | Mouza-Chalanti, NH-16 |
| 3 | NH-16 | | | 3.2 | Black Topped | Black Topped | Govt | Mouza-Sahupada, NH-18 |
| | NH-16 | | | 1.53 | Black Topped | Black Topped | Govt | Mouza-. Kathasangada, NH-16 |
| 4 | NH-16 | | | 3.2 | Black Topped | Black Topped | Govt | Mouza-Sikharpur, NH-16 |

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| | NH-16 | 1 | 1 | 3.9 | Black Topped | Black Topped | Govt | Mouza-Rajnagar,NH-16 |
| 5 | NH-16 | | | 4.9 | Black Topped | Black Topped | Govt | Mouza-Sekh sarai, NH-16 |
| | NH-16 | | | 5.2 | Black Topped | Black Topped | Govt | Mouza-Sekh sarai, NH-16 |
| 6 | NH-16 | | | 5.7 | Black Topped | Black Topped | Govt | Mouza-River Block, NH-16 |
| | NH-16 | | | 5.1 | Black Topped | Black Topped | Govt | Mouza-River Block, NH-16 |
| 7 | NH-16 | | | 1.5 | Black Topped | Black Topped | Govt | Mouza-Praharajpur, NH-16 |
| | NH-16 | | | 1.5 | Black Topped | Black Topped | Govt | Mouza-Praharajpur, NH-16 |
| 8 | NH-16 | | | 8.7 | Black Topped | Black Topped | Govt | Mouza-Mankidia,NH-16 |
| | NH-16 | | | 9.1 | Black Topped | Black Topped | Govt | Mouza-Mankidia, NH-16 |
| | NH-16 | | | 8.1 | Black Topped | Black Topped | Govt | Mouza-Mankidia, NH-16 |

Final List of Potential Mining Leases (existing & proposed)

Rivers:

| Lease No. | River Details | Lease Details | Area (in Ac/Ha) | Distance (in KM) from PA/BR/WC/ | Distance from Forest Area (in KM) | Mining leases within 500 meters (if yes cluster area) | Total excavation in cum /Annum considering digging depth max as 3 meters | Mineral to be mined (Sand/Bajri/RBM etc.) | Existing/ Proposed |
|-----------|---------------|---|--------------------|---------------------------------|-----------------------------------|---|--|---|--------------------|
| A1 | Subarnarekha | Ambakuruchi Sand Source, MOUZA AMBAKURUCHI KHATA NO :304, PLOT: 1450, (AREA 7.400 AC),KISSAM :NADI, Longitude 87°12'05.4" TO 87°12'16.5",Latitude 21°43'54.7" TO 21°43'46.6" | 7.40 acre/2.69Ha | PA/WC-56.65/BR-7.61 | 56.65 | YES | 784 | sand | Existing |
| A2 | Subarnarekha | Devog Sand Source, MOUZA DEVOG KHATA NO :392, PLOT: 1178, (AREA 12.350 AC),KISSAM :NADI,Longitude 87°12'30.00" TO 87°12'42.8",Latitude 21°44'05.1" TO 21°44'16.3" | 12.35 acre/4.5 Ha | PA/WC-57.38/BR-6.6 | 57.38 | YES | 5160 | sand | Existing |
| A3 | Subarnarekha | Dhitpura Sand Source, MOUZA DHITPURA, KHATA NO :97, PLOT: 214, (AREA 12.350 AC),KISSAM :NADI, Longitude 87°11'01.5" TO 87°11'14.3",Latitude 21°45'05.1" TO 21°45'9.7" | 12.35 acre./4.5Ha | PA/WC-55.62/BR-0.56 | 55.62 | | 500 | sand | Existing |
| A4 | Subarnarekha | Kadarayan Sand Source, MOUZA KADRAYAN, KHATA NO :257, PLOT: 1, (AREA 12.350 AC),KISSAM :NADI,Longitude87°12'29.76" TO87°12'43.22",Latitude 21°44'52.57" TO 21°45'02.43" | 12.350 acre./4.5Ha | PA/WC-58.28/BR-5.09 | 58.28 | | | sand | Existing |
| A5 | Subarnarekha | Mathani Punsita Sand Source, MOUZA MATHANI & PUNSITA, KHATA NO :143,227, PLOT: 37,25, (AREA 3.08 AC),KISSAM :NADI,Longitude87°03'53.2" TO 87°04'01.9",Latitude 21°40'08.2" TO 21°40'25.8" | 3.08 acre./1.246Ha | PA/WC-22.21/BR-0.19 | 22.21 | | | sand | Existing |
| A6 | Subarnarekha | Benapura-II Sand Quarry, MOUZA BENAPUR, KHATA NO:152, PLOT: 285, (AREA 14.52 AC), KISSAM: NADI, lat- 21° 45' 26.53910" to 21° 45' | 14.52 acre/5.876Ha | PA/WC-56.02/BR-0.15 | 56.02 | YES | | sand | Existing |

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| | | 39.04554", long- 87° 10' 03.41272" to 87° 10' 16.94709" | | | | | | | |
| A7 | Subarnarekha | Benapura-I Sand Source, MOUZA-BENAPUR, KHATA-150, PLOT-142, KISSAM-NAYANJARI, LAT-21.772, LONG- 87.163 | 5.00 Ha | PA/WC-56.25/BR-2.56 | 56.25 | | | sand | Existing |
| A8 | SUBARNAREKHA | GOPINATHPUR SAND SOURCE, Mouza-Gopinathpur, Khata- 153, Plot- 340, Area-5Ha Out Of 22.743Ha | 12.355acre/ 5.0 Ha | PA/WC-32.57/BR-6.1 | 32.57 | | | sand | PROPOSED |
| B1 | SUNAI | Purukhi Sand Quarry, Mouza. Purukhi, Khata No. 420, Plot No. 1340 Area Ac 12.30 dec
Latitude 21°34' 15.1" N to 21° 34' 20.5"N,
Longitude 86° 47' 37.9"E to 86° 48' 2.0"E | 12.300 acre/4.997Ha | PA/WC- 13.4/BR-2.11 | 13.4 | | 1875 | sand | Existing |
| B2 | Budhabalanga | Sahupada & Dumuda Sand Quarry, MOUZA SAHUPADA & DUMUDA, KHATA NO:223,281, PLOT: 237,238,239,240,15, (AREA 12.35 acers KISSAM:NADI, Longitude-86°54'51.6" TO 86°55'13.2", Latitude -21°33'51.6" TO 21°33'56.2" | 12.35 acre/5.00Ha | PA/WC-21.89/BR-1.5 | 21.89 | | | sand | Existing |
| B3 | Budhabalanga | Ambulakuda Sand Source, Mouza-Ambulakuda Khata No. 133, Plot No. 531 Area Ac 12.30 dec
Latitude 21°35' 4.1" N to 21° 35' 18.5"N,
Longitude 86° 54' 11.2"E to 86° 54' 16.8"E | 12.300 acre/4.997Ha | PA/WC-22.21/BR-3 | 22.27 | | 1500 | sand | Existing |
| B4 | SUNAI | Hatigand Sand Quarry, Mouza-Hatiaganda Khata No-313 Plot No 223, 1121 Kisam Nadi, Mukundapur Khata No-197 PlotNo-3 Kisam Nadi, Patripal Khata No-69 Plot No-1 Kisam Nadi
Latitude 21°32' 57.4" N to 21° 33' 2.7"N,
Longitude 86° 51' 38.9"E to 86° 51' 58.8"E | 12.35 acre/4.99Ha | PA/WC-16.03/BR-0.44 | 16.03 | | | sand | Existing |
| B5 | SUNAI | Udambar Sand Quarry, Mouza. Udambar Khata No. 211, Plot No. 1 Area Ac 8.20 dec
Latitude 21°33' 17.1" N to 21° 33' 22.6"N,
Longitude 86° 53' 35.5"E to 86° 53' 57.1"E | 8.20 acre/3.318Ha | PA/WC-19.68/BR-2.71 | 19.68 | | | sand | Existing |
| B6 | Budhabalanga | Makanda Sand Quarry, Mouza- Makanda Khata No. 337, Plot No. 691 Area Ac 8.40 dec & Plot No. 692 Latitude 21°34' 47.5" N to 21° 34'54.9"N, Longitude 86°54' 32.8"E to 86° 54' 57.9"E | 12.22 acre/4.945Ha | PA/WC-22.27/BR-2.4 | 22.27 | | | sand | Existing |

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| B7 | Budhabalanga | Gambharia Sand Quarry, Mouza-Gambharia Khata No-430 Plot No-574, 722 Kisam Nadi, Rudragopalpur Samil Naharpatna Khata No 236 Plot No-1 & 510 Kisam Nadi
Latitude 21°32' 14.0" N to 21° 33' 01"N,
Longitude 86° 54' 55"E to 86° 55' 16"E | 94.99 acre/38.44Ha | PA/WC- 20.7/BR-0.42 | 20.7 | | | sand | Existing |
| B8 | SUNAI | Boitabanka Sand Quarry, Mouza-. Ghungi Khata No. 261, Plot No. 338 Area Ac 5.00 dec , Plot No. 440 Area Latitude 21°33' 31.9" N to 21° 33' 48.8"N, Longitude 86°49' 21.0"E to 86° 49' 43.7"E | 12.20 acre/4.937Ha | PA/WC- 15.11/BR-0.19 | 15.11 | | | sand | Existing |
| B9 | Budhabalanga | Kathasangada-II Sand Quarry , Mouza-. Kathasangada, Khata No. 286, Plot No. 106 Area Ac 2.60 dec
Latitude 21°33' 29" N to 21° 33' 43.8"N,
Longitude 86° 54' 35.8"E to 86°54' 42.3"E | 2.60 acre/1.052Ha | PA/WC- 21.06/BR-1.29 | 21.06 | YES | | sand | Existing |
| B10 | Budhabalanga | Kathasangada-I Sand Quarry, Mouza-Kathasangada, Khata No. 286, Plot No. 123 Area Ac 0.30 dec, Plot No. 145, Area Ac. 1.52 dec & Mz. Haladia, Khata No. 458, Plot No. 1456 area Ac 6.00 dec, Plot No. 1952 area Ac 7.93
Latitude 21°33' 18.4" N to 21° 33' 34.3"N,
Longitude 86°54' 42.4"E to 86° 54' 49.7"E | 9.75 acre/3.945Ha | PA/WC- 21.02/BR-0.89 | 21.02 | YES | | sand | Existing |
| C1 | SUNAI | Pundal-1 Sand bed , MOUZA: PUNDAL, KHATA NO 556, PLOT:1347/1 (AREA 12.350 acre), KISSAM: NADI, Longitude-86°46'24.40" TO 86°46'35.00", Latitude - 21°34'40.70" TO 21°34'48.70" | 12.350 acre/5.00Ha | PA/WC- 12.94/BR-1.04 | 12.94 | | 2167 | sand | Existing |
| C2 | SUNAI | Pundal-2 Sand bed, MOUZA: PUNDAL, KHATA NO 556, PLOT:1347 (AREA 3.40 acre), KISSAM: NADI, Longitude -86°46'47.5" TO 86°46'52.3", Latitude 21°34'35.6" TO 21°34'41.6" | 3.40Ac/1.37Ha | PA/WC- 12.98/BR-1.63 | 12.98 | | 10000 | sand | Existing |
| C3 | SUNAI | Dumagandira Sand bed, MOUZA: DUMAGANDIRA, LAICHHANPUR KHATA NO 157, 155 PLOT:385,36 (AREA 12.350 acre), KISSAM: NADI, Longitude -86°48'50.80" TO 86°49'04.50", Latitude 21°34'21.40" TO 21°34'27.50" | 12.350 acre/5.00Ha | PA/WC- 15.4/BR-1.41 | 15.4 | | 1081 | sand | Existing |

| | | | | | | | | | |
|----|--------------|--|---------------------|---------------------|-------|-----|------|------|----------|
| C4 | SUNAI | Bainchanaranpur-1 Sand bed, MOUZA: BAINCHANARANPUR KHATA NO 266 PLOT:383 ,384(AREA12.35acre), KISSAM: NADI, Longitude 86°42'51.90" TO 86°43'01.50", Latitude 21°34'57.10" TO 21°35'11.50" | 12.35 acre/4.99Ha | PA/WC-12.71/BR-0.34 | 12.71 | | 2000 | sand | Existing |
| C5 | SUNAI | Balipal Sand bed, MOUZA: BALIPAL KHATA NO 156,156 PLOT:7,495(AREA 12.350 acre AC), KISSAM: NADI, Longitude 86°44'34.00" TO 86°44'34.20", Latitude 21°34'30.60" TO 21°34'32.00" | 12.300 acre./4.97Ha | PA/WC- 12.5/BR-0.22 | 12.5 | | | sand | Existing |
| C6 | SUNAI | Pratappur Sand bed, MOUZA: AJODHYA(PRATAPPUR) KHATA NO 814, PLOT:388(AREA 12.25 AC), KISSAM: NADI, Longitude -86°44'53.4" TO 86°45'12.9", Latitude 21°34'19.9" TO 21°35'27.8" | 12.250 acre/4.95Ha. | PA/WC-12.37/BR-1.34 | 12.37 | | 4740 | sand | Existing |
| C7 | SUNAI | Bainchanaranpur-3 Sand bed, MOUZA: BAINCHANARANPUR KHATA NO 266 PLOT: 516 (AREA 8.700 AC), KISSAM: NADI, Longitude 86°42'20.2" TO 86°42'35.5", Latitude 21°34'10.5" TO 21°35'14.1" | 8.70Ac/3.520Ha | PA/WC-12.61/BR-1.19 | 12.61 | | | sand | Existing |
| C8 | SUNAI | Ajodhya Sand bed, MOUZA: AJODHYA KHATA NO 814 PLOT:1412 (AREA 12.35 AC), KISSAM: NADI, Longitude 86°45'32.36" TO 86°45'39.90", Latitude 21°34'05.20" TO 21°34'20.22" | 12.35 acre./5.00Ha | PA/WC-11.36/BR-2.66 | 11.36 | | | sand | Existing |
| D1 | Subarnarekha | Sikharpur Sand Source Mouza-Sikharpur, Khata No- 496 Plot No- 1910, 1900 Kissam- Nadi, Latitude 21°47' 44.4" N to 21° 47' 58.2"N, Longitude 87° 12' 20"E to 87° 12' 38.9"E | 11.99Ac/ 4.856 Ha | PA/WC-61.23/BR-0.89 | 61.23 | YES | | sand | Existing |
| D2 | Subarnarekha | Rajnagar Sand Bed, Mouza-Rajnagar, Khata No- 377 Plot No- 1295/1300 Latitude-21°48' 20.9" N to 21°48' 30.9"N Longitude-87°12' 43.2" E to 87°12' 52.2"E | 13.55 acre./5.48 Ha | PA/WC-62.13/BR-1.86 | 62.13 | YES | 2175 | sand | Existing |
| D3 | Subarnarekha | Gobardhanpur Sand Sairat Source Mouza-Gobardhanpur, Khata No- 358 Plot No-1094, Area Ac. 12.00 dec out of Ac. 88.25 dec, Latitude- 21°43'2.2" N to 21° 43'14.6" N, Longitude- 87°12'6.5" E to 87°12'17.5"E | 12.00 acre/ 4.85Ha | PA/WC-55.81/BR-9.04 | 55.81 | | | sand | Existing |

| | | | | | | | | | |
|-----|--------------|--|----------------------|----------------------|-------|-----|--|------|----------|
| D4 | Subarnarekha | Sekhsarai Ka Sand Source Mouza-Sekhsarai, Khata No-142 Plot No-02 Kissam Nadi, Latitute 21°45' 26.1" N to 21° 45' 29.5"N, Longitude 87° 10' 17.8"E to 87° 10' 20.9"E | 14.00 acre/ 5.66Ha | PA/WC-56.80/BR-1.46 | 56.8 | YES | | sand | Existing |
| D5 | Subarnarekha | Chalanti Sand Source Mouza-Chalanti, Latitute 21°46' 53" N to 21° 47' 2.8"N, Longitude 87° 09' 58"E to 87° 10' 10.2"E Khata No-384 Plot No-738 kissam Nadi | 14.00 acre/ 5.66Ha | PA/WC-55.75/BR-1.11 | 55.75 | | | sand | Existing |
| D6 | Subarnarekha | Balikbad Sand Source , Mouza-Balikbadk, Khata No- 399 Plot No- 49 Kissam Nadi, Latitute 21°42' 39" N to 21° 42' 49"N, Longitude 87° 13' 26.2"E to 87° 13' 40"E | 14.85 acre/ 6.009Ha | PA/WC-57.71/BR-11.83 | 57.71 | | | sand | Existing |
| D7 | Subarnarekha | BALIAPAL SAND SOURCE , Mouza-Baliapal, Khata No- 578 Plot No- 2949, Area Ac. 03.00 dec out of Ac. 33.28 dec , | 12.00 acre/ 4.856 Ha | PA/WC-57.48/BR-12.98 | 57.48 | | | sand | Existing |
| D8 | Subarnarekha | Sekhsarai Kha Sand Source Mouza-Sekhsarai, Khata No- 142 Plot No- 2Kissam Nadi, Latitute 21°46' 38.9" N to 21° 46' 56.3"N, Longitude 87° 09' 45"E to 87° 09' 58.3"E | 15.00 acre/ 6.07 Ha | PA/WC-57.33/BR-1.98 | 57.33 | YES | | sand | Existing |
| D9 | Subarnarekha | River Block Kha Sand Source Mouza-River Block, Khata No- 175 Plot No- 1 Kissam - Nadi, Latitute 21°48' 51.5" N to 21° 49' 1.9"N, Longitude 87° 12' 56.5"E to 87° 13' 6.1"E | 13.00 acre/ 5.26 Ha | PA/WC-63.26/BR-2.82 | 63.26 | YES | | sand | Existing |
| D10 | Subarnarekha | Praharajpur Ka Sand Source, Latitute 21°52' 17.5" N to 21° 52' 33.2"N, Longitude 87° 15' 9.7"E to 87° 15' 15.2"E Mouza-Praharajpur, Khata No- 466 Plot No- 1923 Kissam Nadi | 13.00 acre/ 5.26 Ha | PA/WC-70.79/BR-5.83 | 70.79 | YES | | sand | Existing |
| D11 | Subarnarekha | Mankidia Sand Source "Ga" Mouza-Mankidia, Khata No- 618 Plot No- 1677 Lat- 21° 55' 44.92255 to 21° 55' 59.74183, Long- 87° 14' 35.04486 to 87° 14' 49.84273 | 35 acre/ 14.16Ha | PA/WC-74.91/BR-14.20 | 74.91 | YES | | sand | Existing |
| D12 | Subarnarekha | Chandibasti Sand Source Mouza-Chormara, Khata No- 692 Plot No- 182, Area Ac. 10.00 dec out of Ac. 47.50 dec Latitude- 21°42'53.5"N to 21°42'59.9"N, Longitude 87°12'25.8"E to 87°12'40.4"E | 10.00 acre/ 4.05 Ha | PA/WC-56.33/BR-10.09 | 56.33 | | | sand | Existing |
| D13 | Subarnarekha | Mankidia Sand Source "Kha" Mouza-Mankidia, Khata No- 618 Plot No- 1677 | 40 acre/ 16.187Ha | PA/WC-74.84/BR-14.79 | 74.84 | YES | | sand | Existing |

| | | | | | | | | | |
|-----|--------------|--|-----------------------|----------------------|-------|-----|--|------|----------|
| D14 | Subarnarekha | Makrampur Sand Source , Mouza-Makrampur, Khata No- 01 Plot No- 06 Kissam Nadi, Latitute 21°51' 22.21" N to 21° 51' 32.12"N, Longitude 87° 14' 31.16"E to 87° 14' 43.90"E | 15.00 acre/ 6.07 Ha | PA/WC-68.62/BR-3.97 | 68.62 | | | sand | Existing |
| D15 | Subarnarekha | Gobarghata Sand Source Mouza-Gobarghata, Khata No- 1414 Plot No- 3236 Kissam Nadi, Latitute 21°51' 10.5" N to 21° 51' 23.8"N, Longitude 87° 14' 17.7"E to 87° 14' 29.5"E | 17.50 acre/ 7.08Ha | PA/WC-67.75/BR-3.04 | 67.75 | | | sand | Existing |
| D16 | Subarnarekha | Praharajpur Kha Sand Source, Mouza-Praharajpur, Khata No- 466, Plot No- 1923, LAT- 21.876, LONG- 87.251 | 15 acre/ 6.07Ha | PA/WC-71.14/BR-6.30 | 71.14 | YES | | sand | Existing |
| D17 | Subarnarekha | Mankidia Sand Source "Ka", Mouza-Mankidia, Khata No-818 Plot No- 01, Longitude 87° 14' 13.8"E to 87° 14' 28.4"E 21° 56' 21" N to 21° 56' 32.2"N, | 20.00 acre/ 8.09 Ha | PA/WC-74.97/BR-13.59 | 74.97 | YES | | sand | Existing |
| D18 | Subarnarekha | River Block Ka sand source Mouza-River Block, Khata No- 175 Plot No- 01, Kissam Nadi, Latitute 21°48'32.9" N to 21° 48' 41.8"N, Longitude 87° 13' 3.8"E to 87° 13' 14.8"E | 14.00 acre / 5.665 Ha | PA/WC-63.09/BR-3.27 | 63.09 | YES | | sand | Existing |
| D19 | Subarnarekha | Bilaspur Sand Source Mouza-Bilaspur, Khata No- 53 , Plot No- 120 | 80.20 acre/ 32.456 Ha | PA/WC-75.82/BR-11.27 | 75.82 | | | sand | Existing |
| D20 | SUBARNAREKHA | Malipal SAND BED, Mouza-Malipal, Khata- 501, Plot- 2277, Area- 5Ha Out Of 38.82 Ha, LAT-21.854, LONG-87.220 | 12.355acre/ 5.0 Ha | PA/WC-30.61/BR-1.6 | 30.61 | | | sand | PROPOSED |
| D21 | SUBARNAREKHA | EKTALI SAND BED, Mouza-Ektali, Khata- 463, Plot- 1922, Area- 5Ha Out Of 41.67 Ha, LAT- 21.752648, LONG-84.197339 | 12.355acre/ 5.0 Ha | PA/WC-30.98/BR-3.64 | 30.98 | | | sand | PROPOSED |
| E1 | Subarnarekha | Palbegunia Sand Source, MOUZA: PALABEGUNIA KHATA NO 470, PLOT: 270,377,378,786,793,799 (AREA 8.88 AC), KISSAM: NADI, Longitude 87°14'22.62"E, TO 87°14'.33.34"E, Latitude 21°41'13.87"N TO 21°41'41.91"N | 8.88 acre/ 3.59 Ha | PA/WC-58.49/BR-4 | 58.49 | | | sand | Existing |
| E2 | Subarnarekha | Badhupal Sand Source, MOUZA: BEDHAPAL KHATA NO 717,718, PLOT: 973,973/2548,989,955,956,969,990,1193,1194,1198,1199,1200,1201,1205,1498 (AREA 8.36 | 8.36acre/ 3.38Ha | PA/WC-63.06/BR-1 | 63.06 | | | sand | Existing |

| | | | | | | | | | |
|----|------------------|--|--------------------------|------------------------|-------|--|--|------|----------|
| | | AC), KISSAM: NADI, Longitude 87°17'50.5"E, TO 87°18'.02.2"E, Latitude 21°41'13.7"N TO 21°41'25.5"N | | | | | | | |
| F1 | Budhabalan
ga | Kasaba Dahapada Sand Source, MOUZA: KASABA-DAHAPADA KHATA NO 653,143, PLOT: 209,210,1429,1483,124,837 (AREA 101.35 AC), KISSAM: NADI, Longitude 86°55'23.1"E, TO 86°56'26.2"E, Latitude 21°31'55.9"N TO 21°32'48.2"N | 101.35 acre/
41.015Ha | PA/WC-
22.37/BR-1.1 | 22.37 | | | sand | Existing |

Patta Lands/Khatedari Land: (existing & proposed)

| Owner | Sy. No | Area | District | Tehsil | Village | Total Reserve (MT) | Total Mineral to be mined (MT) | Existing /Proposed |
|-------|--------|------|----------|--------|---------|--------------------|--------------------------------|--------------------|
| NA | NA | NA | NA | NA | NA | NA | NA | NA |

De-Siltation Location: (Lakes/Ponds/Dams etc.) (Existing & proposed)

| Name of Reservoir/Dams | Maintain /Controlled by State Govt./PSU etc. | Location | District | Tehsil | Village | Size (Ha) | Quantity MT/Year | Existing /Proposed |
|------------------------|--|----------|----------|--------|---------|------------|------------------|--------------------|
| NA | NA | NA | NA | NA | NA | NA | NA | NA |

M-Sand Plants:(existing & proposed)

| Plant Name | Owner | District | Tehsil | Village | Geo- location | Quantity Tonnes/Annum | Existing/Proposed |
|------------|-------|----------|--------|---------|---------------|-----------------------|-------------------|
| NA | NA | NA | NA | NA | NA | NA | NA |

Final Cluster & Contiguous Cluster details

Clusters:

| River Name | Cluster No. | Lease No | Location (Riverbed / Patta Land) | Village | Area (in Ha) | Total Excavation (Cum) | Total Mineral Excavation (Cum) |
|--------------|-------------|----------|---|-------------------------|--------------|------------------------|--------------------------------|
| Subarnarekha | 1 | A1 | Ambakuruchi Sand Source, MOUZA AMBAKURUCHI KHATA NO :304, PLOT: 1450, (AREA 7.400 AC),KISSAM :NADI, Longitude 87°12'05.4" TO 87°12'16.5",Latitude 21°43'54.7" TO 21°43'46.6" | MOUZA- AMBAKURUCHI | 2.69Ha | 18499 | 14029 |
| | | A2 | Devog Sand Source, MOUZA DEVOG KHATA NO :392, PLOT: 1178, (AREA 12.350 AC),KISSAM :NADI,Longitude 87°12'30.00" TO 87°12'42.8",Latitude 21°44'05.1" TO 21°44'16.3" | MOUZA-DEVOG | 4.5 Ha | 124188 | 99657 |
| Subarnarekha | 2 | A6 | Benapura-II Sand Quarry, MOUZA BENAPUR, KHATA NO:152, PLOT: 285, (AREA 14.52 AC), KISSAM: NADI, | MOUZA -BENAPUR | 5.876Ha | 58760 | 35256 |
| | | D5 | Chalanti Sand Source Mouza-Chalanti, Latitute 21°46' 53" N to 21° 47' 2.8"N, Longitude 87° 09' 58"E to 87° 10' 10.2"E° Khata No-384 Plot No-738 kissam Nadi | MOUZA-CHALANTI | 5.66Ha | 18130 | 15000 |
| Budhabalanga | 3 | B2 | SAHUPADA & DUMUDA SAND SOURCE , MOUZA SAHUPADA & DUMUDA, KHATA NO:223,281, PLOT: 237,238,239,240,15, (AREA 12.35 acers KISSAM:NADI, Longitude-86°54'51.6" TO 86°55'13.2", Latitute -21°33'51.6" TO 21°33'56.2" | MOUZA SAHUPADA & DUMUDA | 5.00Ha | 51821 | 44177 |
| | | B10 | Kathasangada-I Sand Quarry, Mouza- Kathasangada, Khata No. 286, Plot No. 123 Area Ac 0.30 dec, Plot No. 145, Area Ac. 1.52 dec & Mz. Haladia, Khata No. 458, Plot No. 1456 area Ac 6.00 dec, Plot No. 1952 area Ac 7.93 Latitute 21°33' 18.4" N to 21° 33' 34.3"N, Longitude 86°54' 42.4"E to 86° 54' 49.7"E° | MOUZA-. KATHASANGADA | 5.26 Ha | 27875 | 24074 |

| | | | | | | | |
|--------------|---|-----|--|-------------------|----------|--------|-------|
| Subarnarekha | 4 | D1 | Sikharpur Sand Source Mouza-
Sikharpur, Khata No- 496
Plot No- 1910, 1900 Kissam- Nadi, Latitute
21°47' 44.4" N to 21° 47' 58.2"N, Longitude
87° 12' 20"E to 87° 12' 38.9"E | MOUZA-SIKHARPUR | 4.856 Ha | 46040 | 35666 |
| | | D2 | Rajnagar Sand Bed, Mouza-Rajnagar,
Khata No- 377 Plot No- 1295/1300
Latitude- 21°48' 20.9" N to 21°48' 30.9"N
Longitude-87°12' 43.2" E to 87°12' 52.2"E | MOUZA-RAJNAGAR | 5.48 Ha | 27122 | 19353 |
| Subarnarekha | 5 | D4 | Sekhsarai Ka Sand Source Mouza-
Sekhsarai, Khata No-142
Plot No-02 Kissam Nadi, Latitute 21°45'
26.1" N to 21° 45' 29.5"N, Longitude 87° 10'
17.8"E to 87° 10' 20.9"E | MOUZA-SEKHSARAI | 5.66Ha | 42487 | 37874 |
| | | D8 | Sekhsarai Kha Sand Source
Mouza-Sekhsarai, Khata No- 142
Plot No- 2 Kissam Nadi, Latitute 21°46'
38.9" N to 21° 46' 56.3"N, Longitude 87° 09'
45"E to 87° 09' 58.3"E | MOUZA-SEKHSARAI | 6.07 Ha | 60703 | 36422 |
| Subarnarekha | 6 | D9 | River Block Kha Sand Source Mouza-
River Block, Khata No- 175
Plot No- 1 Kissam -Nadi, Latitute 21°48'
51.5" N to 21° 49' 1.9"N, Longitude 87° 12'
56.5"E to 87° 13' 6.1"E | MOUZA-RIVER BLOCK | 5.26 Ha | 23763 | 20000 |
| | | D18 | River Block Ka sand source Mouza-
River Block, Khata No- 175
Plot No- 01, Kissam Nadi, Latitute
21°48'32.9" N to 21° 48' 41.8"N, Longitude
87° 13' 3.8"E to 87° 13' 14.8"E | MOUZA-RIVER BLOCK | 5.665 Ha | 23525 | 20000 |
| Subarnarekha | 7 | D10 | Praharajpur Ka Sand Source, Latitute
21°52' 17.5" N to 21° 52' 33.2"N, Longitude
87° 15' 9.7"E to 87° 15' 15.2"E Mouza-
Praharajpur, Khata No- 466
Plot No- 1923 Kissam Nadi | MOUZA-PRAHARAJPUR | 5.26 Ha | 55440 | 48740 |
| | | D16 | Praharajpur Kha Sand Source, Mouza-
Praharajpur, Khata No- 466,
Plot No- 1923 | MOUZA-PRAHARAJPUR | 6.07Ha | 60703 | 36422 |
| Subarnarekha | 8 | D11 | Mankidia Sand Source "Ga" Mouza-
Mankidia, Khata No- 618
Plot No- 1677 | MOUZA-MANKIDIA | 14.16Ha | 141640 | 84984 |

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|--|--|-----|---|----------------|----------|----------|----------|
| | | D13 | Mankidia Sand Source "Kha" Mouza-Mankidia, Khata No- 618
Plot No- 1677 | MOUZA-MANKIDIA | 16.187Ha | 161874 | 97124 |
| | | D17 | Mankidia Sand Source "Ka", Mouza-Mankidia, Khata No-818 Plot No-01, Longitude 87° 14' 13.8"E to 87° 14' 28.4"E 21° 56' 21" N to 21° 56' 32.2"N, | MOUZA-MANKIDIA | 8.09 Ha | 2,02,325 | 1,78,528 |

Contiguous Clusters:

| River Name | Contiguous Cluster No. | Cluster No | Number of leases in the cluster | Location (Riverbed/ Patta Land) | Distance between clusters | Village | Area of Cluster (Ha) | Total Mineral Excavation. (Ton) |
|------------|------------------------|------------|---------------------------------|---------------------------------|---------------------------|---------|----------------------|---------------------------------|
| NA | NA | NA | NA | NA | NA | NA | NA | NA |

Final Transportation Routes for individual leases and leases in Cluster

| Lease No. | Transportation Route No. | Number of tippers/day of lease | Number of tippers/day of all the lease on route | Length of route in KM | Type of road(Black Topped/unpaved) | Recommendation for road (Black Topped/unpaved) | The road will be Constructed by Govt/Lease Owner | Route Map & Location | |
|-----------|---|--------------------------------|---|-----------------------|------------------------------------|--|--|----------------------|--------------------------------|
| A1 | Ambakuruchi Sand Source, MOUZA AMBAKURUCHI KHATA NO :304, PLOT: 1450, (AREA 7.400 AC),KISSAM :NADI, Longitude 87°12'05.4" TO 87°12'16.5",Latitude 21°43'54.7" TO 21°43'46.6" | NH-16 | 1 | 4 | 10.2 | Black Topped | Black Topped | Govt | MOUZA AMBAKURUCHI, NH-16 |
| A2 | Devog Sand Source, MOUZA DEVOG KHATA NO :392, PLOT: 1178, (AREA 12.350 AC),KISSAM :NADI,Longitude 87°12'30.00" TO 87°12'42.8",Latitude 21°44'05.1" TO 21°44'16.3" | NH-16 | 2 | | 8.9 | Black Topped | Black Topped | Govt | MOUZA DEVOG, NH-16 |
| A3 | Dhitpura Sand Source, MOUZA DHITPURA, KHATA NO :97, PLOT: 214, (AREA 12.350 AC),KISSAM :NADI, Longitude 87°11'01.5" TO 87°11'14.3",Latitude 21°45'05.1" TO 21°45'9.7" | NH-16 | 1 | | 0.71 | Black Topped | Black Topped | Govt | MOUZA DHITPURA, NH-16 |
| A4 | Kadarayan Sand Source, MOUZA KADRAYAN, KHATA NO :257, PLOT: 1, (AREA 12.350 AC),KISSAM :NADI,Longitude87°12'29.76" TO87°12'43.22",Latitude 21°44'52.57" TO 21°45'02.43" | NH-16 | | | 7.3 | Black Topped | Black Topped | Govt | MOUZA KADRAYAN, NH-16 |
| A5 | Mathani Punsita Sand Source, MOUZA MATHANI & PUNSITA, KHATA NO :143,227, PLOT: 37,25, (AREA 3.08 AC),KISSAM :NADI,Longitude87°03'53.2" TO 87°04'01.9",Latitude 21°40'08.2" TO 21°40'25.8" | NH-16 | | | | Black Topped | Black Topped | Govt | MOUZA MATHANI & PUNSITA, NH-16 |
| A6 | Benapura-II Sand Quarry, MOUZA BENAPUR, KHATA NO:152, PLOT: 285, (AREA 14.52 AC), KISSAM: NADI, | NH-16 | | | 2.8 | Black Topped | Black Topped | Govt | MOUZA BENAPUR, NH-16 |
| A7 | Benapura-I Sand Source,MOUZA-BENAPUR, KHATA-150, PLOT-142, KISSAM-NAYANJARI, LAT-21.772, LONG- 87.163 | NH-16 | | | 3.2 | Black Topped | Black Topped | Govt | MOUZA BENAPUR, NH-16 |
| A8 | GOPINATHPUR SAND SOURCE, Mouza-Gopinathpur, Khata- 153, Plot- 340, Area- 5Ha Out Of 22.743Ha | NH- 16 | | | | Black Topped | Black Topped | Govt | Mouza-Gopinathpur |
| B1 | Purukhi Sand Quarry, Mouza. Purukhi, Khata No. 420, Plot No. 1340 Area Ac 12.30 dec | SH-NH16 | 1 | 1 | 15.15 | Black Topped | Black Topped | Govt | Mouza. Purukhi,NH-16 |

| | | | | | | | | | |
|----|--|----------|---|---|------|--------------|--------------|------|-----------------------------|
| | Latitude 21°34' 15.1" N to 21° 34' 20.5"N, Longitude 86° 47' 37.9"E to 86° 48' 2.0"E | | | | | | | | |
| B2 | Sahupada & Dumuda Sand Quarry, MOUZA SAHUPADA & DUMUDA, KHATA NO:223,281, PLOT: 237,238,239,240,15, (AREA 12.35 acers KISSAM:NADI, Longitude-86°54'51.6" TO 86°55'13.2", Latitude - 21°33'51.6" TO 21°33'56.2" | NH-18 | | | 3.2 | Black Topped | Black Topped | Govt | Mouza-Sahupada, NH-18 |
| B3 | Ambulakuda Sand Source, Mouza- Ambulakuda Khata No. 133, Plot No. 531 Area Ac 12.30 dec Latitude 21°35' 4.1" N to 21° 35' 18.5"N, Longitude 86° 54' 11.2"E to 86° 54' 16.8"E | NH-18 | 1 | 1 | 5.2 | Black Topped | Black Topped | Govt | Mouza- Ambulakuda, NH-18 |
| B4 | Hatigand Sand Quarry, Mouza-Hatiaganda Khata No-313 Plot No 223, 1121 Kisam Nadi, Mukundapur Khata No-197 PlotNo-3 Kisam Nadi,Patripal Khata No-69 Plot No-1 Kisam Nadi Latitude 21°32' 57.4" N to 21° 33' 2.7"N, Longitude 86° 51' 38.9"E to 86° 51' 58.8"E | NH-16 | | | 10.2 | Black Topped | Black Topped | Govt | Mouza- Hatiaganda, NH-16 |
| B5 | Udambar Sand Quarry, Mouza. Udambar Khata No. 211, Plot No. 1 Area Ac 8.20 dec Latitude 21°33' 17.1" N to 21° 33' 22.6"N, Longitude 86° 53' 35.5"E to 86° 53' 57.1"E | NH-16 | | | 3.68 | Black Topped | Black Topped | Govt | Mouza. Udambar, NH-16 |
| B6 | Makanda Sand Quarry, Mouza- Makanda Khata No. 337, Plot No. 691 Area Ac 8.40 dec & Plot No. 692 Area Latitude 21°34' 47.5" N to 21° 34'54.9"N, Longitude 86°54' 32.8"E to 86° 54' 57.9"E | NH-18 | | | 4.1 | Black Topped | Black Topped | Govt | Mouza- Makanda, NH-18 |
| B7 | Gambharia Sand Quarry, Mouza-Gambharia Khata No-430 Plot No-574, 722 Kisam Nadi, Rudragopalpur Samil Naharpatna Khata No 236 Plot No-1 &510 Kisam Nadi Latitude 21°32' 14.0" N to 21° 33' 01"N, Longitude 86° 54' 55"E to 86° 55' 16"E | NH-16 | | | 1.2 | Black Topped | Black Topped | Govt | Mouza- Gambharia, NH-16 |
| B8 | Boitabanka Sand Quarry, Mouza-. Ghungi Khata No. 261, Plot No. 338 Area Ac 5.00 dec , Plot No. 440 Area Latitude 21°33' 31.9" N to 21° 33' 48.8"N, Longitude 86°49' 21.0"E to 86° 49' 43.7"E | SN-NH 16 | | | 12.5 | Black Topped | Black Topped | Govt | Mouza-. Ghungi , NH-16 |
| B9 | Kathasangada-II Sand Quarry , Mouza-. Kathasangada, Khata No. 286, Plot No. 106 Area Ac 2.60 dec Latitude 21°33' 29" N to 21° 33' 43.8"N, Longitude 86° 54' 35.8"E to 86°54' 42.3"E | NH-16 | | | 1.97 | Black Topped | Black Topped | Govt | Mouza-. Kathasangada, NH-16 |

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|-----|--|----------|---|---|-------|--------------|--------------|------|----------------------------------|
| B10 | Kathasangada-I Sand Quarry, Mouza-Kathasangada, Khata No. 286, Plot No. 123 Area Ac 0.30 dec, Plot No. 145, Area Ac. 1.52 dec & Mz. Haladia, Khata No. 458, Plot No. 1456 area Ac 6.00 dec, Plot No. 1952 Latitude 21°33' 18.4" N to 21° 33' 34.3"N, Longitude 86°54' 42.4"E to 86° 54' 49.7"E | NH-16 | | | 1.53 | Black Topped | Black Topped | Govt | Mouza-Kathasangada, NH-16 |
| C1 | Pundal-1 Sand bed , MOUZA: PUNDAL, KHATA NO 556, PLOT:1347/1 (AREA 12.350 acre), KISSAM: NADI, Longitude-86°46'24.40" TO 86°46'35.00", Latitude - 21°34'40.70"TO21°34'48.70" | SH-NH 16 | 1 | 4 | 19.7 | Black Topped | Black Topped | Govt | MOUZA: PUNDAL, NH-16 |
| C2 | Pundal-2 Sand bed, MOUZA: PUNDAL, KHATA NO 556, PLOT:1347(AREA 3.40 acre), KISSAM: NADI, Longitude - 86°46'47.5" TO 86°46'52.3", Latitude 21°34'35.6" TO 21°34'41.6" | SH-NH16 | 1 | | 18.38 | Black Topped | Black Topped | Govt | MOUZA: PUNDAL,NH-16 |
| C3 | Dumagandira Sand bed, MOUZA: DUMAGANDIRA,LAICHHANPUR KHATA NO 157,155 PLOT:385,36 (AREA 12.350 acre), KISSAM: NADI, Longitude -86°48'50.80" TO 86°49'04.50", Latitude 21°34'21.40" TO 21°34'27.50" | SH-NH16 | 1 | | 19.8 | Black Topped | Black Topped | Govt | MOUZA: DUMAGANDIRA,NH-16 |
| C4 | Bainchanaranpur-1 Sand bed, MOUZA: BAINCHANARANPUR KHATA NO 266 PLOT:383 ,384(AREA12.35acre), KISSAM: NADI, Longitude 86°42'51.90" TO 86°43'01.50", Latitude 21°34'57.10" TO 21°35'11.50" | SH-NH16 | 1 | | 22.87 | Black Topped | Black Topped | Govt | MOUZA: BAINCHANARANPUR, NH-16 |
| C5 | Balipal Sand bed, MOUZA: BALIPAL KHATA NO 156,156 PLOT:7,495(AREA 12.350 acre AC), KISSAM: NADI, Longitude 86°44'34.00" TO 86°44'34.20", Latitude 21°34'30.60"TO 21°34'32.00" | SH-NH16 | | | 21.68 | Black Topped | Black Topped | Govt | MOUZA: BALIPAL, NH-16 |
| C6 | Pratappur Sand bed, MOUZA: AJODHYA(PRATAPPUR) KHATA NO 814, PLOT:388(AREA 12.25 AC), KISSAM: NADI, Longitude -86°44'53.4" TO 86°45'12.9", Latitude 21°34'19.9" TO 21°35'27.8" | SH-NH16 | 1 | 1 | 18.81 | Black Topped | Black Topped | Govt | MOUZA: AJODHYA(PRATAPPUR), NH-16 |
| C7 | Bainchanaranpur-3 Sand bed, MOUZA: BAINCHANARANPUR KHATA NO 266 PLOT: 516 (AREA 8.700 AC), KISSAM: NADI, Longitude 86°42'20.2" TO 86°42'35.5", Latitude 21°34'10.5" TO 21°35'14.1" | SH-NH16 | | | 22.94 | Black Topped | Black Topped | Govt | MOUZA: BAINCHANARANPUR,NH-16 |
| C8 | Ajodhya Sand bed, MOUZA: AJODHYA KHATA NO 814 PLOT:1412 (AREA 12.35 AC), KISSAM: NADI, Longitude 86°45'32.36" TO 86°45'39.90", Latitude 21°34'05.20" TO 21°34'20.22" | SH-NH-16 | | | 19.26 | Black Topped | Black Topped | Govt | MOUZA: AJODHYA,NH-16 |

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| D1 | Sikharpur Sand Source Mouza-Sikharpur, Khata No-496 Plot No- 1910, 1900 Kissam- Nadi, Latitute 21°47' 44.4" N to 21° 47' 58.2"N, Longitude 87° 12' 20"E to 87° 12' 38.9"E | NH-16 | | | 3.2 | Black Topped | Black Topped | Govt | Mouza-Sikharpur,NH-16 |
| D2 | Rajnagar Sand Bed, Mouza-Rajnagar, Khata No- 377 Plot No- 1295/1300 Latitude- 21°48' 20.9" N to 21°48' 30.9"N Longotude-87°12' 43.2" E to 87°12' 52.2"E | NH-16 | 1 | 1 | 3.9 | Black Topped | Black Topped | Govt | Mouza-Rajnagar,NH-16 |
| D3 | Gobardhanpur Sand Sairat Source Mouza-Gobardhanpur, Khata No- 358 Plot No- 1094, Area Ac. 12.00 dec out of Ac. 88.25 dec, Latitude- 21°43'2.2" N to 21° 43'14.6" N, Longitude- 87°12'6.5" E to 87°12'17.5"E | NH-16 | | | 8.8 | Black Topped | Black Topped | Govt | Mouza-Gobardhanpur, NH-16 |
| D4 | Sekhsarai Ka Sand Source Mouza-Sekhsarai, Khata No-142 Plot No-02 Kissam Nadi, Latitute 21°45' 26.1" N to 21° 45' 29.5"N, Longitude 87° 10' 17.8"E to 87° 10' 20.9"E | NH-16 | | | 4.9 | Black Topped | Black Topped | Govt | Mouza-Sekhsarai, NH-16 |
| D5 | Chalanti Sand Source Mouza-Chalanti, Latitute 21°46' 53" N to 21° 47' 2.8"N, Longitude 87° 09' 58"E to 87° 10' 10.2"E Khata No-384 Plot No-738 kissam Nadi | NH-16 | | | 1.3 | Black Topped | Black Topped | Govt | Mouza-Chalanti, NH-16 |
| D6 | Balikbad Sand Source , Mouza-Balikbadk, Khata No- 399 Plot No- 49 Kissam Nadi, Latitute 21°42' 39" N to 21° 42' 49"N, Longitude 87° 13' 26.2"E to 87° 13' 40"E | NH-16 | | | 9.9 | Black Topped | Black Topped | Govt | Mouza-Balikbadk, NH-16 |
| D7 | BALIAPAL SAND SOURCE , Mouza-Baliapal, Khata No-578 Plot No- 2949, Area Ac. 03.00 dec out of Ac. 33.28 dec , | NH-16 | | | 15.3 | Black Topped | Black Topped | Govt | Mouza-Baliapal, NH-16 |
| D8 | Sekhsarai Kha Sand Source ,Mouza-Sekhsarai, Khata No- 142 , Plot No- 2 Kissam Nadi, Latitute 21°46' 38.9" N to 21° 46' 56.3"N, Longitude 87° 09' 45"E to 87° 09' 58.3"E | NH-16 | | | 5.2 | Black Topped | Black Topped | Govt | Mouza-Sekhsarai, NH-16 |
| D9 | River Block Kha Sand Source Mouza-River Block, Khata No- 175 Plot No- 1 Kissam -Nadi, Latitute 21°48' 51.5" N to 21° 49' 1.9"N, Longitude 87° 12' 56.5"E to 87° 13' 6.1"E | NH-16 | | | 5.7 | Black Topped | Black Topped | Govt | Mouza-River Block, NH-16 |
| D10 | Praharajpur Ka Sand Source, Latitute 21°52' 17.5" N to 21° 52' 33.2"N, Longitude 87° 15' 9.7"E to 87° 15' 15.2"E Mouza-Praharajpur, Khata No- 466 Plot No-1923 Kissam Nadi | NH-16 | | | 1.5 | Black Topped | Black Topped | Govt | Mouza-Praharajpur, NH-16 |

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| D1
1 | Mankidia Sand Source "Ga" Mouza-Mankidia, Khata No- 618 Plot No- 1677 | NH-16 | | | 8.7 | Black Topped | Black Topped | Govt | Mouza-Mankidia, NH-16 |
| D1
2 | Chandibasti Sand Source, Mouza-Chormara, Khata No- 692 ,Plot No- 182, Area Ac. 10.00 dec out of Ac. 47.50 dec Latitude- 21°42'53.5"N to 21°42'59.9"N, Longitude 87°12'25.8"E to 87°12'40.4"E | NH-16 | | | 11.2 | Black Topped | Black Topped | Govt | Mouza-Chormara, NH-16 |
| D1
3 | Mankidia Sand Source "Kha" Mouza-Mankidia, Khata No- 618 Plot No- 1677 | NH-16 | | | 9.1 | Black Topped | Black Topped | Govt | Mouza-Mankidia, NH-16 |
| D1
4 | Makrampur Sand Source , Mouza-Makrampur, Khata No- 01 Plot No- 06 Kissam Nadi, Latitute 21°51' 22.21" N to 21° 51' 32.12"N, Longitude 87° 14' 31.16"E to 87° 14' 43.90"E | NH-16 | | | 2.9 | Black Topped | Black Topped | Govt | Mouza-Makrampur, NH-16 |
| D1
5 | Gobarghata Sand Source Mouza-Gobarghata, Khata No- 1414 Plot No- 3236 Kissam Nadi, Latitute 21°51' 10.5" N to 21° 51' 23.8"N, Longitude 87° 14' 17.7"E to 87° 14' 29.5"E | NH-16 | | | 4.5 | Black Topped | Black Topped | Govt | Mouza-Gobarghata, NH-16 |
| D1
6 | Praharajpur Kha Sand Source, Mouza-Praharajpur, Khata No- 466, Plot No- 1923 | NH-16 | | | 1.5 | Black Topped | Black Topped | Govt | Mouza-Praharajpur, NH-16 |
| D1
7 | Mankidia Sand Source "Ka", Mouza-Mankidia, Khata No-818 Plot No-01, Longitude 87° 14' 13.8"E to 87° 14' 28.4"E 21°56' 21" N to 21° 56' 32.2"N, | NH-16 | | | 8.1 | Black Topped | Black Topped | Govt | Mouza-Mankidia, NH-16 |
| D1
8 | River Block Ka sand source Mouza-River Block, Khata No- 175 Plot No- 01, Kissam Nadi, Latitute 21°48'32.9" N to 21° 48' 41.8"N, Longitude 87° 13' 3.8"E to 87° 13' 14.8"E | NH-16 | | | 5.1 | Black Topped | Black Topped | Govt | Mouza-River Block, NH-16 |
| D1
9 | Bilaspur Sand Source Mouza-Bilaspur, Khata No- 53 , Plot No- 120 | NH-16 | | | 4.2 | Black Topped | Black Topped | Govt | Mouza-Bilaspur |
| D2
0 | MALIPAL SAND BED, Mouza-Malipal, Khata- 501, Plot- 2277, Area- 5Ha Out Of 38.82 Ha | NH-16 | | | 3.69 | Black Topped | Black Topped | Govt | Mouza-Malipal |
| D2
1 | EKTALI SAND BED, GP- Raymchandrapur, Mouza-Ektali, Khata- 463, Plot- 1922, Area- 5Ha Out Of 41.67 Ha | NH-16 | | | 2.56 | Black Topped | Black Topped | Govt | Mouza-Ektali |
| E1 | Palbegunia Sand Source, MOUZA:PALABEGUNIA KHATA NO 470, PLOT: 270,377,378,786,793,799 (AREA 8.88 AC), | NH-16 | | | 16.1 | Black Topped | Black Topped | Govt | MOUZA:PALABEGUNIA, NH-16 |

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|----|---|-------|--|--|------|--------------|--------------|------|-------------------------------|
| | KISSAM: NADI, Longitude 87°14'22.62"E, TO 87°14'.33.34"E, Latitude 21°41'13.87"N TO 21°41'41.91"N | | | | | | | | |
| E2 | Badhapal Sand Source, MOUZA:BEDHAPAL KHATA NO 717,718, PLOT: 973,973/2548,989,955,956,969,990,1193,1194,1198,1199,1200,1201,1205,1498 (AREA 8.36 AC), KISSAM: NADI, Longitude 87°17'50.5"E, TO 87°18'.02.2"E, Latitude 21°41'13.7"N TO 21°41'25.5"N | NH-16 | | | 10.3 | Black Topped | Black Topped | Govt | MOUZA:BEDHAPAL , NH-16 |
| F1 | Kasaba Dahapada Sand Source, MOUZA: KASABA-DAHAPADA KHATA NO 653,143, PLOT: 209,210,1429,1483,124,837 (AREA 101.35 AC), KISSAM: NADI, Longitude 86°55'23.1"E, TO 86°56'26.2"E, Latitude 21°31'55.9"N TO 21°32'48.2"N | NH-16 | | | 1.6 | Black Topped | Black Topped | Govt | MOUZA: KASABA-DAHAPADA, NH-16 |

| Cluster No. | Transportation Route No. | Number of tippers/day of cluster | Number of tippers/ day of all the cluster on route | Length of route in KM | Type of road (Black Topped/unpaved) | Recommendation for road (Black Topped/unpaved) | The road will be Constructed by Govt/Lease Owner | Route Map & Location |
|-------------|--------------------------|----------------------------------|--|-----------------------|-------------------------------------|--|--|-----------------------------|
| 1 | NH-16 | 1 | 2 | 10.2 | Black Topped | Black Topped | Govt | MOUZA AMBAKURUCHI, NH-16 |
| | NH-16 | 2 | | 8.9 | Black Topped | Black Topped | Govt | MOUZA DEVOG, NH-16 |
| 2 | NH-16 | | | 2.8 | Black Topped | Black Topped | Govt | MOUZA BENAPUR, NH-16 |
| | NH-16 | | | 9.9 | Black Topped | Black Topped | Govt | Mouza-Chalanti, NH-16 |
| 3 | NH-16 | | | 3.2 | Black Topped | Black Topped | Govt | Mouza-Sahupada, NH-18 |
| | NH-16 | | | 1.53 | Black Topped | Black Topped | Govt | Mouza-. Kathasangada, NH-16 |
| 4 | NH-16 | | | 3.2 | Black Topped | Black Topped | Govt | Mouza-Sikharpur, NH-16 |

| | | | | | | | | |
|---|-------|---|---|-----|--------------|--------------|------|--------------------------|
| | NH-16 | 1 | 1 | 3.9 | Black Topped | Black Topped | Govt | Mouza-Rajnagar, NH-16 |
| 5 | NH-16 | | | 4.9 | Black Topped | Black Topped | Govt | Mouza-Sekhsarai, NH-16 |
| | NH-16 | | | 5.2 | Black Topped | Black Topped | Govt | Mouza-Sekhsarai, NH-16 |
| 6 | NH-16 | | | 5.7 | Black Topped | Black Topped | Govt | Mouza-River Block, NH-16 |
| | NH-16 | | | 5.1 | Black Topped | Black Topped | Govt | Mouza-River Block, NH-16 |
| 7 | NH-16 | | | 1.5 | Black Topped | Black Topped | Govt | Mouza-Praharajpur, NH-16 |
| | NH-16 | | | 1.5 | Black Topped | Black Topped | Govt | Mouza-Praharajpur, NH-16 |
| 8 | NH-16 | | | 8.7 | Black Topped | Black Topped | Govt | Mouza-Mankidia, NH-16 |
| | NH-16 | | | 9.1 | Black Topped | Black Topped | Govt | Mouza-Mankidia, NH-16 |
| | NH-16 | | | 8.1 | Black Topped | Black Topped | Govt | Mouza-Mankidia, NH-16 |

MINING LEASES (SAND) MARKED ON THE DISTRICT SATELLITE-MAP OF BALESWAR

86 326452

86 514018

86 901584

87 189150

87 476716



SCALE:-1:400000

21 918130

21 918130

21 726317

21 726317

21 534504

21 534504

21 342691

21 342691

21 150878

21 150878

86 326452

86 514018

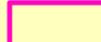
86 901584

87 189150

87 476716

FOR QUARRY DETAILS REFER POINT NO-03

LEGEND

-  EXISTING_SAND_SOURCES
-  NEW_SAND_SOURCES
-  DISTRICT_BOUNDARY

Source: Esri, N