

STATE REVIEWS



# Indian Minerals Yearbook 2013

(Part- I)

**52<sup>nd</sup> Edition**

**STATE REVIEWS  
(Meghalaya)**

**(FINAL RELEASE)**

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

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**September, 2015**

## MEGHALAYA

### Mineral Resources

Coal and limestone are the only major minerals mined in the State. **Coal** occurs in Mikir Hills, Khasi Hills, Jaintia Hills and Garo Hills districts. The production of upgraded coal was reported by private non-captive mines in the unorganised sector located in these areas except Mikir Hills district. The mines are operated mostly by the local tribals in their private lands. Resources of **limestone** occur in West Garo Hills, East Khasi Hills, West Khasi Hills and Jaintia Hills districts. Other mineral occurrences are **apatite** in Jaintia Hills district; **china clay** in East Garo Hills & West Garo Hills, Jaintia Hills & East Khasi Hills districts; **copper, lead-zinc, silver and titanium minerals** in East Khasi Hills district; **felspar** and **rock phosphate** in East Garo Hills & Jaintia Hills districts; **fireclay** in East Khasi Hills & West Garo Hills districts; **granite** in West Khasi Hills district; **iron ore (magnetite)** in East Garo Hills district; **quartz** and **silica sand** in East Garo Hills, West Garo Hills & East Khasi Hills districts; and **sillimanite** in West Khasi Hills district (Table -1). The various coalfields and their reserves/resources in the State are given in Table-2.

### Exploration & Development

Details of exploration activities conducted by GSI & various agencies during 2012-13 are furnished in Table - 3.

### Production

The value of mineral production in Meghalaya was at ₹3,940 crore in 2012-13 was 20% lower as compared to that in the previous year. About 95% of the value of mineral production was accrued from coal during the year under review whereas the remaining was contributed by limestone and minor minerals.

Meghalaya is an important coal producer of the country. The production of coal is spread over in Jaintia hills, Garo Hills, East Khasi hills and West Khasi hills areas. The entire production is of ungraded coal mined from the large number of small scale mines operated mostly by the local tribal in unorganised private sector. Therefore number of coal mines for the state is not available (the mine indicated in the table for previous years was only a representation of production unit). (Table- 4).

The value of minor minerals production was estimated at ₹721 lakh for the year 2012-13.

There were 14 reporting mines in (all of limestone) 2012-13 as against 13 in the previous year.

The index of mineral production in Meghalaya (base 2004-05=100) was 112.2 in 2012-13 as compared to 141.9 in the previous year.

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

(In million tonnes)

Coalfield	Proved	Indicated	Inferred	Total
<b>Total</b>	<b>89.04</b>	<b>16.51</b>	<b>470.93</b>	<b>576.48</b>
West Darangiri	65.40	-	59.60	125.00
East Darangiri	-	-	34.19	34.19
Balphakram-Pendenguru	-	-	107.03	107.03
Siju	-	-	125.00	125.00
Langrin	10.46	16.51	106.19	133.16
Mawtong Shelia	2.17	-	3.83	6.00
Khasi Hills	-	-	10.10	10.10
Bapung	11.01	-	22.65	33.66
Jaintia Hills	-	-	2.34	2.34

*Source: Coal Directory of India, 2012-13.*



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

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling	Remarks Reserves/Resources estimated
		Scale	Area (sq km)	No. of boreholes	Meterage		
<b>GSI</b>							
<b>Iron Ore</b>							
West Khasi Hills	Around Rambrai	-	-	-	-	16	Reconnaissance stage investigation (G-4) was carried out to delineate the vanadiferous-titaniferous magnetite bodies within Pre Cambrian gneissic complex. The dominant lithology is medium to coarse grained, crudely foliated granite gneiss. One mappable magnetite body has been delineated east of Lawdingbah, at Mawlangria, which trends NNE-SSW with a width of about 50 m and extending for about 300 m. The outcrop is bouldary in nature and does not have depth continuity. A total of ten out of 16 samples for lateritic bauxite indicate more than 45% Al <sub>2</sub> O <sub>3</sub> content with a maximum of 62.29% Al <sub>2</sub> O <sub>3</sub> . The Cr value is significant with seven samples having more than 600 ppm with maximum being 1213 ppm. Four samples of magnetite show Fe <sub>2</sub> O <sub>3</sub> content in the range of 42.41% to 50.69%, TiO <sub>2</sub> from 13.1% to 16.25%, V- 6304 ppm to 7654 ppm, Cr-6020 ppm to 6817 ppm. The investigation will be continued in F.S.2013-14.
<b>Limestone</b>							
Jaintia Hills	Litang Valley	-	-	14	1837.0	607	Prospecting stage investigation (G-3) was carried out to explore limestone resources in the peripheral area of the Litang valley limestone deposit. The area comprises limestone of Shella Formation belonging to Jaintia Group of Eocene age. The limestone is grey to dark grey in colour, medium grained and highly fossiliferous. Drill core samples were collected. An inferred resource (333) of 389.68 million tonnes of unclassified grade have been estimated from 12 boreholes of Umphyrluh block thus augmenting the total resources in all the 12 blocks of Litang Valley, including Umphyrluh block to 9071 million tonnes of different grades of limestone. The resource is expected to be further augmented with the progress of drilling. The investigation has been completed.

(Contd)

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Table - 3 (Concl.)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling	Remarks
		Scale	Area (sq km)	No. of boreholes	Meterage		
<b>MECL</b>							
Limestone Jaintia Hills	Tongnub SE South block	1:5,000	1.10	8	1148.50	483	The main objective was to delineate the depth continuity of limestone, and to upgrade earlier estimates. Sedimentary rocks of Tertiary age was exposed in and around the area from Khliehriat in the west, to Litang river valley in the east. The limestone is a bedded deposit striking NNE-SSW. The thickness of limestone band varies from 53.43 m to 145.0 m based on sub-surface data. About 274.04 million tonnes of limestone resources were estimated with average grade 2.27% SiO <sub>2</sub> , 50.79% CaO, 1.57% MgO, 0.95% Al <sub>2</sub> O <sub>3</sub> , 1.17% Fe <sub>2</sub> O <sub>3</sub> & 41.57% LoI.

**Table – 4 : Mineral Production in Meghalaya, 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
<b>All Minerals</b>		<b>10</b>		<b>26244680</b>	<b>13</b>		<b>49424246</b>	<b>14</b>		<b>39400798</b>
Coal	'000t	1	6974	25796800	1	7206	47739800	-	5640	37365000
Limestone	'000t	9	1783	374170	12	4216	1607232	14	3893	1962575
Sand (others)	t	-	10220	1635	-	32940	5139	-	7022	1148
Minor Minerals@		-	-	72075	-	-	72075	-	-	72075

*Note: The number of mines excludes minor minerals.*

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

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**Mineral-based Industry**

The important large and medium-scale

mineral-based industries in the organised sector in the State are given in Table - 5.

**Table – 5 : Principal Mineral-based Industries in Meghalaya**

Industry/plant	Capacity (‘000 tpy)
<b>Cement</b>	
Mawmluh Cherra Cements Ltd, Cherapunji, Dist. East Khasi Hills.	210
Meghalaya Cements Ltd, Thangshai, Dist. Jaintia Hills.	495
Cement Manufacture Co. Ltd, Lumshnong Khleehriat.	590 tpd
CMJ Cement, East Garo Hills.	1000 tpd
Megha Technical & Engineering (P) Lumshnong, Dist. Jaintia Hills.	462
<b>Ferro-alloys</b>	
Jaintia Ferro Alloys Pvt. Ltd, Byrnihat.	6.0
<b>Iron &amp; Steel</b>	
Jai Kamakhya Alloy.	815 tpd