

STATE REVIEWS



# Indian Minerals Yearbook 2021

(Part- I)

60<sup>th</sup> Edition

STATE REVIEWS  
(Sikkim)

(ADVANCE RELEASE)

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## SIKKIM

### Mineral Resources

The important mineral resources of the State are **copper-lead-zinc** and **silver**, reported in Bhotang, Rangpo and Dikchu in East Sikkim districts. Occurrences of other minerals reported in the State include **dolomite**, **quartzite** and **talc/steatite/soapstone** in West Sikkim district; **limestone** in North Sikkim district and **marble** in East Sikkim & North Sikkim districts (Table -1). The reserves/resources of coal and the coalfield located in Sikkim are reflected in Table - 2.

### Exploration & Development

The details of exploration work was conducted out by GSI during the year 2020-21 for the graphite mineral are furnished in Table-3.

### Production

No mineral production (except minor minerals) was reported in 2020-21. The value of minor minerals' production was estimated at `188 lakh for the year 2020-21.

### Mineral-based Industry

SMC, a joint venture of Government of Sikkim and Government of India was established for the purpose of development of Bhotang polymetallic ore deposit at Rangpo. Sikkim's Mines & Geology Department had set up a pilot dimension rock cutting unit and pilot lime making unit to ascertain the feasibility of setting up of commercial lime plant and dimension rock cutting plant in the State. A ferro alloys plant, namely, Akshay Ispat & Ferro Alloys Ltd with an installed capacity of 6,000 tpy is located at Mamring, South Sikkim district. The present status of these industries is not available.

**Table – 2 : Reserves/Resources of Coal as on 1.4.2021 : Sikkim**

(In million tonnes)				
Coalfield	Proved	Indicated	Inferred	Total
<b>Total/Rangit Valley</b>	-	58	43	101

*Source: Coal Directory of India, 2020-21.*

**Table –3 : Details of Exploration Activities in Sikkim, 2019-20**

Agency/ Mineral/ District	Location Area/ Block	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq km)	No. of boreholes	Meterage		
<b>GSI</b>							
<b>Graphite</b>							
West district Sikkim	Chitre-Dhareli- Kalijhar areas	-	50	-	-	-	Reconnaissance survey (G4) for graphite and base metal mineralisation was carried out .Four graphite mineralised zones had been demarcated in north east of Chitre, Uttrey, Dentam, and Sangkhu areas. Graphite occurred as lumpy to amorphous, flaky and vein type. Base metal mineralisation occurrences were also recorded in ferruginized quartzite at Chitre in stingers and dissemination in the form of pyrite, chalcopyrite and bornite. Analytical results showed Ni value up to 1878 ppm and V values upto 1190 ppm.

**Table – 1: Reserves/Resources of Minerals as on 1-04-2020 : Sikkim**

Mineral	Unit	Reserves				Remaining Resources				Total resources (A+B)		
		Proved STD 111	Probable STD121 STD122	Total Feasibility (A)	Pre-feasibility STD221 STD222	Measured STD331	Indicated STD332	Inferred STD333	Reconnaissance STD334		Total (B)	
STATE REVIEWS												
Copper												
Ore	'000 tonnes	-	-	-	445	63	300	-	150	-	958	958
Metal	'000 tonnes	-	-	-	7.86	0.91	8.47	-	4.23	-	21.47	21.47
Lead-Zinc												
Ore	'000 tonnes	-	-	-	436	64	300	-	150	-	950	950
Lead metal	'000 tonnes	-	-	-	6.9	1.68	-	-	-	-	8.58	8.58
Zinc metal	'000 tonnes	-	-	-	12.88	3.14	3	-	1.05	-	20.07	20.07
Limestone	'000 tonnes	-	-	-	-	-	-	-	2380	-	2380	2380
Silver												
Ore	tonnes	-	-	-	435843	63780	300000	-	150000	-	949623	949623
Metal	tonnes	-	-	-	15.25	0.04	27.6	-	13.8	-	56.69	56.69

*Figures rounded off*