Ministry of Earth Sciences and NIOT Host Industry Outreach Workshop on Deep Sea Mining to Secure India's Critical Mineral Future

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The Ministry of Earth Sciences (MoES) and the National Institute of Ocean Technology (NIOT), in association with Knowledge Partner EY and NITI Aayog, convened a high-level Industry Outreach Workshop on "Deep Sea Mining - Business Opportunities and Strategic Importance" at the Dr. Ambedkar International Centre, New Delhi.

The landmark event brought together global and domestic policymakers, regulators, technology developers, research institutions, and financial leaders to anchor India’s trajectory in the Blue Economy.

Why Deep Sea Mining is Strategically Vital for India

Securing Critical Mineral Supplies: Clean energy technologies, advanced manufacturing, high-computing systems, and electric mobility depend heavily on critical minerals such as nickel, cobalt, copper, and manganese. Developing alternative resource frontiers is vital for India's long-term economic and geopolitical security.

Vast Indigenous Reserves: India holds an exclusive International Seabed Authority (ISA) exploration contract over 75,000 sq. km in the Central Indian Ocean Basin (CIOB), estimated to hold roughly 366 to 380 million tonnes of polymetallic nodules. In addition, India is the first nation to hold two exploration contracts for polymetallic sulphides, including the recent agreement for the Carlsberg Ridge.

Advancing Indigenous Technology: Under the ₹4,077 crore national Deep Ocean Mission, NIOT has successfully demonstrated indigenous deep-sea mining crawler systems at depths exceeding 5,000 meters in the Indian Ocean, proving critical subsea engineering capabilities.

Industrial Integration and Growth: Transitioning from exploration to commercial capability creates an integrated "mine-to-metal" ecosystem, opening lucrative commercial avenues across offshore engineering, marine robotics, shipbuilding, metallurgy, and downstream battery manufacturing.

The workshop served as a vital strategic investment platform to bridge scientific prowess with private sector participation, laying the groundwork for upcoming policy frameworks, bankable project roadmaps, and an upcoming White Paper on Deep Sea Mining to guide India's industrial integration.

It may be noted that commercial mining of nodules in the international waters can commence only after the Exploitation Code is brought out by the International Seabed Authority.


EP-SEA MINING
Ms. Leticia Reis de Carvalho
EY
DEEP-SEA MINING

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