

## Policy pointers

**Areas beyond national jurisdiction (ABNJ)** contain vast marine genetic resources (MGR). These areas must not be divided into distinct maritime zones regulated by different legal regimes.

**Both international case law and emerging international treaties** support applying the 'common heritage of mankind' (CHM) principle to ABNJ. This principle should be central to the international legally binding instrument for biodiversity beyond national jurisdiction.

**Applying the CHM principle in ABNJ** will make it easier to share MGR equitably. It will ensure that more people now and in the future participate in scientific advancements and experience their benefits.

**Regulating MGR under the CHM principle** aligns with international obligations of scientific cooperation and transfer of marine technology under UN Convention on the Law of the Sea. It is right for it to be central to the legal instrument under negotiation.

## Marine genetic resources in areas beyond national jurisdiction: a 'common heritage of mankind'

Today the artificial division of the ocean into maritime zones laid out by the UN Convention on the Law of the Sea (UNCLOS) is obsolete. The evolution of international law demonstrates that ocean waters in areas beyond national jurisdiction (ABNJ) constitute a single ecosystem. That single ecosystem cannot be divided into many discrete jurisdictional zones. Drawing from other treaties and taking a human rights perspective to regulating biodiversity beyond national jurisdiction (BBNJ), the new international legally binding instrument (ILBI) countries are negotiating must incorporate the 'common heritage of mankind' (CHM) principle. Without this, states will be left to exploit marine genetic resources (MGR) on a first-come, first-served basis, leading to global inequities.<sup>1</sup> It is high time that nations rejected the existing silos of ocean governance and opted for the comprehensive protection of ocean species and habitats.

Back in the 1980s when the UN Convention on the Law of the Sea (UNCLOS) was drafted, the world lacked the technological capacity and scientific knowledge to understand the biological and economic value of marine genetic resources (MGR). At that time, minerals in the seabed were considered the only economically profitable resources in areas beyond national jurisdiction (ABNJ). In other words, the regulatory gap regarding the utilisation of MGR under UNCLOS in ABNJ is merely the result of the world's scientific ignorance at the time the treaty was drawn up. Part XI of UNCLOS would have included MGR under its scope were there knowledge about their economic potential at the time it was drafted.

Due to recent advancements in biotechnology and marine biology, countries have discovered not only the genetic diversity of the deep seas, but also the economic prospects arising from the commercialisation and patentability of ocean resources. For over a decade, under the auspices of the United Nations, states have been negotiating a new international legally binding instrument (ILBI) to regulate MGR in ABNJ. The challenges are many and the stakes are high. However, if the ocean and its resources are to be sustained for the benefit of all people for centuries to come, one fact is clear: the principle of the 'common heritage of mankind' (CHM) must be central to a new treaty under UNCLOS (see Box 1).

## Marine genetic resources as part of ocean ecosystems

The way that international case law has developed and international courts have interpreted international treaties shows that

UNCLOS — the constitution for the oceans —<sup>2</sup> cannot exist in isolation from other sources of international law, be they international treaties, soft-law or the general principles of international law.<sup>3,4,5</sup>

Despite UNCLOS' adoption of the zonal

approach for ocean regulation, recent international case law shows that courts no longer perceive the ocean as an accumulation of maritime zones with different levels of sovereignty. In the *South China Sea Arbitration case*, for example, the court recognised that the obligation to protect the environment applies “both inside the national jurisdiction of States and beyond it.”<sup>6</sup> The award also affirmed that Part XII of UNCLOS, which provides the core framework for the protection of the marine environment, is “informed by other provisions of Part XII and other applicable rules of international law” as well as by “the general corpus of international law.”<sup>6</sup>

Acknowledging the fact that the term 'environment' under UNCLOS is interpreted in light of the definition of an 'ecosystem' set forth in the Convention on Biological Diversity (CBD; see Box 2),<sup>7</sup> the Court in the *South China* case incorporated the 'ecosystem approach' into Part XII of UNCLOS. In light of this ruling, marine biotic and non-biotic organisms in ABNJ are interconnected with their habitat, together forming an indivisible whole, ie an ecosystem.

Applying the ecosystem approach under Part XII of UNCLOS, therefore, requires the uniform regulation of marine resources. While the CHM principle already applies to “all solid, liquid or gaseous mineral resources in situ in the Area, including polymetallic nodules,” it must also

regulate MGR in the high seas because the two maritime zones are an inseparable ecosystem.

## 'Outstanding universal value' links to new treaty provisions

UNCLOS exists alongside the World Heritage Convention (WHC). In its preamble, the convention<sup>8</sup> highlights “the importance, for all the peoples of the world, of safeguarding this unique and irreplaceable [cultural and natural] property, to whatever people it may belong ... considering that parts of the cultural or natural heritage are of outstanding interest and therefore need to be preserved as part of the world heritage of mankind as a whole.”

ABNJ includes exceptional areas, sensitive habitats and vulnerable/endangered species that could be recognised as world heritage due to their 'outstanding universal value' (OUV) — see Box 3 for additional details.

The recognition of marine sites in ABNJ as world heritage sites reinforces the argument that the ocean ecosystem holds great ecological and cultural value. The benefits rising from the exploration and exploitation of ocean resources in these areas should be shared by humanity as a whole.

Given that Article 31(3)(c) of the Vienna Convention on the Law of the Treaties<sup>9</sup> provides that the context of a treaty must take into account “any relevant rules of international law,” the OUV principle must be read together with the provisions of the new ILBI for the regulation of MGR in ABNJ.

## 'Matters not regulated' by UNCLOS

Article 31(2) of the Vienna Convention on the Law of the Treaties stipulates that the preamble of a treaty constitutes for the purposes of interpretation a part of its context. The preamble of UNCLOS stipulates that “matters not regulated by this Convention continue to be governed by the rules and principles of general international law.” Further to this, the preamble highlights that the Convention shall “[c]ontribute to the realisation of a just and equitable international economic order which takes into account the interests and needs of mankind as a whole.”

References to a 'just' and 'equitable' economic status quo balanced by the interests of mankind imply the application of the CHM principle, of which the benefit-sharing of natural resources is a core element. Notwithstanding the divergent views as to whether the CHM is customary international law or a principle of international law, it certainly belongs to the body of

*To sustain the ocean and its resources for the benefit of all people, the 'common heritage of mankind' principle must be central to a new treaty*

### Box 1. The Area and the high seas

Under UNCLOS, the CHM principle applies to “the seabed and ocean floor and subsoil thereof beyond the limits of national jurisdiction,” legally defined as the 'Area'.<sup>17</sup> The water column above the Area (known as the 'high seas') is covered by a distinct regulatory regime — the freedom of the high seas.<sup>2</sup> MGR in the Area and the high seas, commonly referred to together as ABNJ, are not covered by any legal regime and are outside the scope of UNCLOS.

international law. As such, the CHM should regulate MGR in ABNJ. Negotiators should use the principle to draw up the new ILBI, given that MGR in ABNJ are not regulated under UNCLOS.

### Common heritage of mankind and benefit-sharing in areas beyond national jurisdiction

The concept of benefit-sharing suggests that all nations have access to natural resources, but their management and sustainable use remains the joint responsibility of all.<sup>10</sup> In ABNJ — an indivisible ecosystem of which MGR are an integral part — the application of benefit-sharing would be effective only if the CHM principle was in play.

Cross-fertilisation of international environmental treaties not only integrates the ecosystem approach in UNCLOS but also fosters the application of a benefit-sharing mechanism for the use of MGR in ABNJ. The new ILBI should be informed by the CBD Convention and the Nagoya Protocol,<sup>11</sup> which enshrine the fair and equitable sharing of genetic resources within and beyond national jurisdiction. In fact, regulating MGR under the new ILBI should draw inspiration from Article 10 of the Nagoya Protocol, which provides for a global multilateral benefit-sharing mechanism in transboundary situations.

As is the case with the International Seabed Authority (ISA) for the mineral resources in the Area, MGR in ABNJ must be collectively managed as part of the common heritage of humankind. The 1979 Moon Agreement provides a precedent here.

### To the moon and beyond...

The 1979 Moon Agreement explicitly endorses the CHM principle, providing that “the moon and its natural resources are the common heritage of mankind.”<sup>12</sup> Notably, in Article 4.1, the future international governance regime envisaged for exploiting moon resources is based upon equitable benefit sharing, specifying that: “Due regard shall be paid to the interests of present and future generations as well as to the need to promote higher standards of living and conditions of economic and social progress and development in accordance with the Charter of the United Nations.” This can essentially be interpreted as requiring due regard for the interests of developing countries. Further, the agreement stipulates that “neither the surface nor the subsurface of the moon, nor any part thereof or natural resources in place shall become property” of a nation state.

### Box 2. What makes an ecosystem?

Article 2 of the Convention on Biological Diversity defines an ecosystem as a “dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.”

The moon and its resources are perceived as a unit similar to the notion of the ocean ecosystem in ABNJ. Unlike Part XI of UNCLOS, the definition of moon resources is absent in the Moon Agreement and suggests that all resources that may be found on the moon could fall within its scope. Taking into account that the moon and ABNJ are both common spaces outside national jurisdiction, and that international environmental treaties interact with each other in a systemic way, the Moon Agreement could inform the provisions of the new ILBI.

### A human right to science for all

MGR are inextricably linked with marine scientific research and bioprospecting in ABNJ, which at present remains the privilege of developed countries with enough financial resources and technological capacity to explore the deep seas.

Without uniform regulation of scientific exploration in ABNJ, developing — and the least developed — countries could be excluded from access to scientific research into MGR and sharing the benefits deriving from those resources. That, by itself, would constitute a violation of the ‘human right to science’, which includes the right to share in scientific advancement and its benefits.<sup>13</sup>

### Box 3. Places to preserve: world natural heritage sites in areas beyond national jurisdiction

A 2016 UNESCO report<sup>18</sup> proposed five marine sites in ABNJ to be classified as world natural heritage sites under WHC, given that these areas include:

- (i) Significant ongoing ecological and biological processes in the evolution and development of marine ecosystems and communities of plants and animals, and/or
- (ii) Important and significant natural habitats for in situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.

The report lists the following marine sites:

- Sargasso Sea
- Costa Rica Thermal Dome
- White Shark Café
- Lost City Hydrothermal Field
- Atlantis Bank.

In view of the above, negotiators should push for the inclusion of CHM in the new ILBI alongside the international obligations of scientific research and cooperation, transfer of marine technology and capacity building stipulated under Part XIII and IV of UNCLOS, respectively. The CHM principle would ensure that all countries, including vulnerable communities, access and share the benefits, be those scientific or commercial, associated with the exploitation of MGR in a non-discriminatory way.

## Preserving the oceans for present and future generations

In the case of *Gabčikovo-Nagymaros*, Judge Weeramantry in a separate opinion referred to the “trusteeship” of the earth’s resources that are “not individually, but collectively owned.”<sup>14</sup> Accordingly, in the well-known *Nuclear Weapons Advisory Opinion*, the presiding judges recognised that the environment “represents the very health of human beings, including generations unborn.”<sup>15</sup>

Declaring the ocean as a global commons under the trusteeship of the international community leads to the following conclusion: in areas where there is no exercise of national sovereignty, as in ABNJ, the international community must apply the CHM principle. This principle connects with the recognised duty of all nations to preserve the environment and ensure for evermore the fair and equitable sharing of natural resources for the sake of present and future generations.<sup>16</sup> In that regard, the CHM principle is closely related to, if not complementary to, the principles of intra- and inter-generational equity, ie the right of present and future generations to live in a healthy environment whose natural elements are fairly and equitably shared.

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## Notes

<sup>1</sup> While the exact meaning of the term is still debated, one definition of marine genetic resources is any unit of plant, animal or microbial origin, found in the marine environment, containing functional units of heredity and of actual or potential value. / <sup>2</sup> Koh, TTB (1982) A Constitution for the Oceans. Remarks by Tommy T.B. Koh, President of the Third United Nations Conference on the Law of the Sea. United Nations. [www.un.org/depts/los/convention\\_agreements/texts/koh\\_english.pdf](http://www.un.org/depts/los/convention_agreements/texts/koh_english.pdf) / <sup>3</sup> See for example: Harrison, J (2013) Reflections on the Role of International Courts and Tribunals in the Settlement of Environmental Disputes and the Development of International Environmental Law. 25 *J Environmental Law* 501–514. / <sup>4</sup> Harrison, J (2007) Judicial Law-Making and the Developing Order of the Oceans. 22 *The International Journal of Marine and Coastal Law* 283–302. / <sup>5</sup> Treves, T (1998) The Law of the Sea “System” of Institutions. *Max Planck Yearbook of United Nations Law* 325–40. / <sup>6</sup> *South China Sea Arbitration (The Republic of the Philippines v the People’s Republic of China)* (2016) PCA, paras 940–941. / <sup>7</sup> United Nations (1992) Convention on Biological Diversity. / <sup>8</sup> United Nations (1972) World Heritage Convention. / <sup>9</sup> United Nations (1969) Vienna Convention on the Law of Treaties, Article 31. / <sup>10</sup> Taylor, P (2016) The concept of the common heritage of mankind. In: Fisher, D (ed.) *Research Handbook on Fundamental Concepts of Environmental Law*. Edward Elgar Publishing. / <sup>11</sup> United Nations (2014) The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation to the Convention on Biological Diversity. / <sup>12</sup> United Nations (1979) Agreement Governing the Activities of States on the Moon and Other Celestial Bodies [Moon Agreement], Article 4. / <sup>13</sup> The right to science is recognised under Article 27 of the Universal Declaration of Human Rights and, in slightly different terms, in Article 15 (1)(b) of the International Covenant on Economic, Social and Cultural Rights. / <sup>14</sup> Separate Opinion of Judge Weeramantry in: *Case concerning the Gabčikovo-Nagymaros project* (Hungary v Slovakia) (1997) ICJ Rep 7. / <sup>15</sup> International Court of Justice (1996) *Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion*. ICJ Reps, p. 226. / <sup>16</sup> Fitzmaurice, M (2018) Intergenerational Equity, Ocean Governance, and the United Nations In: Attard, DJ, Fitzmaurice, M and Ntovas, A (eds) *The IMLI Treatise On Global Ocean Governance: Volume II: UN Specialised Agencies and Global Ocean Governance*. Oxford University Press, Oxford. / <sup>17</sup> United Nations (1982) Convention on the Law of the Sea [UNCLOS], Article 136, 86–87. / <sup>18</sup> Freestone, D, Laffoley, D, Douvère, F and Badman, T (2016) World Heritage in the High Seas: An Idea Whose Time Has Come. UNESCO.