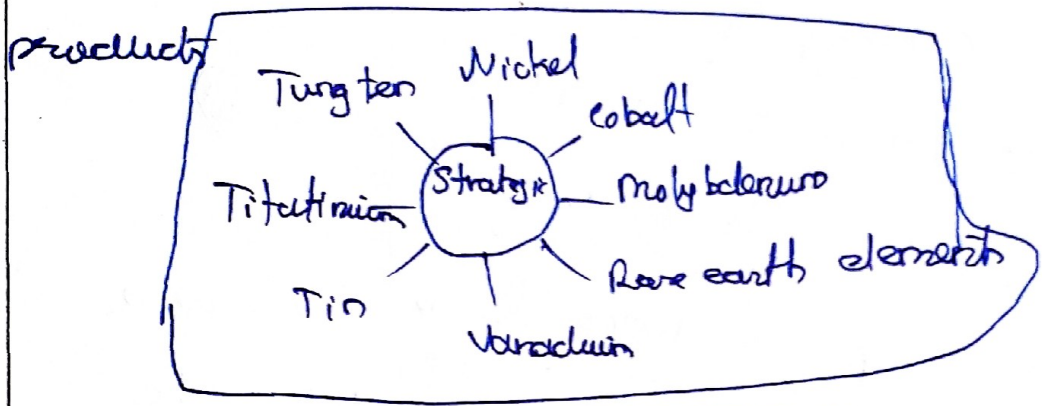


4/8/22 Being self-sufficient in strategic minerals is critical
5-3 for India to achieve its green goals. Elaborate.

The Geological Survey of India found promising vanadium reserves in Arunachal Pradesh. Strategic materials are those which have limited availability of substitutes and greater demand in high technology products.



Strategic metals and green goals

India has a limited source of strategic materials - yet efforts are being made to achieve green goals.

① mobility - India aims to sell 30% of vehicles as EVs by 2030. Lithium is a key raw material for battery manufacturing. Lithium mine has been discovered in Karnataka to speed up the EV adoption.

② Hydrogen power - Nickel and Zirconium are essential for electrolysis and platinum group metals for fuel cells. National Hydrogen energy mission is launched by India.

③ Nuclear power - Vanadium is used in nuclear reactors as it has low neutron absorbing properties.

Strategic map
metal of India

Challenges - Geography - China and Congo have 70% of cobalt and 60% of rare earth minerals



India imports majority of the rare earth elements mainly from China. The strategic minerals of India are located in the Navalite concentrated area.

Solutions India must adopt superior technology in recycling, modernizing of stockpiling. Acquisition of strategic mines from countries - India has recently signed critical mineral investment partnership with Australia