

Indian Minerals Yearbook 2013

(Part- I)

52nd Edition

STATE REVIEWS (Jammu & Kashmir)

(FINAL RELEASE)

GO VERNMENT OF INDIA MINISTRY OF MINES INDIAN BUREAU OF MINES

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JAMMU & KASHMIR

Mineral Resources

Jammu & Kashmir is the sole holder of country's borax and sapphire resources and possesses 36% graphite, 21% marble and 14% of gypsum. Coal, gypsum and limestone are the important minerals produced in the State. Coal occurs in Poonch, Rajouri and Udhampur districts; gypsum in Baramulla and Doda districts; limestone in Anantnag, Baramulla, Kathua, Leh, Poonch, Pulwama, Rajauri, Srinagar and Udhampur districts; and magnesite in Leh and Udhampur districts.

Other minerals that occur in the State are bauxite, ball clay and china clay in Udhampur district; bentonite in Jammu district; borax and sulphur in Leh district; diaspore in Rajouri and Udhampur districts; graphite in Baramulla district; lignite and marble in Kupwara district; quartz and silica sand in Anantnag, Doda and Udhampur districts; quartzite in Anantnag district; and sapphire in Doda district (Tables - 1 and 2).

Exploration & Development

The details of exploration carried out by GSI in the state are furnished in Table - 3.

Production

The value of mineral production in Jammu & Kashmir at ₹169 crore during 2012-13 decreased marginally as compared to that of the previous year.

The minerals produced in the state were coal, limestone and gypsum. Minor minerals dominate the value of mineral production contributing 95% of the total value of mineral production in the state followed by coal & limestone with 2% each and remaining contribution was from gypsum. In the year under review, the production of gypsum increased by 42% while it decreased by 5% and 15% respectively for coal and limestone as compared to the level of previous year (Table-4).

The production value of minor minerals was estimated at ₹161 crore for the year 2012-13.

There were eight reporting mines in 2012-13 as against 10 in the previous year.

The index of mineral production in Jammu & Kashmir (base 2004-05=100) was 92.1 in 2012-13 as compared to 92.5 in the previous year.

Mineral-based Industry

Jammu & Kashmir Cements Ltd, a State Government undertaking, operates a cement plant of 1.98 lakh tpy capacity at Khrew in Pulwama district. The company also owns a tiny cement plant of 20,000 tpy capacity located at Wuyan in Srinagar district besides two other tiny cement plants that have a total capacity of 39,000 tpy. The State also has a 1,800 tpy capacity Unit that manufactures ceramic and refractory products in District Kathua. A 3,000 tpy capacity calcium carbide plant is situated at District Pulwama.

Table - 1: Reserves/Resources of Minerals as on 1.4.2010: Jammu & Kashmir

| | | | Res | Reserves | | | | | Remaining | Remaining resources | | | | |
|-----------------------|--------------------|---------|--------|----------|--------|-------------|--------|-----------------|-----------|---------------------|------------------|----------------------|------------|-----------|
| Mineral | Unit | Proved | Prok | Probable | Total | Feasibility | Pre-fe | Pre-feasibility | Measured | Indicated | Inferred | Reconnaissance Total | ance Total | resources |
| | | SID III | STD121 | STD122 | (A) | STD211 | STD221 | STD222 | STD331 | STD332 | STD333 | STD334 | (B) | (A+B) |
| Bauxite | '000 tonnes | • | ı | ı | 1 | | ı | 1 | 1323 | 182 | 520 | • | 2025 | 2025 |
| Bentonite | tonne | , | 1 | , | 1 | ı | 1 | 1 | 1 | ı | 147400 | 1 | 147400 | 147400 |
| Borax | tonne | • | 1 | • | 1 | ı | 1 | 1 | 1 | ı | 1 | 74204 | 74204 | 74204 |
| China clay | '000 tonnes | , | 1 | , | 1 | ı | 1 | 1 | 1 | ı | 28122 | 1 | 28122 | 28122 |
| Diaspore | tonne | 1 | ı | • | ı | ı | 1 | 1 | 1 | 999 | 711 | 1 | 1277 | 1277 |
| Graphite | tonne | • | 1 | • | 1 | ı | 1 | 1 | 1 | ı | 1059520 61681035 | 61681035 | 62740555 | 62740555 |
| Gypsum | '000 tonnes 1664 | 1664 | 153 | 442 | 2259 | 4784 | 9785 | 6570 | 7680 | ı | 146694 | 1 | 175513 | 177772 |
| Limestone | '000 tonnes 257480 | 257480 | 5525 | 54100 | 317106 | 42116 | 21686 | 165199 | 43621 | ı | 1001420 | 203 | 1274246 | 1591352 |
| Magnesite | '000 tonnes | 2610 | 740 | • | 3350 | 009 | 100 | 1 | 1 | ı | 150 | 45 | 895 | 4245 |
| Marble | '000 tonnes | • | 1 | • | 1 | ı | ı | 1 | 1 | ı | 404703 | 1 | 404703 | 404703 |
| Quartz-silica sand | '000 tonnes | 1 | ı | ı | 1 | 1 | ı | ı | 1 | 1 | 3110 | ı | 3110 | 3110 |
| Quartzite | '000 tonnes | 1500 | 58 | | 1558 | ı | 1 | | 1 | ı | 1 | 1 | 1 | 1558 |
| Sapphire | kg | 1 | ı | 1 | 1 | ı | 1 | ı | 1 | ı | 450 | 1 | 450 | 450 |
| Sulphur (native) | '000 tonnes | 1 | 1 | ı | 1 | • | 1 | 1 | | , | 210 | ı | 210 | 210 |
| | | | | | | | | | | | | | | |

Figures rounded off.

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Table - 2: Reserves/Resources of Lignite as on 1.4.2013: Jammu & Kashmir

(In million tonnes)

| District | Proved | Indicated | Inferred | Total |
|----------|--------|-----------|----------|-------|
| Total | - | 20.25 | 7.30 | 27.55 |
| Kupwara | - | 20.25 | 7.30 | 27.55 |

Source: Coal Directory of India, 2012-13.

Table -3: Details of Exploration Activities in Jammu & Kashmir, 2012-13

| Agency/ | Location | Maj | oping | Dri | lling | Sampling | Remarks |
|--------------------------------|-----------------|---------------------|--------------|------------------|----------|----------|------------------------------------|
| Mineral/ District | | Scale | Area (sq km) | No. of boreholes | Metreage | | Reserves/Resources estimated |
| GSI Base Metal Baramulla | Buniyar area | 1:25,000 1:2,000 | - | - | - | - | Reconnaissance stage investigation |

(G-4) was carried out to reassess the nature and extent of Pb-Zn and other associated mineralisation in the area. An area of 0.2 sq km has been covered by detailed mapping (1:2000) along with 10 sq km of large scale mapping (1:25,000) in Banali -Tirkanjan area of Baramulla district, J&K. The area exposes the rocks belonging to Tirkanjan and Baren formations of Dogra Group of Meso-Proterozoic age. The Trikanjan Formation is composed of grey sericitic phyllite and chloritic phyllite intruded by basic sills. The Baren Formation is composed of quartz sericite phyllites, quartz chloritic phyllites with basaltic flows. Two sets of quartz veins are sparsely distributed, in which one set is parallel to bedding/ foliation and contains sulphide mineralisation and other set which is oblique is devoid of mineralisation. Surface indications of mineralisation are recorded in the form of limonitisation, ferrugenisation, poor to well developed gossan and presence of old trenches and pits. Galena commonly occurs in the form of chunks, nodules and dissemination within quartz veins along with other associated sulphide minerals such as pyrite, chalcopyrite, sphalerite and arsenopyrite. The mineralised veins are impersistent without any noticeable lateral or depth persistence and evidences of pinching and swelling is recorded. The mineralisation is of hydrothermal origin. The investigation has been completed.

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Table – 4: Mineral Production in Jammu & Kashmir, 2010-11 to 2012-13 (Excluding Atomic Minerals)

(Value in ₹'000)

| M:1 | Unit | | 2010-11 | | | 2011 | -12 | | 2012-13 (P) | | | |
|-----------------|-------|--------------|---------|---------|--------------|-------|---------|--------------|-------------|---------|--|--|
| Mineral | | No. of mines | Qty | Value | No. of mines | Qty | Value | No. of mines | Qty | Value | | |
| All Minerals | | 10 | | 1477065 | 10 | | 1697170 | 8 | | 1691572 | | |
| Coal | '000t | 7 | 24 | 22400 | 7 | 20 | 42500 | 4 | 19 | 40400 | | |
| Gypsum | t | 2 | 38143 | 11443 | 2 | 29505 | 8852 | 3 | 41830 | 12599 | | |
| Limestone | '000t | 1 | 154 | 26991 | 1 | 225 | 34162 | 1 | 192 | 26917 | | |
| Minor Minerals® | | - | - | 1416231 | - | - | 1611656 | - | - | 1611656 | | |

Note: The number of mines excludes minor minerals.

[@] Figures for earlier years have been repeated as estimates, wherever necessary, because of non-receipt of data.