

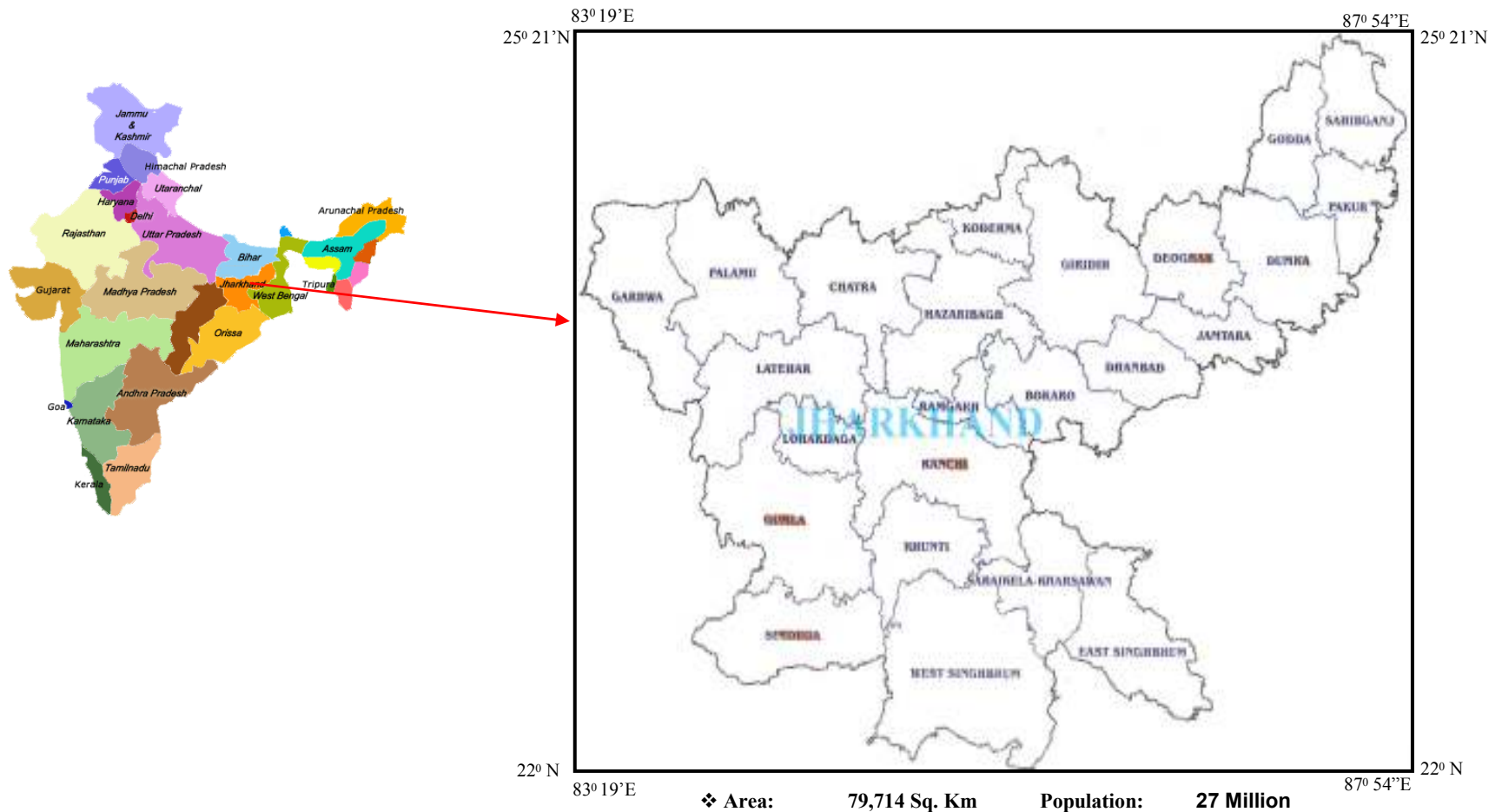


GOVERNMENT OF JHARKHAND

DEPARTMENT OF MINES & GEOLOGY

Jharkhand, India

Prospect of Mineral Resource, Exploration and Development of High Value Minerals

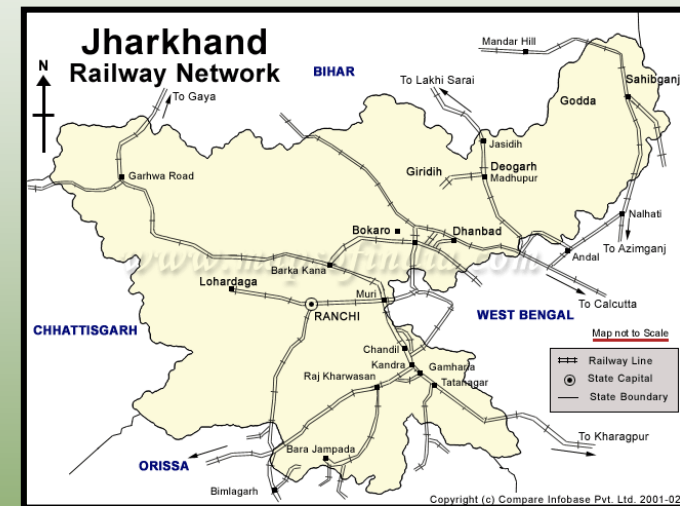


Jharkhand-A mineral rich state

- ❖ Jharkhand state is one of the leading mineral bearing state of India and is the store house of more than 30 type of minerals, hence aptly called as “**Museum of Minerals**”.
- ❖ The state has deposits of energy, ferrous, non-ferrous, fertilizer, industrial, refractory, atomic, strategic, precious and semi precious stone.
- ❖ Jharkhand state is a part of the Indian peninsular shield, which is stable cratonic block of the earth's crust. Jharkhand is known for its diversified geological set up.



The total length of NH,SH
8,070 kms



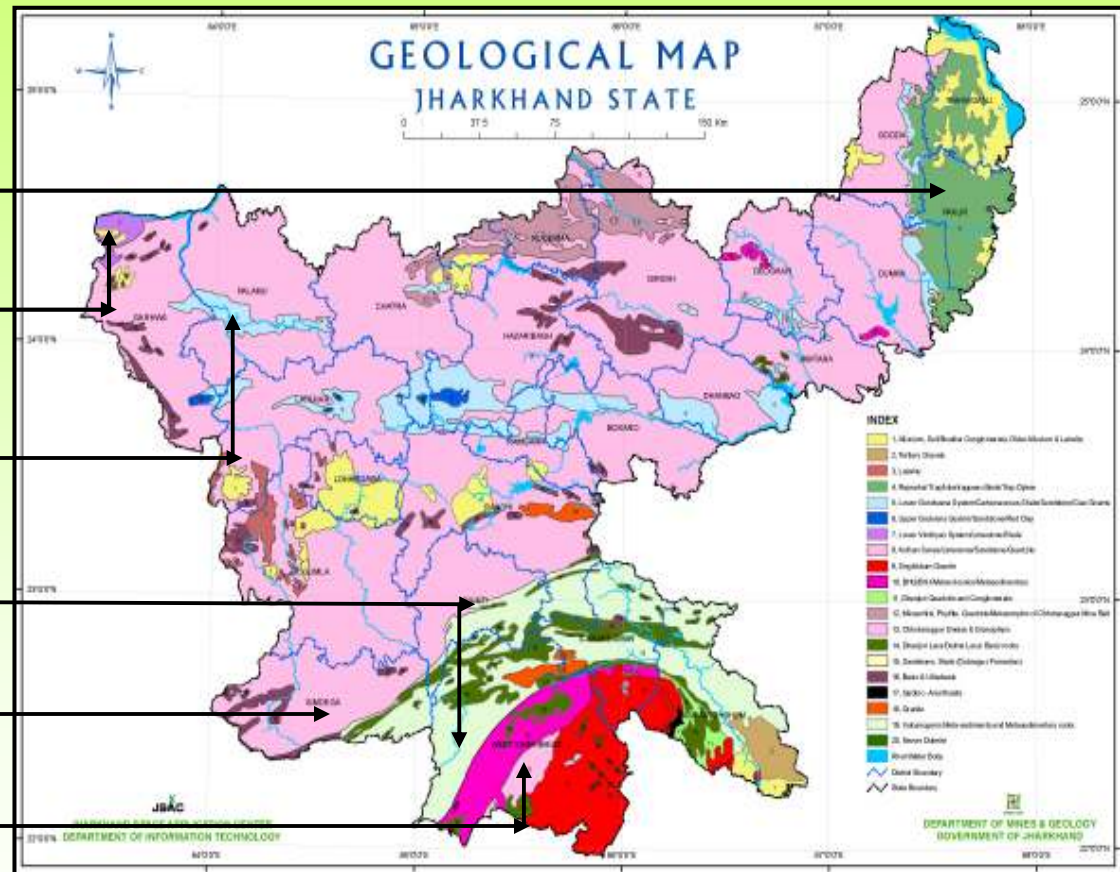
The total length of Railways
1,053 km. kms

•The predominant hard rocks in the state comprise of Archaean metamorphics with associated intrusive and sedimentaries belonging to Vindhyan and Gondwana super group with associated igneous rocks.

Geology of Jharkhand

Geological formations

- ❖ Rajmahal trap representing predominately basaltic lava flows intercalated with fresh water sedimentary rock containing economic minerals like Bentonite, Kaoline, Pumice and Basalt Stone.
- ❖ Vindhyan formation recognized by its different types of sedimentary layer and huge deposit of good quality Limestone .
- ❖ Gondwana formation is known sedimentary formation for store house of coal deposits.
- ❖ Iron ore Group is meta sedimentary formation contains huge haematite deposit.
- ❖ Chotanagpur Granite gneiss is old Batholithic mass, covers maximum part of the state and host various types of mineral.
- ❖ Kolhan is a sedimentary formation which contain cement grade limestone.

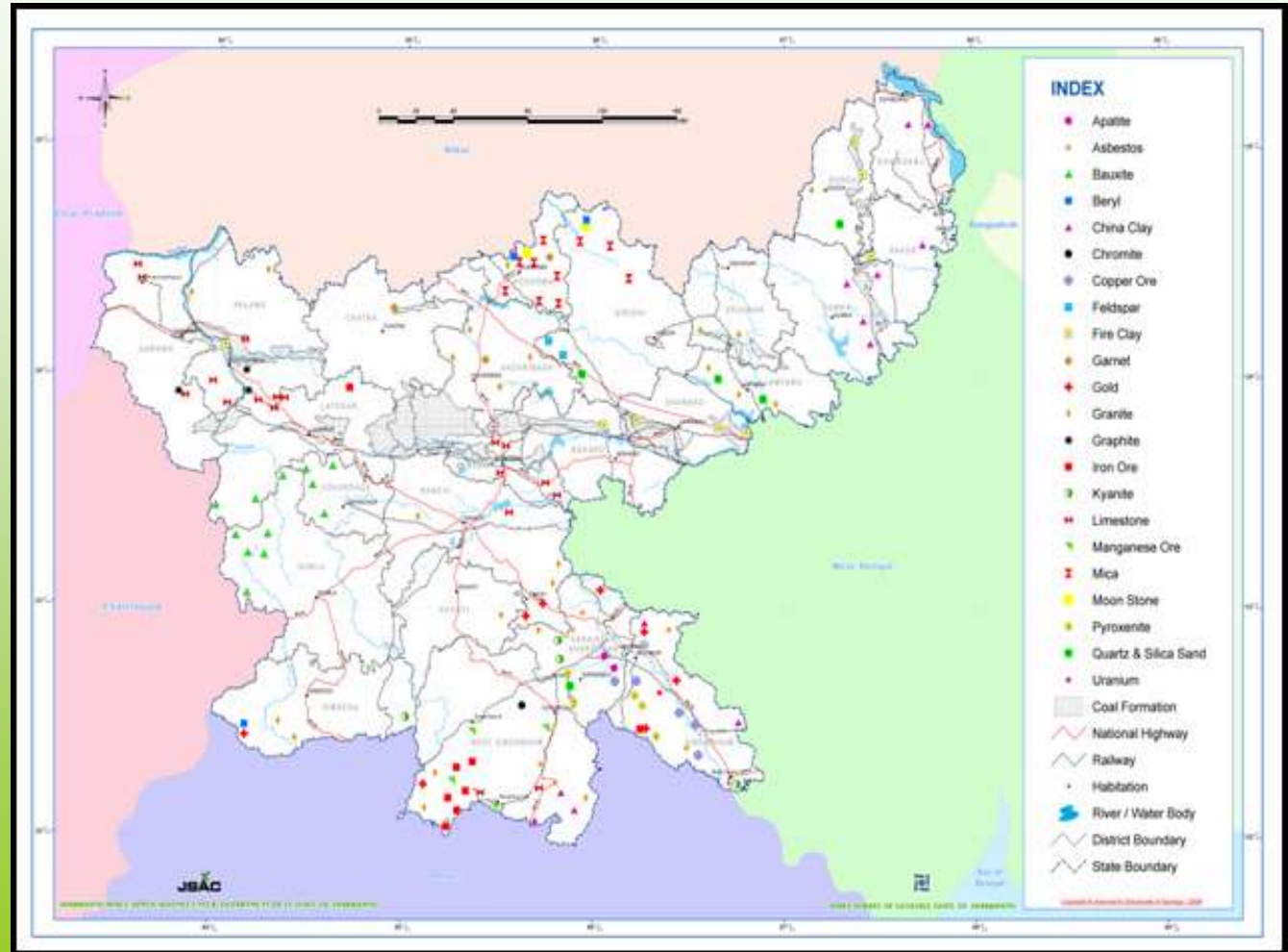


Minerals of Jharkhand

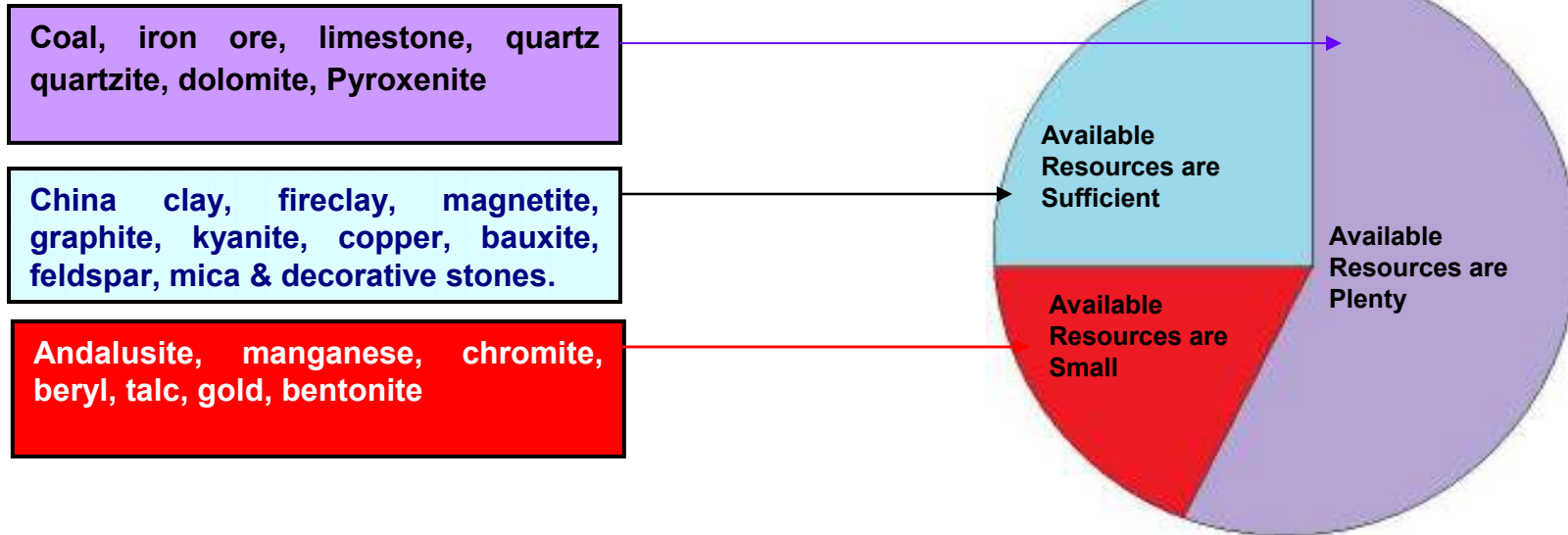
❖ Thirty types of mineral occur in the state. The most Important are :-

- Coal
- Iron ore
- Uranium
- Bauxite
- Copper ore
- Limestone
- Manganese
- Pyroxenite
- Dolomite

Mineral Map of Jharkhand

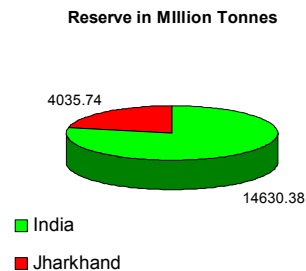


Mineral availability in the state

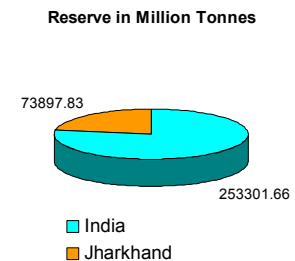


Important Mineral Resources

Iron Ore



Coal

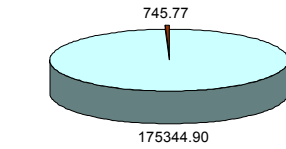


Prospect of Mineral Resource Exploration and Development of High Value Minerals

Limestone



Reserve in Million Tonnes

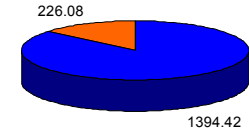


□ India
■ Jharkhand

Copper



Reserve in Million Tonnes

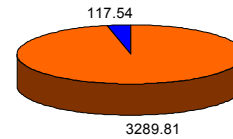


■ India
■ Jharkhand

Bauxite



Reserve in Million Tonnes

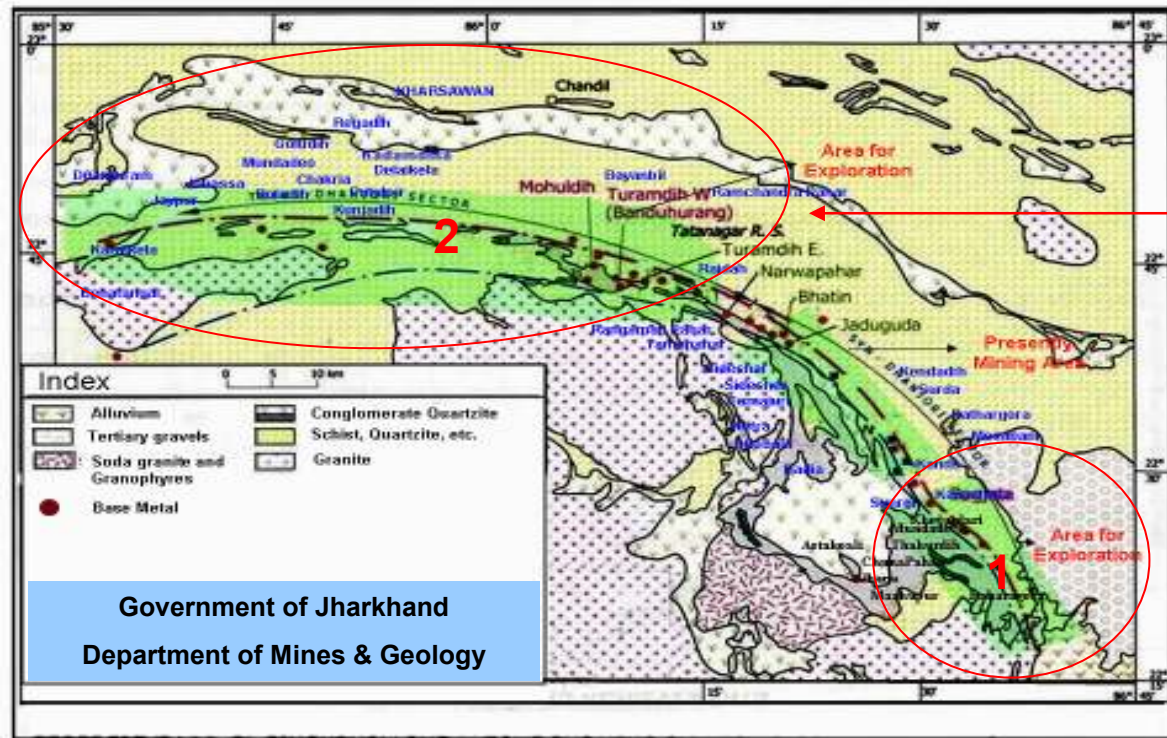


■ India
■ Jharkhand

S.N.	Mineral	National Reserve/ Resources (in million tonnes)	Jharkhand Reserve/ Resources (in Million tonnes)	Jharkhand 's Share W.RT. INDIA & RANK	
1	COBALT	44.91	9.00	20.04%	2 ND
2	GRAPHITE	168.77	10.34	6.13%	3 RD
3	KYANITE	102.62	5.70	5.56%	3 RD
4	FIRECLAY	704.76	66.80	9.48%	4 TH
5	CHINA CLAY	2595.66	190.14	7.33%	6 TH
6	MAGNETITE	10619.48	10.26	0.10%	8 TH
7	GOLD	39.02	0.035	0.090%	11 TH
8	DOLOMITE	7533.10	51.09	0.68%	13 TH

Prospect of Exploration and Mineral development in Jharkhand, India

A. BASE METAL

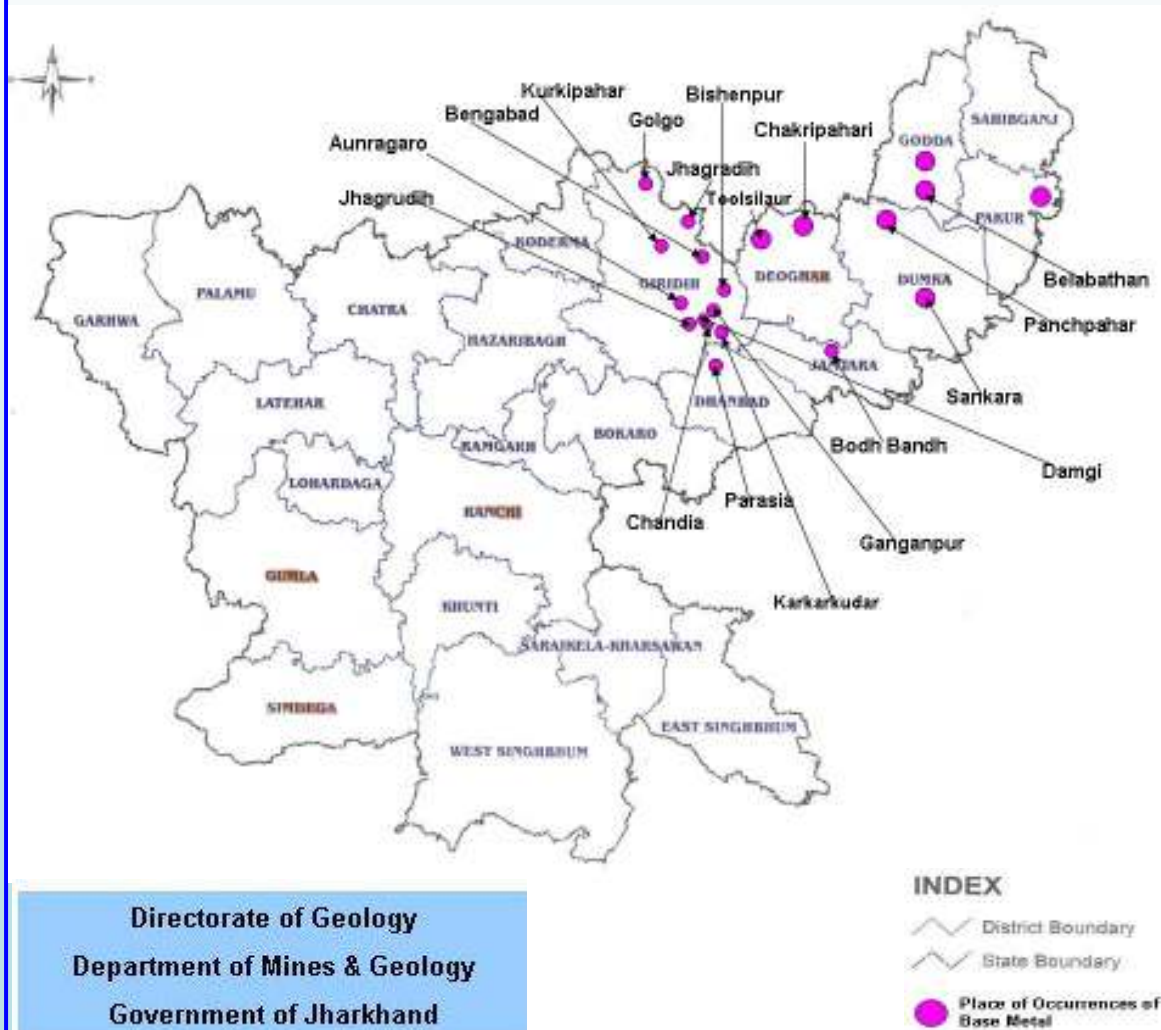


Map of Singhbhum Shear Zone

- ❖ There are ample scope for exploration & development. of base metal deposits.
- ❖ Jharkhand state is one of the richest states in terms of resource of base metal - copper along the Singhbhum Shear Zone in West Singhbhum district.
- ❖ Detail exploration for base metal is needed particularly along famous 167 kms long Singhbhum Thrust Zone :
 1. Along south eastern portion in the area located near Baharagora around Konds and Gohale to Darhaul.
 2. In the north to north eastern part along Singhbhum Thrust Zone from Ramchandra Pahar to Duorpuram – Karaikela – Benatangar.

Other Base metal locations beside Singhbhum Shear Zone

❖ Mineral exploration and development of base metal is also required in other districts of state where occurrences of base metals have been reported.



SL.NO.	LOCATION	DISTRICT	LAT.	LONG
1	Golgo	Giridih	24°24'	86°22'
2	Bengabad	Giridih	24°23'	86°22'
3	Bishenpur	Giridih	24°21'	86°24'
4	Chandio	Giridih	24°17'	86°26'
5	Jhagrudi	Giridih	24°30'	86°16'
6	Karkar Kudar	Giridih	24°17'	86°25'
7	Jhagrudi	Giridih	24°17'	86°26'
8	Ganganpur	Giridih	24°18'	86°27'
9	Damgi	Giridih	24°22'	86°13'
10	Aunragaro	Giridih	24°70'	86°16'
11	Kurkiphahari	Giridih	24°23'	86°15'
12	Belbathan	Godda	24°43'	87°18'
13	Toolsilaur	Deoghar	24°35'	86°37'
14	Chakripahari	Deoghar	24°34'	86°39'
15	Sankara	Dumka	24°17'	87°19'
16	Panch Pahar	Dumka	24°38'	87°10'
17	Bodh Bandh	Jamtara	24°00'	86°55'

Directorate of Geology
Department of Mines & Geology
Government of Jharkhand

B – PGM and Diamonds

Diamonds are identified in the village Simah(23°35'N:84°17'E) in Soumelpour and Tavermier in Koel river of Latehar district. It is also reported near Palkot in Gumla district.

Ultramafic rock of Singhbhum Thrust Zone are also one of the best horizon to locate PGM.

Platinum group of metal are reported in Kinkel and Kurdeg area of Simdega District

