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MARIPOLDATA Ocean Seminar

The Legal Status of Marine Genetic Resources in BBNJ

27th January, 2021

Guest Speaker: Konrad Marciniak, PhD, law, Director of the Legal and Treaty Department, Ministry of Foreign Affairs of the Republic of Poland

Konrad Marciniak holds a Ph.D in law on the topic 'Marine Genetic Resources in the Law of the Sea 'and is currently Director at the Legal and Treaty Department of the Ministry of Foreign Affairs of the Republic of Poland. He advises the Government of Poland in particular on the law of treaties, issues related to the law of the sea and environmental law. Besides representing the Government of Poland in the work of the European Union Working Party on the Law of the Sea (COMAR), and at the annual Antarctic Treaty Consultative Meetings (ATCM), he also participates in the ongoing negotiations on marine biological diversity in areas beyond national jurisdiction. He authored a number of articles on the law of the sea and other public international law and EU law topics. His current research interests relate to public international law, including in particular the law of the sea, biodiversity and environmental law, climate change and law of treaties.

He attended this MARIPOLDATA Ocean Seminar in his personal capacity as a researcher and views represented here are his private views.

Reading Material for the Session:

Marciniak, K. J. (2020). "Chapter 3 The Legal Status of Marine Genetic Resources in the Context of BBNJ Negotiations: Diverse Legal Regimes and Related Problems". In *New Knowledge and Changing Circumstances in the Law of the Sea*. Leiden, The Netherlands: Brill | Nijhoff. doi: https://doi.org/10.1163/9789004437753_005

Vierros, M., Suttle, C.A., Harden-Davies, H. and Burton, G. (2016), Who Owns the Ocean? Policy Issues Surrounding Marine Genetic Resources. *Limnology and Oceanography Bulletin*, 25: 29-35.
<https://doi.org/10.1002/lob.10108>

The monthly **MARIPOLDATA Ocean Seminar Series** offer a virtual space to get information and engage in exchanges on ocean governance issues, through presentations by international experts from academia, governments, international organisations and civil society.

To register: Please contact ina.tessnow-vonwyssocki@univie.ac.at, indicating your name and institution.

More information: [MARIPOLDATA Ocean Seminar Series](#)



1. General Context of MGRs in BBNJ

- Marine Genetic Resources (MGRs) in areas beyond national jurisdiction are currently not regulated under existing international agreements.
- A new legally binding agreement for the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction (BBNJ) seeks to fill this gap by addressing the access and benefit-sharing of MGRs.
- Many existing agreements are relevant to the governance of MGRs.
- The final round of the BBNJ negotiations was postponed due to the Covid-19 pandemic, but is supposed to be finalized this year (2021). Many unresolved issues remain despite an interactive intersessional period among state delegated and non-governmental organizations.

2. Who owns the ocean?

Reading 1: Who Owns the Ocean? Policy Issues Surrounding Marine Genetic Resources (Vierros et al. 2016)

Despite written half a decade ago, in 2016, issues mentioned in the article by Vierros et al. are still very relevant today. The article gives a picture of the environmental significance of marine genetic resources and underlines that the deep sea is largely unexplored. In this regard, the Ocean can be seen as a “large reservoir of untapped genetic resources”.

Since the 1960s, marine genetic compounds have been used to develop products, and are today the source of a number of pharmaceutical, biofuel or cosmetic products.

The article introduces the concept of marine genetic resources (MGRs) and shows that the everyday lives of many of us are intertwined this concept with the many and diverse products and applications connected to MGRs.

Any yet, while this gives a better idea what MGRs are and can be, yet, the legal definition is not yet resolved during the ongoing negotiations for the conservation and sustainable use of marine biodiversity beyond national jurisdiction (BBNJ).

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It is suggested that commercial interest in MGRs is growing, when looking at the increasing number of patents.

An important issue in this regard is the fact that access to MGRs is unevenly spread across the globe, as it requires financial capacity and technology that is not available to all states. More than 90% of all patents are owned by only 10 countries alone- the top 3 states owning patents being- US, Germany and Japan (around 70%).¹ This implies that the benefits from MGRs are currently unevenly shared across nations.

While the Convention on biological diversity, with its Nagoya Protocol, regulates benefit-sharing of genetic resources found *within* national jurisdiction- MGRs found *beyond* national jurisdiction are not subject to any legal mechanism for access and benefit sharing to date- which is supposed to be addressed with the BBNJ negotiations.

The ethical implications and the potential of capacity-building and the transfer of marine technology to support to close this gap are further discussed in the article.

3. The Legal Status of Marine Genetic Resources in BBNJ

Reading 2: Chapter 3 The Legal Status of Marine Genetic Resources in the Context of BBNJ Negotiations: Diverse Legal Regimes and Related Problems (Marciniak, 2020).

¹ See also: Blasiak, R., Jouffray, J., Wabnitz, C., Sundström, E., & Österblom, H. (2018). Corporate control and global governance of marine genetic resources. *Science advances*, 4, eaar5237. doi:10.1126/sciadv.aar5237
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Legal Status of Marine Genetic Resources in the Context of BBNJ Negotiations: Diverse Legal Regimes and Related Problems

Konrad Jan Marciniak, PhD

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All views expressed are Author's only and do not necessarily represent the official position of the Government of Poland

Outline

1. Introduction

1. „Context” of BBNJ negotiations
2. Other fora dealing with genetic resources (GRs)
3. Definitions

2. Legal status of MGRs

1. Overview of legal issues
2. CHM principle and the High Seas freedoms

3. Conclusions

1. Introductory remarks

Context of BBNJ Negotiations

Diverse Legal Regimes

„...in the context of BBNJ negotiations”

BBNJ WG

- 2006-2015 (9 meetings + 2 Intersessional Workshops) of the **BBNJ WG** (Marine **B**iological Diversity in Areas Beyond National Jurisd.)
- „**2011 Package**” agreed
- 2012: **Rio+20 Conference**/decision on future treaty *before Sept. 2015*

+ ICP topics in 2004 and 2007

UNGA Res. 69/292 (2015)

- On the basis of final BBNJ WG Recommendations
- „(...) *to develop an international legally binding instrument under UNCLOS*”
- „*on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction*”

+ SDG14

PrepCom

- 2 x 2 sessions in 2016 (28 March-8 April + 26 August-9 September)
- 2 x 2 sessions in 2017 (27 March-7 April + 10-21 July)
 - „substantive recommendations to the General Assembly on the elements of a draft text”
- **21.7.2017: Report of the PrepCom adopted**

UNGA Res. 72/249 (2017)

- decision on **convening and the starting date** of the Intergovernmental Conference
- Organizational session (16-18 April 2018)
- „**initially**” **4 sessions** (2018: September 4-17), 2 x 2019, ~~1 x first half of 2020 (23.3.-7.4.2020)~~
- UNGA decision 74/543 to **postpone** the fourth session of the Conference; plan: IGC-4: 16-27 August 2021 (?)

Marine genetic resources (MGRs), incl. questions on the sharing of benefits

Area-based management tools (ABMTs), incl. marine protected areas (MPAs)

+ **Cross-cutting issues**

2011 Package
„...together and as a whole...”

+ **Pres. Draft text** (May 2019)
+ **Pres. Revised Draft text** (Nov. 2019)

Environmental impact assessments (EIAs)

Capacity building and the transfer of marine technology

GRs issues (formally) outside BBNJ negotiations

BBNJ

„...to elaborate the text of an international legally binding instrument under” UNCLOS

CBD

CBD COP „Marine and coastal biodiversity” decisions

2010 Nagoya Protocol

Info. Exchange and reporting: **Art. 10 (global multilateral benefit sharing mechanism)** (2016)

WG on **digital sequence information** on genetic resources (2016)

GRs

WIPO

Intergovernmental Committee on Intellectual Property and **Genetic Resources**, Traditional Knowledge and Folklore (2000-)

Since 2009: working towards adoption of a legal instrument/instruments

FAO

2001 International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)

1983: FAO Commission for PGRs established and International Undertaking on PGRs adopted

MGRs, definitions (art. 2 CBD)

Biological diversity

- *'the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems'*

Genetic material

- **'any material of plant, animal, microbial or other origin containing functional units of heredity'**

Genetic resources

- **'genetic material of actual or potential value'**
- *any material of plant, animal, microbial or other origin containing functional units of heredity of actual or potential value*

Marine genetic resources

- **any material of marine plant, animal, microbial or other marine origin containing functional units of heredity of actual or potential value**

2. Legal Status of MGRs

Overview of legal issues

Accessing MGRs (*in situ*)

- **Scope**
 - Geographical: Area or Area + High Seas
 - Material:
 - incl. derivatives?
 - Relationship to fisheries?
- **MSR vs. bioprospecting**
- ***In situ/ex situ/in silico* (digital sequenced data, information)**

Legal status of MGRs *in situ*

- **CHM vs. High Seas freedoms controversy**
- **Other provisions of UNCLOS applicable**
 - Part XII (Marine Environment)
 - Part XIII (MSR)
 - Part XIV (TMT)

Benefit-sharing, subsequent uses

- **Types and modalities of BS**
 - Monetary/non-monetary
 - Clearing-house mechanism
- **Monitoring of utilization**
 - Traceability
- **Compliance**

definitions

3. Legal status of MGRs

Between the Scylla of High Seas and Charybdis of CHM principle

Overview

• High Seas

- „negative definition” in art. 86 UNCLOS
 - the Area not excluded from its scope of application
- Art. 87(1):freedom of the HS comprises...
- Art. 87(2): freedom is not absolute

- Free access to MGRs
- Due regard standard
- Subject to MSR regime and environmental provisions
- No clear obligations (or restrictions) on subsequent use of MGRs

• The Area

- Art. 136: „the Area and its resources are the” CHM
- Rights to resources vested in mankind as a whole on whose behalf the ISA acts (art. 137(2) UNCLOS) + ISA competences (art. 157)
- Art. 133(a) „”resources” means all solid, liquid or gaseous mineral resources in situ in the Area (...)”
- Art. 1(1)(3): „”activities in the Area” means all activities of exploration for, and exploitation of, the resources of the Area”

Principles:
Non-appropriation
(art. 137) and
availability to all
States (art. 141)

Principles:
Peaceful uses (arts
138 and 141)
Protection of
environment

Principles:
activities in the
Area (and MSR) for
the benefit of
mankind as a
whole (art. 140
and 143)

CHM principle

**Equity
considerations**
(capacity –building,
transfer of
technology, no
CBDR)

**Institutional and
procedural
implications: ISA**
(art. 137 (2)
UNCLOS)

- There is a difference
- No automatic application
- Different resources

VCLT methodology

- **The literal interpretation (ordinary meaning)**

- „The Area and its resources” argument

- **Contextual/systematic (context: preamble, text, annexes)**

- Preamble: *develop* the principles embodied in UNGA 2749 (1970)
- Preamble: equitable and efficient utilization of resources, their study and conservation

Object and
purpose
(functional)

- Some UNCLOS (Part XI) provisions refer to „the Area” only (e.g. 138, 141), some to „resources” only (137(2)), and some to both of these terms

- **MGRs in the Area – selected Part XI provisions would apply:**

- Arts 137(1), 138, 141, 143(1) and (3), and art. 256 (MSR in the Area)
- Additionally: arts 145 and 147

CHM principle „unfinished” or uneven in its treatment of resources?

- **Which would not apply?**

- Art. 137(2) – rights in the „*resources of the Area*” are vested in mankind as a whole – ISA acts
- Art. 157(1) – ISA is the organization through which States organize and control „*activities in the Area*”
- Art. 139 – States’ responsibilities with regard to „*activities in the Area*”
- Art. 140 – „*Activities in the Area*” shall be carried out for the benefit of mankind as a whole and the Authority shall provide for the equitable sharing of financial and other economic benefits derived from „*activities in the Area*”
- Art. 144 (transfer of technology), art. 146 (protection of human life), art. 148 (participation of developing States in activities in the Area), arts 273-274 (transfer of marine technology, Part XIV)

VCLT methodology, cont.

- **Subsequent agreement**
 - 1994 Part XI Agreement
- **Subsequent practice in the application of the treaty**
- **Supplementary means** (if the general rule leaves the meaning ambiguous or obscure or leads to a result which is manifestly absurd or unreasonable)
 - *Travaux préparatoires*
 - ISNT (1975) – RSNT (1976)

4. Conclusions

1. Various fora where questions concerning GRs (not necessarily marine ones) are debated
2. Legal status of MGRs (*in situ*) often primarily understood through the prism of the CHM vs. the freedom of the HS debate
 1. Arguments to substantiate both sides of the spectrum
 2. No „automatic“ application of the CHM principle (as enshrined in UNCLOS) to MGRs
 3. Zonal approach: MGRs in the High Seas?
3. Different legal issues with *ex situ* and *in silico* MGRs
4. Focus on effective solutions to be achieved:
 1. Access issues
 2. Subsequent use
 3. Benefit sharing
5. „Pardian moment“/deepest of ironies

Thank you for you attention

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4. Questions & Discussion

The Role of Science in the BBNJ Negotiations

Science plays an integral role in regarding the MGR package within the BBNJ negotiations. It is regarded as important that scientists share their experiences from marine scientific research in order to tell policy-makers “how MGRs are used” and to identify the scientific aspects. Within the BBNJ negotiations, several scientists within national delegations and NGOs inform about the scientific terminology and how it works in practice. Most of the state delegations seem to have “their own scientists”.

Freedom of the Seas vs. Common heritage of [Hu]mankind

The two legal principles, enshrined in the Constitution of the Law of the Sea regard the freedom to access and use the water column in the High Seas (that is in areas beyond national jurisdiction). This regards activities, such as fishing, navigation, overflight and scientific research. If consistent with the provisions of UNCLOS these freedoms are guaranteed under international law. However, the exception to this is the ocean floor, seabed and subsoil thereof in areas beyond national jurisdiction (the so-called “Area”). The “area” and its resources are declared the common heritage of (hu)mankind, implying that benefits from these areas need to be shared amongst humankind.

Generally-speaking, developing countries were supportive of the inclusion of the principle into UNCLOS, as it guaranteed them a “share of the cake”.

In recent years, the debate has arisen regarding marine genetic resources in areas beyond national jurisdiction. Within the BBNJ negotiations, the debate has sparked many years of negotiation whether marine genetic resources in the legal way could or should fall under the principle of common heritage of (hu) mankind.

Getting into the final round of negotiations, this issue has not been resolved among state delegations.

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How to...share benefits?

There are different kinds of benefits that can be associated with MGRs in ABNJ. On the one side, there are monetary benefits, meaning financial gains from products developed on the basis of MGRs. On the other side, there are non-monetary benefits, which includes a variety of issues ranging from taking developing countries' scientists on board of research vessels, over training in laboratories, to the sharing of information, data, publications and lastly, digital sequence information. Difficulties in differentiating scientific research for academic purposes versus for commercial interest have been voiced throughout the negotiations, as indeed, oftentimes, the development of a product happens years or decades later, based on further research and does not necessarily have to be linked to the initial motivation of the researcher collecting the sample at sea. At the heart of the debate lays the discussion that marine scientific research in ABNJ is costly and requires technological advancements that are often lacking by low-income countries, but that the areas that lay beyond national jurisdiction and their resources should not be unequally exploited by few. It remains to be seen which kind of benefits will be shared with the final adoption of the new agreement.

The Role of the Clearing House Mechanism

Directly linked to benefit-sharing of data, information and knowledge is the clearing house mechanism. The new agreement foresees a clearing house mechanism for the collection and sharing of data to assist the implementation of the aim to conserve and sustainably use marine biodiversity. This database is meant to include data, relevant for all BBNJ package elements - apart from MGRs also regarding area-based management tools, including marine protected areas, environmental impact assessments, and capacity building and the transfer of marine technology. At this stage, it cannot be predicted which forms of data will be collected and how it will be shared or made public. Questions remain about to what extent existing databases are sufficient and where other databases can or should be created and hence, how the databases can be linked. Also, the content is still a key topic under discussion, whether and how to include digital sequence information into mandatory or obligatory sharing.

We thank Dr. Konrad Marciniak for his insights and all Ocean Seminar Series Participants for engaging in the discussion.

[Here](#) is an overview of the program for the Ocean Seminars Series of the first half of 2021.

We are looking forward to the upcoming Sessions!

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