

# MINERAL RESOURCES

**Minerals** are **natural substances** of organic or inorganic origin with definite chemical and physical properties two type of Minerals are metallic and Non-metallic.

## UNIQUE Characteristics of Minerals:

- a) They are not evenly distributed over space.
- b) They are exhaustible over time.
- c) They have inverse relationship in quality & quantity.

## IMPORTANCE OF MINERALS:

- i) The economic development of a country is dependent on minerals
- ii) They form the base of several large-scale industries.
- iii) Fertilizers are also made from minerals.

**IRON ORE** - Most widely distributed mineral. Forms the backbone of modern civilisation and foundation of our basic industry. India is one of the largest iron producing country.



## VARIETIES OF IRON ORE -

- a) **Haematite** - 'red ore' contain 60 - 70% pure iron. Odisha, Jharkhand.
- b) **Magnetite** - 'black ore' contain > 70% pure iron. Tamil Nadu, Karnataka.
- c) **Limonite** - 'brown ore' contain 35 - 50% pure iron. Uttarakhand, U.P.

## USES OF IRON ORE -

- 1) 90% of it make steel as it is strong and hard.

2) Used in metallurgy products like magnets, auto parts.

3) Radioactive iron is used in medicine and research.

## **DISTRIBUTION**

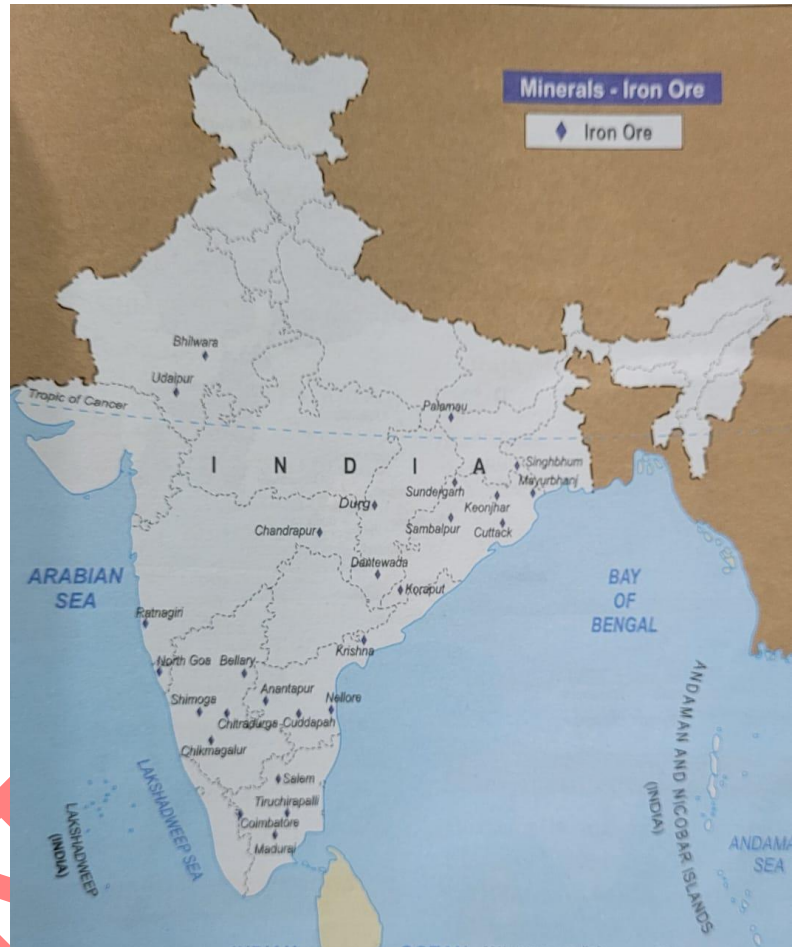
Chhattisgarh- Bailadilla in Dantewada and Durg.

Jharkhand - Singhbhum and Palamau.

Odisha - Keonjhar, Mayurbhanj, Sambalpur.

Karnataka - Chikmagalur, Bellary, Hospet.

Tamil Nadu - Salem, North Arcot, Tiruchirapalli.



**MANGANESE** - is a black, hard and iron-like metal which occurs as natural oxide. It is an important raw material for smelting of Iron Ore and also used for manufacturing ferro alloys.

## **Uses:**

1) To make steel hard and rust-free.

2) To make black enamel, bleaching powder.

3) To make dry cells batteries.



4) To make enzymes for metabolism of fats & protein. It regulates sugar and support immune system.

### **Distribution**

Andhra Pradesh - Vishakhapatnam, Srikakulam

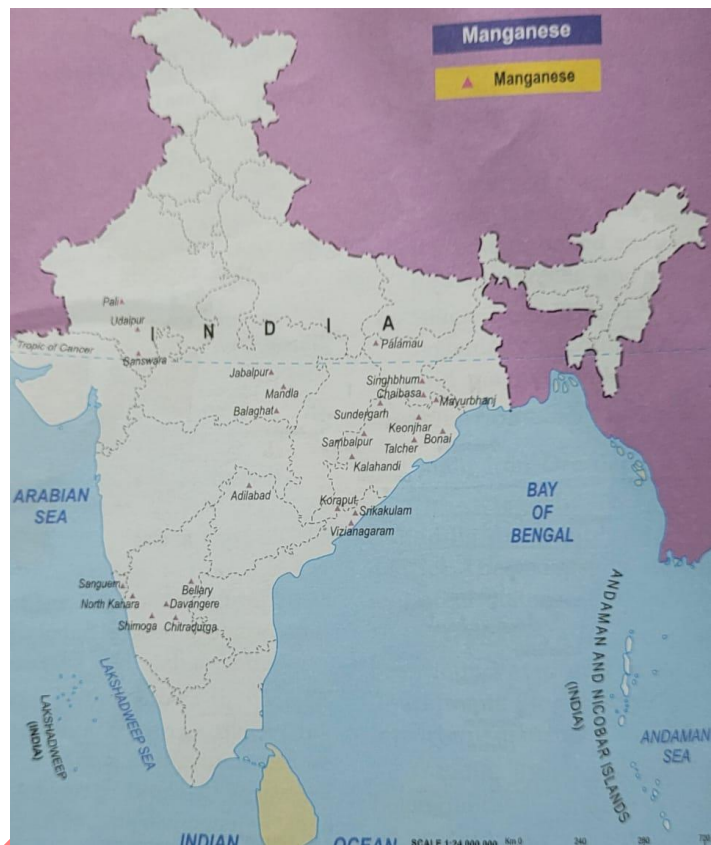
Telangana - Adilabad

Jharkhand - Singhbhum, Palamau

Karnataka - Sandur, Shimoga, Chitradurga, Bellary

Madhya Pradesh - Chhindwara, Balaghat, Mandla

Maharashtra - Nagpur, Bhandara



**COPPER** - is an important non-ferrous metal and the earliest metal used by man. In nature, copper occurs in the native form and in three principal combinations, that is, sulphides, oxides and carbonates.



### **USES:**

1) Used for making electric wire and equipment.

2) Used in automobiles and defence industry.

3) Used to make stainless steel which is used for making utensil.

4) With zinc it forms brass and with tin forms bronze.

## Distribution

M.P. - Balaghat Betul, Jabalpur.

Rajasthan - Alwar, Ajmer,

Bharatpur, Bhilwara, Bundi etc.

Maharashtra - Bhandara,

Chandrapur

Andhra Pradesh - Guntur, Kurnool



## BAUXITE

Bauxite is an oxide of aluminium. It is found mainly in tertiary deposits and is associated with laterite rocks occurring extensively either on the plateau or hill ranges of Peninsular India and also in the coastal tracts of the country.



## USES

(i) Bauxite is the main source of aluminium, which is a lightweight, strong and rust resistant metal.

(ii) Aluminium is used in aircrafts, automobiles, rail wagons, coaches, shipping industry and household appliances.

(iii) It is used in electrical equipment industry and for transmitting electricity because it is a good conductor of electricity.

(iv) Pure aluminium is the best material for making headlight reflectors and mirrors and in telescopes.

## DISTRIBUTION

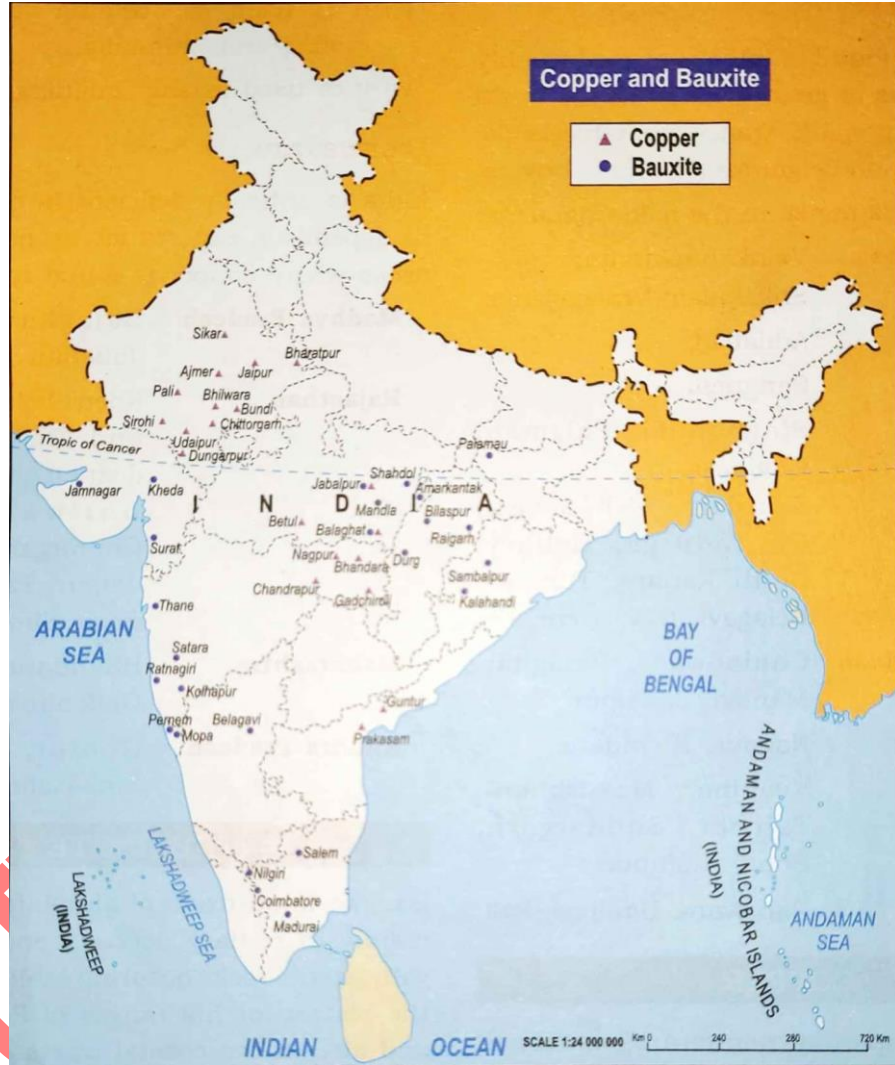
There are extensive deposits of bauxite in India. The main reserves are found in the following States:

Goa - Mopa and Pernem

Odisha - Kalahandi and Sambalpur

Gujarat - Jamnagar, Kheda, Surat and Kutch

Madhya Pradesh - Jabalpur, Balaghat, Shahdol, Mandla and Amarkantak Plateau



SIR TARIK