The Deep Seabed in the Anthropocene: The Role of the Environment in Developing the Exploitation Regulations

Authors:

Seline Trevisanut, Professor of International Law and Sustainability, School of Law, University of Utrecht; Principal Investigator, ERC StG Sustainable Ocean project

Rozemarijn Roland Holst, PhD candidate (ERC StG Sustainable Ocean project), School of Law, University of Utrecht

1. Introduction

With the dawn of the exploitation phase for deep seabed minerals potentially not far from the horizon, the International Seabed Authority (hereafter ISA or 'Authority') has proceeded to the next - and perhaps most crucial - part of its mandate: elaborating rules and regulations governing the exploitation phase and mechanisms to distribute the benefits to be derived therefrom. It is through this second part of the 'Mining Code', in addition to the existing Regulations on Prospecting and Exploration[1], that the ISA must now operationalise the exploitation of the Common Heritage of Mankind (CHM) for the 'benefit of mankind as a whole', as its mandate demands.[2] At the same time, global dynamics and challenges have changed significantly since the deep seabed regime was established under UNCLOS and the Part XI Implementing Agreement.[3] While (renewed) commercial interest in the Area is still present, so is a growing concern for the marine environment and biodiversity of the deep seabed as a fragile ecosystem that is vital to the health of our oceans, and thereby also to the sustenance of a multitude of other current uses thereof. This shifting emphasis is also visible in the way in which the CHM principle has been elaborated in recent years in the light of subsequent developments in international environmental law[4], as well as in the evolving

[1] For the Regulations on Prospecting and Exploring see Decision of the Assembly of the ISA relating to the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area and related matters ISBA/19/C/17 (22 July 2013); Decision of the Assembly of the ISA relating to the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area, ISBA/16/A/12/Rev.1 (7 May 2010); Decision of the Assembly of the ISA relating to the Regulations on Prospecting and Exploration for Cobalt-rich Ferromanganese Crusts in the Area, ISBA/18/A/11 (27 July 2012). The Authority has entered into 29 Exploration contracts so far, see <https://www.isa.org.jm/deep-seabed-minerals-contractors> accessed 27-09-18.

[2] UNCLOS, article 140.

[3] Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982.

[4] See also ITLOS Case No. 17, *Responsibilities and obligations of States sponsoring persons and entities with respect to activities in the Area* (Request for Advisory Opinion submitted to the Seabed Disputes Chamber), Advisory Opinion of 1 February 2011

regulation and governance by the ISA. While the need to take account of environmental interests and balance these with economic interests has been inherent in the Authorities mandate from the outset[5], the Authority's intricate institutional structure was in the first place designed to realise and administer the promise of great economic profit, in accordance with the knowledge and state-of-the-art at the time. Now increasing weight is being attached to its role in guarding the environmental integrity of the deep seabed, not only by the Authority itself, but more elaborately by scientists[6], scholars[7], civil society and GNOs[8], the Authority is challenged to deal with complex interactions and the inherent limitations of its institutional setup are arguably proving increasingly problematic.

This paper will take the growing emphasis on the marine environmental aspects of seabed mining as a point of departure and adopt a threefold approach: first, (2) some light will be shed on how the environmental dimension of the CHM has evolved since its outset under UNCLOS Part XI and the Part XI Agreement. Developments in scientific knowledge, technology and other fields of international law are reflected in the evolving nature of ISA regulation and the applicability of principles such as the precautionary approach and due diligence obligations, as recognised also in the Seabed Disputes Chamber's Advisory Opinion.[9] Furthermore, the Authority's ongoing work on operationalising the environmental dimension in the process of developing the exploitation code will be discussed. The next part (3) will turn more specifically to the institutional structure of the ISA, including the composition and decision-making procedures of various key bodies, and the ambivalence of its mandate and role in operationalising the CHM. The main tensions that are inherent in its representation and mandate will be highlighted, as well as the challenges it faces in regulating

[5] See e.g. UNCLOS, articles 140, 145, Annex III, article 17, Part XI Implementing Agreement preamble and Annex Sections 1.5, 1.7, 2.1(b)(d), 5.1(c).

[6] See e.g. J Halfar and RM Fujita, 'Danger of Deep-Sea Mining' (2007) 316 Science 987; CL van Dover, 'Mining Seafloor Massive Sulphides and Biodiversity: What Is at Risk?' (2010) 68 ICES Journal of Marine Science 341; cited in A Jaeckel and R Rayfuse, 'Conceptions of Risk in an Institutional Context: Deep Seabed Mining and the International Seabed Authority' in M Ambrus, R Rayfuse and W Werner (eds), *Risk and the Regulation of Uncertainty in International Law* (Oxford University Press 2017).

[7] See e.g. RE Kim, 'Should Deep Seabed Mining Be Allowed?' (2017) 82 Marine Policy 134; Jaeckel and Rayfuse (n 5); E van Doorn, 'Environmental Aspects of the Mining Code: Preserving Humankind's Common Heritage While Opening Pardo's Box?' (2016) 70 Marine Policy 192; A Jaeckel, *The International Seabed Authority and the Precautionary Principle: Balancing Deep Seabed Minderal Mining and Marine Environmental Protection* (Brill 2017); A Jaeckel, KM Gjerde and JA Ardron, 'Conserving the Common Heritage of Humankind - Options for the Deep-Seabed Mining Regime' (2017) 78 Marine Policy 150.

[8] See e.g. a recent IUCN report warning that the draft exploitation regulations are insufficient to protect the deep sea marine environment, L Cuyvers and others, 'Deep Seabed Mining: A Rising Environmental Challenge' (IUCN 2018) <https://portals.iucn.org/library/node/47761>.

[9] Seabed Dispute Chamber Advisory Opinion 2011, n 4.

on the basis of (scientific and economic) uncertainty, a lack of (coherent) data, and the consequent challenge of conceptualising the various measures of 'risk' involved. The final part (4) will adopt a broader perspective and critically reflect on the dynamics identified above. The Anthropocene has brought us closer than ever to critical tipping points in the functioning of our earth system – the life-support system of mankind - and the traditional balance of economic, social and environmental aspects as reflected in the concept of sustainable development might need to be reconsidered if we are to realise actual *benefit* for mankind as a whole, including future generations, as the CHM principle demands.

2. **The evolving environmental dimension of the CHM**
3. **The institutional structure: Regulating on behalf of mankind?**
4. **Realising 'benefit' for mankind in the Anthropocene**

Selected bibliography:

Biermann F and others, 'Navigating the Anthropocene: Improving Earth System Governance' (2012) 335 Science 1306

Brunnée J, 'Common Areas, Common Heritage, and Common Concern' in D Bodansky, J Brunnée and E Hey (eds), The Oxford Handbook of International Environmental Law (Oxford University Press 2008)

Crutzen P, 'Geology of Mankind' (2002) 415 Nature 23

Crutzen P and Stoermer E, 'The Anthropocene' (2000) 41 Global Change Newsletter 17

Fritz JS, 'Deep Sea Anarchy: Mining at the Frontiers of International Law' (2015) 30 The International Journal of Marine and Coastal Law 445

Guntrip E, 'The Common Heritage of Mankind: An Adequate Regime for Managing the Deep Seabed?' [2003] Melbourne Journal of International Law 376

Hey E, 'International Law and the Anthropocene' (2016) 5 ESIL Reflections

Jaeckel A, 'Current Legal Developments International Seabed Authority' (2016) 31 The International Journal of Marine and Coastal Law 706

Kim RE, 'Should Deep Seabed Mining Be Allowed?' [2017] Marine Policy 134

Lodge MW, 'The Common Heritage of Mankind' (2012) 27 The International Journal of Marine and Coastal Law 733

——, 'The Deep Seabed' in D Rothwell and others (eds), The Oxford Handbook of the Law of the Sea (Oxford University Press 2015)

Markus T and Singh P, 'Promoting Consistency in the Deep Seabed: Addressing Regulatory Dimensions in Designing the International Seabed Authority's Exploitation Code' (2016) 25 Review of European Community & International Environmental Law 347

Nandan S, 'Administering the Mineral Resources of the Deep Seabed' in D Freestone, R Barnes and DM Ong (eds), Law of the Sea: Progress and Prospects (Oxford University Press 2006)

Pardo A, 'Before and After' (1983) 2 Law and Contemporary Problems 95

van Doorn E, 'Environmental Aspects of the Mining Code: Preserving Humankind's Common Heritage While Opening Pardo's Box' [2016] Marine Policy 192

Vidas D and others, 'International Law for the Anthropocene? Shifting Perspectives in Regulation of the Oceans, Environment and Genetic Resources' (2015) 9 Anthropocene 1

Zhang H, 'The Sponsoring State's "Obligation to Ensure" in the Development of the International Seabed Area' [2013] The International Journal of Marine and Coastal Law 681