

STATE REVIEWS



Indian Minerals Yearbook 2013 (Part- I)

52nd Edition

**STATE REVIEWS
(Arunachal Pradesh)**

(FINAL RELEASE)

**GOVERNMENT OF INDIA
MINISTRY OF MINES
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ARUNACHAL PRADESH

Mineral Resources

The important mineral resource of the State is **petroleum & natural gas** and its chief occurrence is reported in Ningru and Dam Duma areas. These hydrocarbon deposits are located in the Assam Arakan Fold Belt (AAFB) and Upper

Assam basin in the State. The State also reports resources of **coal** in Namchik Namphuk Coalfields; **dolomite** in West Kameng district; **fuller's earth** in Tirap district; **graphite** in Lohit, Upper Siang and Upper Subansiri districts; **limestone** in Dibang Valley, Lohit, Upper Siang and Upper Subansiri districts and **quartzite** in West Kameng district (Tables - 1 and 2).

Table – 1 : Reserves/Resources of Minerals as on 1.4.2010 : Arunachal Pradesh

Mineral	Unit	Total Reserves (A)	Remaining resources				Total resources (A+B)
			Indicated STD332	Inferred STD333	Reconnaissance STD334	Total (B)	
Dolomite	'000 tonnes	-	204	77633	-	77837	77837
Fuller's earth	tonne	-	10700	20000000	-	20010700	20010700
Graphite	tonne	-	-	-	72758257	72758257	72758257
Limestone	'000 tonnes	-	49220	433575	-	482795	482795
Quartzite	'000 tonnes	-	-	5270	-	5270	5270

Figures rounded off.

Resources of petroleum crude and natural gas in the State are included in Assam and are not available separately.

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

(In million tonnes)

Coalfield	Proved	Indicated	Inferred	Total
Total	31.23	40.11	18.89	90.23
Namchik - Namphuk	31.23	40.11	12.89	84.23
Miaobum	-	-	6.00	6.00

Source: Coal Directory of India, 2012-13.

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Exploration & Development

Exploration carried out by GSI and other agency during the year 2012-13 is furnished in Table-3.

Production

The value of mineral production in Arunachal Pradesh at ₹332 crore in 2012-13 decreased by 21% as compared to that of the previous year. The value of the mineral production in the state during 2012-13 was dominated by petroleum

(crude) with a share of 66% followed by coal 15% of the total value (Table-4).

The production value of minor minerals was estimated at ₹30 crores for the year 2012-13.

There was only 1 reporting mine of coal during both the year.

The index of mineral production in Arunachal Pradesh (base 2004-05=100) was 165.8 in 2012-13 as compared to 161.6 in the previous year.

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

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq km)	No. of boreholes	Meterage		
GSI Basemetal	Pakro-East Ningcho	1:12,500	48.0	-	-	11	Reconnaissance stage investigation (G-4) was carried out to delineate zones of base metal and associated mineralisation. The mapped area exposes Palaeo-proterozoic rocks of Bomdila Group represented by Khetabari Formation and Ziro gneiss. No significant basemetal mineralisation has been noticed in the studied area. The channel/BRS samples were collected from the gossanised and ferruginised portions for estimation of basemetal and precious metal contents from four localities. The mineralisation occurs within the quartzite bands which occur as enclaves within schist of the Khetabari Formation. A zone of highly oxidised and ferruginised BMQ is exposed in a road section near Village Ningcho. 11 channel samples were collected and analysed for copper content which ranges from 0.22% to 0.66%. The analytical result of the gold values is yet to be received. Malachite stains were observed in the rolled boulders. The investigation has been completed.

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Table – 3 (Concl.)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq km)	No. of boreholes	Meterage		
GSI							
PGE							
Lower Dibang Valley	Anjaw, Lohit	1:12,500 1: 2,000	41.0 2.50	-	-	-	Reconnaissance stage investigation (G-4) was carried out to search for PGE and gold mineralisation in mafic-ultramafic suites. This was a new item of two year duration initiated in FS.2012-13. An area of 41 sq km was covered by Large Scale Mapping along with detailed mapping. The study area lies in the Trans-Himalayan belt comprising two different litho packages of Suture zone. The first is the Yang Sang Chu Formation and Tidding Formation with serpentinites and the second, the Lohit Granitoid Complex. The metavolcanics of the Tidding Formation are predominantly tremolite-chlorite-schist to chlorite-schist associated with crystalline limestone and graphitic schist. Dykes and sills of amphibolite and ultramafics are noted occasionally. The analytical result of some bedrock sample so far received shows anomalous values of Cr i.e., 2291 ppm, 3102 ppm and 7658 ppm and Ni 2179 ppm, 2221 ppm, 2314 ppm, 2383 ppm and 2529 ppm. The investigation will be continued during 2013-14.
MECL							
Dolomite							
West Kameng	Rupa block	1:5,000	3.20	6	594.0	626	Main objective of exploration was to delineate the depth continuity of dolomite. High grade pelitic & psammitic, meta-sediments and intervening mafic bodies of late Archean to Palaeo-Proterozoic age were identified by GSI. A total of 561.26 million tonnes dolomite resources were estimated with grade 1.37% SiO ₂ , 30.50% CaO & 20.95 MgO, out of which about 151.91 million tonnes resources are placed under 332 category & 409.35 million tonnes under 333 category.

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

(Value in ₹ '000)

Mineral	Unit	2010-11			2011-12			2012-13 (P)		
		No. of mines	Qty	Value	No. of mines	Qty	Value	No. of mines	Qty	Value
All Minerals		1		3871683	1		4195752	1		3322044
Coal	'000t	1	299	1106000	1	221	1464100	1	73	483600
Natural Gas (utilised)	m c m	-	44	281644	-	40	287733	-	41	339075
Petroleum(crude)	'000t	-	116	2117949	-	118	2143819	-	121	2199269
Minor Minerals@		-	-	366090	-	-	300100	-	-	300100

Note : The number of mines for petroleum (crude), natural gas (utilised) and minor minerals are not available.

@ Figures for earlier years have been repeated as estimates because of non-receipt of data.