



Federal Agency for
Nature Conservation

New Pathways towards Sharing Benefits from the Use of Digital Sequence Information

Decision 16/2 of the Conference of Parties to the Convention on
Biological Diversity - Annotation and Legal Reflections

Caroline von Kries LL.M.

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Imprint

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Foreword

The biological diversity of our planet is increasingly threatened by anthropogenic activities and climate change. Over the past several decades, a significant and alarming decline in biodiversity—manifested in the loss of habitats, species, and genetic diversity—has been observed across all continents. Consequently, the global loss of biodiversity is widely recognized as one of the major global crises and an unprecedented challenge facing humanity in the twenty-first century.

The Convention on Biological Diversity (CBD), adopted at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992, has for more than three decades provided an international legal framework aimed at safeguarding the diversity of life on Earth, promoting its conservation, and ensuring its sustainable use. The Convention establishes three overarching objectives: the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising from the utilization of genetic resources (ABS).

Within the framework of the CBD, the ABS mechanism functions as a regulatory instrument designed to recognize and account for the value of biodiversity in scientific research as well as in the development of innovative products. At the same time, it aims to create economic incentives for the conservation and sustainable use of biological resources through the equitable sharing of benefits. The operationalization of ABS is further elaborated in the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization, which entered into force on 12 October 2014. The Protocol further develops the ABS provisions contained in the CBD and introduces compliance mechanisms intended to ensure the effective implementation and enforcement of ABS obligations in practice.

Nevertheless, the material scope of the Nagoya Protocol and its obligations continue to be the subject of considerable debate among the Parties. In particular, a key point of contention concerns the treatment of so-called Digital Sequence Information (DSI) on genetic resources within the framework of ABS obligations. The definition of genetic material in the CBD and the Nagoya Protocol as ‘any material of plant, animal, microbial or other origin containing functional units of heredity’ has not provided a satisfying and definitive answer to this issue. Consequently, at the thirteenth Conference of the Parties to the CBD (COP 13) and the second meeting of the Parties to the Nagoya Protocol (COP-MOP 2) in 2016, another international process was initiated in order to facilitate consensus among the Parties.

The growing importance of the legal treatment of the use of DSI becomes particularly evident in light of the rapid scientific and technological developments of the past decade. DSI has become an indispensable element of modern research, innovation, and sustainable resource utilization. In the field of biotechnology, for instance, DNA sequence information from different bacterial strains can be compared to identify enzymes suitable for industrial applications. Sequence data also play a crucial role in vaccine development. More broadly, DSI enables the development and production of new products without the need to extract physical biological material from natural ecosystems, thereby contributing to the conservation of biodiversity. At the same time, DSI is essential for basic scientific research, including biodiversity research addressing, for example, the state of ecosystems or the distribution and spread of species.

A key advantage of compiling DSI in large, openly accessible online databases lies in the fact that vast quantities of data become available for analysis. From the perspective of ABS, however, this development presents a fundamental challenge. As digital information, DSI can become detached from the countries of origin of the underlying genetic resources. Consequently, its use may fall outside the bilateral benefit-sharing arrangements between providers and users envisaged under the CBD and the Nagoya Protocol. This raises the critical question for the international community as to whether—and if so how—benefit-sharing arising from the use of DSI should be regulated, including whether such regulation should follow bilateral or multilateral approaches.

At the sixteenth Conference of the Parties (COP 16) in 2024, decision 16/2 on DSI established and further elaborated a multilateral mechanism (MLM) for benefit-sharing arising from the use of DSI. The present publication in the BfN-Skripten series addresses the decision 16/2 and provides an important legal analysis and contextualization. The explanations offered are of particular practical relevance in light of the seventeenth Conference of the Parties (COP 17), scheduled for autumn 2026, at which key elements of the multilateral mechanism will be negotiated, as well as for the subsequent discussions and implementation processes.

Particular gratitude is expressed to the author for her careful and dedicated treatment of the complex topic, and acknowledgment is also given to all contributors whose constructive engagement supported the preparation of this publication.

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Abstract

At its sixteenth meeting held in Cali, Colombia, in October and November 2024, the Conference of the Parties (COP) to the Convention on Biological Diversity (CBD) adopted a landmark decision establishing a new multilateral mechanism (MLM) to ensure the fair and equitable sharing of benefits arising from the use of digital sequence information (DSI) on genetic resources, formally adopted as decision 16/2.¹

Users of DSI in sectors that directly or indirectly benefit from its use in their commercial activities should contribute a proportion of their profits or revenue to a global fund. The funding shall particularly support the conservation and sustainable use of biodiversity. Half of the funds will be addressed to indigenous peoples and local communities (IPLC).

This contribution outlines and comments on the contents of decision 16/2 by annotating its text. It does not offer an in-depth legal analysis but rather provides background, explains key wordings and adds commentary where appropriate. The perspective is based on insights the author gained when taking part in the negotiations as well as related retreats and seminars in the capacity of a representative of the German Federal Agency for Nature Conservation. She also benefitted from numerous personal exchanges with stakeholders and State representatives.²

After providing background to the decision-making process in the introduction (1.), the annotation starts with the preambular considerations, followed by the operative provisions and the annex with its 31 paragraphs (2.). The annotation finishes with reflections on the legal character and potential bindingness of the decision 16/2 (3.) and a conclusion (4.).

¹ Decision adopted by the Conference of the Parties to the Convention on Biological Diversity on 1 November 2024. 16/2. Digital sequence information on genetic resources, CBD/COP/DEC/16/2. <https://www.cbd.int/decisions/cop?m=cop-16>

² I thank the members of the project 'Alternative models to the bilateral arrangement as a solution to ABS challenges' funded by the German Research Foundation, especially Evanson Chege Kamau and Chris Lyal, as well as Ellen Frederichs, Thomas Greiber, Paul Oldham and Eva Willée for most valuable input and support.

Zusammenfassung

Auf der 16. Vertragsstaatenkonferenz (COP 16) des Übereinkommens über die biologische Vielfalt (CBD), die im Oktober und November 2024 in Cali in Kolumbien stattfand, wurde eine wegweisende Entscheidung zur Einrichtung eines neuen multilateralen Mechanismus (MLM) zur Sicherung des fairen und gerechten Vorteilsausgleichs aus der Nutzung von digitalen Sequenzinformationen (DSI) über genetische Ressourcen getroffen. Die Entscheidung wurde formal als Beschluss 16/2 verabschiedet.³

Nutzende von DSI über genetische Ressourcen in Wirtschaftssektoren, die direkt oder indirekt von der Nutzung im Rahmen ihrer gewerblichen Tätigkeit profitieren, sollen einen Teil ihres Gewinns oder ihres Umsatzes in einen globalen Fonds einzahlen. Die Mittel sollen insbesondere in den Erhalt und die nachhaltige Nutzung der biologischen Vielfalt fließen. Die Hälfte der Mittel soll an indigene Völker und lokale Gemeinschaften (IPLC) ausgeschüttet werden.

Der folgende Beitrag skizziert und kommentiert die Inhalte des Beschlusses 16/2, indem er den Text erläutert. Der Beitrag stellt keine eingehende rechtliche Analyse dar, sondern liefert Hintergrundinformationen, erklärt wichtige Formulierungen und fügt Kommentare hinzu. Die Recherche basiert auf Erkenntnissen, die die Autorin während der COP-Verhandlungen sowie in vorbereitenden Workshops und Seminaren in der Funktion als Vertreterin des Bundesamtes für Naturschutz gewonnen hat. Sie profitierte auch von zahlreichen persönlichen Begegnungen mit Interessenvertretungen und Vertretungen von Regierungen.⁴

In der Einführung wird zunächst der Entscheidungsprozess dargestellt (1.). Daran schließt sich die Erläuterung des Beschlusstextes an, gegliedert nach Präambel, operativem Text und Anhang mit seinen 31 Paragraphen (2.). Der Beitrag schließt mit Überlegungen zum rechtlichen Charakter und zur Frage der Verbindlichkeit des Beschlusses (3.) sowie mit einem Fazit (4.).

³ Decision adopted by the Conference of the Parties to the Convention on Biological Diversity on 1 November 2024. 16/2. Digital sequence information on genetic resources, CBD/COP/DEC/16/2. <https://www.cbd.int/decisions/cop?m=cop-16> (01.12.25)

⁴ See Fn. 2

1 Introduction

Article 15 of the Convention on Biological Diversity (CBD), together with the Nagoya Protocol (NP), establishes a framework recognizing the sovereign rights of States over their genetic resources and setting out rules for the sharing of benefits from their utilization between providers and users.

This framework, called Access and Benefit-sharing (ABS), is based on utilizing genetic resources as tangible, material objects. However, with the rapid advancement of biotechnology, the use of digital sequence information (DSI) derived from genetic resources, particularly sequenced genomic data, is increasing. The rapidly growing possibilities to develop biotech products directly from DSI raises important questions about whether, how, and with whom the benefits of such uses should be shared. Apparently, the transformation from State-controlled physical material into DSI, that is publicly accessible without restrictions, effectively severs the link between providers and users. As a result, doubts emerged about the effectiveness of the ABS system to channel benefit shares to individual provider countries in order to reach the goal of mobilizing resources for biodiversity conservation. This has been addressed by CBD working groups and Conferences of the Parties (COPs) resulting in the significant policy innovation that will be discussed in this paper.

The final night of negotiations at COP 16 in Cali, Colombia, proved to be both pivotal and ultimately successful: in the early hours of 1 November 2024, the Parties to the CBD reached an agreement on benefit-sharing from the use of DSI. The modalities of the multilateral mechanism (MLM), the principles of which had been agreed upon at COP 15 in Montreal,⁵ were established including the modalities of the global fund. The so-called ‘Cali Fund’ shall receive conservation financing from companies that develop products and services using genetic information directly or indirectly. The decision marks a significant breakthrough towards clarification of legal issues related sharing benefits from DSI use.

However, it was a rocky path to reach consensus at COP 16: it included two intersessional meetings of an Ad Hoc Open-ended Working Group on Benefit-sharing from the Use of Digital Sequence Information on Genetic Resources (WG-DSI) in Geneva and Montreal, eight online-meetings of an Informal Advisory Group (IAG) and twelve Contact Groups at COP 16. Negotiations were particularly sensitive to the concerns of biodiversity-rich but less developed countries. They were concerned about being sufficiently remunerated when losing control over DSI generated from their genetic resources, once made publicly available. In contrast, many developed countries stressed the need to maintain open access to data and safeguard scientific and technological innovation.⁶ Negotiators were actively supported by non-governmental organisations on both sides.

The final COP decision 16/2 (also referred to as ‘the Decision’) was adopted by consensus. While not binding in a strict legal sense it represents a strong commitment by States and stakeholders to share both monetary and non-monetary benefits in pursuit of biodiversity conservation in an era of high rates of extinction of species and ecosystem degradation.

⁵ CBD/COP/DEC/15/9, Digital sequence information on genetic resources, <https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-09-en.pdf>

⁶ On the mutual reinforcement of open access to data, innovation and sustainable use, Sara, R. et al. (2022), p. 3

2 Text of decision 16/2 annotated

The Decision contains preambular considerations (2.1), the operative provisions adopted by the Parties (2.2), and, in the annex to the Decision, the modalities of the MLM for benefit-sharing (2.3).

2.1 Preambular considerations

The Decision is grounded in fundamental principles laid down in two decisions of COP 15: decision 15/4 on the Kunming-Montreal Global Biodiversity Framework (KMGBF) and decision 15/9 on digital sequence information on genetic resources.

Decision 15/4, which adopts the KMGBF, reaffirms in its long-term Goal C the third objective in article 1 of the CBD, namely to fairly and equitably share benefits arising from the use of genetic resources. Both Goal C and Target 13 explicitly broaden the scope to the use of DSI. In doing so, they urge Parties to substantially increase the sharing of monetary and non-monetary benefits resulting from the utilization of genetic resources, of digital sequence information on genetic resources and of associated traditional knowledge (aTK).

Decision 15/9 laid the conceptual and procedural groundwork for decision 16/2. It set out the core elements for the intersessional work of the WG-DSI.

In the **third preambular paragraph**, and therefore placed in a prominent position, the Decision acknowledges that negotiations on ABS for DSI are embedded in ongoing discussions within other UN bodies and treaties including the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), the World Health Organization (WHO) and the Agreement under the United Nations Convention on the Law of the Sea (UNCLOS) on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction (BBNJ). The recital merely ‘notes’ the relevant discussions leaving it open in what way interactions between the different fora may be initiated (but see paragraphs 18 and 27 in the annex to the Decision).

The **fourth preambular paragraph** clarifies that the Decision does not restrict Parties to continue applying domestic ABS regulations and practices that are based on article 15 of the CBD or the NP. However, specific solutions are not offered where overlaps or contradictions may arise – particularly considering that, under the MLM, benefit-sharing is decoupled from specific access conditions. Further consideration will be required to ensure that national ABS frameworks can be coherently aligned with the architecture and logic of the MLM.

The paragraph also assures that rights and obligations under existing international agreements shall not be affected. This particularly concerns provisions of the NP, the ITPGRFA as well as BBNJ. Nonetheless potential regime conflicts will need to be resolved with particular care.

The **fifth preambular paragraph** underlines the importance of DSI and open access to such information for scientific research and sustainable development. However, it is carefully worded and avoids claiming that open access to DSI is already a standard, principle or customary rule of international law.

The **sixth preambular paragraph** emphasizes that benefits arising from the use of DSI form an integral part of the benefit-sharing encouraged by Goal C and Target 13 of the KMGBF.

The **seventh preambular paragraph** acknowledges the UN Declaration on the Rights of Indigenous Peoples⁷, while the **eighth preambular paragraph** recognizes that indigenous peoples and local communities (hereinafter referred to as 'IPLC') play a vital role in the conservation and sustainable use of genetic resources. Article 31 of the UN Declaration is of particular importance in the ABS context. It reads:

1. "Indigenous peoples have the right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, as well as the manifestations of their sciences, technologies and cultures, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports and traditional games and visual and performing arts. They also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions.
2. In conjunction with indigenous peoples, States shall take effective measures to recognize and protect the exercise of these rights."

The reference to rights of IPLC raises the difficult and still unresolved question of how traditional knowledge associated with genetic resources can be integrated into the MLM. For instance, if a property of a genetic resource was discovered due to traditional knowledge associated with the genetic resource (aTK) and traced to a certain DSI, would that trigger an obligation to share benefits? This and other related questions will have to be addressed in the near future. IPLC themselves now have a better platform to be more closely involved in the discussions: Representatives of IPLC were successful at COP 16 to have a new Subsidiary Body on Article 8j of the CBD instituted.⁸

In the **ninth preambular paragraph** the concept of Mother Earth is addressed. Following previous resolutions on Harmony with Nature since 2012, the UN General Assembly (UNGA) notes 'that some countries recognize the rights of nature or Mother Earth in the context of the promotion of sustainable development'.⁹ Moreover, paragraph 7(b) of the KMGBF moves the rights of nature beyond mere preambular affirmations into the operative provisions by explicitly recognizing and considering 'diverse value systems and concepts, including, for those countries that recognize them, rights of nature and rights of Mother Earth'.

Respect for different worldviews on genetic resources is thus acknowledged. However, it remains unclear how potential conflicts between differing perceptions of the rights of nature might affect the benefit-sharing of DSI use.

Reaffirming that States possess sovereign rights over their natural resources **the tenth preambular paragraph** makes clear that despite the reference to the concept of Mother Earth in preambular paragraph nine, article 15 of the CBD and therefore the rights of States over

⁷ UN General Assembly Resolution 61/295 of 13 September 2017, annex, <https://docs.un.org/en/A/res/61/295>

⁸ Decision 16/4: Programme of work on Article 8(j) and other provisions of the Convention on Biological Diversity related to indigenous peoples and local communities to 2030, <https://www.cbd.int/doc/decisions/cop-16/cop-16-dec-04-en.docx>

⁹ UN General Assembly Resolution 74/224 of 19 December 2019; <https://ecojurisprudence.org/initiatives/un-general-assembly-resolution-74-224-on-harmony-with-nature-2019/> (18.03.26)

their genetic resources remain unchanged. This underscores that it remains within the authority of the provider States to determine how to implement the MLM at the national level.

2.2 Operative provisions

Paragraph 1 sets the scene by adopting the modalities for the MLM, including the global fund. It unequivocally establishes the fund marking a major achievement of the negotiations at COP 15 and COP 16. Further details are expounded in the annex to the Decision. The fund was officially launched at the resumed session of COP 16 of the CBD in Rome on 25 February 2025.¹⁰

Paragraph 2 decides that the aforementioned global fund shall be named the Cali Fund for the Fair and Equitable Sharing of Benefits from the Use of Digital Sequence Information on Genetic Resources. This is generally referred to as the ‘Cali Fund’.

Paragraph 3 acknowledges that additional modalities beyond those laid out in the annex to the Decision will need to be explored.

As the scope of ‘additional modalities’ is rather broad, a wide range of measures may be considered to ensure a successful implementation of the MLM. These include measures such as other possible triggers for payment, raising awareness, advocacy or incentives. Paragraph 7 of decision 15/9 to which is referenced in the Decision suggests that also exceptions to the realm of the MLM may be identified.

The paragraph explicitly refers to the need to take also products and services into account. Sampling product information may assist Parties to improve understanding of DSI-related products and their economic value. This could influence questions of equity and fairness around contributions to the global fund.

Paragraph 4 decides to explore possible new tools and models, such as a new database, for making DSI on genetic resources publicly available and accessible. While already today a large share of DSI is made publicly available and accessible e.g. through the International Nucleotide Sequence Database Collaboration (INSDC), this paragraph claims further transparency and accountability to all Parties. This means for example encouraging databases to include metadata tools for aTK or enhancing capacity-building so that all Parties can profit the most of openly available DSI.

Paragraph 5 provides a specific invitation to Parties and other States but also to IPLC as well as international and domestic organizations involved in ABS matters to comment on paragraphs 3 and 4. This was enacted through CBD Notifications 2024-114 and 2024-115.

Before COP 16, and again in response to CBD Notification 2024-115, some Parties dissatisfied with the current database infrastructure had proposed establishing a new DSI database led by the Secretariat of the CBD (SCBD)¹¹ comprising a tracking system within the CBD Clearing House Mechanism (CHM). However, reflections of other Parties and stakeholders showed that

¹⁰ <https://mptf.undp.org/news/press-release-cali-fund-launches-margins-resumed-session-cop16> (18.03.26)

¹¹ Egypt in SCBD, 2025b

a new database would likely be inefficient and would not significantly improve transparency and accountability (inter alia EU, Canada, Colombia and the DSI Scientific Network.)¹² Other options discussed in submissions included supporting the development of INSDC-compatible mirror databases in developing countries better meeting scientific needs and capacity-building at the national level (Great Britain, India).¹³

Paragraph 6 mandates the SCBD to prepare and commission studies further exploring elements of the MLM that are still unresolved, unclear or only roughly outlined. The SCBD followed suit by issuing CBD Notification 2024-116 in December 2024.¹⁴

Paragraph 7 requests the Subsidiary Body on Implementation (SBI) to prepare recommendations for COP 17 on the two key challenges the MLM is facing: possible additional modalities for benefit-sharing on DSI as well as possible tools and platforms such as databases for making DSI on genetic resources available and accessible in a transparent and accountable manner.

2.3 Annex to decision 16/2

The annex to the Decision specifies the operative components of the new MLM. This conceptual framework also serves as an initial blueprint for an operationalizing instrument (such as another Protocol) that may be designed in due course. The annex has 31 paragraphs and six enclosures.

The annex can be categorized into different clusters of regulation, although there is no strict follow-up on closed chapters. Considering the division of topics into five groups by the WG-DSI-1 in Geneva 2023,¹⁵ the provisions can be clustered as follows:

- Contributions to the fund: material and personal scope of monetary benefit-sharing, exemptions from payment, incentives (paragraphs 3-5, 9, 13-16)
- Disbursement of the fund: allocation principles and pathways (paragraphs 17-22)
- Non-monetary benefit-sharing: personal scope, modality of making it visible (paragraphs 6-8)
- Governance: governance of the fund, governance of the MLM, data governance, review (paragraphs 10-12, 23, 28-31)
- Relation to other approaches and systems: collaboration with other international instruments, relation to national ABS legislation (paragraphs 18(3), 26, 27)

Some cross-cutting provisions concern the general scope and fundamental principles of the MLM (paragraphs 1, 2, 24, 25).

¹² SCBD, 2025a, SCBD, 2025b

¹³ SCBD, 2025b

¹⁴ SCBD, 2025c

¹⁵ CBD/WGDSI/1/3

Paragraph 1

This provision delineates the scope of DSI to be covered under the MLM. However, it does not define the meaning of DSI. The Parties had inserted a ‘placeholder for DSI under the multilateral mechanism’ during the negotiations leading up to COP 16 (see paragraph 14 of CBD/WGDSI/2/L.2). During the negotiations, it was ultimately agreed to maintain this decision in order to avoid long and contentious debates that would have impeded agreement on more critical elements of the mechanism. Whether a definition of DSI will be required remains on the agenda and is identified as an issue for the review process (see enclosure VI, lit. g). In light of the principles of legal clarity and certainty for providers and users of DSI, referenced in paragraph 9(d) of decision 15/9, a definition might be desirable.

The DSI falling within the scope of the MLM must fulfil three criteria:

- The DSI is made publicly available, in compliance with national legislation where applicable (subparagraph (a))
- The free availability of the DSI is not restricted by mutually agreed terms that may have been concluded on the genetic resources from which the DSI was derived (subparagraph (b))
- The DSI is not subject to benefit-sharing obligations provided for by other international agreements unless those instruments make use of the MLM for that purpose (subparagraph (c)).

Subparagraph (a)

To fall under the MLM, DSI must be publicly available. This means that it is accessible to all natural and legal persons, regardless of intended use. By implication, DSI stored in private databases accessible only to the database owner or their authorized agents, falls outside the MLM’s scope.

The Decision does not impose criteria regarding contractual relationships between database operators and data submitters on the one hand and downloaders on the other hand. In practice, contractual terms—whether under private or administrative law—may be concluded via general terms of access, with acceptance inferred through mechanisms such as a click-wrap agreement. However, these may be contradictory to the principle of open access. Individual negotiations are not envisaged.

The meaning of ‘made publicly available, in compliance with national legislation’ remains unclear. First of all, the question of who shall be compliant is open. It could be the database or the person submitting the data or both. Second, the object of compliance (‘national legislation’) is not clear. The provision does not identify whether it is that of the provider country of the underlying genetic resources, the country where the DSI was abstracted, or the country hosting the database. Actually, the first option seems to be the most logical as the target of the Decision is to recalibrate the States’ sovereignty over their genetic resources and DSI. And thus, it is most likely the person submitting the data – who should know the country of origin – having to be compliant with national ABS legislation.

The first option would also be in line with the chapeau of the paragraph which reads ‘without prejudice to national legislation’. It is apparent that here the text refers to the provider country’s legislation. The subsequent subparagraph (a) then targets the following case: a provider country regulates access to the underlying genetic resource and interdicts uploading

the DSI without consent. However, the user files a DSI submission to a database without consent and the database accepts that. The crucial question would then be: is this specific dataset in scope of the MLM or not? The moment when DSI is submitted to a database is certainly most critical since it addresses the tension between sovereignty rights over genetic resources and the public-good character of the DSI derived from them. This also suggests a potential overlap with compliance obligations under the Nagoya Protocol. Parties will have to reflect on this in a broader context.

Subparagraph (b)

According to subparagraph (b), DSI subject to MAT, established at the time of access to the genetic resources from which the DSI was derived and prohibiting its unrestricted availability, is excluded from the scope of the MLM. In the regular case the user would not publish the DSI because he/she risked contractual remedies or sanctions based on national legislation. It is yet unclear how to deal with DSI that is uploaded in violation of MAT restrictions and therefore for downloaders not recognizable as being out of scope. Yet, this might further be discussed in implementing database governance under paragraph 10 or dealt with under national law.

Subparagraph (c)

The MLM does not apply to DSI governed by other ABS instruments. This is a clear assurance that users shall not be subject to stacked payment obligations from different international benefit-sharing instruments, such as the ITPGRFA, the BBNJ, and the WHO Pathogen Access and Benefit-sharing System (PABS system).

Paragraph 1(c) thus serves as a residual or ‘omnibus’ clause addressing the gap in the legal grey zone of existing and emerging DSI regulation in other fora (see also paragraph 18, final sentence, and paragraph 27).

Paragraph 2

The provision reads: ‘All users of digital sequence information on genetic resources under the multilateral mechanism should share benefits arising from its use in a fair and equitable manner.’ This clause ensures broad inclusivity of users under the MLM; it means that it is irrelevant whether the user originates from a developed or a developing country or if the user’s affiliation is with the public or the private sector. Instead, the decisive criterion is the act of using DSI, thereby determining who falls within the scope of the MLM.

Legal certainty requires to clarify of what constitutes ‘use’ of DSI. Unlike the Nagoya Protocol which defines the term ‘utilization’ as research and development (R&D) on the genetic and/or biochemical composition of genetic resources (article 2 of the Nagoya Protocol), the notion of R&D ‘on’ DSI is conceptionally incoherent. In this context, ‘use of DSI’ should be interpreted instrumentally. It should refer in particular to its analysis, synthesis or application for research, development, innovation or other purposes. This interpretation would expand the pool of potential contributors to the fund while minimizing the burden on each.

Notably, the provision departs from the traditional provider–user (North-South) dichotomy often associated with the Nagoya Protocol. In light of the details set out in the next paragraphs the focus on non-State actors becomes more significant, acknowledging their growing responsibility for the protection of biodiversity and increased participation in governance structures. This is a distinct feature of decision 16/2 since (binding) instruments of international environmental law typically address the Contracting Parties to create domestic law incorporating the internationally agreed standards. What is novel is that non-State actors

may take direct action and, in the case of commercial users of DSI, pay into the Cali Fund without having to wait for further national implementation rules (see also Chapter 3).¹⁶

Paragraph 3

According to this provision, users of DSI are responsible for making payments into the global fund. The Parties agreed that ‘users...should...contribute’ - whereas the implementation is ultimately left to the discretion of Parties. The use of the term ‘should’—rather than ‘are encouraged to’—signals a strong normative expectation. The provision establishes the contours of the contribution obligation under the MLM applying it to commercial users of DSI in certain sectors that directly or indirectly benefit from the use. The first sentence states that those commercial users should share benefits in relation to their size.

As explained in paragraph 2 above, the term ‘use’ is not defined and therefore lacks legal clarity. ‘Direct and indirect benefit from the use of DSI’ is also rather elusive language. The formula may capture a wide array of commercial activities. It could, as an example, address producers of sequencing technology or machines, as the DSI itself is not directly used within their factory but they benefit from users buying the technology or machine. It could also address cloud computing services and entities engaged in economic activities around artificial intelligence (AI). In order to ensure the provision is applied reasonably and predictably, additional criteria will likely be needed.

The relevant sectors are listed in enclosure I. It is an indicative list with a leeway to add further sectors in the future, as appropriate. An example would be to include economic activities around AI.¹⁷

Paragraph 3 sets out the payment parameters explicitly only of large entities and how much they should pay (‘a proportion of their profits or revenue’). As paragraph 6 of the operative provisions outlines, it is under further scrutiny how to develop standards for also small and medium-sized companies.¹⁸ Meanwhile, the definition of enterprises that for example require a certain public protection needs further consideration of national circumstances.

Large entities are defined as meeting two out of three thresholds (total assets: 20 million US\$, sales: 50 million US\$, profit: 5 million US\$). The setting of thresholds for assets, sales and/or profit, rests on the assumption that larger entities are sufficiently capable of paying meaningfully. The idea is that if a critical number of big companies will contribute early and substantially the fund will soon become operational. Failing that, the fund may still benefit from smaller contributions by a broader base of contributors.

The suggested contribution for large entities —1% of profits or 0.1% of revenue—is given as an indicative rate. Whether sales/revenue or profits or a mixture of them should be taken as

¹⁶ At the 30th UN Climate Change COP in Bélem, TierraViva, a start-up company promoting biodiversity-based innovation, became the first company to contribute to the Cali Fund, <https://www.tierraviva.ai/news/tierraviva-contributes-to-cali-fund> (18.03.2026)

¹⁷ Orozco, P., Scholz, A.H. (2025), p. 276; Oldham, P., The Cali Fund: Sector, Products and Services (2025), p. 20

¹⁸ On the basis of submissions to Notification 2024-116, <https://www.cbd.int/notifications/2024-116>

indicator for setting the rate was intensively debated. The criteria have quite different implications which were sketched out in a study of the London School of Economics as follows:

“Using profit can protect new and small businesses who may have high sales but low profits, but profits are more manipulable, and fluctuations in profit could cause yearly variations in the funds raised. Further, full data is likely to be available only to tax authorities. In contrast, data on sales/turnover is less open to manipulation. It is widely available on the sector level and for exports as part of the System of National Accounts and UN Reporting Framework.”¹⁹

The term ‘indicative’ means that alternative percentages or calculation methods may be used. However, the provision does not specify whether this rate should be applied to general corporate profits/revenue or solely to that portion attributable to DSI-related activities. The latter proposal argues that contributions shall be fair and proportionate. At the same time, it may trigger a more complex calculation method and the necessity of tracking and tracing – which companies themselves want to avoid. Hence, the ambiguity will need to be resolved for the sake of legal and administrative clarity.²⁰

Companies may disclose information on assets, profit and sales and demonstrate not meeting two of the three thresholds. They will have to be treated like any other company not specifically addressed in this paragraph but addressed in paragraph 2. For example, States may introduce adapted payment duties under national law. Considering the ongoing debates regarding fairness and the level playing field, contribution rates for those entities may likewise be adopted at global level by future CBD COP decisions.²¹

Paragraph 4

This paragraph leads to the assumption that companies smaller than those specified in paragraph 3 are equally addressed by the Decision, particularly when reading it together with paragraph 6(d) of the operative provisions. This mandates the SCBD to ‘prepare a study on national and international standards for the identification of the small, medium and large entities referred to in paragraph 3 of the annex to the present decision’. COP 17 might establish thresholds for assessing business size and respective contribution rates, these to be reassessed at subsequent COPs. CBD Notification 2024-116 sought information on assessment of business size which will be used to support understanding at COP 17.

Other measures of size may be used by different countries, subject to national economic culture and traditions.

The paragraph provides that the MLM system shall operate as a dynamic framework, capable of evolving over time. As further outlined below, the Decision gives rise to a step-by-step implementation approach preparing a later binding agreement.²² The studies are needed to develop a transparent, reliable system that is legally clear for users. It was consensus at COP

¹⁹ Oldham, P., Thambisetty, S. (2024), p. 3

²⁰ Gomes Maia, B., Bourgois-Gironde, S. (2025), p. 758

²¹ See also paragraph 4

²² See III. Bindingness

16 that a contribution rate could only be considered indicative in nature, pending further refinement gained through implementation.

Paragraph 5

According to this provision entities listed in enclosure I and thus in principle subject to contributions to the fund are exempted from payments if they do not use DSI, be it directly or indirectly. From a strict legal point of view the paragraph is not of constitutive nature since its content is already inherent in paragraph 2. It merely articulates the negative corollary to the positive obligation imposed on ‘all users’ of DSI, reaffirming that entities not engaged in such use fall outside the scope of the MLM.

The provision reflects a comply-or-explain mechanism. In comply-or-explain systems all entities that meet certain criteria are presumed to fall within the scope of the contribution obligation. In case of disagreement, entities may assert not to meet the criteria²³ and provide further explanation for non-compliance. The burden of proof lies with the entity. Entities could though be reluctant to disclose information which may be commercially sensitive. It should however be noted that disclosure of information on size, revenue and performance is a requirement comparable under other legal regimes (e.g. tax law, environmental compliance, corporate accountability). It remains with the national governments to establish respective enforcement measures and a competent national authority for supervision.²⁴

Paragraph 6

The paragraph provides that users of DSI should share non-monetary benefits in a fair and equitable manner, as appropriate. Non-monetary benefits are for example capacity-building, joint research collaboration, shared publication and other forms of technical or scientific cooperation. The annex to the Nagoya Protocol may insofar serve as an orientation.

The phrase ‘all users...should’ is similar to that concerning monetary benefits urging entities to meaningfully engage in cooperation with provider countries. Individual circumstances and capacities of the user may be respected which is reflected by the term ‘as appropriate’.

The second sentence ensures that companies do not express and calculate their non-monetary benefits in monetary terms and with that offset or reduce their monetary contributions. This safeguard ensures that non-monetary and monetary benefit-sharing obligations remain distinct and complementary.²⁵

Paragraph 7

This provision identifies a principal objective of non-monetary benefit-sharing, namely to support capacity and technical development needs of developing countries and of IPLC. It affirms that such needs shall be ‘self-identified’ by the latter. This reflects a learning lesson

²³ Gomes Maia, B., Bourgois-Gironde, S. (2025), p.757: “most feasible solution”

²⁴ Regarding the comply-or-explain approach of a EU recommendation on measures for financial stability, the European soft law in combination with national hard law proved to have the most impact on behaviour, see Ausfelder, A., Eick A., Hartlapp, M. et al. (2025), p. 679 f.

²⁵ See also CBD/COP/16/2/Rev.1, former article 5: “...noting that the sharing of such non-monetary benefits does not replace any responsibilities arising from the provisions of the multilateral mechanism with respect to the sharing of monetary benefits through the global fund set out in paragraphs 2, 3 and 4...”

from the practice under the Nagoya Protocol: The set of non-monetary benefit-sharing activities as foreseen in annex No.2 of the Nagoya Protocol did not include an assessment of the societal relevance or social impact of the benefits. Meanwhile, experiences have shown that some benefits are more effective than others and that they should better be provided according to the recipient's needs.

The overall target is to empower developing countries and IPLC to become active participants and to remove inequalities in capabilities to access, analyze, use and finally publish research results reliant on DSI.

The paragraph places this intention in the broader context of capacity-building and development under the CBD and the KMGBF, particularly aligning with Target 13 of the latter.

Paragraph 8

Discussions on the aggregation of information on non-monetary benefit-sharing within the MLM resulted in the idea to use an existing clearing house under the Convention to provide tools for facilitating access to non-monetary benefit-sharing. This is regulated by paragraph 8. One possibility would be to transform either the ABS Clearing House or the CBD CHM into a matchmaking platform for entities offering capacity-building on the one side and those needing and searching for it on the other side. Users will likewise use the platform for showcasing non-monetary benefit-sharing. The scope of non-monetary benefit-sharing facilitated by the MLM will be assessed and is subject to review at COP 18 as outlined in enclosure VI(d).

Paragraph 9

This paragraph states that entities operating public databases and public research and academic institutions are not expected to make monetary contributions to the global fund.

This provision was strongly advocated by representatives of the academic community. From a legal standpoint, one could argue that academic institutions are already excluded from the scope of contributors to the fund by virtue of the term 'their commercial activities' in paragraph 3.

The exclusion from expectations of monetary benefit-sharing was controversial, since some universities make profits out of commercializing their research as in public-private partnerships. This raises the complex question of where to draw a line between commercial and non-commercial research.²⁶ A grey area likely exists with respect to profit-making activities by academic institutions, which are not directly addressed by the Decision but may come into further focus in future negotiations. In the meantime, the question will have to be resolved at the national level. It is conceivable that commercially engaged academic institutions contribute to the Cali Fund voluntarily or by order of domestic legislation.

Some authors have dedicated research to the clarification of what public research and academic institutions need to do in practice under the new modalities for benefit-sharing.²⁷

²⁶ von Kries, C., Winter, G. (2015) in: Kamau, E.C. et al., Research and Development on Genetic Resources, London, Routledge, pp. 60-74

²⁷ Munoz-Garcia, M. et al. (2025)

Paragraph 10

This paragraph addresses the highly important question of the extent to which public databases should respond to ABS requirements. It sets out five expectations aiming to balance the interests of providers of genetic resources from which DSI has been generated with those of researchers who require open and unrestricted access. In doing so, it clarifies how databases may design their access portals in the light of preambular paragraph 5 which refers to ‘the vital role of digital sequence information on genetic resources, and open access to digital sequence information on genetic resources, in scientific research and sustainable development’.

Notably, the final version fixed the level of obligation by the term ‘should’, thereby not imposing stringent requirements. Many countries had supported the even softer alternative ‘are invited to’ in order to lower expectations towards compliance of databases.

A clear decision was taken to avoid any type of subscription model – which would have entailed a fee for access to DSI – thereby maintaining free-of-charge access. However, access is subject to the obligation to comply with applicable international and national regulation. However, one major risk to biodiversity research is the potential restriction of DSI access in national databases. This would challenge the intention of Parties to establish open access to DSI²⁸ and to foster the ‘corpus of reference’²⁹ for knowledge production.

Setting international standards for databases is intended to foster trust among database operators, to improve transparency, to reduce complexity and facilitate cooperation and exchange of data. A common database language promotes research and innovation.

In more detail the five expectations can be annotated as follows:

Subparagraph (a)

This very important paragraph places responsibility upon databases to raise awareness among downloaders of data regarding benefit-sharing obligations under the MLM.

Subparagraph (b)

Databases are also expected to inform data submitters of the requirement to comply with national and international access and benefit-sharing obligations, thus promoting compliance from the point of data submission.

Subparagraph (c)

According to this clause databases should require submitters to provide information on the country of origin of the genetic resource as well as metadata associated with the genetic resource from which DSI was derived. This includes information on potential aTK and its origin. Metadata could include scientific journals outlining information about aTK. As IPLC, often holders of aTK, are the major addressees of allocation of the global fund, decision 16/2 serves

²⁸ See preambular paragraph 5

²⁹ Raposo, D. et al. (2023), p. 3

as a multilateral regulatory framework for the use of traditional knowledge associated with genetic resources from which the DSI in the database is derived.³⁰

This requirement is particularly relevant for countries with strict ABS rules concerning genetic resources and aTK in accordance with the Nagoya Protocol.³¹ The obligatory rigour is somewhat relativized because the country of origin is only to be provided 'where known' and the metadata only 'as appropriate'.

Furthermore, this provision remains largely theoretical as many databases currently lack the technical capacity to store and manage detailed country-of-origin information, metadata or traditional knowledge origin and source data.

Subparagraph (d)

This clause outlines fundamental principles of good database governance, constituting management basics, e.g., for making research data FAIR (Findable, Accessible, Interoperable and Reusable) and respecting CARE for indigenous data governance (Collective benefits, Authority to control, Responsibility and Ethics) including the recognition of rights of IPLC. The FAIR principles act as a guide to data publishers to choose the right technology for achieving that data complies best with these principles.³² They precede implementation and are thus directly relevant for databases in the course of establishing structured DSI and metadata and proper stewardship. The CARE Principles complement the existing data-centric approach represented in the FAIR Guiding Principles by a people and purpose-oriented perspective.³³ They shall likewise guide the databases especially in governing aTK metadata.

Subparagraph (e)

This provision asks database operators to request submitters of DSI to declare that the information submitted is not subject to any restrictions prohibiting its sharing. This could easily be implemented through a click-box mechanism during submission. It does though not confer a burden of proof to the submitter of data since he/she is not required to produce evidence. In addition, database operators are not required to reject any submission where the declaration is not made – although taking the CARE principles seriously they should do this.

Paragraph 11

While other provisions of the Decision directly address entities on the substate level, thus reflecting a more recent trend in international law, paragraph 11 addresses the Parties. It requires States to 'ensure' that data trustees develop adequate and feasible techniques and solutions to operationalize the preceding subparagraphs. The scope includes all databases hosting DSI, both national and transnational.

The provision identifies three types of State-database relationships that confer regulatory responsibility: 'funding' means providing financial support only, 'sponsoring' means

³⁰ On the failure of existing national legislation for the protection of traditional knowledge, Silvestri, L. (2025)

³¹ A comparison of domestic legislation in: Kamau, E.C. (2022)

³² Wilkinson, M.D. et al. (2016)

³³ Carroll, S.R. et al. (2020)

alternatively or additionally assuming management responsibilities, and ‘hosting’ means exercising territorial jurisdiction over the database.

Paragraph 12

This paragraph encourages ‘other governments’ (i.e. non-Parties) that fund, sponsor or host sequence databases to take the same measures with regard to databases as Parties should take in paragraph 11. The provision mainly targets the non-Party USA, given that it funds and hosts the National Center for Biotechnology Information (NCBI) which is one of the world’s largest databases for biological information and data, including GenBank. Together with the DNA Databank of Japan (DDNJ), the European Molecular Biology Laboratory (EMBL) and others NCBI is member of the INSDC.³⁴

Paragraph 13

This provision aims at incentivizing contributions from commercial users to the Cali Fund. Both Parties and non-Parties are ‘invited’ (not obliged) to take administrative, policy or legislative measures fostering such contributions. It thus gives States - independent from their membership to the CBD - a wide range of options and the possibility to determine according to national circumstances and economic traditions how to effectively incentivize contributions to the Cali Fund. This likewise respects national discretion and cultures. Truly, the actual political environment will be decisive for the approach to be taken to incentivize moneyflow.

The adopted wording, sometimes called the ‘Japan paragraph’, reflects Japan’s opposition to mandatory payment schemes—likely due to its economic culture favoring voluntary payments over formal obligations.

Paragraph 14

The paragraph offers options of payment directly to the fund, as the preferred option, or through national authorities, upon receipt. The goal is to facilitate fast and easy payments without additional administrative burden or delay. This may underline that the Cali Fund is conceived not as a traditional donor fund such as official development assistance (ODA) in the past, highly regulated and supported only by States. It is rather designed as a transnational fund supported by primarily industry and other sources (see also paragraph 16).

The format of the receipt and the legal effect it has *de jure* or *de facto* (e.g. in order to solve the potential double payment problem, see paragraph 26 below) still requires further clarification. The receipt is for the first transitional phase issued by the Multi-Partner Trust Fund Office upon payment made to the Cali Fund.³⁵

Paragraph 15

This clause affirms that users who make contributions to the fund in line with the MLM modalities are considered having fairly and equitably shared monetary benefits.

Contributors to the fund receive a certificate of compliance which is deemed to serve as a ‘license to operate’ with respect to DSI in scope of the MLM. It does not address DSI over

³⁴ According to Houssen. W.E. et al. 2020, INSDC comprises the largest public open-access DNA databases

³⁵ See CBD, UNEP and UNDP (2025), Guide to the Cali Fund, p. 6

which Parties are asserting rights and other potential stacked obligations. The Secretariat of the Cali Fund will issue the certificate once the contribution meets the criteria of the Cali Fund.³⁶ The certificate is issued in addition to the receipt addressed in paragraph 14.

The legal value which the certificate might confer upon the contributor is particularly relevant for users paying during the interim period leading to COP 17 which is expected to revisit and possibly refine applicable rates and thresholds.

Paragraph 16

This clause encourages additional voluntary contributions beyond those addressed under paragraph 3 of the Decision. After COP 15, some Parties from the Global South pressed for mandatory payments, while wealthier countries advocated a voluntary system. Ultimately, Parties agreed to set up a dual pathway to contributions: Paragraph 3 ('should ... pay') imposes feasible payments on those who clearly profit from the use of DSI, and paragraph 16 encourages 'additional' purely voluntary payments. The latter may not be made obligatory by States but might include funding from academia, philanthropy, non-DSI commercial activities and States. Additional contributions will likely grow if the MLM functions effectively.

Paragraph 17

This paragraph introduces fund allocation principles: Fairness and equity originate in the third objective of article 1 of the CBD. Transparency is a principle widely used and required in financial transactions to avoid fraud and corruption. Gender-responsiveness is a principle that is relatively new but, as a cross-cutting issue, aligned with Goal 5 of the 2023 UN Agenda for Sustainable Development: gender equality. "Gender-responsive" was also the term that was adopted at COP 15 in the Gender Plan of Action.³⁷ As a result, the term is used in any subsequent COP decisions.

Paragraph 18

The objective of allocation and the funding recipients are addressed in this paragraph. The question of funding recipients was intensively debated. Some proposed avoiding the terms developed/developing countries for two reasons: first, the aim of the MLM and the fund is supposed to serve the needs of biodiversity by filling the biodiversity finance gap. This aim, in a way, overcomes dividing countries according to the dichotomy developed/developing countries in favour of focusing on regions with the greatest decline in biodiversity. Second, according to UN-classification³⁸, the category developed country would not include China. Some argue that China's economic power and global influence warrant a reclassification, particularly due to its status as a major global power and large economy.³⁹ Ultimately, developed Parties likely will not be entitled to receive funds. In the case they have population

³⁶ See Fn. 35

³⁷ <https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-11-en.pdf>

³⁸ <https://www.cbd.int/doc/decisions/cop-08/cop-08-dec-18-en.doc> with further references

³⁹ Detailed analysis in Klingebiel, S., Li, H., (2025); in September 2025, China itself announced that it would not seek new special and differential treatment (SDT) – a more flexible policy space for developing countries – in current and future negotiations at the World Trade Organization (WTO).

of IPLC, who are recognized as biodiversity custodians worldwide, at least half of the funding will go to those IPLC directly (see paragraph 21).

Funds shall not be used to fill lacunae in the general spending of recipient countries. Instead, funding focuses on the conservation and sustainable use of biodiversity, scientific research on biodiversity, IPLC support, and the building of capacity for DSI management. The reference to article 16 of the CBD sets it into the broader perspective of a necessary transfer of biotechnology.

The paragraph also opens the possibility for other ABS frameworks – such as the WHO Pandemic System, the FAO Plant Treaty, and UNCLOS BBNJ Agreement – to join the Cali Fund. This could raise potential controversies about cross-objective funding. International discussions on the cooperation between international ABS instruments have recently been intensified.⁴⁰

Paragraph 19

No agreement was reached on a detailed funding allocation formula. However, an indicative list of criteria, set out in enclosure II, was adopted to make rapid and effective disbursement possible of the initial contributions to the fund. A formal adoption of a formula shall be addressed at COP 17.

Paragraph 20

The allocation procedure is a two-step country-based approach. On the first level the funds are allocated to governments which allocate them, on the second level, to projects within their sovereignty. For some negotiating Parties it was important to have some *ex-ante* and some *ex-post* proof from countries of if and how the money is spent in compliance with paragraph 18. An *ex-ante* assessment is not required in the final text which remains unsatisfactory. Also, legal clarity for monitoring fiduciary standard compliance is insufficient.

Paragraph 21

This provision was a great success for IPLC as it was agreed that at least half of the funds should support the self-identified needs of IPLC, within the range of purposes set out in paragraph 19. Although IPLC had targeted a minimum threshold of 80% they were finally satisfied with the outcome of at least 50%. It is also a great achievement that IPLC may self-define their needs independently of external or State assessment.

There are two alternative procedures to receive funds for biodiversity projects: one through government authorities and one through institutions, e.g. NGOs, identified by IPLC. As the funding will be disbursed through allocations to countries according to paragraph 20, it is the State that chooses which option it deems preferable.

Paragraph 22

The COP may, at a later stage, decide to set aside a part of the funds in order to invest in capacity-building and development aiming to strengthen less developed States in their self-help. The target is to overcome the equations ‘developing State = funding recipient’ and

⁴⁰ Sett. S. et al. (2024)

'developed State = user/benefit-sharer'. Rather, developing States should themselves become capable of commercializing and benefiting from the use of DSI.

The use of the term 'set aside' suggests that this is money allocated in a separate manner from the rest of the funds.

Paragraph 23

This paragraph assigns the UN Multi-Partner Trust Fund Office as host for the Cali Fund. This choice was contentious, especially among developing countries, who rejected the Global Biodiversity Framework Fund (GBFF) under the Global Environmental Facility (GEF) due to concerns over governance and transparency. The fund will be guided by the COP.

Paragraph 24

This paragraph adds formal principles – inclusivity, equity and transparency – to the substantial objectives laid out in paragraph 18. It applies to the entire MLM thus also covering the sharing of non-monetary benefits.

Paragraph 25

This paragraph reiterates principles from the preamble and paragraphs 5, 7, 18, and 21 to respect the rights of IPLC, including women and youth within these communities. The provision uses the term 'must' uniquely throughout the whole text of the Decision, conferring a strong mandate on Parties for the MLM's implementation.

Paragraph 26

This paragraph describes what can also be considered as the fully 'opt-in'-system. Countries that have national legislation on the use of DSI leading to potential double payment obligations for users are invited to abandon their bilateral approach. Details on alignment and risk measures may have to be put in place step-wise. For example, a country could claim national payments from users of publicly available DSI generated from genetic resources from that same country. In that case, the question is if a user may object with reference to payments already made under the MLM. Further reflection on the issue will be necessary.

Paragraph 27

The MLM under the CBD may influence access and benefit-sharing approaches under other international regimes. The concern of companies being subject to multiple legislation regimes including duplication of obligations is addressed in paragraph 27. To avoid stacking of obligations, a clear definition of the scope of different ABS instruments will be essential. Certainly, users strive for simplicity and legal certainty in that regard. The MLM will however have to prove to be functioning, reliable, trust-building, flexible and future-proof before other ABS instruments on the use of DSI may define mutual recognition of payments.

Paragraph 28

This paragraph introduces a 'Steering Committee' with functions as described in enclosure IV. Established in 2025, the committee was an important first step for launching the MLM and thus making it operational.⁴¹ The Steering Committee will not have decisional power but, according to enclosure IV, will be an advisory body providing oversight of the operations of

⁴¹ By CBD Notification 2025-043; <http://www.cbd.int/doc/notifications/2025/ntf-2025-043-dsi-en.pdf>

the fund host, guidance to the secretariat of the MLM, and advice to the COP. In addition, it is tasked with developing a methodology for the review of the effectiveness of the MLM, to be adopted at COP 17.

The functions of the 'Secretariat', as described in enclosure V, include preparing periodic reports on the contributions to and the use of the fund, servicing meetings of the Steering Committee and undertaking any other tasks as determined by the COP.

Paragraph 29

The review of the effectiveness of the MLM and the Cali Fund is due to be conducted for the first time by COP 18 as outlined in paragraph 29. It will take place against the principles of decision 15/9, the factors in enclosure VI and the allocation methodology to be adopted by COP 17. The paragraph suggests the MLM and its fund to also take note of the global reviews of collective progress in the implementation of the KMGBF. According to paragraph 1(d) of decision 15/6, which outlines multidimensional mechanisms for planning, monitoring, reporting and review, the global reviews of collective progress are due for COP 17 and COP 19.

Paragraph 30

Repeatedly, the Decision refers to fundamental pillars of the KMGBF. As outlined in paragraph 30, the monitoring framework for the KMGBF and its relevant indicators⁴² will be a source of information and thus providing guidance for the review of the MLM. In particular the headline indicators for Goal C and Target 13 and a binary indicator for Target 13 are deemed to be relevant. They aim at increasing the sharing of benefits from genetic resources, DSI on genetic resources and traditional knowledge associated with genetic resources.

Paragraph 31

Once the methodology of the review has been adopted by COP 17 it will launch a process on how to measure the effectiveness and efficiency of the MLM, including the global fund. On that basis, adjustments for improvement may be decided by COP 18.

⁴² <https://www.gbf-indicators.org/> (18.03.26)

3 Bindingness

The Decision is not a legally binding instrument, as the form, the content and context, the terminology and the conduct of the Contracting Parties lead to the conclusion that it cannot be qualified as a 'treaty'.⁴³ The legal basis of the Decision is article 23 of the CBD in combination with the Rules of Procedure for Meetings of the Conference of the Parties to the CBD. Article 23 paragraph 4 lit. i) of the CBD mandates the COP to consider and undertake 'action that may be required for the achievement of the purpose of this Convention in the light of experience gained in its operation'. This means that measures of implementation, beyond protocols and amendments to the Convention, are conceivable. According to Rule 40 of the Rules of Procedure 'the Parties shall make every effort to reach agreement on all matters of substance by consensus'. As said, consensus was indeed reached for decision 16/2.

This means that, while not as legally binding at the international level as an agreement, the Decision provides however a stable legitimacy for action. With regard to the level of compliance with legal instruments, International Relations scholars even stress that the mere fact of an instrument being 'hard' is by no means sufficient to render compliance more likely.⁴⁴ Some authors suggest that the global community is not yet prepared to accept a legally binding nature of COP decisions, but that this may change.⁴⁵ With COPs showing greater political commitment (Paris Agreement, KMGBF, upcoming BBNJ-COPs)⁴⁶ they could be granted greater independence in international relations, and be conferred responsibility for their actions at the same time.

Whether decision 16/2 has binding internal effect still depends on the States' domestic legal order, especially its constitutional provisions, and the establishment of – hard or weak – enforcement measures. 'Bindingness' in the sense of behaviour impact has also different dimensions beyond which enforcement is only one.⁴⁷

But even in terms of international law, bindingness in the formal sense must be distinguished from bindingness of content. It is the latter which must be scrutinized when effects of decision 16/2 shall be explored.

While this would be a matter for a more detailed analysis, which could be an objective of another study, three generic effects may however be identified:

1. Establishing a first consensus towards a new international agreement, be it one based on article 10 of the Nagoya Protocol, a new Protocol within the framework of the CBD, or an

⁴³ On the determination of the legal nature of an international agreement, see Gautier, P. (2022), p. 7 ff.

⁴⁴ Ausfelder, A., Eick, A., Hartlapp, M. et al. (2025), p. 670, 671, with further references.

⁴⁵ COPs as Emerging Subjects of International Law? Rethinking Legal Personality in Global Governance – EJIL: Talk! (18.03.26)

⁴⁶ The ICJ in its advisory opinion of 23 July 2025 strengthened institutionalized cooperation by assigning independent legal value (para. 140), under article 31(3)(a) of the Vienna Convention on the Law of Treaties, to agreements reached at COPs (para. 184).

⁴⁷ See Ausfelder, A., Eick, A., Hartlapp, M. et al. (2025), p. 671 ff.

independent new Convention. This may meet the intention of negotiators since it finds resonance in many of the Decision's considerations and provisions.

2. Influencing interpretation of the CBD and the Nagoya Protocol by establishing 'subsequent agreement between the Parties regarding the interpretation of the treaty or the application of its provisions' or giving rise to 'subsequent practice in the application of the treaty which establishes the agreement of the Parties regarding its interpretation'.⁴⁸
3. Motivating private actors to contribute funds and adopt relevant practices in anticipation of a future binding treaty.

The author believes that paragraphs (1) and (3) best characterize decision 16/2.⁴⁹ In addition to preparing for a later international convention decision 16/2 has value by putting together guidelines for voluntary commitment of States and stakeholders. Such guidelines can be qualified as transnational soft law - without material binding effect but with suggestive capacity. This means that the provisions of the Decision allow but also urge States to take action at domestic levels even without prior codified agreement.

As has often been observed, such soft law, if formulated in sufficiently precise terms, may indeed have practical effects. For example, the 'Bonn Guidelines on access to genetic resources and fair and equitable sharing of the benefits arising out of their utilization' were agreed at COP 6 in 2002.⁵⁰ They served as an ABS learning exercise and precursor of the Nagoya Protocol. Decision 16/2 is a serious candidate for setting up a new trajectory towards a readjusted ABS system.

With regard to the urgency of environmental action, decisions are a formal instrument to make willing States capable of acting quickly. Unlike treaties, they do not require formal ratification by a critical number of Parties. However, because they are adopted by consensus, they may, in the future, have comparable legitimacy to conventions. Moreover, they can be corrected, supplemented or specified more easily. In this respect, they have a significant influence on the behaviour and implementation practice of States and on further negotiations. Decisions are thus an effective instrument for achieving the goals of the CBD in a similar way as protocols.

While the Bonn Guidelines primarily incited State Parties to develop appropriate regulation, decision 16/2 is unique within the CBD in also addressing private actors and databases. Relevant industry is called upon and urged to take proactive steps likewise database managers. The perspective that global biodiversity protection should foremost be geared by States has thus shifted. Stakeholders sequencing, storing, making available and using DSI have self-standing responsibilities that are explicitly addressed in the Decision.

⁴⁸ See article 31 paragraph 3 (a) and (b) of the Vienna Convention on the Law of the Treaties on the General Rule of Interpretation: "There shall be taken into account, together with the context: (a) any subsequent agreement between the parties regarding the interpretation of the treaty or the application of its provisions; (b) any subsequent practice in the application of the treaty which establishes the agreement of the parties regarding its interpretation."

⁴⁹ Suggestions of criteria for a non-binding agreement to have legal effects, see Gautier, P. (2022), p. 9, 10.

⁵⁰ Accessible at <https://www.cbd.int/abs/bonn> (18.03.26)

4 Conclusion

Information and knowledge extracted from genetic material and then processed and exchanged in its own right is nowadays completely detached from the physical material from which it was derived. The production and sharing of sequence information in digital format has been increasing since the Nagoya Protocol entered into force in 2014. Since then, the COP has discussed the question of how to ensure benefit-sharing from the use of DSI.

Decision 16/2 has closed this regulatory gap. Even though it is not legally binding, it sends a powerful signal to States, researchers and economic players to share the monetary and non-monetary benefits derived from the use of DSI. Its implementation depends on stakeholder's willingness to take the first step.

In informal discussions on how to proceed, it has been stressed that a step-wise approach towards implementation will be the most promising path forward. Notably, the Decision was adopted on 1 November 2024 but does not define a precise starting date for its implementation. The text rather allows for a direct start and a transitional phase. This may include to set up formal procedures for the bodies of the MLM and the global fund. This may also allow for an interim period with contribution rates lower than those indicated in paragraph 3 and a preliminary allocation formula agreed by the Steering Committee. Most importantly, the industry will have to start sharing monetary benefits from the use of DSI. Contracting Parties are invited to take measures to incentivize users in their jurisdiction to contribute to the Cali Fund. They are likewise called upon to ensure the effective implementation of paragraph 10 regarding governance of databases.

Developing country Parties are urgently awaiting funds for nature conservation and restoration but they remain reluctant to abandon their national legislation on DSI if they have any.⁵¹ Meanwhile the users, expected to contribute financially to the fund, are hesitant to pay because of lack of legal clarity and fear of taking uncontrolled economic risks. A stalemate situation? No. The silent player in the game is nature. Nature does not stand still. Nature moves. Nature lives and dies. Nature does not have the choice to wait.

⁵¹ According to van Vooren, B., Gevrenova, Y. (2025), p. 211, 222, at least 39 States have national ABS laws that explicitly or indirectly apply to DSI.

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Acronyms and abbreviations

Acronym / Abbreviation	Explanation
ABS	Access and Benefit-sharing
AI	Artificial Intelligence
aTK	Associated Traditional Knowledge
BBNJ	Biodiversity beyond National Jurisdiction
CBD	Convention on Biological Diversity
COP	Conference of the Parties
CHM	Clearing House Mechanism
DDNJ	DNA Databank of Japan
DNA	Deoxyribonucleic acid
DSI	Digital Sequence Information
EMBL	European Molecular Biology Laboratory
EU	European Union
FAO	Food and Agriculture Organization
GBFF	Global Biodiversity Framework Fund
GEF	Global Environment Facility
IAG	Informal Advisory Group
INSDC	International Nucleotide Sequence Database Collaboration
IPLC	Indigenous peoples and local communities
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
KMGBF	Kunming-Montreal Global Biodiversity Framework

Acronym / Abbreviation	Explanation
MAT	Mutually agreed terms
MLM	Multilateral Mechanism
NCBI	National Center for Biotechnology Information
NGO	Non-governmental Organization
PIC	Prior informed consent
R&D	Research and Development
SBI	Subsidiary Body on Implementation
SCBD	Secretariat of the Convention on Biological Diversity
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNGA	United Nations General Assembly
WGDSI	Ad Hoc Open-ended Working Group on Benefit-sharing from the Use of Digital Sequence Information on Genetic Resources
WHO	World Health Organization

A Appendix

Decision adopted by the Conference of the Parties to the Convention on Biological Diversity on 1 November 2024. 16/2. Digital sequence information on genetic resources, CBD/COP/DEC/16/2. <https://www.cbd.int/decisions/cop?m=cop-16>

(Preamble)

The Conference of the Parties,

Recalling decisions 15/4 and 15/9 of 19 December 2022,

Taking note of recommendation 2/1 of 16 August 2024 of the Ad Hoc Open-ended Working Group on Benefit-sharing from the Use of Digital Sequence Information on Genetic Resources,

Noting the relevant discussions on digital sequence information on genetic resources and related issues held under other United Nations bodies and treaties, such as the International Treaty on Plant Genetic Resources for Food and Agriculture,¹ the World Health Organization and the 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,²

Recognizing that the approach to the fair and equitable benefit-sharing from the use of digital sequence information on genetic resources set out in the present decision is without prejudice to national access and benefit-sharing measures and does not affect the rights and obligations of any Party deriving from any existing international agreement,

Acknowledging the vital role of digital sequence information on genetic resources and of open access to such information in scientific research and sustainable development,

Recognizing the importance of the fair and equitable sharing of benefits arising from the use of digital sequence information on genetic resources to achieving Goal C and Target 13 of the Kunming-Montreal Global Biodiversity Framework,³

Acknowledging the United Nations Declaration on the Rights of Indigenous Peoples,⁴

Recognizing the vital role that indigenous peoples and local communities play in the conservation and sustainable use of genetic resources,

Noting that, in some world views, all natural genetic information belongs to Mother Earth,

Recalling the sovereignty rights of States over their natural resources,

¹ United Nations, *Treaty Series*, vol. 2400, No. 43345.

² A/CONF.232/2023/4.

³ Decision 15/4, annex.

⁴ General Assembly resolution 61/295, annex.CBD/COP/DEC/16/2

(Operative provisions)

1. Adopts the modalities for operationalizing the multilateral mechanism for the fair and equitable sharing of benefits from the use of digital sequence information on genetic resources,

including a global fund, as set out in the annex to the present decision;

2. Decides that the global fund will be known as the Cali Fund for the Fair and Equitable Sharing of Benefits from the Use of Digital Sequence Information on Genetic Resources;

3. Also decides to explore possible additional modalities of the multilateral mechanism, including, in the context of paragraph 7 of decision 15/9 and the annex to the present decision, to take products and services into account;

4. Further decides to explore possible new tools and models, such as databases, for making digital sequence information on genetic resources publicly available and accessible in a transparent and accountable manner to all Parties;

5. Invites Parties, other Governments, indigenous people and local communities, and relevant organizations to submit views on the issues referred to in paragraphs 3 and 4;

6. Requests the Executive Secretary, subject to the availability of resources, to:

(a) Synthesize the views submitted further to paragraph 5;

(b) Commission a study to examine options for making digital sequence information on genetic resources publicly available and accessible in a transparent and accountable manner;

(c) Submit the synthesis of views and the study to the Subsidiary Body on Implementation for consideration at its sixth meeting;

(d) Prepare a study on national and international standards for the identification of the small, medium and large entities referred to in paragraph 3 of the annex to the present decision;

(e) Commission a study on contribution rates, including implications for revenue generation and economic competitiveness;

7. Requests the Subsidiary Body on Implementation to consider the synthesis of views and the study mentioned in subparagraphs 6 (a) and (b) and to make recommendations to the Conference of the Parties at its seventeenth meeting on:

(a) Possible additional modalities for the fair and equitable sharing of benefits from the use of digital sequence information on genetic resources;

(b) Possible tools and platforms, such as databases, for making digital sequence information on genetic resources available and accessible in a transparent and accountable manner.

Annex**Modalities for operationalizing the multilateral mechanism for the fair and equitable sharing of benefits from the use of digital sequence information on genetic resources, including a global fund**

1. The multilateral mechanism for the fair and equitable sharing of benefits from the use of digital sequence information on genetic resources covers, without prejudice to national legislation, digital sequence information on genetic resources:

(a) That is made publicly available, in compliance with national legislation, where applicable;

(b) That is not subject to mutually agreed terms established at the time of access to the genetic resources from which the digital sequence information is derived, unless those terms allow for the making of the digital sequence information on genetic resources freely available;

(c) For which the fair and equitable sharing of benefits from the use of digital sequence information on genetic resources is not provided for under other international instruments on access and benefit-sharing, unless the multilateral mechanism is chosen for that purpose under those instruments.

2. All users of digital sequence information on genetic resources under the multilateral mechanism should share benefits arising from its use in a fair and equitable manner.

3. Users of digital sequence information on genetic resources in sectors that directly or indirectly benefit from its use in their commercial activities should contribute a proportion of their profits or revenue to the global fund, according to their size. Having regard to paragraph 13, entities that, on their balance sheet dates, exceed at least two out of three of thresholds (namely, total assets: 20 million United States dollars, sales: 50 million dollars, and profit: 5 million dollars) averaged over the preceding three years should contribute to the global fund 1 per cent of their profits or 0.1 per cent of their revenue, as an indicative rate. An indicative list of sectors to which such users may belong is contained in enclosure I.

4. In the light of the studies on national and international standards for the identification of small, medium and large entities and on contribution rates, including implications for revenue generation and economic competitiveness,⁵ the Conference of the Parties will establish thresholds and contribution rates at its seventeenth meeting and review them periodically thereafter.

5. The provisions of paragraph 3 do not apply to entities active in the sectors listed in enclosure I that do not directly or indirectly use digital sequence information on genetic resources.

6. All users of digital sequence information on genetic resources should share non-monetary benefits in a fair and equitable manner, as appropriate. Non-monetary benefit-sharing is complementary to the provisions regarding monetary benefit-sharing included in the present modalities.

7. Non-monetary benefit-sharing should support self-identified capacity and technical development needs and priorities, including capacity-building for the generation of, access to and use and storage of digital sequence information on genetic resources, as well as the self-identified needs of indigenous peoples and local communities, including women and youth within those communities. The sharing of non-monetary benefits builds on ongoing activities and will be facilitated through the long-term strategic framework for capacity-building and development of the Convention on Biological Diversity⁶ and its mechanism to strengthen technical and scientific cooperation in support of the Kunming-Montreal Global Biodiversity Framework.⁷

⁵ As referenced in subparagraphs 6 (d) and (e) of the present decision.

⁶ Decision 15/8, annex I.

⁷ Ibid., annex II.CBD/COP/DEC/16/2

8. The sharing of non-monetary benefits will be facilitated through an existing clearing-house under the Convention, which will primarily provide information on demand for capacity-building needs, knowledge exchange and the showcasing and reporting of ongoing non-monetary benefit-sharing activities.

9. Entities operating public databases and public research and academic institutions are not expected to make monetary contributions to the global fund.

10. Entities operating databases tools and models that are dependent on digital sequence information on genetic resources and that make such information publicly available should:

(a) Make information on the multilateral mechanism for the fair and equitable sharing of benefits arising from the use of digital sequence information on genetic resources available to those accessing their databases and underline that generating monetary benefits from the use of such information accessed through their databases may require the sharing of those benefits through the multilateral mechanism;

(b) Inform those submitting data of the requirement to comply with applicable national and international access and benefit-sharing obligations;

(c) Require the provision of information on the country of origin of the genetic resources from which digital sequence information was derived, where known, as well as, when appropriate, metadata associated with the genetic resources from which digital sequence information was derived, including an indication of the use of traditional knowledge associated with the genetic resources and its origin or source;

(d) With regard to data governance, be consistent with open access to data, taking into consideration the principles of findability, accessibility, interoperability and reusability (FAIR), of collective benefits, authority to control, responsibility and ethics (CARE) and of transparency, responsibility, user-focus, sustainability and technology (TRUST), as well as the recommendations set out in section III of the United Nations Educational, Scientific and Cultural Organization *Recommendation on Open Science*;

(e) Request that those submitting digital sequence information on genetic resources indicate that it is not subject to any restrictions that prohibit its sharing.

11. Parties funding, sponsoring or hosting sequence databases should ensure that entities operating such databases take measures to ensure the effective implementation of the present decision and other relevant future decisions of the Conference of the Parties.

12. Other Governments funding, sponsoring or hosting sequence databases are encouraged to ensure that entities operating such databases will take measures to ensure the effective implementation of the present decision and other relevant future decisions of the Conference of the Parties.

13. Parties and non-Parties are invited to take administrative, policy or legislative measures, consistent with national legislation, to incentivize users in their jurisdiction to contribute to the global fund in line with the present modalities.

14. Contributions to the global fund are expected to be made directly but may be made through a national authority. Receipts will be issued at the point of contribution to the global fund.

15. For each year that users make monetary contributions to the fund in line with the present modalities, they will be considered as having fairly and equitably shared monetary benefits arising from the use of digital sequence information on genetic resources under the multilateral mechanism and will receive a certificate accordingly. Such a certificate excludes the user from any expectation to share further monetary benefits from the use of such information within the scope of the multilateral mechanism for that year.

16. Contributions to the global fund additional to those provided for in the paragraphs above are encouraged.

17. Funding from the global fund should be allocated in a fair, equitable, transparent, accountable and gender-responsive manner.

18. Funding should support the realization of the objectives of the Convention in developing country Parties, in particular the least developed countries and small island developing States, and Parties with economies in transition, especially the conservation and sustainable use of biodiversity, including through the delivery of activities described in national biodiversity strategies and action plans; contribute to scientific research on biodiversity; benefit indigenous peoples and local communities, including women and youth within those communities; and support the building of capacity, in accordance with article 16 of the Convention, to generate, access, use, analyze and store digital sequence information on genetic resources according to capacity needs. Funding will also be available for those purposes to indigenous peoples and local communities in developed countries, where appropriate. In the event that any other intergovernmental forums decide to make use of the multilateral mechanism to share the benefits from the use of digital sequence information on genetic resources, the funding should also support the realization of their objectives.

19. Funding will be allocated taking into account the overall level of funding available in the global fund and an indicative list of criteria, as set out in enclosure II. A formula will be determined by the Conference of the Parties at its seventeenth meeting on the basis of the work of a group established with the terms of reference provided in enclosure III.

20. Funding to Parties will be disbursed through direct allocations to countries, as described in paragraph 19. Each recipient Party is invited to designate or establish, as appropriate, a national entity, such as a national biodiversity fund, to receive funds and distribute them in a transparent manner to support the activities described in paragraph 18. Such entities may allocate resources, in a transparent manner, on the basis of projects developed through a country-driven or community-driven process and should be accountable for ensuring that the funds are used for the self-identified purposes for which they are distributed. They should operate according to internationally accepted fiduciary standards and provide reports on the activities undertaken under the fund and on their impacts. Recipient Parties, at their own discretion, may alternatively designate an international, regional or subregional entity to fulfil those functions.

21. Where appropriate, and subject to national circumstances and national legislation, at least half of the funding of the global fund should support the self-identified needs of indigenous peoples and local communities, including women and youth within those communities, through government authorities or by direct payments through institutions identified by indigenous peoples and local communities.

22. The Conference of the Parties may set aside a proportion of funds to support capacity-building and capacity development, ensuring that developing country Parties, in particular the least developed countries and small island developing States, and Parties with economies in transition have access to the tools and expertise necessary to fully participate and benefit from digital sequence information on genetic resources.

23. The fund will be administered by the United Nations through the Multi-Partner Trust Fund Office, in line with decisions of the Conference of Parties, and operate under the authority of and be accountable to the Conference of Parties.

24. The multilateral mechanism and its fund will operate according to the principles of inclusivity, equity and transparency.

25. The multilateral mechanism must respect the rights of indigenous peoples and local communities, including women and youth within those communities.

26. Without prejudice to national access and benefit-sharing measures, where Parties put in place national measures on access and benefit-sharing from digital sequence information on genetic resources, they are invited to align them with the multilateral mechanism, such that there is no duplication of expectations to share the benefits arising from the use of digital sequence information on genetic resources under the multilateral mechanism.

27. The multilateral mechanism will be implemented in a way that is mutually supportive of and adaptive to other international access and benefit-sharing instruments on digital sequence information on genetic resources, to avoid the stacking of obligations and, where appropriate, to streamline processes. The governing bodies of other international access and benefit-sharing instruments are invited to collaborate with the multilateral mechanism and, where appropriate, to streamline processes. The provisions of the mechanism will not affect the rights and obligations of any Party deriving from any existing international agreement.

28. The multilateral mechanism, including the global fund, will operate under the authority and guidance of and be accountable to the Conference of the Parties. To support the Conference of the Parties in its role as the governing body of the mechanism, a steering committee is established with the terms of reference and composition provided in enclosure IV, under the guidance of the Conference of the Parties. A secretariat with the functions provided in enclosure V is established to serve the Steering Committee and to support the functioning of the mechanism. The operations of the multilateral mechanism will be financed by the global fund.

29. The effectiveness of the multilateral mechanism, including the global fund, will be reviewed by the Conference of the Parties at its eighteenth meeting and at every second subsequent meeting against the principles established in decision 15/9, taking into consideration the factors set out in enclosure VI and a methodology to be adopted by the Conference of the Parties at its seventeenth meeting, noting also the relevance of the global reviews of collective progress in the implementation of the Kunming-Montreal Global Biodiversity Framework due to be conducted for the seventeenth and nineteenth meetings of the Conference of the Parties further to decision 15/6.

30. The review will also be informed by the relevant indicators of the monitoring framework for the Kunming-Montreal Global Biodiversity Framework, including the headline indicators for its Goal C and Target 13 and a binary indicator for Target 13.

31. In the light of the review described in paragraph 29, the Conference of the Parties will consider at its eighteenth meeting any adjustments necessary to improve the effectiveness and efficiency of the multilateral mechanism, including the global fund, with respect to the fair and equitable sharing of benefits arising from the use of digital sequence information on genetic resources.

Enclosure I

Indicative list of sectors that may benefit directly or indirectly from the use of digital sequence information on genetic resources⁸

1. Sectors that may benefit directly or indirectly from the use of digital sequence information on genetic resources include:

- (a) Pharmaceuticals;
- (b) Nutraceuticals (food and health supplements);
- (c) Cosmetics;
- (d) Animal and plant breeding;
- (e) Biotechnology;
- (f) Laboratory equipment associated with the sequencing and use of digital sequence information on genetic resources, including reagents and supplies;
- (g) Information, scientific and technical services related to digital sequence information on genetic resources, including artificial intelligence.

2. The present list will be kept under review, taking particular note of the International Standard Industrial Classification of all Economic Activities, the Central Product Classification and corresponding regional or national codes.

Enclosure II

Indicative list of criteria for funding allocation

The indicative list of criteria for allocating funding is as follows:

- (a) Biodiversity richness and other biodiversity-related criteria for which data are readily available at the national level;
- (b) The geographical origin of the genetic resources from which digital sequence information in the database was derived (noting that such data on geographical origin are currently often incomplete or unrepresentative);
- (c) Capacity needs for the conservation and sustainable use of biodiversity, taking into account the circumstances of developing country Parties, in particular the least developed countries and small island developing States, Parties with economies in transition and indigenous peoples and local communities.

⁸ The present list is without prejudice to digital sequence information on genetic resources covered by other international agreements on access and benefit-sharing.

Enclosure III

Terms of reference for the Ad Hoc Technical Expert Group on Allocation Methodology

1. The Ad Hoc Technical Expert Group on Allocation Methodology is to provide technical advice and guidance on remaining and unresolved issues relating to the disbursement of funds from the global fund, as established in paragraph 16 of decision 15/9, on the basis of paragraph 20 of the annex to the present decision. In particular, the Group will develop an allocation methodology for disbursing funding from the global fund for consideration by the Conference of the Parties at its seventeenth meeting, on the basis of the criteria established in enclosure II.
2. The Technical Expert Group will comprise technical experts, as follows: 15 nominated by Parties, 7 nominated by representatives of indigenous peoples and local communities from the seven sociocultural regions, and 4 nominated by relevant organizations. The Executive Secretary, in consultation with the Bureau, will select experts on the basis of nominations received, taking gender and the relevant technical expertise of the candidates into account and applying the procedure for avoiding or managing conflicts of interest set out in the annex to decision 14/33, as amended in decision 16/26.
3. The Technical Expert Group may draw on existing expertise and liaise with relevant organizations, as appropriate, in the execution of its mandate.
4. Subject to the availability of financial resources, the Technical Expert Group will meet, as needed, to ensure the timely provision of advice and, wherever possible, back-to-back with other relevant meetings. Where possible, the Secretariat will use available means of electronic communication to reduce the need for in-person meetings.

Enclosure IV

Terms of reference for the Steering Committee *(Note from the author: The incorrect numbering is as it appears in the original document.)*

1. Functions of the Steering Committee

1. The Steering Committee will:
 - (a) Provide oversight of the operations of the fund host, ensuring that the fund disburses monies according to the present modalities;
 - (b) Guide the operations of the secretariat of the multilateral mechanism for the fair and equitable sharing of benefits from the use of digital sequence information on genetic resources;
 - (c) Report and provide advice to the Conference of the Parties;
 - (d) Develop a methodology for review by the Subsidiary Body on Implementation and adoption by the Conference of the Parties at its seventeenth meeting for the review of effectiveness of the multilateral mechanism, including the global fund, with indicators, where appropriate, for the factors to be considered in the review, as described in enclosure VI, taking account of the relevant indicators of the monitoring framework for the Kunming-Montreal Global Biodiversity Framework.

2. Composition of the Steering Committee

2. The Steering Committee will comprise:

- (a) Representatives of Parties, with equal geographical representation of the United Nations regions;
- (b) Representatives of indigenous peoples and local communities;
- (c) Representatives of stakeholders from civil society, academia and entities operating public databases, and the private sector;
- (d) Representatives of the United Nations system.⁹

3. The Steering Committee is established by the Conference of the Parties. Members of the Steering Committee will be selected according to established procedures on the basis of nominations from Parties and observer groups. The Chair of the Steering Committee will be designated from among the members of the Committee representing the Parties to the Convention on Biological Diversity.

4. The Steering Committee will meet in person and online, as necessary. Decision-making by the Committee will be through consensus of its members.

5. The initial composition of the group will be:¹⁰

(a) Twenty-four members, comprising:

- Fifteen members from Parties (three from each region), including the Chair to be designated from among them
- Seven members from indigenous peoples and local communities (one from each sociocultural region)
- Two members from United Nations entities

(b) Six observers from civil society, scientific institutions and the private sector (two from each category).

Enclosure V

Functions of the Secretariat

The secretariat of the multilateral mechanism supports the functioning of the multilateral mechanism for the fair and equitable sharing of benefits from the use of digital sequence information on genetic resources, including the global fund, in line with decisions of the Conference of the Parties as the governing body of the mechanism, and as guided by the Steering Committee. Specifically, the Secretariat will:

- (a) Prepare periodic reports and analyses on the contributions to the global fund, on the basis of information provided by the host institution of the fund;
- (b) Prepare periodic reports and analyses on the use of the fund, on the basis of information provided by recipient entities;

⁹ Because the Multi-Partner Trust Fund Office is designated as the host entity, the membership of the fund must include a minimum of two United Nations entities, in compliance with the Multi-Partner Trust Fund Office standard operating procedures. Furthermore, a member from among the United Nations entities will be designated to serve as co-chair when the Steering Committee directs the operations of the fund.

¹⁰ The Conference of the Parties may consider other options for the composition.

- (c) Service the meetings of the Steering Committee;
- (d) Undertake any other tasks determined by the Conference of the Parties, as the governing body of the mechanism.

Enclosure VI

Factors to be considered in the review

The following factors must be considered in the review:

- (a) Amount of funds mobilized through the global fund, in total and disaggregated by contributors and recipients (countries and indigenous peoples and local communities, including women and youth within those communities);
- (b) The indicative list of sectors, as provided in enclosure I, taking into consideration the experience of the multilateral mechanism for the fair and equitable sharing of benefits from the use of digital sequence information on genetic resources as well as new technical and commercial developments;
- (c) Summary information on the activities supported by the fund;
- (d) An assessment of the scope of the non-monetary benefits facilitated by the multilateral mechanism and its alignment with the self-identified needs of beneficiaries;
- (e) An assessment of the efficiency of the multilateral mechanism, including the global fund, taking into consideration the costs of its operations and the suitability of the trigger for monetary contributions;
- (f) An assessment of the contribution of the multilateral mechanism to the realization of the three objectives of the Convention on Biological Diversity, as well as the implementation of the relevant goals and targets of the Kunming-Montreal Global Biodiversity Framework and the considerations for its implementation;¹¹
- (g) An assessment of the effectiveness of the multilateral mechanism in providing legal certainty to providers and users of digital sequence information on genetic resources;
- (h) Information on any interactions between the multilateral mechanism and any national access and benefit-sharing arrangements;
- (i) Any available information on monetary benefits shared through the multilateral mechanism and under national access and benefit-sharing measures;
- (j) Information on any implications of the operation of the multilateral mechanism on the rights of indigenous peoples and local communities, including women and youth within those communities;
- (k) Information on any implications of the operation of the multilateral mechanism on the operations of public databases on digital sequence information on genetic resources, in particular with regard to open access, as well as any implications on research and innovation, including potential implications for data governance, including indigenous data governance;

¹¹ Decision 15/4, annex, sect. C.

- (l) Information on the interactions and any synergies between the operation of the multilateral mechanism and other multilateral access and benefit-sharing instruments;
- (m) A review of the interaction between the multilateral mechanism and any existing national measures for access and benefit-sharing on digital sequence information on genetic resources;
- (n) Any factors relevant to, subject to national circumstances, the feasibility on a case-by-case basis of the voluntary extension of the multilateral mechanism to genetic resources at a later date;
- (o) Information on new and emerging technologies that are relevant to the operation of the multilateral mechanism;
- (p) Information on any implications of the operation of the multilateral mechanism on the operation of public databases on digital sequence information on genetic resources, including potential implications for data governance and measures taken by entities operating such databases pursuant to paragraph 10 of the present annex;
- (q) Information on the measures taken by Parties pursuant to paragraph 11 of the present annex;
- (r) Information on the functioning of the allocation formula.

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