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Food and Agriculture Organization of the United Nations

International Treaty on Plant Genetic Resources for Food and Agriculture

INTERNATIONAL TREATY ON PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE

THIRTEENTH MEETING OF THE AD HOC OPEN-ENDED WORKING GROUP TO ENHANCE THE FUNCTIONING OF THE MULTILATERAL SYSTEM

Rome, Italy, 1 – 4 April 2025

Informal meeting on the Enhancement of the Functioning of the Multilateral System: Facilitators' summary

Executive Summary

The Working Group, at its twelfth meeting, agreed that the Co-Chairs would work with the Meridian Institute to organize an informal physical meeting, similar to the one held in Prangins, Switzerland, in May 2023.

This is in line with the request of the Governing Body to allow space and facilitate interactions and consultations for building mutual understanding throughout the process, and with the invitation of the Governing Body to the Co-Chairs to organize informal consultations, as appropriate, during the biennium, while ensuring that the process is undertaken in a transparent and representative manner.

The informal meeting was held from 13 to 15 December 2024 in Frascati, Italy, and was facilitated by the Meridian Institute, with funding provided by the Government of Norway and the Bezos Earth Fund.

The aim of the meeting was to provide a platform for participants to informally exchange views on digital sequence information / genetic sequence data (DSI/GSD), including with regard to mutual supportiveness with the Convention on Biological Diversity, and how to address DSI/GSD in the context of the payment options. It also enabled an exchange on payment rates and thresholds considering the upcoming update of the 2019 study, *Analysis on sales and profitability within the seed sector*, and other aspects relevant to the enhancement of the functioning of the Multilateral System.

This document provides the report of the meeting prepared by the facilitator, in the language and format in which it was received.

International Treaty on Plant and Genetic Resources for Food and Agriculture

Ad-hoc Open-Ended Working Group to Enhance the Functioning of the Multilateral System

Report Informal Consultative Process on the Enhancement of the MLS

Frascati, Italy | 13-15 December 2024

MERIDIAN INSTITUTE

FOREWORD

Meridian Institute is pleased to present the following summary of the meeting in Frascati, Italy. The Co-Chairs of the Working Group to Enhance the Functioning of the Multilateral System, with the generous support of the Norwegian government, convened stakeholders from around the world and diverse sectors to discuss the pressing international issues surrounding the enhancement of the multilateral system (MLS) of the International Treaty on Plant Genetic Resources for Food and Agriculture.

The meeting was held under Chatham House rules. This document was neither drafted by consensus nor adopted by the participants. It represents Meridian's best understanding of the conversations that took place. It is necessarily incomplete and seeks only to shed light on general topics discussed. The statements here should not be interpreted as the Co-Chairs', the Secretariat's or specific participant's point of view. This document may be freely shared and ideas in it may be used without citation. We welcome discussion about this document, and we are excited to continue our work on this important topic over the coming months.

Sincerely,

Todd Barker
Chief Executive Officer, Meridian Institute

DISCLAIMER

The document below is intended to summarize the meeting held in Frascati in December 2024. It is not meant to serve as a summary of comprehensive consultations. This summary does not reflect the full range of views related to all issues discussed; citations do not reflect the breadth of literature and research about the subject.

This document includes observations of what occurred at the meeting from the viewpoint of the Meridian Institute team. In drafting this document, we summarized conversations without attribution, while pulling out key themes, insights, trends, and areas of disagreement.

ACKNOWLEDGEMENTS

The Meridian Institute team would like to express our deepest appreciation to the Secretariat of the International Treaty on Plant Genetic Resources for Food and Agriculture. In particular, we would like to acknowledge the work of Inma Roda Martín for her assistance in coordinating logistics of the meeting. We would also like to extend gratitude to the Co-Chairs of the ad hoc Open-Ended Working Group, Sunil Archak and Michael Ryan. We would also like to thank Tobias Kiene for feedback and corrections to the initial draft. Finally, we would like to thank the Government of Norway for their support. The views of the report are those of the author(s) and do not necessarily represent the official views of, nor an endorsement by the Secretariat or the Co-Chairs.

ABOUT MERIDIAN INSTITUTE

Meridian institute is a mission-driven, non-profit organization that has helped our clients and partners develop and implement solutions to complicated, often controversial problems -big and small, global and local—for over two decades. We do this with an innovative approach that brings together three elements: our deep understanding of the issues at hand, as well as the people, politics, and power dynamics that surround them; our dedicated, expert team; and our ability to foster constructive discussions, manage decisions, and support actions that shape the world for the better. We work not only to shape meaningful consensus and action in the near term, but also to build our partners' capacity for cooperation that often continues for years, even decades.

We focus on five key services: collaboration, implementation, strategy, research, and philanthropic support. We bring our skills to bear on a diverse range of issues, including environment & natural resources, climate change, agriculture & food systems, forests, health, oceans & coasts, resilience, science & technology, and water. Across issues, boundaries, and systems, our work is a catalyst for powerful impact.

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Summary: Informal Meeting on Enhancing the Functioning of the Multilateral System

DECEMBER 2024

The meeting covered topics including the expansion of Annex I, inclusion of digital sequence information on genetic resources (DSI)/genetic sequence data (GSD), payment models and rates, and the relationship between the Treaty and other international instruments negotiating access and benefit-sharing (ABS).

Errors in this report are attributable to Meridian Institute and its staff.

PRESENTATIONS

Members of the Secretariat of the Convention on Biological Diversity (CBD) and the co-chairs of the CBD Ad hoc Open-ended Working Group on Benefit-sharing from the Use of DSI presented on the outcomes of the 16th Conference of the Parties to the CBD (COP16) and the decision to establish the Cali Fund. The presentation focused on key elements of Decision 16/2 including modalities of the mechanism, who should pay into the fund, payment bases, fund allocation, and the relationship of the CBD decision to other instruments.

Members of the seed industry presented on industry use of the MLS based on a survey conducted among industry colleagues. Based on responses received from 16 large companies, the survey found that between 2006 and 2024, fewer than 1,500 SMTAs were signed by these 16 companies. The companies surveyed use primarily modern varieties. Material from genebanks and unimproved material such as landraces and wild relatives account for roughly 5-10% of material used.

When accessing MLS material, industry uses both physical samples and DSI/GSD (where available). Presenters noted that, for plant breeding, DSI/GSD is essential for screening, characterization, marker assisted selection, and gene editing, but physical material remains necessary for the breeding process. Some participants noted that while industry often accesses pathogen DSI/GSD to improve their products, commercial benefits are still derived from the sale of seeds.

Overall, the MLS provides value to companies by simplifying access to material and information held in gene banks of all Contracting Parties. The SMTA and the multilateral nature of the system allows companies to access the MLS with minimal administrative burden, including by avoiding the need for bilateral contracts. Presenters also emphasized the role of industry in providing material and in-kind services to gene banks such as regeneration of seed stocks.

Researchers from the CGIAR presented on access and use of CGIAR genebank material. Between 2007 and 2022, CGIAR sent six million samples via 64,000 SMTAs, with an average of 100 samples accessed per SMTA. CGIAR primarily supplies public sector organizations in developing countries with samples – India received the greatest number of samples (61,709) from CGIAR genebanks between 2020 and 2023,

followed by Vietnam (13,939) and Nigeria (10,395). The primary purpose of requests for germplasm from CGIAR genebanks is research (51%), followed by direct use (19%) and breeding (11%).

The presentation also highlighted common concerns around the SMTA, noting that they are being addressed in the ongoing process to enhance the functioning of the MLS: the lack of a threshold level of incorporation of MLS PGRFA both for the triggering of mandatory payments and for the termination of such payments; concern over bureaucratic requirements for tracking any release, coupled with the obligatory payments; concern over the possibility and legal implications of transfers between potential recipients and their parent companies in other countries; duration of benefit sharing in case of restrictions for further research and breeding; concern over the length and complexity of the SMTA; and ambiguities in the meaning of the provisions on IPRs and uncertainties over what can be patented.

A large portion of material in the MLS has not been sequenced and characterized. Of the material that has been sequenced and characterized, a small percentage is available publicly (33% of major cereals have been resequenced or genotyped but only 53% of those materials are available publicly, 79% of tubers have been genotyped but only 12% of those materials are available publicly). To the extent that material held in CGIAR gene banks is sequenced and characterized, it appears to generate more interest from users. For example, user interest in material from the International Rice Research Institute (IRRI) rose dramatically following the conclusion of their massive genotyping and characterization project.

Finally, participants heard a presentation on the commercial seed market, the landscape of industry players and their sales and profits. Maize accounts for about 40% of the commercial seed market, followed by soybeans at 20% and vegetables at 15%. The presentation covered a breakdown of the seed industry by the following tiers relating to sales:

- Tier 1: the R&D-based 'majors' with sales greater than $500 million, accounting for 10 companies and 70% of industry sales.
- Tier 2: mid-sized companies with sales between $100 and $500 million, accounting for 40 companies and 18% of industry sales.
- Tier 3: small seed companies with sales under $100 million, broken down into
    - 3a) sales of $50-99 million, accounting for 30 companies and 4% of industry sales.
    - 3b) sales of $10-49 million, accounting for 60 companies and 3% of industry sales.
    - 3c) sales of less than $10 million, accounting for 25 companies with data and >1,000 without data, and 4% of industry sales.

PAYMENT OPTIONS

The recently created drafting group met just before the start of the meeting to work on options for payment mechanisms and rates. The group presented their initial ideas which allowed for some preliminary group analysis. The details of the options will be better described by the drafting group, but the options presented could, in gross terms, be differentiated according to three variables:

1. How much material is to be included: all of it or a selected portion of it.
2. When payment would start: upon subscription or at some later time.

3. Whether multiple options would be available or whether only one category of option could be available.

How much material is in? This variable refers to whether options include all the material in the system or some subset of material.

The full subscription: All the material is in. Those who argued **in favor** of this option made the following observations:

- **It's simple.** Those favoring this variable argued that it is the simplest way of accounting for use, with the least need for tracking and tracing material used.
- **It allows users to pay only at ITPGRFA.** They also argued that it would be the option that would most strongly favor the argument that the ITPGRFA is a "one-stop shop" among international instruments for users of material in the MLS. No matter what GSD/DSI is used, it is used for the purpose of optimizing PGRFA and would therefore be covered by the Treaty.
- **It is the most predictable manner of generating benefits.** Under this system, users would pay a standardized rate (perhaps variable according to size of company) based on a universal metric, likely sales. One could predict the benefits based on the number of users and their aggregate sales.

Those who argued **against** this approach cited the following arguments:

- **I don't want to pay for what I don't use.** Some participants noted that they avoid using some material in the system, typically material associated with the most profitable parts of their business in order to minimize payment obligations. From their perspective, the value created through use of such material in the system (typically corn or soy) would not fairly compensate the monetary amounts they would be obligated to pay.
- **It would require tracking and tracing anyway.** If a company that chose this option were to decide to unsubscribe, they would need to determine what material in their commercial stock had used material from the system in order to know how to calculate their benefit sharing obligations even after they had left the system.
- **Many potential users will not participate.** Because some users would only participate in more limited arrangements, if this were the only option available, many would choose not to use the system at all.

I only pay for specific materials that I use. This variable proposes that a user would select some subset of materials in the system to use and from which to share benefits. Those who argued **in favor** of this option made the following observations:

- **It's fairer. I only pay for what I use.** Users in this model would choose what crops or products they share benefits for based on what materials from the system they use. This would allow them to exclude materials from which they predict they will NOT derive value.

- **It will attract more users.** Because this option will be suited to some users who would not otherwise participate, this option will attract a larger pool of users who can pick options according to their needs.

Those who argued **against** this approach cited the following arguments:

- **The benefits generated will be relatively minor compared to other options.** Because users choosing this option would do so to avoid sharing benefits from their most profitable crops (since, from their perspective, the material in the system is relatively unimproved relative to their privately held collections), users under this option would share benefits from sales of materials of relatively low commercial volumes.
- **It will not be attractive enough for some contracting parties.** If this option generates lower benefits than expected or desired by some contracting parties, they are unlikely to support this option or would be unlikely to favor expansion of Annex 1 to all PGRFA, a key component to the enhancement of the MLS.
- **Users of this option would likely be expected to pay benefits at CBD as well.** Because this option would cover material and GSD/DSI from only a portion of total sales, it would be difficult to argue that all benefit sharing from a user should take place at the ITPGRFA. The portion of material and GSD/DSI that was not covered by the ITPGRFA would, by default, be covered by the CBD and therefore a user would be expected to pay at CBD per the rates and modalities established there.

When do I pay? This variable refers to the timing of payment of benefits: users would either pay upon subscription or pay at some later time.

Payment on subscription. Those in **favor** of payment on subscription argued that:

- **It will generate predictable and immediate benefits.** One of the frequent complaints about the current system is that it takes a long time for benefits to be generated and shared, if they are ever generated and shared at all. Payment on subscription eliminates the lag between subscription and benefits shared.

Those who argued **against** this variation noted that:

- **The text of the Treaty doesn't allow it.** The Treaty text refers to sharing benefits from the commercial use of material from the system. Some took this to mean that sharing monetary benefits before perceiving commercial benefit from sales of material derived, in part, from the system, ie, upon subscription, would run counter to the Treaty text. Others offered differing interpretations of the text, arguing that if the contracting parties agreed to share benefits in this manner, that it was possible.

Deferred payment. This refers to a user subscribing and then paying at a later date, either when benefits are generated (much like some of the current options) or at a defined time after subscription.

Those in **favor** of a deferred payment variable argued that:

- **It is more consistent with the spirit and text of the Treaty.** If payment were deferred to a later date after subscription, either upon commercialization or a defined period in which commercialization could reasonably be expected to occur, there would be no real or perceived conflict with the text of the Treaty.
- **It would attract more users.** Some users may choose not to subscribe if they had to pay into the system prior to perceiving commercial benefits. Given that this variable would provide for period of time between subscription and payment, users could generate income using material from the system and therefore perceive a return from use of material prior to payments.

Those who argued **against** this variation noted that:

- **It will take longer to generate benefits and therefore be less attractive to contracting parties.** The greater the lag, the less predictable the benefits from the system will be. In a scenario in which benefit sharing is restricted to perceiving commercial benefits from the use of material, the longer the lag time. If, on the other hand, some pre-determined period is set—one, two or five years for example— the lag could both favor users' efforts to integrate material but also offer predictability for contracting parties.

How many options should there be? While some argued that there should only be a single option, others argued for multiple options.

Single option. Those who **favor** a single option noted the following:

- **A single option is simple and predictable.** Those who make this argument typically favor a universal, all-inclusive subscription model, arguing that it is the most predictable and the most likely to generate the most benefits.

Those who are **against** this option noted the following:

- **A single option will result in fewer subscribers, especially the largest companies.** Because many companies will want to pick and choose the materials to which they subscribe to both minimize payment obligations and to maximize the value of the material used, some will choose not to use any material at all from the system.

Multiple options. Those who **favor** multiple options argued the following:

- **Having multiple options will net more subscribers.** Some will choose to subscribe to the whole system and others will not. But overall, more options means a greater number of total subscribers and more benefits to the system.

Those **against** this option noted that:

- **It creates unnecessary complication and tracking costs.** Developing a system that tracks different types of subscribers and timelines is complicated and requires greater effort than simpler approaches.
- **Multiple options undermines the full subscription model.** If companies are able to only subscribe to a subset of material in the system, they will be unlikely to include all material. There is no reasonable rate that can be set for a subset of material that can create sufficient incentive to subscribe to the whole system. Therefore, the system will remain largely (though not exclusively) as it is currently and will not generate benefits in significant volumes or in predictable time frames.

PAYMENT RATES

Participants noted the challenge of setting appropriate rates without having a shared understanding of the funding target or the potential income of the payment system under various modality and rate scenarios. Some expressed interest in modeling various scenarios and noted a previous set of studies conducted to estimate potential contribution sizes to the fund.[1]

DSI/GSD AND THE MLS

When discussing DSI/GSD, most participants agreed that the scope of the Treaty should include DSI/GSD, as DSI/GSD and GR cannot be separated in the context of plant breeding. No participants suggested that there should be a separate regime specifically for PGRFA DSI/GSD.

The group considered whether DSI/GSD should be explicitly addressed in the Treaty enhancement, either in the SMTA, the resolution, or the Treaty text. Some parties felt that DSI/GSD is already implicitly included given its connection to GR and noted that including DSI/GSD in a legal text would require defining it—a task that no other international body has achieved to date. No participants spoke in favor of including DSI/GSD language in the SMTA, while most agreed with the possibility of mentioning DSI/GSD in the resolution to clarify that DSI/GSD is covered within the enhanced MLS.

Several contracting parties and stakeholders expressed hope that subscribers to the Treaty be released from expectations for monetary benefit-sharing from the use of DSI/GSD on PGRFA under other systems, including CBD. However, others noted that this would only apply under certain payment models, as described above.

ANNEX I

Participants were generally in favor of expanding Annex I to include all PGFRFA, though with strong safeguards. Some made clear that this would only be possible if the right conditions could be met on payment rates and modalities and GSD/DSI. Participants indicated a willingness to support Annex I

[1] See the research, studies, and background papers listed on the Treaty website, which include previous studies estimating income of the MLS.

expansion with a few revisions; however, some also noted that their support for expansion of Annex I is contingent on a robust benefit-sharing system.

TREATY RELATIONSHIP TO CBD

The group also discussed setting appropriate rates in light of the CBD decision. Some noted that the CBD indicative rates provide an opportunity for Treaty users and contracting parties to consider how their own rates might compare. There are significant differences among the two instruments so direct comparisons are impossible. But for those whose use of PGRFA and associated GSD/DSI is primarily covered by the Treaty, the modalities of the CBD provide an opportunity for the Treaty to create options more tailored to the needs of both subscribers and contracting parties.

Participants discussed the relationship between the Treaty and the CBD, noting the language in Paragraph 27 of Decision 16/2 which calls mutual supportiveness across instruments relevant to DSI/GSD. Given that a successful MLS enhancement decision at GB 11 would affirm the Treaty as newer and more specialized than the CBD, some suggested that international law would favor the Treaty's provisions on GSD/DSI over other instruments. Some thought this would be justification for contributors to the BSF to be exempt from paying at CBD. As noted above, this was dependent on the payment model options and scope of the subscription.

The group raised questions about what a carve-out might look like, including whether a certificate of payment at the Treaty would provide industry with sufficient legal certainty with regard to payments expected at CBD. Participants touched on the issue of rates and forum shopping. Ultimately, contracting parties at the Treaty and signatories to CBD would decide. Participants also raised questions about how the CBD scope will include PGRFA species that are not included within Annex I, as well as non-plant species that are used by plant breeders (such as plant pathogens). In the case of pathogen DSI/GSD that does not fall within the ITPGRFA scope, some participants argued that users should not have to pay for use of such material at CBD given that commercial benefit is derived from the sale of seeds which are PGRFA and subject only to rules at the Treaty. Benefits should be shared only from the revenue generated from that product. No benefits are derived from commercializing pathogen DSI/GSD and so no payment would be triggered at CBD.

There are some cases for which the relevant instrument remains unclear. For example, breeders may study the GSD from pathogens that may threaten certain crops. Clearly, Annex 1 does not cover those pathogens explicitly and so users of those DSI/GSD could be construed as having obligations at the CBD. However, benefits at the ITPGRFA would be generated if companies were to sell products using material from Annex 1. So even though DSI/GSD from CBD were used, they were used to make a product that falls under the Treaty. Several participants interpreted this to mean that seed companies using material from the MLS should pay ONLY at ITPGRFA rather than at both. Others noted that this would be the case only if the ITPGRFA opts for a subscription system that covers all PGRFA. Otherwise, benefits derived from non-Annex 1 crops or for Annex 1 crops for which material from the MLS wasn't used would be paid at CBD at CBD rates.

Discussion also touched on key differences between the instruments, including the voluntary nature of CBD payments and the various sectors of users that fall within CBD's scope, as well as the key role of national implementation in determining how both instruments' decisions are operationalized.

IMPLEMENTATION AND REVIEW

After an overview of the implementation and review process and next steps, participants discussed a specific provision in Paragraph 53 of the draft resolution. Participants discussed the desire to provide users with greater assurances about the options if the review is unsuccessful, given that the system could revert to options other than 6.7/6.8. Potential options to address this include laying out clear options for possible paths forward in the case that review fails so that users are fully informed about the consequences for them.

The group also discussed the importance of raising awareness about the ratification process, noting that bureaucratic processes could slow down ratification despite willingness.

The Working Group will convene twice between now and the 11th Governing Body, which will be held in Lima, Peru, in November 2025. Participants expressed interest in holding regional consultations that invite a broad range of stakeholders, including representatives from other regions, to participate. The group also emphasized the importance of collaboration, compromise, and dedication to the objectives and purpose of the process.