**Council For Strategic and Defense Research** 

# **EXPERT COMMENTARY**

## Impact of Deep-Sea Mining on Australia's Relationships in the Pacific

### Elizabeth Morison

Climate ambition has become a defining element of international discussions on climate change. As countries position themselves to decarbonise and keep up with international obligations like the Paris Agreement, the spotlight has shifted towards infrastructure that will power low carbon economies. Critical minerals like cobalt, manganese, nickel, zinc, and copper are essential components of the suite of new technologies (like solar panels, wind turbines, batteries, and electric vehicles) underpinning this future.

As a result, recent years have seen a global race to secure access to and supply of these critical minerals. Critical minerals and rare earth metals are unevenly concentrated and distributed around the world; and the Indo-Pacific region is home to the world's largest deposits, at the bottom of the ocean in the Clarion-Clipperton Zone (CCZ) (US Dept of Commerce, National Oceanic and Atmospheric Administration). The CCZ seabed is covered with polymetallic nodules comprised of cobalt, manganese, nickel, zinc and copper, making the Indo-Pacific a global target for deep-sea mining operations (Davies). More than a quarter (27%) of the CCZ is currently under exploration contract (The Metals Company) under 31 exploration licences (International Seabed Authority). The critical minerals industry is steeped in controversy due to environmental and governance concerns around the management of deep-sea resources. Sea floor ecosystems have limited resilience and capacity for recovery (Jones et al.), and sound impacts from deep-sea mining impair the echolocation signals of whales and other marine mammals (Thompson et al.). Under the United Nations Convention on the Law of the Sea (UNCLOS), governance of deep-sea resources rests with the United Nations International Seabed Authority (UN ISA). The UN ISA operates as a custodian and regulator of international deep-sea resources. Civil society groups have called for an independent

#### **Council For Strategic and Defense Research**

review into the conflict that arises between these custodian and regulator responsibilities (Save the High Seas).

In recognition of its management responsibilities, the UN ISA has been developing deep-sea mining regulations, the ISA Mining Code. In 2021, Nauru triggered a clause – the "two-year rule" – in the UNCLOS to expedite the development of rules that allow mining in the deep-sea (International Institute of Sustainable Development), requiring that the ISA Mining Code be formalised by June 2023. However, negotiations among the ISA Council were unsuccessful, and the deadline passed. At the conclusion of the negotiations, the ISA Council "expressed its intention to continue the work on the exploitation regulations with a view to adopting them during the 30th session in 2025" (International Seabed Authority). As a consequence of missing the deadline, the ISA is now obligated to consider applications for mining licences, before a formal Mining Code is in operation. In the absence of these regulations, Indo-Pacific countries—particularly Pacific Islands with complex domestic and geopolitical circumstances—will need to weigh up climate and environment priorities before moving forward.

Many think that the Pacific Island nations should be empowered to earn wealth from critical resources in line with development aspirations. To date, Nauru, Tonga, Kiribati and the Cook Islands have all sponsored deep-sea mining projects (Readfearn).

Others raise concern about the environmental impacts of deep-sea mining and would prefer a precautionary, sustainable approach that reduces the impact of the industry as it grows. Some have also warned about the potential for neo-colonialism and threats to cultural connections to the oceans (Faa). The primary concern is that not enough is known about the environmental impacts of deep-sea mining. The international community has now agreed on the High Seas Treaty to protect 30% of the seas by 2030 (United Nations) and Palau has called for a suspension of deep-sea mining until 2030. The Federated States of Micronesia, Samoa, Fiji, Vanuatu and Palau have each called for a

#### **Council For Strategic and Defense Research**

moratorium on deep-sea mining (Clark), backed up by some of the world's largest technology companies, including Google, BMW, Volvo and Samsung's battery company (Reuters).

Australia's position on deep-sea mining in the Pacific is unclear. Australia has a long and problematic history of resource exploitation in the Indo-Pacific region including wood (Kadi, Heinz), and seafood (Mounter, McKillop). Australian companies have also been involved in major resource extraction scandals in the Pacific. The Broken Hill Proprietary Company (BHP), over 30 years of operation up until 2013, discharged 70 million tonnes of untreated mining waste per year into the Ok Tedi River in Papua New Guinea (Davis), with devastating environmental impacts. The Australian Secret Intelligence Service also spied on East Timor in the mid-2000s to inform negotiations for gas and oil fields in the Timor Gap (Knaus).

Despite this context, Australia has some investment in deep-sea mining in the CCZ, and may be positioning itself to be on the front foot for a possible critical minerals industry boom. Its national government science agency, the Commonwealth Scientific and Industrial Research Organisation (CSIRO), has entered into a AUD\$1.5 million partnership of just under USD 1 million with Canadian company The Metals Company (TMC), (Dawkins) poised to be among the first recipients of deep-sea minerals mining licences in July this year. TMC has the support of Nauru, Tonga and Kiribati.

While CSIRO, in its partnership with TMC, claims to be focused on providing scientific support on ecosystem-based management and risk assessments (Dawkins), there are limited transparency and accountability mechanisms imposed by the UN ISA to ensure that this is the case (Blanchard et al.). On deep-sea mining, a spokesperson for Australian Minister for Industry and Science, Ed Husic, said, "Decisions on the research the organisation [CSIRO] conducts, including individual research projects, are made at arms-length from government." (Readfearn). At present, there are limited avenues to challenge this claim.

#### **Council For Strategic and Defense Research**

At the same time, the Labor Party, which was elected into government in May 2022, has released its Draft 2023 National Platform, which states that "Labor will ensure the Australian Government leads ambitious international efforts for global agreements on... a moratorium on deep-sea mining in international waters" (Labor). While it is important to note that this draft statement is not finalised, it indicates that the Australian Government is considering taking a position against deep sea mining.

Investment in the deep-sea critical minerals industry could be an opportunity to conveniently rebrand Australia's climate action and resources industry on the world stage. Under the nine years of the previous Coalition Government, Australia received the "colossal fossil" award (Climate Action Network International). Australia is also known for its poor regulation of extractive industries, especially fossil fuels, which it subsidises to a value of more than USD 7 billion every year (Campbell et al.). On the other hand, if Australia were to take the position of supporting a moratorium on deep-sea mining, it could go a long way to recast Australia's damaged reputation regarding resource extraction in the Pacific.

The Australian Government has indicated a shift towards climate diplomacy, including a bid to cohost the United Nations climate conference COP31 in 2026 in partnership with the Pacific (Wong, Bowen and Conroy). Australia regularly frames "our Pacific neighbours" as one entity (Albanese). However, there are 15 Pacific Island nations, and many more ideas about how to manage these shared critical minerals, and the varied marine environments. Partnership with a country that supports deep-sea mining could ostracise other Pacific Island nations with social and environmental priorities. Partnership with a country that supports a moratorium on deep-sea mining could put pressure on Australia's relationships with Pacific counties that wish to develop critical minerals industries to grow their economies. Australia's decision of which country to approach to partner with for COP31 could be revealing of its underlying strategy going forward.

The deep-sea critical minerals industry represents a possible divergence of climate and environment priorities where these interests have otherwise been intertwined. The demand for critical minerals in

**Council For Strategic and Defense Research** 

the energy transition is real and urgent for the expansion of renewable energy, but deep-sea mining could cause irreparable damage to both the environment and Australia's relationships in the Indo-Pacific.

**Council For Strategic and Defense Research** 

#### References

US Department of Commerce, National Oceanic and Atmospheric Administration. "DeepCCZ: Deep-Sea Mining Interests in the Clarion-Clipperton Zone: NOAA Office of Ocean Exploration and Research." //oceanexplorer.noaa.gov/explorations/18ccz/background/mining/mining.html

Davies. "A Modern Eldorado: Deep Sea Mining at the Clarion Clipperton Zone." Mining Technology | Mining News and Views Updated Daily, Mining Technology | Mining News and Views Updated Daily, 21 Aug. 2019, <a href="https://www.mining-technology.com/features/a-modern-eldorado-deep-sea-mining-at-the-clarion-clipperton-zone/">https://www.mining-technology.com/features/a-modern-eldorado-deep-sea-mining-at-the-clarion-clipperton-zone/</a>

The Metals Company. "TMC's Inaugural Impact Report." The Metals Company, 26 May 2022, <a href="https://metals.co/tmcs-inaugural-impact-report/">https://metals.co/tmcs-inaugural-impact-report/</a>. Accessed 23 Apr. 2023.

International Seabed Authority. "Exploration Contracts" <a href="https://www.isa.org.jm/exploration-contracts/">https://www.isa.org.jm/exploration-contracts/</a>

Daniel O.B. Jones et al., "Biological Responses to Disturbance From Simulated Deep-Sea Polymetallic Nodule Mining," PloS ONE 12, no. (2017): e0171750, https://doi.org/10.1371/journal.pone.0171750; Dmitry M. Miljutin et al., "Deep-Sea Nematode Assemblage Has Not Recovered 26 Years After Experimental Mining of Polymetallic Nodules (Clarion-Clipperton Fracture Zone, Tropical Eastern Pacific)," Deep Sea Research, Part I, Oceanographic Research **Papers** 8 (2011): 885–97, 58. no. http://archimer.ifremer.fr/doc/00047/15867/13321.pdf.

Thompson, Miller, Wacker, Derville, Laing, Santillo, Johnston. "Urgent assessment needed to evaluate potential impacts on cetaceans from deep seabed mining." Frontiers in Marine Science, 10.(2023) <a href="https://www.frontiersin.org/articles/10.3389/fmars.2023.1095930/full">https://www.frontiersin.org/articles/10.3389/fmars.2023.1095930/full</a>

International Seabed Authority "About ISA". https://www.isa.org.jm/about-isa/

Deep Sea Conservation Coalition "Civil society reacts to reports of a catalog of criticism levelled at the International Seabed Authority and calls for an immediate independent review" <a href="https://savethehighseas.org/2022/04/19/civil-society-reacts-to-reports-of-a-catalog-of-criticism-levelled-at-the-international-seabed-authority-and-call-for-an-immediate-independent-review/">https://savethehighseas.org/2022/04/19/civil-society-reacts-to-reports-of-a-catalog-of-criticism-levelled-at-the-international-seabed-authority-and-call-for-an-immediate-independent-review/</a>

International Seabed Authority "ISA Council closes Part II of its 28<sup>th</sup> session" International Seabed Authority (2023). https://www.isa.org.jm/news/isa-council-closes-part-ii-of-its-28th-session/

Readfearn "CSIRO joins deep-sea mining project in Pacific as islands call for industry halt" The Guardian (2022). <a href="https://www.theguardian.com/australia-news/2022/jul/14/csiro-joins-deep-sea-mining-project-in-pacific-as-islands-call-for-industry-halt">https://www.theguardian.com/australia-news/2022/jul/14/csiro-joins-deep-sea-mining-project-in-pacific-as-islands-call-for-industry-halt</a>

Labor "Draft 2023 National Platform" Australian Labor Party (2023). <a href="https://alp.org.au/2023-draft-Platform">https://alp.org.au/2023-draft-Platform</a>. Accessed 23 June 2023.

IISD, "ISA Council Agrees to Intersessional Work on Draft Exploitation Rules" International Institute of Sustainable Development (2023). <a href="https://sdg.iisd.org/news/isa-council-agrees-to-intersessional-work-on-draft-exploitation-rules/">https://sdg.iisd.org/news/isa-council-agrees-to-intersessional-work-on-draft-exploitation-rules/</a>

#### **Council For Strategic and Defense Research**

Faa, M. "With Deep-Sea Mining Applications Set to Open, Fears Grow for the Pacific." ABC News, 6 Apr. 2023, <a href="https://www.abc.net.au/news/2023-04-07/pacific-fears-grow-as-deep-sea-mining-applications-set-to-open/102182066">https://www.abc.net.au/news/2023-04-07/pacific-fears-grow-as-deep-sea-mining-applications-set-to-open/102182066</a> . Accessed 26 Apr. 2023.

United Nations General Assembly "Draft agreement under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction" 4 March 2023. <a href="https://www.un.org/bbnj/sites/www.un.org.bbnj/files/draft\_agreement\_advanced\_unedited\_for\_posting\_v1.pdf">https://www.un.org/bbnj/sites/www.un.org.bbnj/files/draft\_agreement\_advanced\_unedited\_for\_posting\_v1.pdf</a>

Clark "FSM National Government - FSM National Government." Gov.fm,

https://gov.fm/index.php/component/content/article/27-fsm-pio/news-and-updates/622-following-palau-s-leadership-fsm-to-join-alliance-of-countries-for-a-deep-sea-mining-moratorium-president-panuelo-to-solicit-members-of-pacific-islands-forum-to-oppose-deep-sea-mining?Itemid=177. Accessed 26 Apr. 2023.

Reuters "Google, BMW, AB Volvo, Samsung Back Environmental Call for Pause on Deep-Sea Mining." Reuters, 31 Mar. 2021, <a href="https://www.reuters.com/business/sustainable-business/google-bmw-volvo-samsung-sdi-sign-up-wwf-call-temporary-ban-deep-sea-mining-2021-03-31/">https://www.reuters.com/business/sustainable-business/google-bmw-volvo-samsung-sdi-sign-up-wwf-call-temporary-ban-deep-sea-mining-2021-03-31/</a> Accessed 16 May 2021.

Dawkins, CSIRO "Creating a blueprint for responsible, low-impact deep-sea mining", ecos.csiro.com.au, https://ecos.csiro.au/responsible-deep-sea-mining/

Dawkins, CSIRO "Creating a blueprint for responsible, low-impact deep-sea mining", ecos.csiro.com.au, https://ecos.csiro.au/responsible-deep-sea-mining/

Blanchard, et al. "The Current Status of Deep-Sea Mining Governance at the International Seabed Authority." Marine Policy, vol. 147, Jan. 2023, p. 105396, https://doi.org/10.1016/j.marpol.2022.105396. Accessed 12 Dec. 2022.

Readfearn "CSIRO joins deep-sea mining project in Pacific as islands call for industry halt" The Guardian (2022). <a href="https://www.theguardian.com/australia-news/2022/jul/14/csiro-joins-deep-sea-mining-project-in-pacific-as-islands-call-for-industry-halt">https://www.theguardian.com/australia-news/2022/jul/14/csiro-joins-deep-sea-mining-project-in-pacific-as-islands-call-for-industry-halt</a>

Kadi, Heinz "Felled by its own Failures – How Australia's inaction to reform logging in the Solomon Islands has let China in", Pacific Legal Network, <a href="https://islandsbusiness.com/news-break/solomon-islands-china-9/">https://islandsbusiness.com/news-break/solomon-islands-china-9/</a>

Mounter, McKillop "Illegal foreign fishing boats a 'threat' to Torres Strait Islander commercial fishers", ABC, <a href="https://www.abc.net.au/news/2023-01-31/illegal-foreign-fishing-boats-increase-torres-strait-islanders/101910034">https://www.abc.net.au/news/2023-01-31/illegal-foreign-fishing-boats-increase-torres-strait-islanders/101910034</a>

Davis "BHP Under Fire Over Tedi", Australian Financial Review (1992) <a href="https://www.afr.com/companies/bhp-under-fire-over-ok-tedi-19920515-kaq9n">https://www.afr.com/companies/bhp-under-fire-over-ok-tedi-19920515-kaq9n</a>

Knaus "Witness K and the 'outrageous' spy scandal that failed to shame Australia", The Guardian (2019) <a href="https://www.theguardian.com/australia-news/2019/aug/10/witness-k-and-the-outrageous-spy-scandal-that-failed-to-shame-australia">https://www.theguardian.com/australia-news/2019/aug/10/witness-k-and-the-outrageous-spy-scandal-that-failed-to-shame-australia</a>

**Council For Strategic and Defense Research** 

Climate Action Network "Colossal Fossil for Australia's New Government." CAN, climatenetwork.org/resource/colossal-fossil-for-australias-new-government/.

Campbell, Morison, Verstegan, Harrington, Adhikari, Scicluna, Simpson and Anderson. "Fossil fuel subsidies in Australia (2021-22)", Australia Institute, <a href="https://australiainstitute.org.au/report/fossil-fuel-subsidies-in-australia-2023/">https://australiainstitute.org.au/report/fossil-fuel-subsidies-in-australia-2023/</a>

Wong, Bowen and Conroy, "Australia's International Climate Engagement." Australian Government Department of Foreign Affairs and Trade, 2022, www.foreignminister.gov.au/minister/pennywong/media-release/australias-international-climate-engagement.

Albanese "Australia is a Pacific nation". Twitter. 2019. <a href="https://twitter.com/albomp/status/1201284663228026880?lang=ar-x-fm">https://twitter.com/albomp/status/1201284663228026880?lang=ar-x-fm</a>