

## Webinar Report:

### “Informal Asia-Pacific Regional Science-Policy Dialogue on DSI”

Thursday, 29 August 2024 – 07.00 to 11.00 UTC

#### Welcome Remarks

##### **Dr Amir Hamidy, Director of the Secretariat for Scientific Authority for Biodiversity, National Research and Innovation Agency (BRIN), Indonesia**

Dr Hamidy welcomed participants to a dialogue focused on the challenges and opportunities surrounding Digital Sequence Information (DSI). He emphasized the importance of biodiversity for the well-being of both the planet and its people, and how, in the digital age, DSI presents complexities, particularly in terms of fair and equitable benefit-sharing. Indonesia sees DSI not just as access to genetic resources but as an issue of fairness, sustainability, and practical solutions. He highlighted the need for a multilateral mechanism to ensure that the benefits of DSI are shared, especially with developing countries and Indigenous Peoples and Local Communities (IP&LC), who are often the custodians of biodiversity. He advocated for a clear definition of DSI and its products to avoid ambiguities in benefit-sharing agreements. Additionally, mechanisms for distributing benefits must support both scientific innovation and biodiversity management.

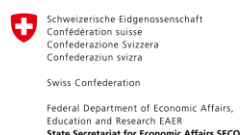
Looking ahead to COP 16 in Colombia, Dr Hamidy stressed the importance of focusing on resolving DSI-related issues rather than complicating negotiations. He concluded by expressing gratitude to the speakers and organizers, including the Meridian Institute, for facilitating the event.

##### **Dr Hartmut Meyer, ABS Capacity Development Initiative:**

On behalf of the ABS Initiative and the Meridian Institute, Dr Meyer, welcomed participants and highlighted the critical stage of the CBD negotiations on DSI. With COP 16 approaching, there are high expectations for a positive outcome that will establish an effective benefit-sharing system to mobilize financial resources necessary for biodiversity conservation and sustainable use.

He noted that the ABS Initiative and the Meridian Institute have conducted several informal activities on DSI in recent years and participated in key meetings like the DSI OEWG in Montreal. These efforts, along with the current dialogue, aim to bring together scientists, public and private sector users, and negotiators to deepen understanding of relevant issues. The upcoming negotiations will focus on a new system that not only regulates access and benefit-sharing for physical genetic resources but also includes the informational aspect of these resources.

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## Background, Objectives and Agenda

### **Lily Weissgold, Meridian Institute:**

From 2019 to December 2022, the Government of Norway co-funded the first phase of the ABS Initiative's work on DSI leading up to COP 15. In November 2023, at the first DSI OEWG meeting, new funding was announced for informal work involving the Meridian Institute and the ABS Initiative. Based on input from national focal points, a work plan through COP 16 was created, with this dialogue being one of the requested activities. Although separate from the formal negotiation process, this informal work complements it by drawing on the advisory group and the DSI OEWG. The activities aim to inform and facilitate progress in formal negotiations, aligning with the mandate of decision 15/9. Earlier in the year, two other regional science-policy dialogues were held to foster communication between DSI users, scientists, and policymakers.

### **Agenda:**

- Input presentations
  - Use of DSI
  - Technical Introduction: DSI from Scientific and Policy Angle
  - Update on DSI Negotiation Process
  - Ad Hoc Open-ended Working Group on Benefit-sharing from the Use of DSI on Genetic Resources: Outcomes of the Second Meeting
- Mini Panel: Science
- Mini Panel: Policymakers & Negotiators
- Mini Panel: Science and Policy in Dialogue
- Wrap up & Goodbyes

## Input - Use of DSI

### **Dr Hartmut Meyer, ABS Capacity Development Initiative:**

Hartmut Meyer discussed two models of Digital Sequence Information (DSI): (a) the national, bilateral ABS system under the Nagoya Protocol and (b) the multilateral system with open-access databases. Typically, access to genetic resources begins in the country of origin, where ABS agreements, including Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT), are required. These agreements govern access, use, and benefit-sharing. After access, research and development often lead to the sequencing of DNA or proteins, with this information uploaded to open-access databases. Currently, most DSI lacks a country-of-origin tag, though it is now mandatory. Once in these databases, DSI can be freely accessed and used without being bound by the original ABS contract. This data is often used in research and development, including commercial applications, with no current benefit-sharing mechanism for this usage.

Developing countries are concerned that the benefits from DSI usage, particularly in commercial development, are not shared with them. The Convention on Biological Diversity (CBD) and the Biodiversity Beyond National Jurisdiction (BBNJ) frameworks have decided that there should be a benefit-sharing system for the multilateral open-access model of DSI as well.

In the GRULAC science-policy dialogue, Michelle Hammer and the DSI Scientific Network highlighted the importance of DSI for biodiversity-related policies under the Global Biodiversity Framework (GBF), including the growing role of artificial intelligence (AI) in research and development. In this context, Amber Scholz emphasized the need for a broad definition of DSI to capture future uses, a comprehensive benefit-sharing mechanism, and the significant potential for AI-driven DSI applications in the commercial sector.

For more details see presentation in Annex 2 of this report.

## Input - Technical Introduction: Importance of Science and Policy to be in Dialogue

### **Pierre du Plessis, ABS Capacity Development Initiative:**

Pierre du Plessis emphasized the importance of communication between policymakers and scientists DSI. For scientists, large datasets, as basis for comparing different genomes, and open access are crucial for research, but tracking and tracing sequences in these vast datasets is technically challenging. Policymakers must understand that imposing too much regulation could hinder scientific progress.

There is no legal basis in the CBD to restrict access to sequences already publicly available, although new access can be regulated through bilateral ABS agreements. The three main global DSI databases (based in the US, UK, and Japan) operate on an Open-Access model, with data freely and anonymously accessible, although the US, which hosts GenBank, is not party to the CBD. While databases are interconnected, making it difficult to trace sequences or attribute them to specific products, industry often uses proprietary datasets to avoid security risks.

The rapid growth of DSI presents opportunities for developing countries, but these nations need support in terms of technology transfer, research collaboration, and infrastructure to fully benefit from DSI's potential. Policymakers must ensure that DSI discussions do not undermine international scientific collaborations, which are crucial for career advancement and development.

The current bilateral ABS system, which pairs access to genetic resources with benefit-sharing, has proven dysfunctional. Most DSI is freely available, leaving many developing countries without the intended financial benefits from biodiversity usage. There is a need to create a multilateral benefit-sharing system to effectively mobilize resources for biodiversity conservation and sustainable use.

DSI plays a critical role in achieving the Sustainable Development Goals (SDGs) and addressing the biodiversity crisis, particularly in sectors like health, food security, and biodiversity management. Policymakers must balance the rights of traditional knowledge holders with the urgency of resource mobilization, and a coordinated approach across international instruments is essential. Fragmentation of the DSI system could harm science and biodiversity efforts, so a simple, coordinated global solution is needed to ensure legal clarity and avoid red tape. The multilateral mechanism must generate significant benefits quickly to address the current \$200 billion funding gap for biodiversity.

For more details see presentation in Annex 3 of this report.

## Input - Update on DSI Negotiation Process & Remaining Hot Spots

### **Charlotte Germain-Aubrey, Secretariat of the CBD:**

Charlotte Germain-Aubrey reminded that the ongoing process of DSI negotiations leading to COP 16 is based COP Decision 15/9 (December 2022, Montreal), in which Parties agreed that benefits from DSI must be shared fairly and equitably. It acknowledged that tracking and tracing all DSI is impractical and reaffirmed that existing rights and obligations under the CBD and the Nagoya Protocol, including those related to traditional knowledge and IP&LC, remain unaffected.

The Kunming-Montreal Global Biodiversity Framework decided to establish a multilateral mechanism for benefit-sharing from DSI, including a global fund. This process is meant to be transparent, inclusive, participatory, and time-bound, to be completed by COP 16. Key principles guiding the operationalization of this mechanism were agreed upon before COP 15 and are central to discussions.

Steps taken so far include submissions of views on the DSI mechanism, lessons from other international funding mechanisms, and studies on the value chain and policy options. The outcomes of the second DSI OEWG meeting will be the foundation for COP 16 discussions.

Parties are encouraged to read the official documents, consult stakeholders, and prepare by discussing topics such as the global fund's governance, disbursement, and involvement of IP&LC. Non-monetary benefits and collaboration across ministries and society are crucial.

The Secretariat emphasized that theoretical discussions are over, and it is time to operationalize the multilateral mechanism. The negotiations have been constructive and positive, and they look forward to continuing this spirit at COP 16 in Cali.

For more details see presentation in Annex 4 of this report.

## Input - Ad Hoc Open-ended Working Group on Benefit-sharing from the Use of DSI on Genetic Resources Outcomes of the Second Meeting

### Timothy Hodges, McGill University:

The speaker noted that the overall tone of both DSI OEWG meetings has been very positive, led by constructive and capable co-chairs. While many issues remain unresolved, the presence of numerous "square brackets" (indicating areas of disagreement) signifies not failure but a clearer understanding of points of agreement and contention.

Key areas of focus and discussion include:

- Triggers, basis, and modalities for benefit sharing
- Non-monetary benefit-sharing (NMBS)
- Fund distribution and disbursement
- The host for the benefit-sharing fund
- Data governance

Despite the complexity, progress is evident, and there is optimism for a clear decision at COP 16.

For more details see presentation in Annex 5 of this report.

## Panel Discussions

Panellists were requested to reflect on specific questions to provide guidance and improve understanding as a basis for making progress at the relevant formal meetings later this year. After each panel discussion questions from the chat were addressed.

Moderation: **Timothy Hodges, McGill University, Canada**

### Panel 1: Scientists

**Dr Sunil Archak**, *Principal Scientist at the Germplasm Exchange & PGR Policy Unit, ICAR -- National Bureau of Plant Genetic Resources in New Delhi, India*

**Dr Ahmad Fathoni**, *Head of the Research Center for Applied Microbiology (RCAM), National Research and Innovation Agency (BRIN), Indonesia*

**Question 1: From your perspective, what is the minimum you need from the multilateral benefit-sharing mechanism (MLM)? For example, I would suggest you might consider what it shouldn't have and what it might have?**

**Ahmad Fathoni** emphasized the need for a shared understanding of the definition of DSI before discussing it in detail. He highlighted the importance of a clear and simple MLM to guide how DSI is accessed and used. This mechanism must ensure that benefits from DSI are shared fairly and equitably with the countries or communities providing genetic resources. A balance between

providers and users, based on contributions, is crucial. Additionally, the MLM should be inclusive, involving all relevant stakeholders – governments, researchers, industry, and communities – to ensure fair benefit-sharing. Transparency, flexibility, and adaptability of the mechanism are also essential to accommodate new technologies.

**Sunil Archak** discussed the long-standing use of macromolecular data like DNA, RNA, and amino acids by researchers, even before it was termed Digital Sequence Information (DSI). He outlined three key aspects of the multilateral mechanism (MLM):

1. Access to DSI: Access should remain open for all researchers, and it should never trigger payment.
2. User Payment Mechanism: Researchers should know the obligations of accessing DSI in advance, allowing commercial users to contribute to a fund, while others contribute non-monetary benefits according to their abilities.
3. Fund Usage: The MLM must ensure that the fund is used to promote equity through capacity enhancement and collaboration, ensuring wider access to DSI.

### Question 2: From your perspective, what would be the best outcome in finalising the MLM?

**Sunil Archak** stressed the need for a MLM to be administratively simple, transparent, and legally certain. He noted that current negotiations are focused on broad options and have not yet addressed specific issues like payment triggers or double payments. He emphasized the importance of clearly communicating these details to researchers.

The ideal MLM should be straightforward for administrators and users, ensure predictable, long-term user-based payments, and foster dynamic relationships with database operators. It should not disrupt existing national and regional mechanisms. The use of funds should be directed toward meaningful purposes, including conservation and capacity enhancement. He highlighted the value of non-monetary benefits, arguing that teaching skills and capacity-building is more beneficial in the long term than providing immediate financial assistance.

**Ahmad Fathoni** emphasized that the MLM should balance accessibility, equality, and innovation. It must promote both local and global collaboration to enhance the use of biodiversity, ensure fair benefit-sharing, and respect intellectual property and traditional knowledge. The mechanism should also help developing countries advance technologically, enabling them to leverage DSI for innovative products that benefit local economies. He highlighted the importance of increased global collaboration in technology transfer.

### Question 3: From your perspective, what would your worst nightmare be regarding the MLM?

**Ahmad Fathoni** outlined several potential problems with the MLM. These include:

- Restricted access: A scenario where scientists cannot access DSI freely, or where high access costs are a barrier.
- Exclusion of stakeholders: Failing to include all relevant stakeholders or creating complex bureaucratic processes for data access.
- Ineffective monitoring: Problems with monitoring and ensuring compliance among data users.
- Unfair benefit distribution: Unequal distribution of benefits, particularly disadvantaging developing countries.
- Technology adaptation: Inability to keep up with technological advances, reducing the benefits from DSI.
- Integration issues: Lack of integration with intellectual property rights and traditional knowledge.

He emphasised that these issues would hinder the effectiveness and fairness of the MLM.

**Sunil Archak** expressed concerns that policy could become a barrier to research rather than a facilitator, especially if it isolates the Global South technologically. He is worried that the MLM may not raise sufficient funds to meet the objectives of the CBD or support biodiversity targets effectively. There is a concern that the Global South might see the MLM as a financial cure-all, which could lead to failed negotiations.

He emphasized the importance of contributions from both industry and governments, in addition to user-based payments, and cautioned against relying solely on researchers. He stressed that a successful MLM is crucial for advancing biodiversity research and addressing issues like climate-resilient agriculture. Failure to finalize an operational MLM or reach consensus could delay critical investments and innovations in these areas.

## Questions from the Chat to the panellists:

### How should the DSI system look like in terms of a functioning future One -Health System?

**Sunil Archak** highlighted the urgency of developing a consensus among negotiators and scientists to address global challenges, such as a hypothetical widespread virus affecting wheat. He emphasized the need for accommodation and collaboration to ensure that scientific knowledge and capacity building are shared widely. He stressed that scientists must be open to teaching each other and working together to prepare for unforeseen future crises.

**Ahmad Fathoni** emphasized the critical need for collaboration and capacity building, particularly highlighted by the challenges faced during the COVID-19 pandemic in Indonesia. The lack of access to databases and adequate technology hindered effective response efforts. He stressed that mastering technology and ensuring easy access to DSI databases are essential for global collaboration and development, underlining the importance of both technology and data access in addressing such critical situations.

### What should be done about the DSI which is already in open access databases, but does not have a country of origin tag? Should there be an attempt to tag them? Would that be brought under a common pool for example? What is practical that regard?

**Sunil Archak** highlighted the need for clarity on whether there will be a cut-off date for benefit-sharing obligations related to DSI. He emphasized the importance of understanding how the fund flow will work and what criteria will apply to DSI submitted before and after this potential cut-off date. This information is crucial for both individual researchers and the industry.

### If an endemic species is sequenced and uploaded to an open access data base, there could be benefit-sharing in the bilateral or the multilateral system. Which would be the more practical benefit-sharing option from a user perspective?

**Sunil Archak** stressed that the MLM should serve as an overarching framework and not be undermined by country-specific or region-specific mechanisms. However, it should also ensure that existing country-specific mechanisms are not negatively impacted when they are necessary.

## Panel 2: Policy makers / negotiators

**Jennifer Tauli Corpuz** works with the organization *Nia Tero* which works with Indigenous Peoples (including in Amazonia, North America and the Pacific)

**Masami Fukata**, Senior Negotiator for Global Environment, Global Environment Division, Ministry of Foreign Affairs in Tokyo, Japan

**Bilal Qtishat**, Director of the Nature Protection Directorate, Ministry of Environment in Amman, Jordan



### **Question 1: From your perspective, how do we best avoid unnecessary complexity and administrative burdens in the national implementation of the MLM?**

**Bilal Qtishat** emphasized the importance of understanding and utilizing available mechanisms for biodiversity conservation and highlighted the need for clear decisions and addressing the challenges faced, particularly in terms of financial and technical support. He stressed that multi-level collaboration between governments and IP&LC is essential for successful conservation efforts. He also pointed out the importance of assessing national resources and implementing agreed-upon decisions through proper regulatory frameworks. Lastly, he expressed confidence that countries will update and revise their National Biodiversity Strategies and Action Plans (NBSAPs) to effectively implement the mechanism.

**Masami Fukata** highlighted that the proliferation of existing ABS systems for plants and marine genetic resources has created significant legal complexity. To address this, the MLM should be flexible, simple, and initially independent of existing protocols. Incentives are crucial to encourage private companies to pay into the global fund. At the OEWG, the idea of issuing receipts or certificates for payments from DSI users was discussed. It is also essential to avoid double or multiple payments between the MLM, other relevant fora, and domestic systems, as this would be unfair and could discourage contributions to the Global Fund.

**Jennifer Tauli Corpuz** emphasized that for Indigenous Peoples, the MLM aligns with the third objective of the CBD, which is to support conservation and sustainable use of biodiversity. She stressed that the MLM should be simple in generating and distributing benefits. The goal is to ensure that the benefits reach those who protect and maintain biodiversity without being consumed by administrative costs. She proposed that a straightforward percentage of sales or micro payments from database access could fund the mechanism effectively. Additionally, she suggested direct access to benefits for Indigenous Peoples and a project-based approach, similar to the Global Benefit-sharing Fund of the FAO Plant Treaty, with a portion dedicated to indigenous projects to ensure fair distribution and connection to biodiversity conservation efforts.

### **Question 2: How can we ensure that benefits are shared at substantial scale to support conservation and sustainable use through the MLM and its fund?**

**Masami Fukata** emphasized the importance of maintaining the credibility of a new global fund by ensuring transparency and accountability. She noted that DSI users need clarity on where their payments are allocated, to avoid criticism from other stakeholders. This transparency is essential for securing sufficient funding. Additionally, she suggested broadening the range of contributors to the fund, allowing non-DSI users to participate if they wish, to create a wider financial base for the Global Fund.

**Jennifer Tauli Corpuz** highlighted that, under the Nagoya Protocol, governments and Indigenous Peoples often bear the burden of regulation and negotiations, frequently to the detriment of the latter. She emphasised that the MLM is attractive because it aligns with the principle that those who benefit most from DSI, such as companies generating significant value from blockbuster drugs and cosmetics, should contribute more to the Global Fund. She stressed that both, commercial and non-commercial users of DSI, should contribute to the fund. For effective governance, she advocated for the CBD's involvement and stressed the importance of including Indigenous Peoples in the governance to ensure transparency and proper acknowledgment of the origins of genetic resources, particularly those culturally significant to indigenous communities.

**Bilal Qtishat** stressed the need to differentiate between sequence information derived from genetic resources and physical genetic resources, highlighting that the governance of the two is distinct. While genetic resources follow a bilateral process involving PIC and MAT, DSI requires a multilateral mechanism. He emphasized that the new fund for DSI should focus on ensuring equity regarding the distribution of benefits, while respecting national regulations and the Nagoya Protocol. He called for the multilateral mechanism to incorporate new technologies, reinvest

shared benefits in conservation, and ensure it contributes effectively to biodiversity conservation. Clear procedures and regulations are essential for managing the mechanism successfully.

## Questions from the Chat to the panellists:

### How would the multilateral system affect the bilateral system, if at all?

**Jennifer Tauli Corpuz** clarified that the establishment of the MLM does not negate the relevance of the Nagoya Protocol. The Nagoya Protocol and bilateral systems should continue to apply for physical access to genetic resources and traditional knowledge associated with those resources. She acknowledged that many genetic resources are already sequenced and available in databases, and scientists may prefer accessing these through DSI. However, she believes both systems can coexist, allowing for the continued application of existing protocols for resources not yet in the DSI system.

**Bilal Qtishat** discussed the distinction between accessing physical genetic resources and DSI. In the case of physical genetic resources linked with traditional knowledge, the Nagoya Protocol procedures apply. However, when multiple parties in the same region share similar knowledge and resources, tracing and monitoring specific genetic sequences can become unclear and impractical. This complexity highlights the difference between the multilateral mechanism needed for DSI and the bilateral mechanism used for physical genetic resources.

**Masami Fukata** emphasized that the Nagoya Protocol system should remain as it is, as it has been effective and tracking DSI is deemed impractical by Decision 15/9. She noted that a bilateral system for DSI is challenging, which is why a MLM is to be established for DSI. While some private companies prefer a unified approach under the MLM, it is too early to fully commit to this option because the functionality of the MLM is still uncertain. For now, the bilateral system will continue to manage genetic resources, while the MLM will handle non-material DSI.

### How can we maintain the current free and Open Access scheme to DSI databases? Must this access scheme be under CBD norms or would it be something standalone that would include access to a net benefit sharing in relation to the other international fora?

**Masami Fukata** reminded that the governance of databases was discussed in the 2<sup>nd</sup> DSI OEWG meeting, highlighting that the proposed requirements for database operators in Annex 1, paragraph 9, might be excessive for small operators. She suggested that these requirements should apply only to large operators and that large operators should be exempt from monetary contributions to the Global Fund. She also questioned the feasibility of having the SCBD manage a database, noting that it might be challenging for treaty secretariats to handle.

**Bilal Qtishat** emphasized the importance of an effective database system for monitoring and sharing benefits. He noted that the CBD has experience with such systems, like the Biosafety Clearing-House, which could be used for monitoring purposes. However, he suggested that the current proposal for this type of database requires further clarification.

**Jennifer Tauli Corpuz** noted that while an ideal system would consolidate all relevant frameworks (WHO, BBNJ, Treaty, and CBD), achieving this would be time-consuming. Given the urgent biodiversity crisis, the initial proposal should place the MLM under the CBD's authority. She emphasized that while the MLM should be under CBD oversight, multiple databases will need to be integrated into a unified system.

### For the bulk of DSI that is already in the public databases, the country of origin is unknown. How do deal with this information? Should there be a cut-off date for benefit-sharing, should they fall under a multilateral umbrella?

**Masami Fukata** argued against retrospective application of benefit-sharing for old DSI entries, acquired decades ago, as tracing these would be impractical and endless.



**Jennifer Tauli Corpuz** agreed that retrospective tracking of old DSI entries is impractical. Instead, benefit-sharing should be triggered upon access to these sequences. She emphasized the importance of tagging sequences related to indigenous territories and traditional knowledge for transparency, not for tracking and tracing. She also raised a concern about whether compensations for potential damages caused by genetic materials, such as pathogens or invasive species, have been considered in the negotiations.

**Masami Fukata** mentioned that discussions on fund distribution formulas considered biodiversity richness alongside other criteria. The threats and risks to biodiversity were briefly addressed, but the conversation did not cover compensations for damages in detail.

### Panel 3: Science and policy in dialogue

For the concluding dialogue with all previous panellists the moderator kicked off the discussion with the following question:

**From your perspective, on which topics could future national-level dialogues between policymakers and users support implementation of the MLM? So what sorts of dialogues and what topics could be usefully discussed between the policymakers and the user communities, science communities to support the implementation of the MLM?**

**Bilal Qtishat** highlighted that national preparations for COP 16 are crucial, with discussions needed to determine the most beneficial options for each country. These discussions should be reflected in regional consultations and group meetings. After COP 16, there should be a focus on initiating dialogues about how to implement the decisions, identifying necessary regulations, and addressing any gaps to ensure effective implementation.

**Sunil Archak** pointed out that the traditional use of genetic resources involves established regulatory systems, field experiments, and laboratory procedures, which are well understood. However, with the rise of DSI, new laboratories and personnel are involved, yet negotiators seek to apply the same regulatory frameworks. He emphasized the need for scientists and negotiators to recognize the challenges in adapting current regulations to DSI. Additionally, he raised the question of whether contributions to the benefit-sharing fund should come directly from users or be routed through countries. He stressed that open dialogues on these issues are essential for countries to move forward efficiently.

**Jennifer Tauli Corpuz** highlighted that national dialogues will differ depending on whether a system for managing genetic resources is mandatory or voluntary. These discussions must include IP&LC, as they play a significant role in stewarding genetic resources. With 40% of indigenous territories overlapping with key biodiversity areas and 80% of biodiversity found in these regions, it is crucial to engage IP&LC in identifying the extent of their stewardship. Additionally, IP&LC must be able to express the cultural and spiritual significance of resources and clarify rules related to traditional knowledge, which may not be immediately evident when discussing DSI.

**Masami Fukata** emphasized that the ultimate goal of negotiations should be the conservation of biodiversity. While technical aspects and financial needs are important, national dialogues must remain focused on this primary objective. She noted that many private companies are unaware that the use of DSI contributes to biodiversity conservation, unlike the widespread understanding of climate-related issues. Therefore, efforts should aim to mainstream biodiversity conservation as a key objective at the national level.

**Ahmad Fathoni** stressed the importance of ensuring that policymakers and users understand the deadlines and requirements of the MLM and how it applies at the national level. National discussions are needed to align laws and regulations with the MLM and integrate it into existing systems. Engaging IP&LC is crucial to respect their rights to genetic resources. Capacity building is necessary for users, researchers, institutions, and governments to support national

implementation. He also emphasized promoting innovation and collaboration in research to help developing countries catch up with developed nations in utilizing and conserving genetic resources. Finally, he highlighted the need for ongoing international dialogues and coordination to address varying national experiences and challenges in implementing the mechanism.

## Questions from the chat to the panellists

**When talking about the interface between the bilateral and multilateral system, the risks of a double payment trap was alluded to. This seems to be a large concern for many.**

**Sunil Archak** raised a concern about payment obligations across different global instruments: Whether a company accessing DSI from plant species covered under the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), which restricts use to food and agriculture, would need to pay differently if the same DSI is used for other purposes, such as pharmaceuticals. He notes that these issues are complex and require extensive discussion.

**Jennifer Tauli Corpuz** compared the situation of paying for the use of DSI across different purposes to paying various taxes, such as value-added tax, income tax, and business tax. She argued that multiple payments for different uses of DSI are not a foreign concept and should be manageable as long as the amounts are kept reasonable.

**Bilal Qtishat** explained that when using physical genetic resources, there is often a clear understanding of the associated payment obligations. In contrast, with DSI, researchers may use the information without knowing its future applications or whether it will lead to innovations. This is why Open Access to DSI is maintained – to support research and innovation. However, once a use or innovation is developed based on DSI, there should be a mechanism to share benefits with the original provider.

## Question by the moderator to the panellists

**A concern is that people will go toward private databases if the public system is not efficient, transparent, etc. Has there been any discussion about the dynamic between private databases and public databases?**

**Masami Fukata** noted that private databases were not extensively discussed in the negotiations. Many small databases connected to the International Nucleotide Sequence Database Collaboration (INSDC) are managed by only a few individuals, and the requirements outlined in paragraph 9 of the L2 document could impose a heavy burden on these small operators.

## Closing reflections by the panellists

**Sunil Archak** emphasized that when accessing and commercializing resources and sequences linked to specific traditional knowledge, it's crucial to respect the associated ABS conditions for the country and community involved. He requested that the processes be simplified for scientists to facilitate compliance, suggesting that simplicity in regulations will lead to better compliance.

**Jennifer Tauli Corpuz** highlighted the importance of ongoing dialogues in addressing the biodiversity crisis. She noted that a study found users of DSI and genetic resources who are aware of the crisis are willing to pay. She suggested leveraging this goodwill from users, researchers, and scientists to effectively implement the multilateral mechanism.

## Closing Remarks

**Suhel al Janabi**, ABS Capacity Development Initiative:

The speaker thanked Lily Weissgold of the Meridian Institute, the panellists, Tim Hodges, and the participants for their contributions. He noted that the discussion highlights the need for continued dialogue on DSI between policymakers, scientists, and international forums. He

encouraged participants to engage in national and regional discussions on unresolved issues before COP 16 and pointed to a global informal dialogue between users and negotiators taking place in South Africa from September 16th to 20th to further explore scenarios and solutions.

The goal is to develop a mechanism that supports biodiversity conservation, IP&LC, maintains Open Access, and ensures equitable benefit-sharing. The hope is that compromises at COP 16 in Cali will strengthen, rather than dilute, the mechanism's effectiveness.

## Annex 1: Chat contributions clustered by topics

*Chat contributions listed as bullet points are direct responses of participants to questions or comments from other participants.*

Would bringing in a whole new multilateral mechanism to deal with DSI affect the existing ABS mechanism?

Just as there are situations where the development of a product requires many DSIs that are difficult to track as Pierre mentioned; DSIs belonging to an endemic species from a single country can also be used for the development of a product. In such a case, how will multilateral benefit sharing work? Thank you.

Would the new multilateral mechanism make an attempt to identify the country of origin of the DSIs already in public databases whose country of origin is unknown? Or would this be brought under a common pool and as in ITPGRFA multilateral mechanism!

Triggers to "monetary benefit sharing" are well summarized in this EU-commissioned report: <https://op.europa.eu/en/publication-detail/-/publication/70c57168-4fb4-11ef-acbc-01aa75ed71a1/language-en>

Genetic materials not only bring benefits but also damages. My question is whether atonement or compensation to damages is considered as a part of benefit-sharing. Please think about pathogens and invading species. They have their country of origins, and can be artificially designed.

Please some discussion on One health and DSI

What is envisaged under the currently negotiated MLM on the governance of current free and open access DSI databases?

Would the access to DSI be in line with the established CBD norms and processes or would it be completely a stand alone mechanism?

Hello. I forgot to share the link to the DSI resources page, where you will find the latest studies on and around DSI (including the EU study mentioned above). Thank you! <https://www.cbd.int/dsi-gr/resources.shtml>

Hi everyone, greeting from Vietnam National Plant Genebank. ... Thank you for nice presentations. Do you think that DSI to be used as big data and applied in AI to bridge/connect between biodiversity, agriculture, food, diet and health

I access genetic resources (pay as per Nagoya to the source country) and access DSI related to them for my experiments (don't pay anything in advance). Once I make commercial benefits, pay to DSI fund (as per rate to be decided) and approach country for further payment obligations towards GR access/use. Is this correct?

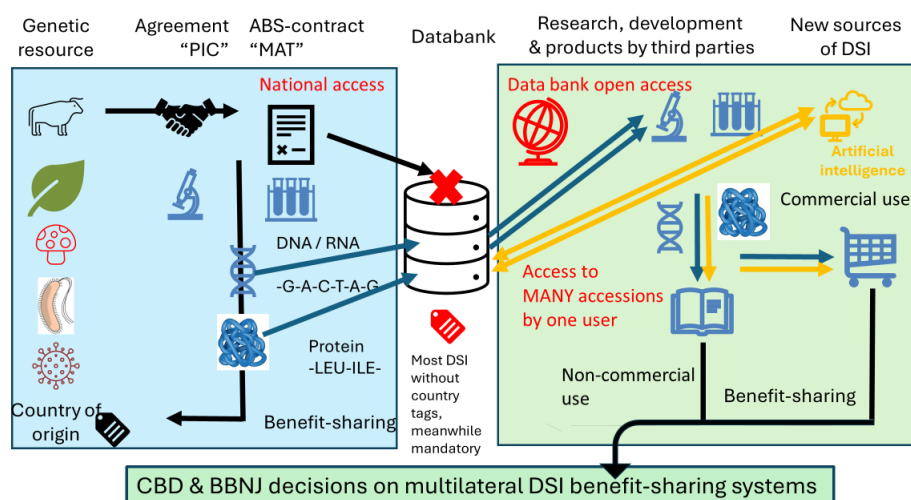
- Your assumption is "bilateral", not multilateral.
- For material it is bilateral and for DSI on that material is MLM. No?
- There is no consensus on the trigger of payment from DSI. Also the open access to DSI you assume is still at stake.
- Agree.

## Input Presentation 1: Use of DSI

Dr. Hartmut Meyer  
ABS Capacity Development Initiative



### Bilateral and multilateral world of DSI





# Southern Negotiators Informal Science-Policy Dialogue on Digital Sequence Information

08-09 July

Centro Internacional de Agricultura Tropical (CIAT)  
Palmira, Colombia



## The Role of Digital Sequence Information in implementation of the Global Biodiversity Framework

9 July 2024

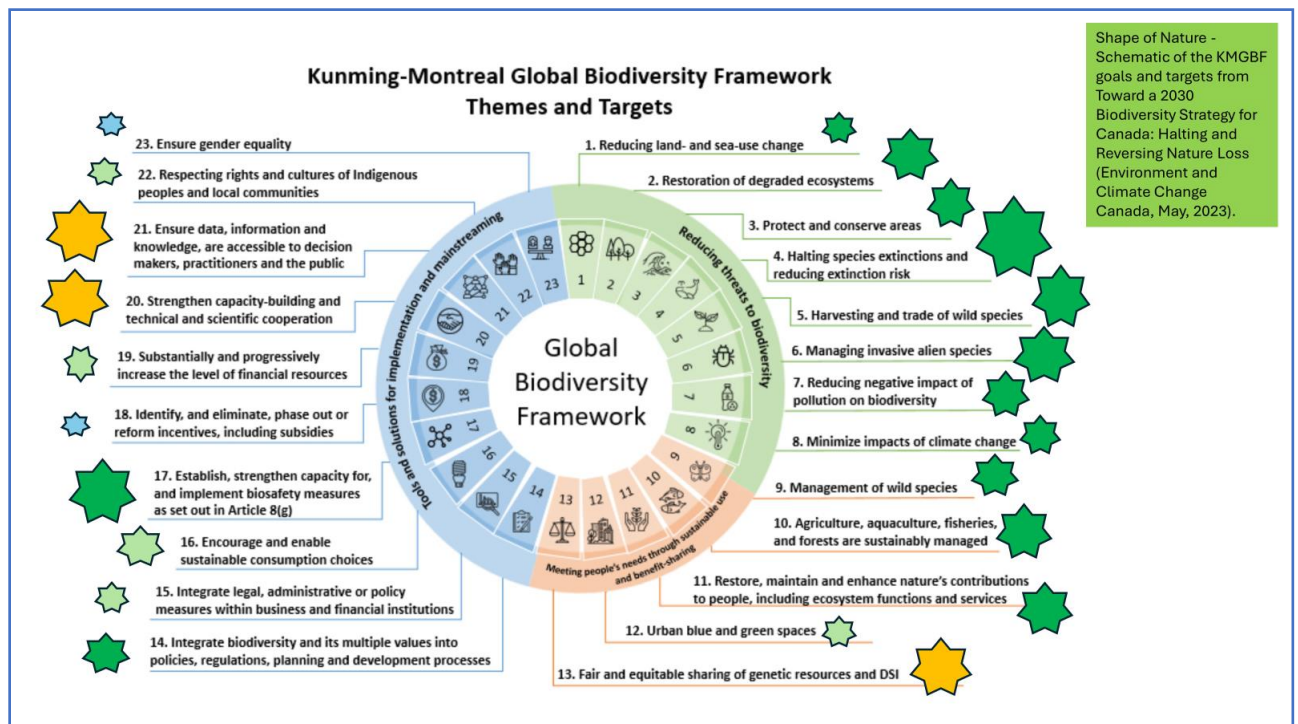
Michelle Hamer, Theresa Sethusa, Jessica da Silva, Monica Mwale,  
Mamohale Chaisi, Kedibone Masenya





## Application of DSI in the context of the Global Biodiversity Framework

- **Assessment** - *what have we got?* identification of genetic diversity, of unique genes / gene combinations, species and communities
- **Predicting / modelling** - *what could happen in future?* predicting disease spread, extinction risk associated with low genetic diversity
- **Spatial planning** - *where are the special or important places?* identification of areas with unique / high genetic diversity; corridors needed for gene flow
- **Monitoring** - *is it changing / what is happening?* trends in genetic diversity, gene flow, impact of risks / threats / use/ interventions on genetic make up or diversity, community dynamics, spread of alien invasive species or pests, pathogens
- **Restoring biodiversity** - *what needs to be put back to make it right?* selection of appropriate individuals, populations, communities (particularly microbes)
- **New product development** – biotechnology / synthetic biology, crop & livestock improvement, biocontrol agents, bio-stimulants
- **Forensic investigations** - illegal harvesting, trade, ownership
- **Legal trade support** - parentage testing, origin determination (issuing of passports mandatory in wildlife trade)



## Futureproofing the DSI multilateral mechanism: possible implications of artificial intelligence & other upcoming technologies



South-South DSI meeting  
July 9, 2024



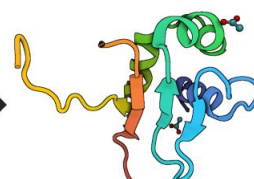
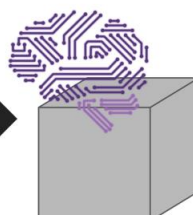
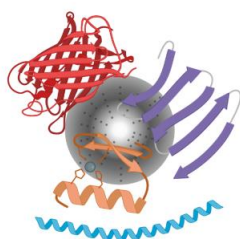
## How does the AI model get built? What goes in?

170,000  
known  
protein  
structures

9 DSI databases with  
tens of millions of protein  
sequences

A “black box”  
AI model is  
made

Scientist has a protein of  
interest and asks herself:  
“How can I make it heat-  
resistant for new  
industrial uses?”



New protein structure based  
on decades on biological  
knowledge is predicted by AI

Ni B, Kaplan DL, Buehler MJ. Generative design of *de novo* proteins based on secondary structure constraints using an attention-based diffusion model. Chem. 2023 Jul 13;9(7):1828-1849.

7

## Take home messages

1. A broad definition of DSI (or deliberate vagueness) could capture many more types of benefits that result from the application of AI to DSI
2. Benefit-sharing triggers or mechanisms that focus on individual DSI (or intend to track and trace) could miss out on the future research outcomes of AI on DSI
3. If the DSI multilateral benefit-sharing mechanism anticipates the global, aggregate use of DSI during the design phase, this could positively impact the MLM's ability to deliver on its promise of resource mobilization
4. Caveats:
  - AI will have a huge impact on so much, but is likely over-hyped
  - DSI-AI is so new we have not found examples yet of commercial applications

<https://deepmind.google/technologies/alphafold/>

Annex 3: Presentation “Technical Introduction:  
DSI from Scientific and Policy Angles” by Pierre du Plessis

## Input Presentation 2: Technical Introduction: DSI from Scientific and Policy Angles

Pierre du Plessis  
ABS Capacity Development Initiative  
with slides borrowed from Dr. Amber Hartman Scholz



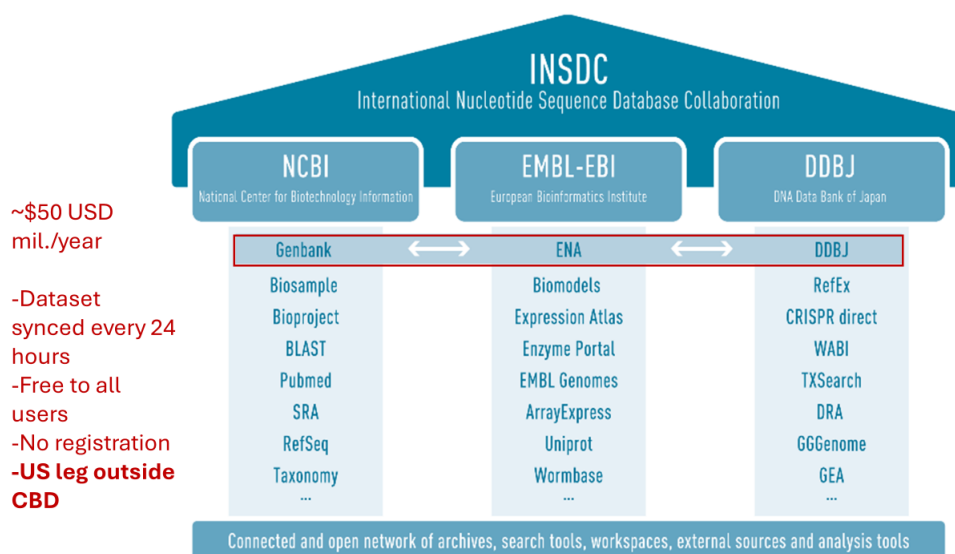
## Genetics is a comparative science

**The bigger and more detailed the “background” data set, the more useful it is for everyone**

- Individual sequences can encode valuable mutations, but these can only be found by comparing them with thousands of other sequences
- The sheer number of sequences involved makes tracking and tracing difficult and impractical – scientists want to minimise or eliminate administrative burdens and “red tape” associated with accessing DSI
- No legal basis or realistic prospects for controlling or restricting access to sequences already publicly available
- Valuable individual **sequences from GR newly accessed with PIC and MAT** can be protected by keeping them confidential or proprietary (as the private sector routinely does)

**BUT...**

## INSDC core infrastructure with dozens of databases & tools



## INSDC access and use policy (2002)

### Access policy is inherited by downstream databases

- 1....uniform policy of **free and unrestricted access to all of the data** records their databases contain.
- 2.The INSDC **will not attach statements to records that restrict access to the data**, limit the use of the information in these records, or prohibit certain types of publications based on these records. Specifically, **no use restrictions or licensing requirements** will be included in any sequence data records...
- 3.All **database records submitted to the INSDC will remain permanently accessible** as part of the scientific record...
- 4....information displayed on the Web sites maintained by the INSDC is **fully disclosed to the public**...

<http://www.insdc.org/policy.html>

Science 298 (5597): 1333 15 Nov 2002

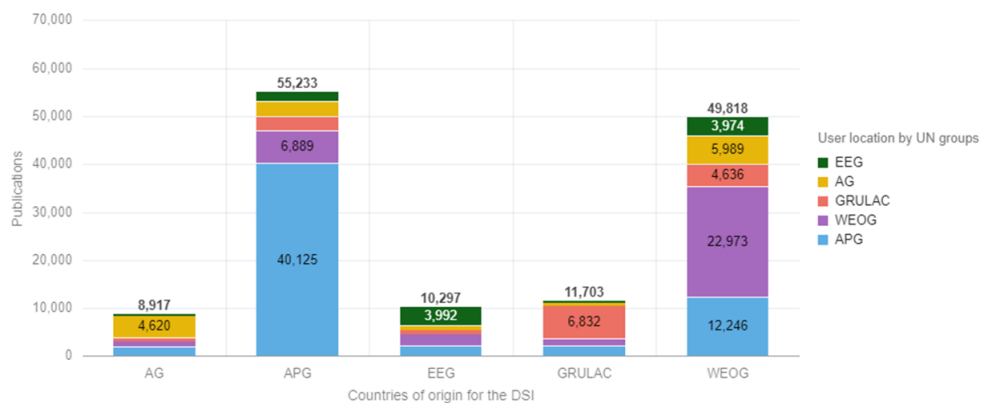


## Why do scientists put their data in public databases for everyone to see and use?



1. **Comparison:** ACGTACGT means nothing without context!
2. **Publishing:** Journals *will not publish* papers unless the data is openly available
3. **Funding:** Grant agencies very often *require* it as a condition of funding
4. **Ethics:** Scientific reproducibility, integrity, data security

## Scientists use “local” data more than “foreign” data

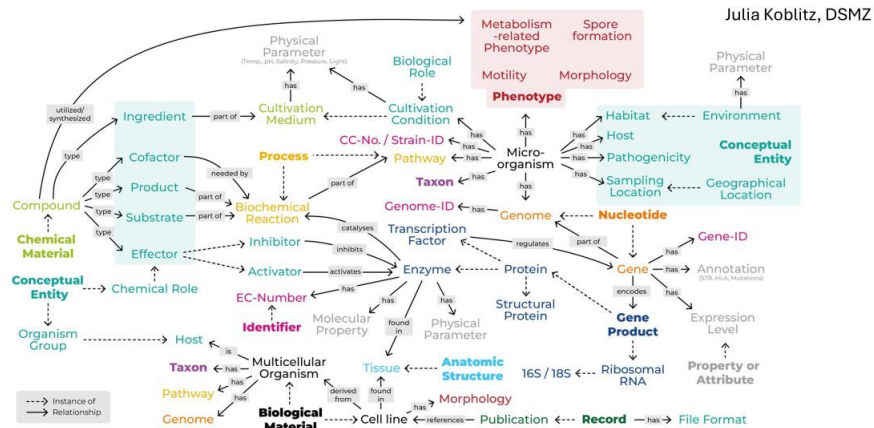


- AG - African Group
- APG - Asia and the Pacific Group
- EEG - Eastern European Group
- GRULAC - Latin American and Caribbean Group
- WEOG - Western European and Others Group

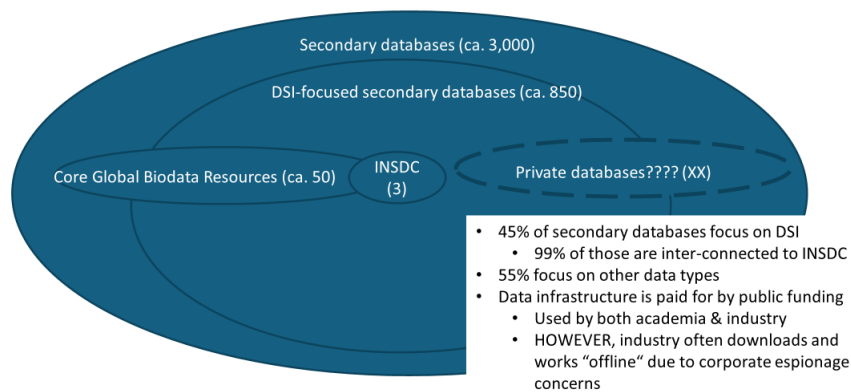
Scholz et al. *Gigascience*. Dec. 2021.  
<https://academic.oup.com/gigascience/article/10/12/giab085/6489125>



## Open, integrated DSI enables scientists to understand how biology works. Understanding leads to more benefit



## How many public DSI databases are there?

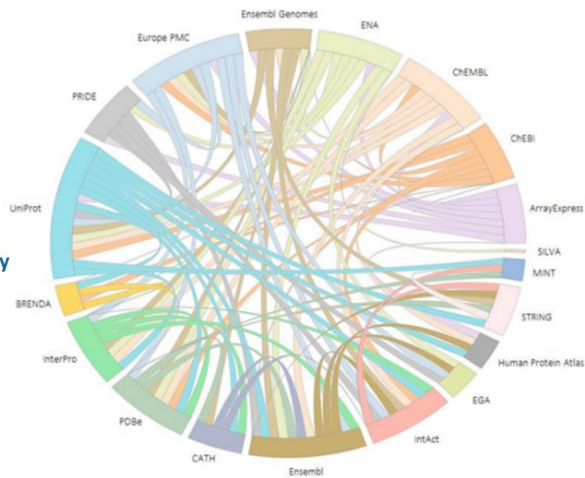


## Open Access = Interoperability: data are free to be sliced, diced, and mixed together

This happens automatically every day across

- hundred of millions of sequences
- thousands of databases
- hundreds of data types

The graph here is just 19 (out of thousands of) databases!



Drysdale R, Cook CE, Petryszak R, et al. The ELIXIR Core Data Resources: fundamental infrastructure for the life sciences. *Bioinformatics* (Oxford, England). 2020 Apr;36(8):2636-2642. DOI: 10.1093/bioinformatics/btz959. PMID: 31950984; PMCID: PMC7446027.

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## Additional science issues to consider

- Uses of DSI are rapidly evolving, due to sequencing technology and ITC (bioinformatics) advances, with the technical cutting edge in the health sector (single cell multi-omics; AI)
- Rapid advances in ability to manipulate genetic material at molecular level might transform how DSI is used - “design from scratch”
- This represents an opportunity for “technological leapfrogging”
  - „As cell phones enabled Africa to leapfrog beyond the need for fiber-optic cables and wired infrastructure, cheap sequencing technology and cloud servers allow African biologists to leapfrog beyond traditional biology laboratories and expensive server infrastructures.“

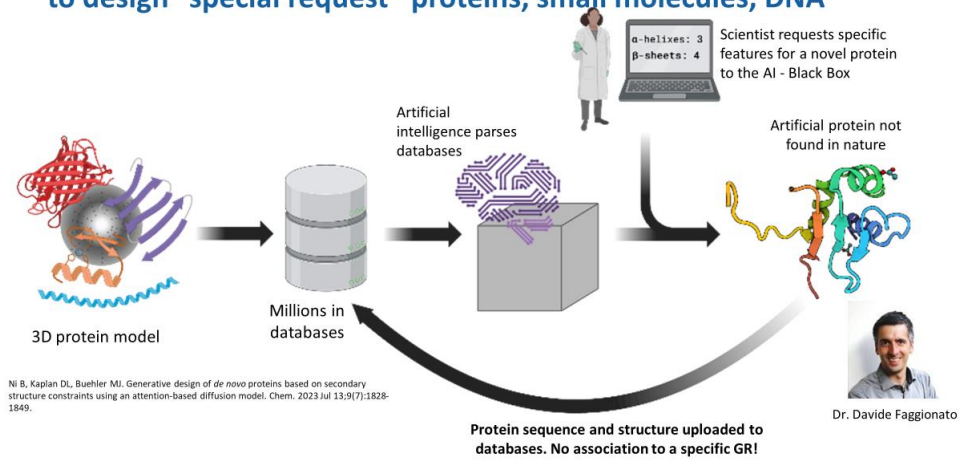


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## Artificial intelligence uses millions of sequences and structures to design “special request” proteins, small molecules, DNA



## Additional science issues to consider



- Scientists are more willing to share sequences if they are sure of recognition and credit for their work (e.g. GISAID vs INSDC for Covid genomes); even more important when the work solves problems, discovers something novel, results in inventions that may be eligible for patent protection
- Support needs include Next Generation Sequencing equipment, reliable access to consumables, fast and reliable data connections, more data storage and local computing power for bioinformatics and AI applications, participation in and learning opportunities associated with collaborative research networks/partnerships, ...

## Policy considerations

## Computers have changed the world

### DSI has fundamentally changed “utilisation of genetic resources”; this trend will continue and accelerate

- ABS is a post-colonial response to inequality, based on the principle of “permanent sovereignty over natural resources”
- As the third objective of the CBD fair and equitable sharing of benefits arising from **utilisation** was also understood – at least by developing countries – as a driver of sustainable use, leading to conservation
- Pairing access with benefit sharing in a bilateral PIC and MAT system has proven to be dysfunctional: there is simply too much free access available. DSI is just the latest example, probably not the last
- Unless this “issue of scope” is effectively addressed, benefit sharing will never play its intended role in the CBD, of mobilising resources for economic development based on sustainable use of biological resources – DSI MLM offer an opportunity to fix (and future proof) this problem comprehensively and holistically

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## DSI and sustainable development

### DSI has a critical role to play in achieving the SDGs

- DSI is closely linked to perennial developing country priorities like resource mobilisation, capacity development, technology transfer
- Policy makers have a duty to consider (potential) impacts of DSI MLM on traditional knowledge holders and farmers’ rights
- There is an urgent need to develop coherent and coordinated approaches across different international instruments dealing with DSI – this is currently a weak spot
- A better understanding of scientific considerations shared across sectors compared to those specific to a single sector would help policy makers and negotiators to achieve better outcomes
- A deliberate, qualified and limited surrender of sovereign rights over DSI is required to create a functional MLM – only for sequences that are legally and legitimately made public

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## State of play in various fora

### **Mutually supportive implementation of sub-optimal systems will not work to anyone's advantage**

- CBD: WG to develop multilateral mechanism by October (!) – main issue seems to be how much decoupling of access from benefit sharing is possible/agreeable
- WHO: INB could not complete its work in time, kicked ABS and DSI down the road for further deliberation; finding a solution is key to finalising the Pandemic Treaty. Focus on pandemic pathogens. One Health DSI?
- ITPGRFA MLS WG: DSI identified as “hotspot”, could possibly be compatible with subscription system but complications resulting from expansion of Annex 1 and potential “out of scope” uses
- FAO CGRFA: so far no consideration of benefit sharing, only conservation and sustainable use
- BBNJ: Has own comprehensive system, but flexibility to adapt to CBD

**How much fragmentation before science is hindered?**

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## Finding a simple solution is URGENT

### **Proliferation of incompatible national systems to control the use of DSI will harm everyone**

- Avoiding confusion, legal uncertainty and unnecessary red tape requires a MLM for DSI benefit sharing that is simple, convincing and quickly generates very substantial benefits for biodiversity
- Policy makers and negotiators need to listen to scientists and users about what they can and can't do
- The practical implementation implications of the policy options currently on the table must be evaluated, especially regarding their monitoring, reporting and enforcement
- Biodiversity is in crisis and we have a USD 200 billion funding gap to fill

**Science to inform policy**

**Policy to support science**

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## Input Presentation 3: Update on DSI Negotiation Process

Charlotte Germain Aubrey  
Secretariat of the Convention on Biological Diversity



## DIGITAL SEQUENCE INFORMATION ON GENETIC RESOURCES

### Secretariat of the Convention on Biological Diversity

Asia Pacific DSI dialogue  
29 August 2024

- Process to date
- Outcomes of the intersessional process
- Road to COP16



## Decision 15/9

2. Also agrees that the benefits from the use of digital sequence information on genetic resources **should be shared fairly and equitably**;
5. Recognizes that **tracking and tracing** of all digital sequence information on genetic resources **is not practical**;
11. Agrees that the approach to fair and equitable benefit-sharing from the use of digital sequence information on genetic resources set out in the present decision **does not affect existing rights and obligations under the Convention and the Nagoya Protocol**, including, as applicable, those related to **traditional knowledge and the rights of indigenous peoples and local communities**, and is **without prejudice to national access and benefit-sharing measures**;
16. Decides to establish, as part of the Kunming-Montreal Global Biodiversity Framework, **a multilateral mechanism for benefit-sharing from the use of digital sequence information on genetic resources, including a global fund**;
17. Also decides to establish a fair, transparent, inclusive, participatory and time-bound **process to further develop and operationalize the mechanism**, as outlined in paragraphs 18 and 20 to 22 below, to be **finalized at the sixteenth meeting of the Conference of the Parties**;

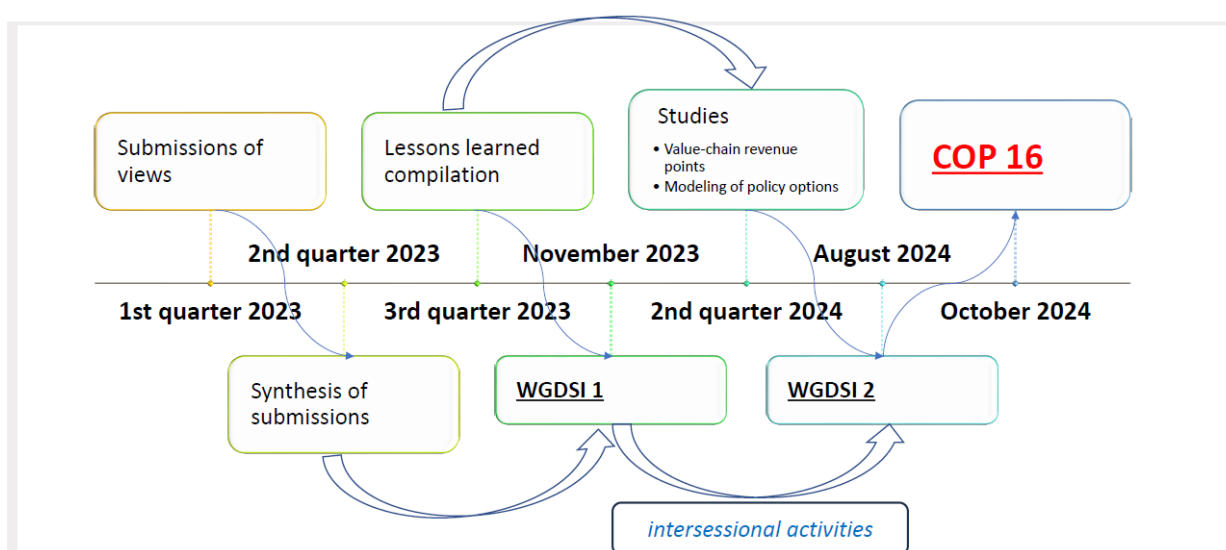


## PRINCIPLES OF THE MULTILATERAL MECHANISM, INCLUDING THE GLOBAL FUND

9. Also agrees that a solution for fair and equitable benefit-sharing on digital sequence information on genetic resources should, inter alia:
- (a) Be efficient, feasible and practical;
  - (b) Generate more benefits, including both monetary and non-monetary, than costs;
  - (c) Be effective;
  - (d) Provide certainty and legal clarity for providers and users of digital sequence information on genetic resources;
  - (e) Not hinder research and innovation;
  - (f) Be consistent with open access to data;
  - (g) Not be incompatible with international legal obligations;
  - (h) Be mutually supportive of other access and benefit-sharing instruments;
  - (i) Take into account the rights of indigenous peoples and local communities, including with respect to the traditional knowledge associated with genetic resources that they hold;
10. Recognizes that the monetary and non-monetary benefits arising from the use of digital sequence information on genetic resources should, in particular, be used to support conservation and sustainable use of biological diversity and, inter alia, benefit indigenous peoples and local communities;



## Process to date



## OFFICIAL DOCUMENTS

CBD/WGDSI/2/3 (CBD/WGDSI/2/L.2)	Report of the Ad Hoc Open-ended Working Group on Benefit-sharing from the Use of Digital Sequence Information on Genetic Resources on its second meeting
CBD/WGDSI/2/2/Add.1	Reflections of the Co-Chairs on the possible elements identified by the Working Group on Benefit-sharing from the Use of Digital Sequence Information on Genetic Resources at its first meeting
CBD/WGDSI/2/INF/2	Report of the Co-Chairs on the outcomes of their informal interseasonal work
CBD/WGDSI/2/2/Add.2/Rev.1	Executive summary of the studies commissioned pursuant to decision 15/9 on digital sequence information on genetic resources
CBD/WGDSI/2/INF/1	Studies commissioned further to decision 15/9
CBD/WGDSI/1/2/Add.2/Rev.1	Executive summary of the compilation of lessons learned from other international funding mechanisms
CBD/WGDSI/1/INF/1	Compilation of lessons learned from other international funding mechanisms
CBD/WGDSI/1/2/Add.1	Synthesis of views pursuant to decision 15/9



## Informal Advisory Group - <https://www.cbd.int/dsi-gr/iag-2024.shtml>

*Building on the experience of the WG2020 Co-Chairs IAG,  
Provide opportunity for technical discussions among Parties, non-Parties, IPLCs and stakeholders*

Month	Topic	Paras.	Clusters
January	• DSI databases, research methodologies and products	6-7, 10-12	A
	• Data governance (incl. assoc. traditional knowledge)	53, 55, 56-59	D
February	• Collaboration and cooperation with other approaches and systems – whom, what and how	62, 69	E
	• Legal considerations, and incentives to participate	5, 8-9, 64, 66, 68	A, E
March	• Non-monetary benefit-sharing	32-36	C
	• Modalities for disbursement of funds	23-26	B
April	• Fund governance and governance of mechanism	13, 47, 50, 51-52, 54	A, D
	• Fund host	48-49	D
May	• How the mechanism will meet the requirements laid out in decision 15/9 paras 6-10	4-12, 14	A
	• Compatibility with the CBD and the Nagoya Protocol		
June	• Trigger points for contribution	63	E
		22, 64-68	B, E
June	• Monitoring and evaluation and review of effectiveness		
	• Indicators on DSI in the Global Biodiversity Fund Monitoring Framework		

## PREPARING FOR COP16

1. CBD/WGDSI/2/3 will be the basis of the discussions at COP16
2. Discuss with appropriate stakeholders and ministries the modalities for
  - contribution to the funds,
  - disbursement,
  - governance,
  - review mechanism,
  - indigenous peoples and local communities' rights and involvement, non-monetary benefits
3. Mandate of the COP16: **OPERATIONALIZE THE MULTILATERAL MECHANISM, INCLUDING THE GLOBAL FUND**

**We are looking forward to the constructive, ambitious  
and positive spirit that DSI has shown since COP15!**



Secretariat of the Convention  
on Biological Diversity

secretariat@cbd.int  
www.cbd.int

**THE BIODIVERSITY PLAN**  
For Life on Earth



Convention on  
Biological Diversity



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For Life on Earth



**UN**  
environment  
programme



Convention on  
Biological Diversity

## Annex 5: Presentation “Ad Hoc Open-ended Working Group on Benefit-sharing from the Use of DSI on Genetic Resources Outcomes of the Second Meeting” by Timothy Hodges

### Input Presentation 4: Ad Hoc Open-ended Working Group on Benefit-sharing from the Use of DSI on Genetic Resources Outcomes of the Second Meeting

Timothy Hodges  
McGill University



### Second meeting of the DSI OEWG

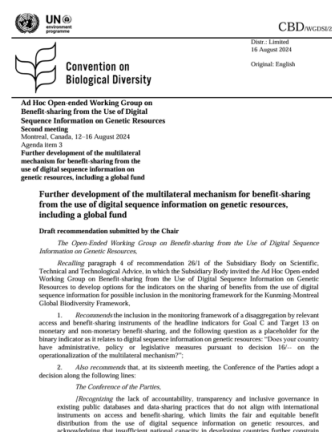
Montreal 12–16 August 2024

- **Draft recommendation including Annex 1: ‘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’**

- a. Triggers, basis and modalities for benefit sharing
- b. Non-monetary benefit-sharing (NMBS)
- c. Fund distribution and disbursement
- d. Fund Host
- e. Data governance

All of the above split into:

- *Elements on which there is potential convergence*
- *Elements on which there is a need for further discussion*





## Triggers for Benefit-Sharing



### Elements on which there is potential convergence

- **Commercial users** should share benefits arising from the use of DSI
- Need for some sort of **economic or social incentive** for user compliance

## Triggers for Benefit-Sharing



### Elements on which there is a need for further discussion

- The verb
  - Users of DSI [**are encouraged to**], [**will**], [**should**], [**shall**] share benefits
- Subject
  - **DSI Products** [and services] that have benefited from [been developed or created using] [linked to] the use of DSI,
  - [active] **users of DSI** [highly-reliant] [direct and/or indirect beneficiaries], **in sectors** [highly] **reliant on DSI**
    - List of Sectors in Enclosure A
- Basis for payment
  - **Metric:** profits, revenue, turnover, sales, product retail value
  - [indicative] **percentage** to be contributed
- Location of users to share benefits
  - Users in **all countries** or in **developed countries**

## Non-monetary Benefit-Sharing



### Elements on which there is *potential convergence*

- **All users (commercial and non-commercial) should share** non-monetary benefits arising from the use of DSI
- Some Parties underlined that **sharing non-monetary benefits** should **not make users exempt** from sharing **monetary benefits**

## Non-monetary Benefit-Sharing



### Elements on which there is a *need for further discussion*

- Relation of NMBS to the MLM
  - a. NMBS financed **through the global fund**, with a **specific portion** of the fund **reserved for NMBS**, capacity development, and technology transfer
    - de-linking of benefit provision from specific DSI users, project-based provision
  - b. NMBS through **mechanism distinct from the global fund** (e.g. a clearing-house)
    - could allow match-making, sharing information on DSI use, monitoring NMBS; existing (bilateral) NMBS could continue
- Obligated Users & Recipients
  - Non-commercial users in **developing countries solely as recipients** of NMBS or **encouraged / expected to share non-monetary benefits** as well
  - Should NMBS function **through national authorities** or should **private or public actors apply directly** to the mechanism (clearing-house) for projects and/or NMBS

## Fund Distribution



### Elements on which there is *potential convergence*

- funds should be used for *inter alia* **building of DSI-related capacity** and realizing the **objectives of the Convention CBD and the KMGBF**
- funding in the global fund should be allocated in a **fair, equitable, transparent, accountable and gender-responsive** manner

## Fund Distribution



### Elements on which there is a *need for further discussion*

- Disbursement through **direct allocation to countries** or through a **project-based system**
- **Formula** for country allocations
  - Elements for developing a formula in Enclosure B
- Possibility of **establishing an Ad-hoc Technical Expert Group or a Working Group** for further advice and clarification
- **Direct access** to funds **for IPLC**
- **Specific use** of the funds beyond the points of convergence

## Fund Host



### Elements on which there is *potential convergence*

- should be operated under the **authority and guidance** of and **be accountable** to the **CBD COP** as stipulated by Art. 21 of the CBD
- fund needs to **be compatible with whatever system is set up for the KM-GBF** via the resource mobilization negotiations
  - discussions of the fund largely dependent on the outcomes of the Advisory Committee on Resource Mobilization

## Fund Host



### Elements on which there is a *need for further discussion*

- a) Hosted by the **GEF/GBFF**
  - Concerns: little flexibility to adapt to needs of the global fund, biodiverse developing countries and IPLCs underrepresented in decision-making, insufficient transparency regarding the impact of disbursed funds, inability to provide funding for developed countries
- b) Hosted by a **new entity immediately** or **hosted in a temporary location** before being moved into the **new DSI global fund**
  - Concerns: insufficient transparency regarding the governance of the fund

## Data governance



### Elements on which there is *potential convergence*

- **Principles** for data governance for **existing databases**
  - Make information about the MLM available to users of DSI related to the fair and equitable sharing of benefits arising from its use
  - Require information on the country of origin of the GR from which DSI is derived, where applicable
  - Apply FAIR and CARE principles to data governance, as well as encouraging use of the UNESCO Recommendation on Open Science
- **Recommendation to SBSTTA**

## Data governance



### Elements on which there is a *need for further discussion*

- Novel proposal: **creation of a CBD-run database** to
  - make DSI available to users ensuring the use of DSI in accordance with providing countries' national ABS laws
  - provide information about the country of origin of the GR and aTK attached to the DSI
- **Additional principles** for data governance for **existing databases**
  - Inform of the requirements to comply with applicable national and international ABS obligations with respect to GR and DSI
  - Require information about aTK, where applicable
  - Accept new submissions of DSI only if accompanied by permission for publication by CNA of country of origin
  - Parties funding, sponsoring or hosting databases ensure implementation of data governance decisions
- **Implementation of all principles for data governance**