Copper is essential for India’s transition to a develop sustainable economy by 2047

A comprehensive copper resource strategy to ensure an adequate supply of the metal to meet ‘Amrit Kaal’ objectives is a must. Mayur Karmarkar

Megatrends like urbanisation, industrialisation, infrastructure developments and changing lifestyles of people further augment the demand for copper. In recent years, copper has emerged as a critical element in India’s journey towards a clean energy transition. Properties like high conductivity, ductility, and temperature tolerance of copper, make it the best material for use in high-temperature green energy applications. Further, copper can be infinitely recycled retaining 95% of the value of the primary metal from newly mined ore, making it truly a green metal.

In terms of copper demand in the country, the electricity sector accounts for almost 60% of the copper demand, followed by 12% in consumer durables, 10% in transportation, and 18% in diverse applications such as defence, general engineering, bathroom fittings, and other non-electrical applications. Further, clean energy technologies consume 8% of the total demand for copper in India. As these technologies take centre stage based on the Government of India’s Amrit Kaal vision for 2047, the demand for copper from these applications is poised to grow.

Global Clean Energy Transition Goals:

The goal of the Paris Agreement, as adopted by 196 countries at COP21 in 2015, is to limit global warming to well below 2, and preferably to 1.5 degrees Celsius as compared to the pre-industrial levels. The signatory countries are required to curb their emissions as quickly as possible to achieve net-zero emissions by 2050, and this