



Updated April 25, 2025

Seabed Mining Interests Across the Pacific Islands

The Pacific Ocean’s seafloor contains mineral-rich deposits of cobalt, copper, manganese, nickel, rare earth elements, zinc, and other minerals that may help meet supply demands for energy transition technologies. These minerals may occur in potato-shaped rocks called polymetallic nodules (PMNs); seafloor massive sulfide (SMS) deposits, which are associated with hydrothermal vents; or other marine deposits. The People’s Republic of China (PRC, or China) leads the world in the production and refining of certain critical minerals, such as cobalt, primarily sourced from land-based mining operations. Some Members of Congress have expressed concerns about China potentially seizing “unfettered control of deep-sea assets.”

Some Members of Congress have expressed interest in sourcing PMNs from allied countries and developing infrastructure in the United States to process and refine critical minerals (e.g., H.R. 7636 and H.Res. 1082 in the 118th Congress). On April 24, 2025, as part of a broader national effort to secure reliable supplies for critical minerals, President Trump issued an executive order (E.O.) titled “Unleashing America’s Offshore Critical Minerals and Resources.” The E.O. provides direction for supporting allies and partners interested in developing seabed minerals in their EEZs, among other actions. Since 2011, some Pacific Island countries (PICs) have sought to reap economic benefits from the seabed minerals within their *exclusive economic zones* (EEZs), areas under the national jurisdiction of a coastal country that generally extend seaward up to 200 nautical miles. A 2016 assessment estimated that economically recoverable seabed minerals in the Cook Islands’ EEZ and Papua New Guinea’s (PNG’s) EEZ could yield annual average amounts of \$47 million and \$44 million (2015 USD), respectively. This In Focus discusses seabed mining interests and activities taking place in the EEZs of selected PICs. It also highlights some of the engagement these PICs have with U.S. private or PRC state-owned or private seabed mining companies.

Pacific Island Countries’ Positions on Seabed Mining

Among the 14 PICs, opinions differ between governments that seek to halt seabed mining and governments that seek to pursue “responsible development of deep-sea minerals.” To reduce the potential threats to deep-sea life, some PICs—including the Federated States of Micronesia, Fiji, Palau, Samoa, Tuvalu, and Vanuatu—have joined calls for a moratorium, precautionary pause, or ban on seabed mining in EEZs and/or in areas beyond national jurisdiction (ABNJ). For parties to the United Nations Convention on the Law of the Sea, the International Seabed Authority (ISA) controls seabed mining activities in ABNJ.

Some PICs seeking to develop seabed minerals have claimed that such efforts support the global transition to a “clean energy future,” which may help limit the impacts of climate change; many PICs are vulnerable to sea level rise. PICs that have granted seabed exploration or exploitation licenses within their EEZs and/or have sponsored companies seeking to mine ABNJ through the ISA include the Cook Islands, Kiribati, Nauru, and Tonga. Some of these PICs (e.g., Cook Islands, Kiribati, Tonga) have similarly structured domestic seabed mining laws because they received support from the Deep Sea Minerals Project, a collaboration between the Pacific Community, a regional multilateral organization, and the European Union helping “improve the governance and management of their deep-sea minerals resources.” Other PICs either have not taken an official position on seabed mining or have practices contradictory to stated positions (see PNG discussion below). The Cook Islands, Kiribati, PNG, and Tonga have expressed interest in developing seabed mineral resources within their EEZs. The following sections discuss their seabed mining actions.

Cook Islands

The prime minister of the Cook Islands claims seabed mining could be “transformational” for the country. The Cook Islands Seabed Mineral Authority, which administers the Seabed Minerals Act 2019 for the responsible management of the country’s seabed minerals, estimates that 6.7 billion metric tons of PMNs occur within its EEZ, which could yield 20 million metric tons of cobalt. The act also includes provisions for mining in ABNJ. In 2022, the Seabed Minerals Authority issued three five-year PMN exploration licenses within the country’s EEZ. Moana Minerals Ltd., a Cook Islands-based company affiliated with Texas-based Ocean Minerals LLC, holds one license. Transocean Ltd., an international offshore drilling company with Houston offices, purchased a minority interest in Ocean Minerals and intends to support the recovery of Cook Islands PMNs. CIC Ltd., a Cook Islands-based company supported by a consortium of members from the United States and the Netherlands, holds another license.

Although the Seabed Minerals Authority has not authorized extraction (i.e., commercial recovery) of seabed minerals within the Cook Islands’ EEZ, the government has passed regulations on “harvesting” of PMNs pending scientific research and environmental impact assessments. On February 21, 2025, the Seabed Minerals Authority signed a “Memorandum of Understanding for Blue Partnership in the Field of Seabed Minerals Affairs” (MOU) with the PRC Ministry of Natural Resources. While no exploration license was granted in the MOU, some observers expect the Cook Islands to authorize PRC deep-sea exploration in its EEZ. The Cook Islands is a sovereign state in “free

association” with New Zealand; the New Zealand government reportedly has expressed concern that the Cook Islands government did not consult with it over the MOU.

Kiribati

Survey and sampling studies of Kiribati’s EEZ suggest some areas may have high densities of PMNs. The Seabed Minerals Act, 2017, provides for the “sustainable management of Kiribati’s seabed minerals” and authorizes seabed mining activities within its EEZ and in ABNJ. On March 13, 2025, the Kiribati Ministry of Fisheries and Ocean Resources held talks with the PRC Ambassador to Kiribati about potential opportunities related to “deep ocean resources.” This conversation followed the announcement that Kiribati’s state-backed subsidiary, Marawa Research and Exploration Ltd., and Canada-based The Metals Company (TMC) had terminated their ISA-issued exploration contract for an area of the Clarion-Clipperton Zone, located in ABNJ. Kiribati may be seeking new partners. It is unclear if Kiribati’s potential collaboration with China would be in ABNJ or include Kiribati’s EEZ.

Papua New Guinea

PNG’s hydrothermal vent deposits contain metals such as copper, gold, silver, and zinc and have attracted interest from the seabed mining industry. In 2011, PNG’s Mineral Resources Authority granted Nautilus Minerals, a now-defunct Canada-based company, a license to undertake extractive activities at Solwara 1, a hydrothermal vent deposit containing copper and gold located within the PNG EEZ. PNG authorized Solwara 1 through the Mining Act of 1992 and environmental laws; PNG does not have laws or regulations specific to seabed mining. In 2019, Nautilus Minerals filed for bankruptcy and abandoned Solwara 1 after years of delays due to ownership disputes with the government and local opposition. The prime minister of PNG characterized Solwara 1 as “a total failure”; the PNG government lost about \$100 million (USD) to the project.

In 2023, PNG signed a declaration, along with Fiji, New Caledonia, Solomon Islands, and Vanuatu, calling for, among other things, a “Pacific region wide moratorium” on seabed mining. In August 2024, Deep Sea Mining Finance Ltd. (DSMF), a Canadian company that acquired Nautilus Minerals, was spotted conducting exploratory work around Solwara 1, raising questions about the government’s commitment to a ban.

Tonga

Tonga’s EEZ includes hydrothermal vents containing metals such as copper, gold, lead, and zinc. Tonga’s Seabed Minerals Act authorizes the regulation of exploration and mining activities within Tonga’s EEZ and in ABNJ. The law also established the Tonga Seabed Minerals Authority to maintain control over seabed mining activities, among other functions. Prior to the original enactment in 2014 of the Seabed Minerals Act, Tonga issued seabed mining licenses to three international entities to operate within its EEZ: Nautilus Minerals, Australia-based Bluewater Metals Pty Ltd., and the Korean Ocean Research and Development Institute. The status of mining in Tonga’s EEZ is unclear. The 2015-2025 Tonga Strategic Development Framework noted that while seabed mining may be economically viable in the future, policies should be put in place to avoid the

“resource curse.” The framework recommended using international experts to expand Tonga’s capacity to develop its natural resources.

Issues for Congress

China has restricted or banned the export of certain critical minerals to the United States. Some banned-for-export critical minerals occur in seabed deposits (e.g., gallium, scandium, yttrium). Congress may consider whether and how promoting U.S. commercial seabed mining partnerships with certain PICs, among other actions in the critical minerals context, may contribute to diversification of the U.S. supply chain. In its deliberations, Congress may consider whether the benefits of such partnerships (including the potential lessening of China’s control over supply chains) outweigh concerns about environmental and geostrategic impacts.

Congress may consider directing certain departments (e.g., Departments of Commerce and State) to seek out bilateral agreements with PICs that are pursuing seabed mining activities within their EEZs or that have laws and regulations in place for the management of seabed minerals. S. 429 in the 119th Congress would authorize the President, through the U.S. Trade Representative, to enter into trade agreements related to critical minerals with allies. It also would amend the Defense Production Act of 1950 (50 U.S.C. §§4501 et seq.) to include such countries in the definition of a *domestic source*, potentially making related enterprises eligible for U.S. financial incentives. The potential environmental impacts of seabed mining are not well understood, and H.R. 663 and H.R. 664 in the 119th Congress would oppose seabed mining over “insufficient scientific information” to assess the risks and impacts of such activities.

Stakeholders contend that critical minerals agreements could strengthen U.S. partnerships in the Pacific and drive economic growth for PICs but also could prompt territorial disputes, tensions over regulations, and increased demand for maritime domain awareness and security. (Although not specific to seabed mining, H.R. 562 in the 119th Congress would direct certain federal agencies to strengthen U.S. engagement with the PICs.) Other stakeholders view seabed mining partnerships with PICs as exploitative, and question whether the current regional regulatory environment is sufficient for such activities. Congress also may consider how U.S. tariffs could impact trade relations in the region.

Some stakeholders claim the PRC invests more in ocean exploration and mapping for seabed mining and other purposes than the United States. During a 119th House hearing, a Member of Congress echoed the disparity between U.S. and China ocean exploration capabilities. As China seeks out seabed mining partnerships far beyond its shores, its detailed seafloor mapping may present national security concerns for affected countries, including the United States, as these data have numerous applications, including for military use. U.S. federal agencies have been mapping and exploring the EEZs of U.S. Pacific territories for critical minerals. Congress may consider the costs and benefits of directing these agencies to broaden their exploration to include the EEZs of other PICs.

Jared G. Tupuola, Analyst in Foreign Affairs

IF12974

Caitlin Keating-Bitonti, Specialist in Natural Resources
Policy

Disclaimer

This document was prepared by the Congressional Research Service (CRS). CRS serves as nonpartisan shared staff to congressional committees and Members of Congress. It operates solely at the behest of and under the direction of Congress. Information in a CRS Report should not be relied upon for purposes other than public understanding of information that has been provided by CRS to Members of Congress in connection with CRS's institutional role. CRS Reports, as a work of the United States Government, are not subject to copyright protection in the United States. Any CRS Report may be reproduced and distributed in its entirety without permission from CRS. However, as a CRS Report may include copyrighted images or material from a third party, you may need to obtain the permission of the copyright holder if you wish to copy or otherwise use copyrighted material.