



## Legal and Technical Commission

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### **Application for approval of a plan of work for exploration for polymetallic nodules in the Area by Marawa Research and Exploration Ltd.**

#### **Executive summary\***

1. Marawa Research and Exploration Ltd. (Marawa), sponsored by the Government of Kiribati, is submitting the present application for approval of a plan of work for polymetallic nodule exploration to the Secretary-General of the International Seabed Authority, in accordance with the 2000 Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area (the Regulations).
2. Polymetallic nodules were first discovered in the waters of Kiribati during the 1960s, and it is recognized that deep sea minerals will play an important role in meeting Kiribati's future development objectives, particularly given the State's limited mineral resource base.
3. Kiribati's interest in deep sea polymetallic nodules has been reflected in its national development plans beginning as early as the 1980s. The State's specific interest in the exploration activities in the Clarion-Clipperton Fracture Zone is a natural consequence of the Zone extending into Kiribati's own exclusive economic zone. The International Seabed Authority contractor/reserved area blocks are situated only approximately 80 nautical miles from the boundary of Kiribati's exclusive economic zone, making Kiribati the closest State to these International Seabed Authority blocks and giving it a heightened interest in ensuring that the activities in the Clarion-Clipperton Fracture Zone are carried out in an environmentally responsible manner so that no adverse impacts are caused to Kiribati's own marine environment or that of other nearby coastal States. Indeed, the polymetallic nodule belt in Kiribati waters is an extension of the deposits found in the Clarion-Clipperton Fracture Zone, and increasing the knowledge of the minerals and environment in the Zone will simultaneously increase Kiribati's knowledge of the minerals and deep sea environment within its own exclusive economic zone.

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\* Submitted by Marawa Research and Exploration Ltd.



This application is therefore considered of national significance to Kiribati. By joining other States in the deep sea exploration effort in the Clarion-Clipperton Fracture Zone, Kiribati intends to advance its knowledge of deep sea polymetallic nodules and contribute to the advancement of scientific knowledge in the international seabed area.

4. Kiribati is not new to the sustainable exploitation of ocean resources, and its commitment to environmental protection and the conservation of biodiversity is evident from its regulatory frameworks for the protection of the marine environment, such as the Environment Act 1999, as amended in 2007, which requires an environmental impact assessment and an environmental management plan to be submitted prior to carrying out offshore activities. Kiribati's specific offshore minerals strategy places special emphasis on environmental protection and reinforces the State's commitment to pursuing offshore activities utilizing the precautionary approach and environmental best practice principles.

5. Kiribati's commitment to environmental protection is further exemplified by its creation of the world's second largest marine protected area encompassing over 400,000 square kilometres, safeguarding coral reefs and other marine habitat and biodiversity in the Pacific Ocean. In 2008, Kiribati became a global conservation leader by establishing the world's largest marine protected area (today the second largest marine protected area after the Chagos protected area of the United Kingdom of Great Britain and Northern Ireland). The Phoenix Islands protected area conserves one of the Earth's last intact oceanic coral archipelago ecosystems, consisting of eight coral atolls and two submerged reef systems in a nearly uninhabited region with abundant marine and bird life. The 410,500 square kilometre (158,453 square mile) protected area also includes seamounts and other deep-sea habitats. Kiribati first declared the creation of the Phoenix Islands protected area at the Eight Meeting of the Conference of the Parties to the Convention on Biological Diversity, held in Brazil in 2006. On 30 January 2008, Kiribati adopted formal regulations for the Phoenix Islands protected area that more than doubled its original size to make it the largest marine protected area on Earth at the time.

6. Kiribati is working towards enacting national legislation and implementing a regulatory framework to govern deep sea mining and has engaged the Secretariat of the Pacific Community, which is providing advice with respect to the development of this regulatory regime as part of the European Union-funded deep sea minerals project.

7. Marawa is a State enterprise owned and controlled by Kiribati. Marawa's Board of Directors comprises Tinian Reiher, Minister for Fisheries and Marine Resources Development; Tiarite Kwong, Minister for the Environment, Lands and Agricultural Development; and Titabu Tabane, Attorney-General of Kiribati.

8. Marawa is administered by the Ministry of Fisheries and Marine Resources Development. The Minerals Unit, a department of the Ministry, was established in 1983 to manage mineral resources, coastlines and the marine environment. Encompassed within the Minerals Unit portfolio is the protection and restoration of coastal benthic and deep sea pelagic habitats, guided development, environmental monitoring, scientific research and the promotion of coastal and deep ocean mineral resource development. Expertise within the Minerals Unit includes marine geology,

Geographic Information System, oceanography, ocean policy and environmental management, including marine biology.

9. In accordance with regulation 11, the State has provided a certificate of sponsorship to the Secretary-General certifying that Kiribati sponsors the application and assumes responsibility in accordance with article 139, article 153, paragraph 4, and annex III, article 4, paragraph 4, of the 1982 United Nations Convention on the Law of the Sea (the Convention). The certificate of sponsorship certifies that Marawa is a national State enterprise wholly owned by Kiribati and that it is subject to the effective control of the State. Kiribati acceded to the Convention on 24 February 2003.

10. Marawa has also provided the following written undertakings to the Secretary-General in accordance with regulation 14: to accept as enforceable and comply with the applicable obligations created by the provisions of the Convention and the rules, regulations and procedures of the Authority, the decisions of the relevant organs of the Authority and the terms of its contracts with the Authority; to accept control by the Authority of activities in the Area, as authorized by the Convention; and to provide the Authority with a written assurance that its obligations under the contract will be fulfilled in good faith.

11. In accordance with regulation 12 (4), Kiribati has provided a statement certifying that Marawa has the necessary financial resources to meet the estimated costs of the proposed plan of work for exploration.

12. In collaboration with the International Seabed Authority, Marawa will also devise practical programmes for the training of personnel of the International Seabed Authority and developing States, including the participation of such personnel in offshore exploration activities in the contract area. Marawa will fund and carry out these training programmes in accordance with regulation 27.

13. Marawa's application covers 74,990 square kilometres and pertains to a region in the reserved area. The initial five-year exploration programme is aimed at carrying out the following activities: mapping of bathymetry and seafloor topography to determine areas suitable for nodule occurrence and future mining operations; environmental baseline studies; high resolution acoustic imaging to ascertain nodule coverage and density; geotechnical studies; polymetallic nodule sampling to determine grade, confirm nodule abundance and obtain sufficient quantities for mineral processing studies; engineering design for mining technology; and resource calculation.

14. To ensure that the environmental programme is carried out in line with the world's best practice, Marawa will engage international scientific experts, consultants and institutions to participate in its environmental programme and work with its own environmental team. It is anticipated that independent experts may also be given the opportunity to participate in the environmental programme and future environmental impact assessment. Marawa will also promote environmental collaboration with other International Seabed Authority contractors and marine scientific research groups to further enhance scientific knowledge pertaining to the Clarion-Clipperton Fracture Zone and the deep sea environment.

15. Marawa plans to initially gather environmental baseline data and establish environmental baselines against which to assess the likely effects of its exploration programme on the marine environment. Such studies will also be aimed at obtaining

the environmental baseline data required to assess impacts from potential future mining. In carrying out the baseline studies, Marawa will take into account recommendations issued by the Legal and Technical Commission and future developments with respect to the International Seabed Authority recommendations on carrying out environmental impact assessments.

16. To obtain environmental data, Marawa will aim to utilize standard methods recommended by the International Seabed Authority based on established scientific principle and to ensure standardization of methodology and reporting of the results in accordance with the Authority's recommendations. Standardization will likely include, inter alia, instruments and equipment, quality assurance in general, sample collection, treatment and preservation techniques, quality control on board vessels, analytical methods and quality control in laboratories, and data processing and reporting. Collection and analytical techniques will endeavour to follow best practices such as those developed by the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization (UNESCO) or those established or recommended by the International Seabed Authority.

17. Cruise reports with the station list, list of activities and other relevant metadata will be submitted to the secretariat of the International Seabed Authority within one year of the completion of the cruise. Raw sample data in digital format will also be submitted to the secretariat for inclusion in the Authority's database. Assessed and interpreted results of the monitoring programme will be reported periodically to the Authority in the prescribed format. Marawa will report annually in writing to the Secretary-General on the implementation and results of its environmental monitoring programme and will submit data and information, taking into account recommendations issued by the Legal and Technical Commission. Furthermore, provision has been made to ensure that all data relating to the protection and preservation of the marine environment, other than equipment design data, will be transmitted to the Secretary-General to be freely available for scientific analysis and research.

18. Owing to the nature of the exploration activities proposed by Marawa, the environmental impacts from the exploration of the marine environment are expected to be extremely limited and will not pose a threat to the biodiversity and ecosystem function in the contract area.

19. Nevertheless, throughout the exploration programme, Marawa will establish and maintain, in accordance with internationally accepted standards, appropriate measures to prevent, reduce and control pollution and other hazards, as well as impacts on the marine environment.

20. The application also sets out the proposed exploration equipment and methodologies, technical capabilities, measures for the protection of human health and safety, a preliminary assessment of impacts, and incident response capabilities.