

## China's Growing Interest in Deep Sea Mining in the Pacific

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In Brief 2018/11

China's growing engagement with the Pacific region has attracted policy and academic attention in the past decade. Its involvement in deep sea mining in the region is an exception and remains poorly understood. Drawing upon public reports from Chinese government agencies and media, this In Brief provides an account of China's latest engagement with Pacific island countries on deep sea mining.

### Official position

The Chinese government has listed [energy security](#) on the top of its agenda since China became a net oil importer in 1993. It has [hunted globally](#) for mining opportunities to fuel domestic economic development. A new effort is that China has shown growing interest in deep sea mining in recent years. As China's *National Plan on Mineral Resources (2016–2020)* states,

China will actively participate in international surveys on deep sea mining and accelerate the exploration and development of ocean minerals ... China will deepen international mining cooperation under the Belt and Road and promote mineral resources exploration overseas (MLR 2016:7, 22).

The Chinese government has expressed explicitly its interest in ocean resources in the Pacific. Back in November 2009, China's Deputy Foreign Minister He Yafei commented on then Vice Premier Li Keqiang's visit to PNG, saying 'this visit demonstrates the active attitude China adopts towards strengthening cooperation with Pacific Island countries ... which are endowed with rich living marine resources and seabed mineral resources' (MFA 2009). During his visit to Fiji in November 2014, President Xi Jinping [pledged](#) that China is ready to enhance cooperation with the region on ocean development.

### Engagement with the Pacific

Currently China's involvement in the mining industry in the Pacific has mainly focused on land deposits in PNG, Fiji, New Caledonia and Solomon Islands. China has invested in seven mining projects (Gessler 2017):

- the Ramu Nickel Cobalt project in PNG (61% owned by China Metallurgical Corporation)
- the Porgera gold mine in PNG (47.5% owned by Zijin Mining Group)
- the Frieda River Copper project in PNG (80% owned by PanAust Ltd which is a wholly owned subsidiary of Guangdong Rising Assets Management)
- the Nawailevu Bauxite mining project in Fiji (solely owned by Xinfu Aurum Exploration)<sup>1</sup>
- the Vatukoula gold mine in Fiji (79.5% owned by Zhongrun International Mining)
- the Chinese Caledonian Mining company in New Caledonia (49% owned by Jinchuan Group)
- the Gold Ridge gold mine project that is expected to restart in Solomon Islands (90% owned by the AXF company).

In addition, since December 2014, the PNG liquefied natural gas (LNG) project has started to [supply](#) 2 million tonnes of LNG per annum for 20 years to China Petroleum and Chemical Corporation.

China's engagement with Pacific island countries on deep sea mining has mainly been carried out through the China Ocean Mineral Resources Research and Development Association (COMRA). Established in 1990, [COMRA](#) is a government organisation subordinate to the former State Oceanic Administration which was merged into the new Ministry of Natural Resources in March 2018. It is responsible for exploration and exploitation in the seabed, ocean floor and subsoil beyond the limits of national jurisdiction.

The Qingdao Institute of Marine Geology has, to date, undertaken many of COMRA's research projects in the Pacific. During 2001–5 and 2006–10 the institute—in partnership with the Department of Treaty and Law and the Department of North American and Oceanian Affairs in China's Ministry of Foreign Affairs—completed two research projects on China's bilateral cooperation in ocean resources exploration and on seabed mineral resources in the South Pacific and opportunities for cooperation. Their [research results](#) include:

- categorisation of two marine areas as prospective for polymetallic nodules: around Kiribati's Phoenix Islands and around the Cook Islands' south and north

- categorisation of four marine areas as prospective for cobalt nodules: around the south-west of the Marshall Islands; between the east of the Line Islands and the north-west of Christmas Island, Kiribati; between the south-west of the Tuamotu archipelago and north-east of Tahiti; and around New Caledonia
- categorisation of four marine areas as prospective for hydrothermal sulfide deposits: the sea basin of Manus Island, the sea basin to the north of Fiji, the Lau basin between Fiji and Tonga, and the Bismarck sea
- drawing up a deep sea mining resources map in the Pacific
- compilation of 38 survey maps of deep sea mining resources in the Pacific.

To facilitate China's deep sea mining in the region, the research team [suggested](#) Beijing establish closer bilateral relations with resource-rich Pacific island countries and reserve a good proportion of Chinese aid to support economic development in the Pacific. To the research team, China even needs to incorporate deep sea mining exploration into Chinese aid plans for Pacific states and to use Chinese concessional loans to support exploration projects (Mo and Liu 2009:45).

Besides research activities, Chinese government agencies and research institutes have directly approached their Pacific counterparts on deep sea mining. In April 2013, a joint delegation comprised of officials from COMRA, the Changsha Research Institute of Mining and Metallurgy under China Minerals Corporation, and the Beijing General Research Institute of Mining and Metallurgy [visited](#) the Cook Islands, Fiji and Samoa, and expressed their strong interest in participating in exploration of deep sea mining of the three countries. In August 2014, Chen Lianzeng, Deputy Director of the China State Oceanic Administration, visited Vanuatu and [proposed](#) that: (1) the two countries strengthen cooperation in ocean resources exploration and development; (2) young scholars from Vanuatu should apply to the Chinese government for marine scholarships and attend technical training; (3) the two countries sign agreements on ocean development cooperation and establish long-term mechanisms for cooperation on marine resources. The delegation also called on the Fijian Office of the Prime Minister and the Ministry of Lands and Mineral Resources, and expressed interest in cooperation with Fiji on ocean resources development. Vanuatu Prime Minister Joe Natuman and Naitope Katonitabua, Acting Permanent Secretary of Fiji's Office of the Prime Minister, [responded positively](#) to China's thoughts.

In May 2017, China Minmetals Corporation and the International Seabed Authority signed a 15-year contract that allows China to explore for polymetallic nodules in the 72,745 km<sup>2</sup> of the Clarion-Clipperton Fracture Zone in the Pacific Ocean (ISA 2017).

Besides government-to-government engagement, Mawei Shipbuilding Limited is heavily involved in the preparation for

deep sea mining by Toronto-based Nautilus Minerals. Located in Fujian province, Mawei is China's earliest-established shipyard (established in 1866) and the top player for the construction of advanced offshore support vessels in China. On 29 March 2018, Mawei [launched](#) Nautilus Minerals' seafloor production support vessel, approximately 75% of which has been completed. The vessel, with a contract price of US\$18 million, is expected to be delivered by the end of 2019 and will be used for the [Solwara 1 project](#), a deep sea mining project in the Bismarck Sea off Papua New Guinea (PNG). Nautilus Minerals owns 85% of the project's shareholding and the PNG company Eda Kopa has the remaining 15% share.

## Prospects

In the near future, it is expected that China will make greater efforts to explore cooperation with Pacific island countries on deep sea mining. China might use foreign aid to pave the way for its involvement in seabed mining. However, as the marine mining pioneer Nautilus Minerals faces [financial](#) and [environmental](#) challenges in its preparation for the Solwara 1 project offshore of PNG, it might take some time for deep sea mining to become commercially and environmentally more viable.

## Author notes

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## Endnote

1. The Nawailevu bauxite mine in Bua ceased operations in March 2018.

## References

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