

A new dawn for global benefit-sharing: capitalizing on the Global Biodiversity Framework for Marine Genetic Resources from Areas Beyond National Jurisdiction

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Between 20 February and 3 March 2023, countries will work towards finalising the draft text for an Internationally Legally Binding Instrument (ILBI) under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable use of Marine Biological Diversity of Areas Beyond National Jurisdiction (BBNJ).³ A contentious issue within the BBNJ negotiations is marine genetic resources (MGR) and benefit-sharing. Although substantial progress has been made, States have particularly struggled to find consensus on the question of monetary benefit-sharing. One cause for this struggle is the potential “spill over” of any MGR decision into other international forums where genetic resources are being discussed, most notably the *Convention on Biological Diversity*. The adoption of the Kunming-Montreal Global Biodiversity Framework in December 2022⁴ offers negotiators a concept and opportunity to build compromise on MGR from ABNJ.

1. The Global Biodiversity Framework offers a building platform for ABNJ benefit-sharing

The Global Biodiversity Framework (GBF) aims to conserve and protect 30% of the planet’s surfaces (marine, freshwater, and terrestrial) by 2030 and mobilize resources to enable these ambitions. It is a high-level framework that will guide not only the *Convention on Biological Diversity* (CBD) over the next thirty years, but also multiple UN instruments including the UN Sustainable Development Goals, the Food and Agriculture Organization and, of course, the High Seas Treaty, amongst others (Figure 1).

The GBF was a package deal negotiated on five core issues: the goals and targets, the monitoring framework, capacity building, resource mobilization, and digital sequence information (DSI). Benefitsharing is found throughout the package but most prominently and contentiously in the Conference of the Parties (COP) DSI decision⁵. Parties agreed to establish “a multilateral mechanism for benefitsharing from the use of digital sequence information on genetic resources, including a global fund.” Under the GBF umbrella, the DSI decision offers several building blocks to achieve benefitsharing objectives in a fair and equitable way discussed below.

The relevance of the GBF and its DSI decision goes beyond benefit-sharing. It demonstrates how States built enough trust to break a deadlock. Indeed, the DSI debate had been hot for many years and seemed locked up in technical details. Then, at COP15 in Montreal, heads of delegations settled the DSI issue at a high level, leaving the negotiation of the operational details to a later date. The efforts of the Chinese presidency combined with visionary leadership on a decoupled, open access, multilateral mechanism from the African Group were instrumental in finding common ground.

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³ Further Refreshed Draft Text of an Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction, 12 December 2022 A/CONF.232/2023/2.

⁴ <https://www.cbd.int/conferences/post2020>. Release of the final report is imminent.

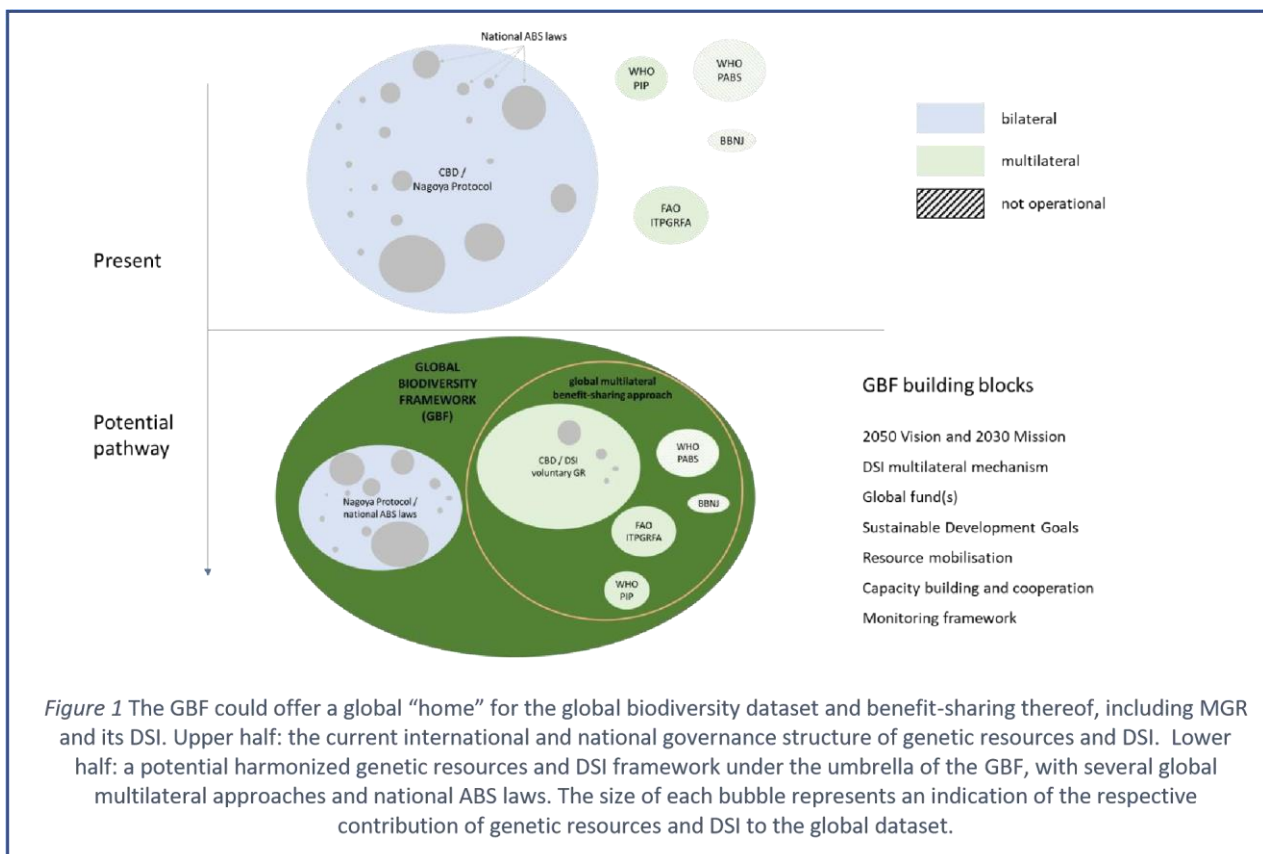
⁵ Conference of the Parties to the Convention on Biological Diversity, *Digital Sequence Information on Genetic Resources: Draft Decision Submitted by the President*, Fifteenth meeting, 18 December 2022, CBD/COP/15/L.30 (COP DSI Decision). Benefit-sharing is also found under Goal C and Target 13.

2. Use overarching criteria to create a long-term vision for benefit-sharing.

The COP decision on DSI under the GBF offers the BBNJ Intergovernmental Committee (IGC) a model for high-level agreement on genetic resource-related issues. Negotiators could start first with the vision and agreed criteria for building a solution for fair and equitable benefit sharing on DSI during implementation. The IGC5bis negotiations can shift the focus from benefit-sharing modalities towards a list of criteria consistent with the COP DSI decision (para. 9):

- Be efficient, feasible and practical;
- Generate more benefits, including both monetary and non-monetary, than costs; Be effective;
- Provide certainty and legal clarity for providers and users of digital sequence information on genetic resources;
- Not hinder research and innovation;
- Be consistent with open access to data;
- Not be incompatible with international legal obligations;
- Be mutually supportive of other access and benefit sharing instruments;
- Take into account the rights of indigenous peoples and local communities, including with respect to the traditional knowledge associated with genetic resources they hold.

Together with the criteria, the vision can be enhanced by considering the following three features of the COP DSI decision. First, although the COP DSI decision does not define the mechanism, it references a “global instrument for biodiversity finance” for resource mobilization with a planetary scope far beyond sovereign national jurisdictions. The annex to the DSI decision suggests the scope could go beyond digital data and extend voluntarily to genetic resources or even biological diversity. Second, like the draft BBNJ text, benefits will be “used to support conservation and sustainable use of biological diversity” and also specifically references benefits to “indigenous peoples and local communities”. Third, the benefit-sharing vision in the GBF moves towards multilateralism. It recognizes the interconnectedness of complex and diverse global data sets. It calls for a simple, overarching vision for benefits to flow to conservation, sustainable use of biodiversity, and infrastructure for digital biodiversity data. **In other words, to share benefits from the complexity of life on the planet, requires a harmonized, simple, multilateral approach under the GBF umbrella.**



3. Focus on efficiency and pragmatism using scientific data for transparency rather than tracking and tracing.

The COP DSI Decision encourages open data and improved metadata standards when depositing DSI, including geographical origin. The collection location of MGR and any DSI generated thereof can be recorded in the metadata in databases or ex situ collections. This would yield a 'BBNJ' (or GPS) tag in the metadata, which is consistent with the draft text proposed notification requirements and with scientific best practices for labelling and using standard metadata to increase transparency, scientific value and utility.

At the same time, the COP decision "recognizes that tracking and tracing of all digital sequence information on genetic resources is not practical" (para. 5). **The BBNJ data tag would not be used for tracking and tracing but could determine the amount of BBNJ data in the global dataset; a proxy for the percentage of the global fund that should go towards BBNJ.** It could be used as an indicator to inform policy decisions in a global context. This would connect benefit-sharing flows back to conservation and sustainable use in ABNJ. Furthermore, tracking and tracing is impractical and inefficient at scale, unlikely to deliver more benefits than costs, and has never been done before thus placing feasibility in doubt. Politically, tracking and tracing can lead to entrenched, difficult negotiations around definitions and benefit-sharing triggers. Policy outcomes that depend on tracking and tracing, such as commercialization notification, should be handled with caution.

BBNJ negotiators have shown leadership in the proposed compulsory assessed contributions to be paid by certain States Parties into the Special Fund for capacity building as monetary benefit sharing yearly payments, as illustrated in the non-paper circulated at IGC5. This simple, de-coupled approach could establish basic financing of the capacity-building needs of the BBNJ agreement and be in harmony with a future global benefit-sharing fund under the auspices of the GBF.

4. Grow the potential of benefits from MGRs of ABNJ as part of a global scientific dataset

Although the high seas are vast and cover enormous swathes of the planet's surface, they are still highly underexplored due to both the extreme conditions and exorbitant costs⁶ required to access them. As a result, science knows relatively little about biodiversity in the high seas compared to coastal waters and terrestrial habitats. The scientific practice is as follows. Scientists store data from DNA sequencing in large, open access, public databases containing nearly 300 million sequences sourced from every corner of the planet. Scientists from every country, submit and use data from this massive, integrated global dataset. They analyze these data in massive digital comparisons, often using and accessing all of the data, all at once, constantly "mixing up" these data to understand biology better. However, **DSI from ABNJ amounts to only several hundred thousand sequences: less than 1% of the total global DSI dataset.**⁷

To encourage benefit-sharing, users of ABNJ-sourced DSI and MGR need legal certainty and simplicity: one comprehensive, inter-connected regime when they use the global dataset. The rules of use and benefit-sharing need to be the same for all rather than heterogeneous for different subsets of data. ABNJ-sourced resources must be as attractive to use as their terrestrial or coastal counterparts. If this does not happen, avoidance behaviors, jurisdiction shopping, or perverse incentives will arise. It must be equally attractive to conduct R&D on, for example, algae or microorganisms collected in the high seas as those from coastal waters. Building capacity to use this global dataset and participate in the scientific research complex, for example via cruise notifications, will increase the participation of low- and middle-income researchers in studying MGR from ABNJ and work hand-in-hand to grow the potential benefits from the use of MGRs.

⁶ Rogers et al. 2021. Policy and Practice Reviews.

<https://www.frontiersin.org/articles/10.3389/fmars.2021.667274/full>

⁷ Scholz et al. *GigaScience*. 2021; Scholz, IUCN BBNJ Workshop online presentation, Jan.24, 2023.

RECOMMENDATIONS

1. Harness the GBF to create a single, harmonized, multilateral approach to benefit-sharing for DSI on MGRs from ABNJ. Elevate discussions to high-level vision and criteria for a solution for fair, equitable and efficient benefit sharing rather than modalities. Consistent with the COP DSI decision, consider extending the multilateral mechanism to genetic resources or biological diversity.
2. A global fund that includes benefits from MGR and planet-wide DSI will require standardized, overarching rules for benefit-sharing to facilitate the ambitions of the GBF. Simple rules for the global dataset prevent jurisdiction shopping and ensure benefits from the use of global datasets that already include DSI on MGRs of ABNJ flow back to BBNJ.
3. Use scientific data and metadata, including geographical tagging, as an indicator for fairness and equity, such as the portion of the global fund that can be dedicated to ABNJ. The complexities of scientific use of data, mean tracking and tracing is neither efficient nor practical but transparency in public data is essential.
4. Make MGR and ABNJ-sourced data attractive to work with, so that its potential can grow.