

ID: W2918121217

TITLE: Existing environmental management approaches relevant to deep-sea mining

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ABSTRACT:

Deep-sea mining (DSM) may become a significant stressor on the marine environment. The DSM industry should demonstrate transparently its commitment to preventing serious harm to the environment by complying with legal requirements, using environmental good practice, and minimizing environmental impacts. Here existing environmental management approaches relevant to DSM that can be used to improve performance are identified and detailed. DSM is still predominantly in the planning stage and will face some unique challenges but there is considerable environmental management experience in existing related industries. International good practice has been suggested for DSM by bodies such as the Pacific Community and the International Marine Minerals Society. The inherent uncertainty in DSM presents challenges, but it can be addressed by collection of environmental information, area-based/spatial management, the precautionary approach and adaptive management. Tools exist for regional and strategic management, which have already begun to be introduced by the International Seabed Authority, for example in the Clarion-Clipperton Zone. Project specific environmental management, through environmental impact assessment, baseline assessment, monitoring, mitigation and environmental management planning, will be critical to identify and reduce potential impacts. In addition, extractive companies' internal management may be optimised to improve performance by emphasising sustainability at a high level in the company, improving transparency and reporting and introducing environmental management systems. The DSM industry and its regulators have the potential to select and optimize recognised and documented effective practices and adapt them, greatly improving the environmental performance of this new industry.

SOURCE: Marine policy

PDF URL: None

CITED BY COUNT: 53

PUBLICATION YEAR: 2019

TYPE: article

CONCEPTS: ['Environmental resource management', 'Sustainability', 'Adaptive management', 'Environmental impact assessment', 'Business', 'Environmental planning', 'Harm', 'Environmental management system', 'Transparency (behavior)', 'Risk analysis (engineering)', 'Computer science', 'Environmental science', 'Ecology', 'Computer security', 'Irrigation', 'Political science', 'Law', 'Biology']