

CHAPTER-8: Minerals of India / भारत के खनिज

1. Importance of Minerals / खनिजों का महत्व

- Minerals = backbone of industrial development.
 - Provide raw materials for industries (iron–steel, power, chemicals, fertilizers).
 - खनिज = औद्योगिक विकास की रीढ़; उद्योगों हेतु कच्चा माल।
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2. Metallic Minerals / धात्विक खनिज

(a) Iron Ore (लौह अयस्क)

- **Types:** Hematite (high grade), Magnetite (best quality).
- **Uses:** Steel industry.
- **Distribution:**
 - Odisha → *largest* (Mayurbhanj, Keonjhar, Sundargarh).
 - Jharkhand (Singhbhum).
 - Chhattisgarh (Bailadila mines).
 - Karnataka (Bellary, Chitradurga).
 - Goa.

Fact: India = 4th largest producer of iron ore.

(b) Manganese (मैंगनीज़)

- Used in **steel making, batteries, chemicals.**
 - **Distribution:**
 - Odisha (Sundargarh, Keonjhar).
 - Karnataka (Bellary, Chitradurga).
 - MP, Maharashtra.
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(c) Bauxite (बॉक्साइट)

- Ore of **aluminium**.
 - **Distribution:**
 - Odisha → *largest* (Koraput, Kalahandi).
 - Gujarat (Jamnagar, Kutch).
 - MP, Maharashtra, Jharkhand.
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(d) Copper (ताँबा)

- Used in electrical industry, alloys.
 - **Distribution:**
 - Rajasthan → *largest* (Khetri mines, Jhunjhunu).
 - Jharkhand (Singhbhum).
 - MP (Balaghat).
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(e) Gold (सोना)

- **Distribution:**
 - Karnataka - Hutti Gold Mine (Kolar (KGF) mines → now closed).
 - Jharkhand (Singhbhum).
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3. Non-Metallic Minerals / अधात्विक खनिज

(a) Mica (अभ्रक)

- Used in **electrical, electronics, paints**.
 - **Distribution:**
 - Jharkhand (Koderma, Giridih).
 - Bihar, Andhra Pradesh, Rajasthan.India once = *largest producer of mica*.
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(b) Limestone (चूना पत्थर)

- Raw material for **cement, iron–steel industry**.
 - Found in MP, Andhra, Rajasthan, Gujarat, Chhattisgarh.
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(c) Gypsum (जिप्सम)

- Used in **cement, fertilizers, plaster**.
 - Found in Rajasthan, Tamil Nadu, Jammu–Kashmir.
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4. Energy Minerals / ऊर्जा खनिज

(a) Coal (कोयला)

- **Types:** Anthracite (best, J&K), Bituminous (most common), Lignite (TN), Peat.
 - **Uses:** Power, steel, cement.
 - **Distribution:**
 - Jharkhand (Jharia, Bokaro).
 - Odisha (Talcher).
 - Chhattisgarh (Korba).
 - West Bengal (Raniganj).
 - MP (Singrauli).
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(b) Petroleum (खनिज तेल)

- **Uses:** Fuel, petrochemicals.
 - **Distribution:**
 - Assam (Digboi, Naharkatia, Moran).
 - Gujarat (Ankleshwar, Kalol).
 - Mumbai High (offshore).
 - Rajasthan (Barmer).
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(c) Natural Gas (प्राकृतिक गैस)

- Found with petroleum.
 - Major fields: Assam, Mumbai High, KG Basin (Andhra–Telangana coast), Tripura.
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(d) Thorium & Uranium (थोरियम/यूरेनियम)

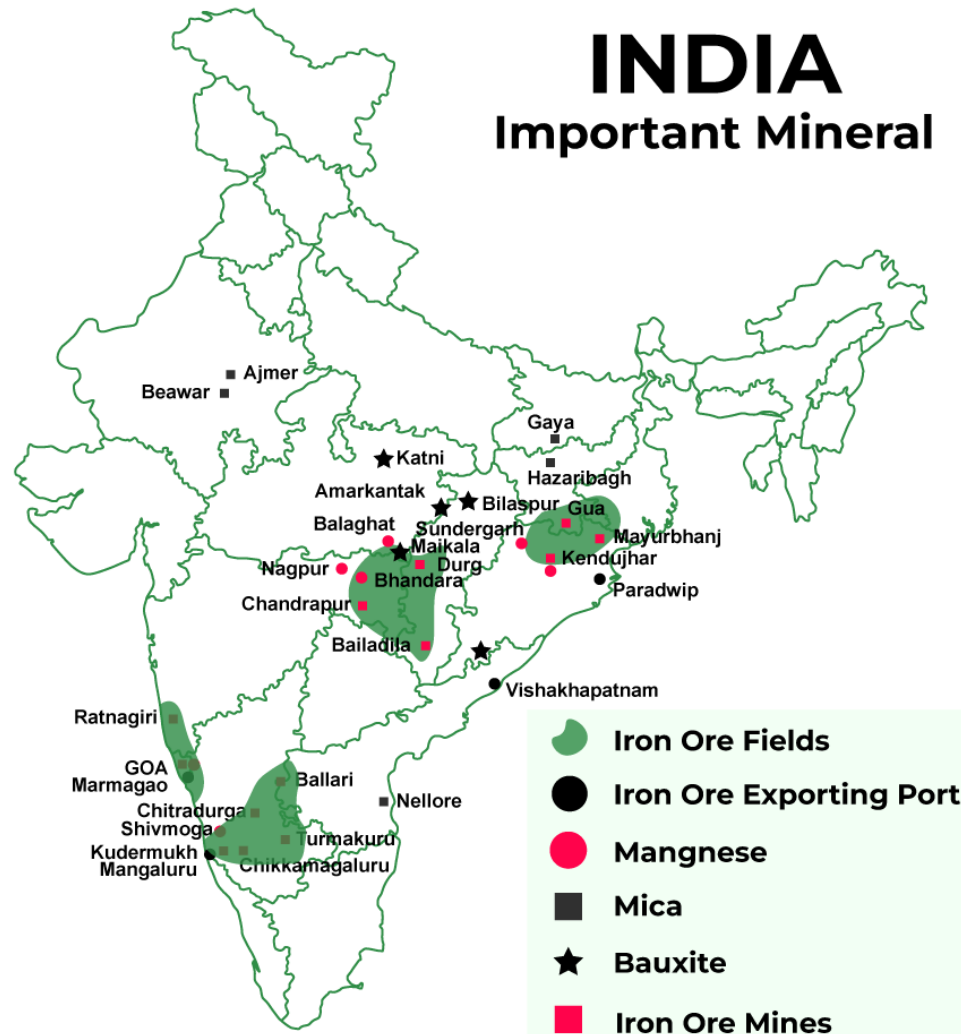
- Used in nuclear power.
 - Thorium → Kerala sands.
 - Uranium → Jharkhand (Jaduguda), Andhra.
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Exam Quick Facts

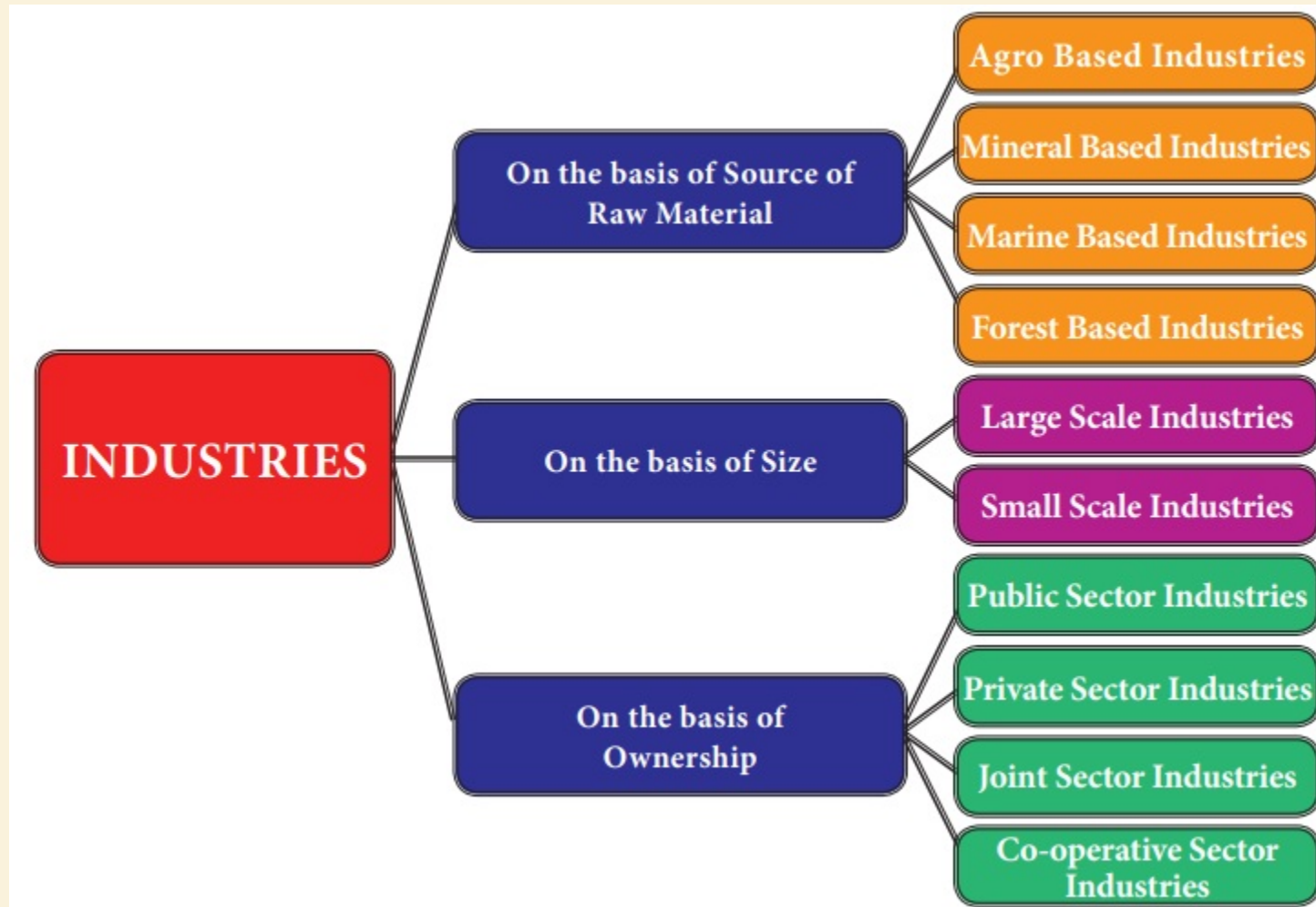
- Largest iron ore state → **Odisha**.
- Largest coal producer → **Odisha (previously Jharkhand)**.
- Largest bauxite → **Odisha**.
- Largest copper → **Rajasthan**.
- Petroleum oldest well → **Digboi (Assam)**.
- Offshore petroleum → **Mumbai High**.
- Gold mines → **Kolar, Hutti (Karnataka)**.
- Nuclear minerals → **Uranium (Jharkhand), Thorium (Kerala sands)**.

INDIA

Important Mineral



Chapter-9: Industries of India / भारत के प्रमुख उद्योग



1. Industrial location factors / औद्योगिक स्थापना के कारक

- **Raw material proximity** (iron ore—coal for steel; limestone for cement).
कच्चा माल निकटता (इस्पात हेतु लौह अयस्क—कोयला; सीमेंट हेतु चूना पत्थर)।
 - **Energy** (coal, hydro, gas, power cost).
ऊर्जा (कोयला/जलविद्युत/गैस)।
 - **Water, labour, capital, market access, transport & ports.**
जल, श्रम, पूंजी, बाज़ार, परिवहन व बंदरगाह।
 - **Policy & infra** (corridors, SEZs, clusters).
नीतियाँ व अवसंरचना (कॉरिडोर, SEZ, क्लस्टर)।
 - **Footloose industries:** low raw-material weight, **IT/electronics**, follow **skills & connectivity**.
फुटलूस: कम वजनी इनपुट; आईटी/इलेक्ट्रॉनिक्स—कौशल/कनेक्टिविटी आधारित।
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2. Major Industries / प्रमुख उद्योग:

(a) Iron & Steel Industry (लौह—इस्पात उद्योग)

- Based on **iron ore, coal, limestone**.
- First plant: **TISCO (1907), Jamshedpur**.

- Major centres: Jamshedpur, Bhilai (Chhattisgarh), Rourkela (Odisha), Durgapur (WB), Bokaro (Jharkhand), Salem (TN).
- Controlled by **SAIL, TISCO, RINL**.
India = **2nd largest crude steel producer** (after China).

(b) Cotton Textile Industry (कपास वस्त्र उद्योग)

- Oldest industry of India.
- Raw material: Cotton (Deccan black soil belt).
- Centres: Mumbai, Ahmedabad, Surat, Coimbatore, Kanpur, Indore.
Provides largest employment in manufacturing.



(c) Jute Industry (जूट उद्योग)

- Raw material: Jute (West Bengal = >80% of India).
- Centres: Kolkata, Howrah, Hooghly belt.
India = largest jute producer; Bangladesh = main competitor.



(d) Sugar Industry (गन्ना उद्योग)

- Raw material: Sugarcane.
 - Concentrated in UP, Maharashtra, Karnataka, Bihar.
India = largest sugar producer (previously Brazil). India is also largest consumer.
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(e) Cement Industry (सीमेंट उद्योग)

- Raw material: Limestone, gypsum, coal.
 - Centres: MP, Rajasthan, Gujarat, AP, TN, Bihar.
India = 2nd largest cement producer (after China).
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(f) Paper Industry (कागज उद्योग)

- Raw material: Bamboo, wood pulp.
 - Centres: WB, Odisha, Kerala, AP, Maharashtra.
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(g) Automobile Industry (ऑटोमोबाइल उद्योग)

- Major hubs: Pune, Chennai, Gurugram–Manesar, Sanand (Gujarat), Bengaluru.
- Companies: Tata Motors, Maruti Suzuki, Hyundai, Ashok Leyland.

(h) Information Technology (आईटी उद्योग)

- Software & IT hubs: Bengaluru (Silicon Valley of India), Hyderabad, Pune, Gurugram, Chennai.
 - India = leading IT service exporter.
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3. Major Industrial Regions / भारत के औद्योगिक क्षेत्र

(Based on high concentration of industries, transport, raw material availability)

Hooghly Industrial Region (WB): Jute, engineering, chemicals.

Mumbai–Pune Region (MH): Cotton textiles, automobiles, petrochemicals.

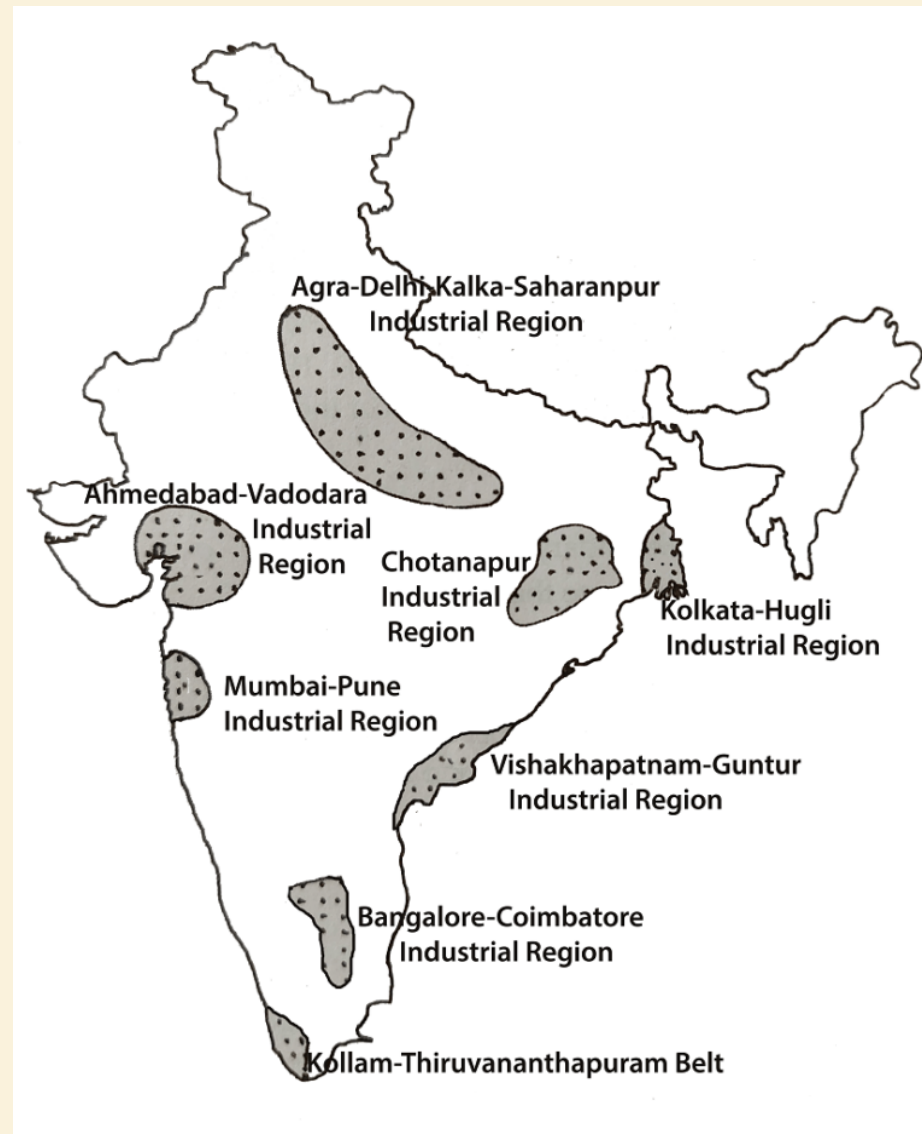
Bengaluru–Tamil Nadu Region: IT, silk, textiles, engineering.

Chhota Nagpur Plateau (Jharkhand–Odisha–Chhattisgarh): Iron–steel, coal, heavy engineering.

Delhi–Meerut Region: Electronics, textiles, automobiles.

Ahmedabad–Vadodara (Gujarat): Textiles, chemicals, petrochemicals.

Ludhiana–Amritsar (Punjab): Woollen, hosiery, sports goods.



Exam Quick Facts

- First steel plant → **TISCO (Jamshedpur, 1907)**.
 - Largest steel producer → **JSW Steel + SAIL**.
 - Oldest industry → **Textile (cotton)**.
 - Largest jute state → **West Bengal**.
 - Largest sugarcane state → **Uttar Pradesh**.
 - Largest cement producer → **Rajasthan**.
 - Silicon Valley of India → **Bengaluru**.
 - Chhota Nagpur Plateau → **“Ruhr of India”** (rich in minerals & industries).
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