

STATE REVIEWS



Indian Minerals Yearbook 2013

(Part- I)

52nd Edition

**STATE REVIEWS
(Bihar)**

(FINAL RELEASE)

**GOVERNMENT OF INDIA
MINISTRY OF MINES
INDIAN BUREAU OF MINES**

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September, 2015

BIHAR

Mineral Resources

Bihar is the principal holder of country's pyrite resources and possesses 95% of resources. The important mineral occurrences in Bihar are **limestone** in Kaimur (Bhabhua), Monghyr and Rohtas districts; **mica** in Nawada district; **quartz/silica sand** in Bhagalpur, Jamui, Monghyr and Nalanda districts; **quartzite** in Lakhisarai, Monghyr and Nalanda districts; **talc/soapstone/steatite** in Monghyr district. Besides, occurrences of **bauxite** in Monghyr and Rohtas districts; **china clay** in Bhagalpur and Monghyr districts; **felspar** in Gaya, Jamui and Monghyr districts; **fireclay** in Bhagalpur and Purnea districts; **gold** in Jamui district; **granite** in Bhagalpur, Gaya, Jahanabad and Jamui districts; **iron ore (hematite)** in Bhagalpur district; **iron ore (magnetite)** in Gaya and Jamui districts; **lead-zinc** in Banka and Rohtas districts and **pyrites** in Rohtas district are reported (Tables - 1 and 2).

Exploration & Development

GSI carried out exploration for gold in Korwadih, Jhajha and Jamui Districts. Details of exploration activities conducted by GSI during 2012-13 are furnished in Table-3.

In 2011-12, ONGC conducted geo-physical survey under which an expanse of 69.66 (GLKMK) of 2D and 52.05(Sq.km) of 3D was covered.

Production

The value of mineral production in Bihar at ₹145 crore in 2012-13 increased by about 2% over the previous year. Minor minerals dominate the value of mineral production contributing 87% of the total value of mineral production in the state followed by limestone with 12%, quartzite 1% and a nominal contribution by quartz. The state reported 12345 tonnes of sulphur production registering an increase of 32% in the year under review over the previous year. The production of limestone increased by 12% and that of quartzite decreased by 41% during 2012-13. (Table-4).

The production value of minor minerals was estimated at ₹125 crore for the year 2012-13.

The number of reporting mines in Bihar in 2012-13 was six same as in the previous year.

The index of mineral production in Bihar (base 2004-05=100) was 224.3 in 2012-13 as compared to 214.1 in the previous year.

Table – 2 : Reserves/Resources of Coal as on 1.4.2013 : Bihar

(In million tonnes)

Coalfield	Proved	Indicated	Inferred	Total
Total/Rajmahal	-	-	160.0	160.0

Source: Coal Directory of India, 2012-13

Table – 1: Reserves/Resources of Minerals* as on 1.4.2010 : Bihar

Mineral	Unit	Reserves				Remaining resources						Total resources (A+B)	
		Proved STD111	Probable		Total (A)	Feasibility STD211	Pre-feasibility STD221	Measured STD331	Indicated STD332	Inferred STD333	Reconnaissance STD334		Total (B)
			STD121	STD122									
Bauxite	'000 tonnes	-	-	-	-	-	-	-	-	4114	-	4114	4114
China clay	'000 tonnes	-	-	-	-	-	104	39	1296	-	-	1438	1438
Felspar	tonne	-	35147	35147	-	-	-	4195	4871499	-	-	4875694	4910841
Fireclay	'000 tonnes	-	-	-	-	-	-	-	44	-	-	44	44
Gold	-	-	-	-	-	-	-	-	-	-	-	-	-
Ore	tonne	-	-	-	-	-	-	-	128884860	94000000	222884860	222884860	222884860
(primary)	-	-	-	-	-	-	-	-	-	-	-	-	-
Metal	tonne	-	-	-	-	-	-	-	21.6	16	37.6	37.6	37.6
(primary)	-	-	-	-	-	-	-	-	-	-	-	-	-
Granite	'000 cu m	-	-	-	-	-	179000	-	698612	-	-	877612	877612
(Dime. stone)	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron ore	'000 tonnes	-	-	-	-	-	-	-	55	-	-	55	55
(Hematite)	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron ore	'000 tonnes	-	-	-	-	-	-	-	2659	-	-	2659	2659
(Magnetite)	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead-zinc	-	-	-	-	-	-	-	-	-	-	-	-	-
Ore	'000 tonnes	-	-	-	-	-	-	435	11000	-	-	11435	11435
Lead metal	'000 tonnes	-	-	-	-	-	-	-	24	-	-	24	24
Zinc metal	'000 tonnes	-	-	-	-	-	-	14.75	24	-	-	38.75	38.75
Limestone	'000 tonnes	7822	795	8617	-	6123	86379	38210	709522	-	-	846923	855540
Mica	kg	-	74233	74233	-	-	-	-	12992434	7700	13000134	13074367	13074367
Pyrite	'000 tonnes	-	-	-	13462	-	-	51419	1500000	-	-	1574561	1574561
Quartzite	'000 tonnes	32	-	32	146	461	5287	22822	227531	-	-	276302	276334
Quartz-	-	-	-	-	-	-	-	-	-	-	-	-	-
silica sand	'000 tonnes	-	2121	2121	-	-	-	-	24652	-	-	24652	24652
Talc-	-	-	-	-	-	-	-	-	-	-	-	-	-
steatite-	-	-	-	-	-	-	-	-	-	-	-	-	-
soapstone	'000 tonnes	-	149	149	-	-	-	-	3	-	-	3	152

Figures rounded off.

* Resources of zircon as per Department of Atomic Energy are provided in the respective Review.

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Table – 3 : Details of Exploration Activities in Bihar, 2012-13

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq km)	No. of boreholes	Meterage		
GSI							
Gold							
Jamui	Korwadih & Jhajha area	1: 12,500	30.0	-	-	350	Reconnaissance stage (G4) investigation was carried out to search for gold mineralisation for targeting potential block. The area forms the northern continuity of Kaimaha area where gold rush has been reported in 1982. Based on available information, two sectors (west of Korwadih & Jhajha sections) have been identified. The litho units exposed in the area are amphibolite, banded ferruginous quartzite, micaceous quartzite, garnetiferous quartz-mica schist, porphyritic granite, biotite granite, leucogranite, pegmatites and quartz veins. Sulphide mineralisation in the form of disseminated specks and stringers of pyrite, specks of chalcopyrite, arsenopyrite have been recorded in banded ferruginous quartzite. Detailed geochemical sampling on 100 x 500 m grid pattern has been carried out. BRS samples are collected. In addition to this 100 cu. m of pitting/trenching coupled with collection of PTS samples were accomplished. The work has been completed.
		1: 1,000	1.0				

**Table – 4 : Mineral Production in Bihar, 2010-11 to 2012-13
(Excluding Atomic Minerals)**

(Value in ₹'000)

Mineral	Unit	2010-11			2011-12			2012-13 (P)		
		No. of mines	Quantity	Value	No. of mines	Quantity	Value	No. of mines	Quantity	Value
All Minerals		10		3461179	6		1414481	6		1446295
Limestone	'000t	5	872	292511	2	507	142686	2	567	172447
Mica (crude)	t	1	-	-	1	-	-	1	-	-
Mica (waste & Scrap)*	t	-	1459	-	-	4632	-	-	2535	-
Quartz	t	-	-	-	-	-	-	1	8997	2555
Quartzite	t	3	62767	26855	3	35707	16895	2	21147	16393
Talc/soapstone/steatite	t	1	2948	513	-	-	-	-	-	-
Sulphur#	t	-	8353	-	-	9329	-	-	12345	-
Minor Minerals@		-	-	3141300	-	-	1254900	-	-	1254900

*Note: The number of mines excludes minor minerals.*** Includes mine waste obtained while dressing of crude mica.**# Recovered as by-product from oil refinery.**@ Figures for earlier years have been repeated as estimates, wherever necessary, because of non-receipt of data.*

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Mineral-based Industry

The existing large and medium-scale mineral-based industries in the organised

sector in the State with their total installed capacities are given in Table - 5.

Table – 5 : Principal Mineral-based Industries in Bihar

Industry/plant	Capacity ('000 tpy)
Cement	
Kalyanpur Cements Ltd, Banjari, Dist. Rohtas.	1000
Nirman Cement Ltd, Behtta, Dist. Patna.	100
Fertilizer	
Harabhara Fertilizer, Dhanukagra.	9.8 (NPK)
Foundry	
Bharat Wagon & Engg. Co. Ltd, Muzaffarpur.	NA
Petroleum Refinery	
Indian Oil Corporation, Barauni.	6000

