



IS DEEP SEA MINING A SINKING SHIP?

RISK MANAGEMENT CRITICAL

GREENPEACE

Deep sea mining (DSM) is being sold as a bold new frontier for minerals, but beneath the surface lies an industry built on instability. The sector is trying to launch a high-risk extractive industry in a leaky vessel—riddled with legal, financial, and political holes. Beyond threatening one of Earth's last pristine and most fragile ecosystems, **DSM presents major risks to investors, companies, and governments alike.** Once touted as the future of critical minerals supply, the industry now faces mounting uncertainty, collapsing credibility and growing international opposition.

1. Financial and Legal Instability

Speculative Financing

The Metals Company (TMC), DSM's flagship player, admits in its Securities and Exchange Commission filings¹ that its U.S. licensing strategy is *untested*, dependent on political favor, and weighed down by rising costs. Early ventures, such as Nautilus Minerals and Loke Marine Minerals, have already failed. Shrinking cash reserves, mounting liabilities, and shaky balance sheets reflect the instability of the sector itself.

Uncertain Legal Framework

The Deep Seabed Hard Mineral Resources Act (DSHMRA, 1980) authorizes exploration but not commercial recovery, and no exploitation regulations exist. Any licensing attempt would trigger environmental review, public opposition, and likely litigation.² Despite this legal void, U.S. agencies³ are slated to participate in the Underwater Minerals Conference's panels to discuss "leasing" and "expected markets" for an industry that remains unauthorized and environmentally indefensible.

Political Fragility

DSM's future rests on political will, not on clear policy or economic viability. A single change in administration could end White House backing, leaving the industry adrift and its investors exposed. Without bipartisan support or legal certainty, DSM remains a wishful venture vulnerable to shifting priorities and growing environmental scrutiny.

Conflict with International Law

The International Seabed Authority (ISA) has not finalized exploitation regulations. Any unilateral U.S. license would contradict the UN Convention on the Law of the Sea (UNCLOS)^{4,5} and provoke international rejection⁶/ diplomatic backlash.

2. Economic and Technical Fragility

Unready Supply Chain

TMC's contractors have admitted they won't proceed until legal conditions are settled⁷. Its mining vessel is years behind schedule, and key processing partners outside the U.S. are not expected to be ready before 2029. Across the industry, timelines have slipped, and infrastructures remain untested — extraction technology is still experimental. Safety systems remain unproven, and environmental monitoring tools are underdeveloped. From ship design to mineral processing, the entire DSM supply chain remains speculative, fragmented, and years from commercial readiness.

Unproven Economics

TMC's own feasibility study projects losses exceeding \$1 billion.

- **Planet Tracker:** DSM could result in over \$500 billion in total value destruction, including \$465 billion in lost ecosystem services.⁸
- **Ocean Foundation:** DSM highlights the high uncertainty surrounding metal prices. The industry ignores battery innovation and circular-economy advances that make seabed mining obsolete.⁹

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3. National Security and Geopolitical Risks

DSM's promoters now frame seabed mining as a national security issue, yet there is no evidence that the U.S. defense sector seeks seabed metals.¹⁰ The real bottleneck isn't ore — it's refining. China already accounts for the large majority of global refining capacity for key metals such as cobalt (approaching 80%) and holds a similarly dominant position in nickel refining. DSM would deepen this dependence, not solve it.

Operations would export unrefined nodules overseas, adding no domestic jobs or resilience. Defense leaders warn that unilateral DSM could erode U.S. credibility, destabilize maritime governance, and damage alliances.¹¹

4. Market Resistance

Corporate Rejection

Google, Salesforce, Volkswagen, Volvo, Rivian, and others have pledged not to use deep sea minerals in their supply chains¹² and have called for a moratorium on the industry.

Financial Withdrawal

More than 37 financial institutions representing EUR 3.3 trillion in assets, and insurers, including Swiss Re, Hannover Re, Zurich Insurance Group, and Vienna Insurance Group (VIG), have excluded DSM from coverage, recognizing it as an uninsurable high-risk venture.¹³

5. Global Backlash

TMC's bid to bypass the ISA has triggered international outrage. Today, **40 governments**, including Canada, France, Mexico, Chile, the United Kingdom, and Palau, joined by parliamentarians, regional authorities, and other elected officials and government bodies, have called for a ban or moratorium on deep-sea mining. Pacific nations and Indigenous coalitions warn DSM threatens cultural heritage, fisheries, and ocean health.

Key Questions for Investors

- **Who will buy?** Major manufacturers reject DSM metals; market demand has evaporated.
- **Who will insure?** Insurers have walked away, recognizing unmanageable risk.
- **Who will defend?** DSM undermines global law and environmental security.

Deep sea mining is a sinking ship. The industry set sail on unstable waters — driven by speculation and disregard for the ocean's limits. Its promises are taking on water fast, weighed down by legal uncertainty, financial instability, and moral controversy.

DSM is not a pathway to sustainability. The responsible choice for governments, investors, and institutions is to turn back now — before it drags American credibility, the health of the oceans, and humanity's future down with it.

1 [https://investors.metals.co/static-files/a7f53f99-0b67-44fd-884c-02e0attemptregulations exist for exploitationattempt 0aef2a50](https://investors.metals.co/static-files/a7f53f99-0b67-44fd-884c-02e0attemptregulations%20exist%20for%20exploitationattempt%20aef2a50)

2 <https://oceanservice.noaa.gov/deep-seabed-mining/?utm=>; <https://www.congress.gov/crs-product/IF12608?utm=>; <https://dsm-campaign.org/shifting-tides-the-metals-company-u-s-pivot/>

3 The National Oceanic and Atmospheric Administration (NOAA), Bureau of Ocean Energy Management (BOEM), Department of Energy (DOE), United States Geological Survey (USGS) and the State Department

4 https://www.isa.org.jm/wp-content/uploads/2025/03/Statement_Announcement-by-The-Metals-Company.pdf

5 <https://www.mining.com/trumps-deep-sea-mining-overlooks-battery-innovation-and-circular-economy-advances-that-render-push-defies-treaties-stirs-advance-alarm/>

6 <https://www.csis.org/analysis/risks-us-deep-sea-mining?utm=>

7 <https://www.mining.com/web/trumps-critical-minerals-obsession-reignites-deep-sea-mining/>

8 <https://www.mining.com/deep-sea-mining-could-cost-500-billion-in-lost-value-study-says/>

9 <https://oceanfdn.org/wp-content/uploads/2024/02/dsm-finance-brief-2024.pdf>

10 <https://www.newsweek.com/topic/u.s.-military>

11 <https://www.newsweek.com/deep-sea-mining-threatens-us-security-ocean-peace-opinion-2108778>

12 <https://www.stopdeepseabedmining.org/endorsers/>

13 https://dsm-campaign.org/wp-content/uploads/2024/07/dsmc_release_insurers_against_dsm.pdf?link_id=4&can_id=c9f8fb9b901575a02b8be0d27569668d&source=email-deep-sea-mining-update-for-q2-2024&email_referrer=email_2411454&email_subject=deep-sea-mining-update-for-q2-2024that