JORC classification vs. UNFC

Why in news?

In a bid to spur private investment in India's mining sector, representatives of Vedanta Group pushed the Mines Ministry to consider the adoption of Joint Ore Reserve Committee (JORC) classification, as opposed to the currently used United Nations Framework Classification (UNFC).

> *A Mineral is any substance occurring naturally in or on the Earth, in or under water or in tailings, residue or stock piles, having been formed by or subjected to a geological process and includes sand, stone aggregates, gravel, clay, and soil but excludes, water, oil and gas .*

Status of mining sector in India
• The number of mines which reported mineral production (excluding minor minerals, fuel minerals and atomic minerals) in India was ***1319*** in 2021-22. - In the number of mines, ***Madhya Pradesh*** tops followed by Gujarat and Karnataka. - In the value of mineral production, ***Odisha*** tops followed by Chattisgarh and Rajasthan in 2021-2022. - In the value of minor minerals produced, ***Telangana*** tops followed by Rajasthan and Andhra Pradesh. • India is the ***2nd largest crude steel producer*** in the world. • India is largely self-sufficient in metallic minerals including bauxite, chromites, iron ore, and lignite as well as mineral fuels like coal and lignite. • India is deficient in magnesite, manganese ore, rock phosphate, etc. which were imported to meet the domestic demand. • ***Mines and Minerals (Development and Regulation) Amendment Act, 2021*** enabled captive mines owners (other than atomic minerals) to sell up to 50% of their annual mineral (including coal) production in the open market. • Ministry of Mines announced the ***National Mineral Policy, 2019*** that allows State Governments to take advance action for auction of mineral blocks before the expiry of lease period.

What is Indian Mineral Industry Code (IMIC)?

- The IMIC indicates the required minimum standard for Public Reporting of Exploration Results, Mineral Resources and Mineral Reserves.
- **Published by** - National Committee for Reporting Mineral Resources and Reserves in India (NACRI)
- **Published on**- July 05, 2019
- A resource classification code is necessary to assess resources and reserves in a mineral block, to prepare geological reports to facilitate its auction for both

exploration and mining, and for a mining company to evaluate its assets.

What is United Nations Framework Classification for Resources (UNFC)?

- **UNFC** – It is a global classification and management system applicable to mineral, petroleum, nuclear fuel, renewable energy and anthropogenic resources, as well as injection projects for geological storage.
- **Criteria -** It is a three digit code based system with 3 axes:
  - Geological Assessment
  - Feasibility Assessment
  - Economic viability
- **Features**- Under UNFC, all resources including mineral occurrences and mineral zones that have very low level of confidence in terms of estimation of quantity and quality are also reported.
- The highest category of resources under UNFC system will have the code (111) and lowest category the code (334).
- India's current resource classification rules is based on the UNFC.
- **Issues** - It fails to provide any degree of economic certainty, which in turn has hindered the flow of private investment in the sector.

What is JORC classification?

- The JORC Code is produced by the ***Australasian*** Joint Ore Reserves Committee (Committee).
- It sets minimum standards for Public Reporting of minerals Exploration Results, Mineral Resources and Ore Reserves.
- The JORC Committee is a member of ***CRIRSCO***, the Committee for Mineral Reserves International Reporting Standards to ensure international consistency in the development of reporting standards.
- The JORC classification require the reporting of reserves, which are economically viable deposits with high geological confidence confirmed through studies at least to a pre-feasibility level.

CRIRSCO consists of 15 members that comply with the CRIRSCO template. India was admitted to CRIRSCO in 2019 following the recognition of the IMIC as a CRIRSCO-compliant code.

References

1. Ministry of Mines | States of mining sector in India
2. IBM | UNFC
3. MRMR | Indian Mineral Industry Code



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