



**Food and Agriculture
Organization of the
United Nations**



The International Treaty
**ON PLANT GENETIC RESOURCES
FOR FOOD AND AGRICULTURE**

Item 17.2 of the Provisional Agenda

NINTH SESSION OF THE GOVERNING BODY

New Delhi, India, 19–24 September 2022

Consideration of Digital Sequence Information in Accordance with Resolution 13/2019 and the Multi-Year Programme of Work

Executive Summary

At its Eighth Session, the Governing Body adopted Resolution 13/2019 on the Multi-Year Programme of Work through which, among other matters, it requested the Secretary to inform the Governing Body at this Ninth Session of the state of discussions and outcomes of the related processes in the Convention on Biological Diversity and in the FAO Commission on Genetic Resources for Food and Agriculture, as they relate to the potential implications of the use of "digital sequence information" on genetic resources for the objectives of the International Treaty.

This document responds to that request and addresses the items on "digital sequence information" for this Ninth Session, as contained in the Multi-Year Programme of Work.

Guidance sought

The Governing Body is invited to review and take note of the information contained in this document and provide any guidance it considers appropriate in relation to "digital sequence information".

FAO-ITPGRFA documents can be consulted at: www.fao.org/plant-treaty/meetings/meetings-detail/en/c/1259571/

I. INTRODUCTION

1. Resolution 13/2019 on the Multi-Year Programme of Work of the Governing Body (MYPoW) contains a section on the “consideration of digital sequence information in accordance with Resolution 13/2017”, where the Governing Body:

- Thank[ed] those Contracting Parties, other governments, relevant stakeholders and individuals that, for the Eighth Session, provided information on, inter alia, terminology used and actors involved with digital sequence information (DSI) on plant genetic resources for food and agriculture (PGRFA);
- Not[ed] the work being done on DSI in the framework of the Convention on Biological Diversity (CBD) and the Commission on Genetic Resources for Food and Agriculture (CGRFA);
- Request[ed] the Secretary to continue following the discussions on DSI in other fora and to continue coordinating with the Secretariats of the CBD and the CGRFA in any related activities in order to ensure coherence and avoid duplication of efforts;
- Request[ed] the Secretary to inform the Governing Body at this Ninth Session of the state of discussions and outcomes of the related processes in the CBD and in the CGRFA as they relate to the potential implications of the use of DSI on genetic resources for the objectives of the International Treaty.

2. The Annex to Resolution 13/2019 contains the MYPoW, where, in the column of the Ninth Session under “other items”, the references to DSI are the following:

- Consideration of the status of the science-based process on DSI of the CBD, and the discussions of the CGRFA on DSI in relation to PGRFA as decided at its 17th Regular Session;
- Consideration of additional inputs from Contracting Parties on DSI;
- Consideration of updates by the Secretary on CBD and CGRFA processes on DSI.¹

3. This document responds to the above requests by the Governing Body for this Ninth Session by presenting information on the DSI-related processes and outcomes at the CBD and the CGRFA, for the consideration by the Governing Body. The document also refers to additional inputs, as received from Contracting Parties.

II. DISCUSSIONS AND OUTCOMES AT THE CONVENTION ON BIOLOGICAL DIVERSITY

4. In recognition of divergent views among Parties as to benefit-sharing from the use of DSI on genetic resources, decisions made in 2018 at the fourteenth meeting of the Conference of the Parties (COP) to the CBD – also serving as third meeting of the Parties to the Nagoya Protocol – convened an ad hoc technical expert group (AHTEG) in order to develop options for operational terms and their implications to provide conceptual clarity as well as to identify key areas for capacity building. The decisions also tasked the Open-ended Working Group on the Post-2020 Global Biodiversity Framework (OEWG) with considering the outcomes of the AHTEG and making recommendations to the fifteenth meeting of the COP.

Definition and implications

5. In March 2020, the CBD AHTEG clarified the scope of DSI by categorizing four groups of information, of which three could be considered as DSI. The three incremental groups consist of: DNA and RNA; proteins and epigenetic modifications; metabolites and other macromolecules. The fourth group broadly refers to associated information, including traditional knowledge.

¹ www.fao.org/3/nb791en/nb791en.pdf.

6. For each of the groups, the AHTEG discussed implications concerning: traceability; use of DSI and DSI-enabled technologies in life sciences research and innovation processes; DSI open exchange and use in the International Nucleotide Sequence Database Collaboration (INSDC); measures governing access, benefit-sharing and compliance.

Capacity building

7. In identifying a number of key areas for capacity building on DSI, the AHTEG highlighted that capacity building is critical for DSI, including the capacity of countries to develop their endogenous research and to identify, understand, monitor and manage their own biodiversity. The AHTEG also discussed capacity building as a form of non-monetary benefit-sharing that should take into account the socioeconomic contexts of provider countries.²

Policy options and assessment criteria

8. Due to COVID-19 restrictions, the CBD Secretariat advanced the consideration of DSI through a series of four webinars and a global forum between December 2020 and April 2021. While the first two webinars provided a technical overview of DSI based on the AHTEG findings and a summary of on-going processes, the third webinar proposed an elaboration of policy options and the fourth introduced a set of criteria for assessing the policy options.³

9. The policy options are the following:

- Status quo: parties have not agreed on how to address ABS for DSI; some State Parties may decide to include measures on access to DSI and/or benefit-sharing from DSI use as part of their domestic ABS system; some State Parties consider open access to DSI as a sufficient form of non-monetary benefit-sharing;
- DSI are fully integrated into the CBD and the Nagoya Protocol: access is regulated similarly to the genetic resources and, depending on national legislation, access to DSI could be subject to prior informed consent (PIC) and mutually agreed terms (MATs); the utilization of DSI is regulated by MATs that are negotiated for each DSI access;
- Standard MATs: the obligation to share benefits after DSI has been used, is recognized, but in a way that is not linked to the access to DSI itself (i.e. there is no PIC); under this option, two variants are possible: a) each country has a standard MAT/license; b) standard MATs/license are set forth at the international level;
- No PIC, no MAT: a payment or contribution into a multilateral fund are required, with two possible variants: a) the payment is required for access to DSI; b) other payments and contributions are established;
- Enhanced technical and scientific cooperation: technical and scientific cooperation become a systematic and mandated part of DSI policy;
- No benefit-sharing from DSI: no mechanisms are proposed to be implemented.⁴

10. The assessment criteria are the following:

- Delivers fair and equitable benefits from DSI associated with genetic resources;
- Facilitates access to DSI and does not disrupt research and development;
- Contributes to the conservation and sustainable use of biodiversity;
- Contributes to sustainable development;
- Cost-efficient in achieving goals;
- Feasible and practical to implement;
- Easy to enforce;
- Legally sound;

² www.cbd.int/doc/c/ba60/7272/3260b5e396821d42bc21035a/dsi-ahteg-2020-01-07-en.pdf.

³ www.cbd.int/article/dsi-webinar-series-2020.

⁴ www.cbd.int/abs/DSI-webinar/DSIPolicyOptions2021.pdf.

- Just;
- Transparent;
- Coherent;
- Comprehensive and/or compatible.⁵

11. Further work on the policy options during Part I of the third meeting of the OEWG in September 2021 and through an on-going, informal Co-Chairs' advisory group on DSI, resulted in the discussion of hybrid approaches, options or modalities, i.e. of a combination of different policy options (e.g., a multilateral system coupled with national systems).

12. With regard to the assessment criteria, a framework and a performance matrix were developed and are undergoing an independent review, which is expected in September 2022.

Fair and equitable benefit-sharing

13. At Part II of its third meeting in March 2022, the OEWG recognised that a solution for fair and equitable benefit-sharing on DSI should, inter alia:

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

14. The OEWG also recognised that the monetary and non-monetary benefits arising from DSI use should support conservation and sustainable use of biodiversity and inter alia benefit indigenous peoples and local communities.⁶

Latest deliberations (as of June 2022)

15. At its fourth meeting of June 2022, the OEWG continued developing draft elements of a decision for consideration by the fifteenth meeting of the COP, which is now rescheduled to hold in December 2022. The draft decision is heavily bracketed.⁷ Bracketed text encapsulates the elements presented above, through different language options. In the preamble of the decision, one bracketed paragraph refers to the Multilateral System of the International Treaty. The draft decision also contains an appendix to the recommended decision, with a proposal for the establishment of a multilateral benefit-sharing mechanism and a reference to possible approaches for a hybrid solution on ABS arising out of DSI use.

III. DISCUSSIONS AND OUTCOMES AT THE COMMISSION ON GENETIC RESOURCE FOR FOOD AND AGRICULTURE

16. At its Eighteenth Regular Session in September 2021, the CGRFA considered DSI on genetic resources for food and agriculture (GRFA).

Applications of DSI

17. The CGRFA reviewed selected examples of actual and potential applications of DSI relevant to the conservation and sustainable use of GRFA, and took note of a series of actual and potential applications for the characterization, sustainable use and conservation of plant genetic resources. The

⁵ www.cbd.int/abs/DSI-webinar/CriteriaSummaryPaper2021.pdf.

⁶ www.cbd.int/doc/recommendations/wg2020-03/wg2020-03-rec-02-en.pdf.

⁷ www.cbd.int/doc/c/0d34/2d30/b9816edfdc5ade8d2b6c6549/wg2020-04-1-03-en.docx.

CGRFA stressed the innovation opportunities DSI offers for research and development related to GRFA as well as the challenges many countries face in developing the technical, institutional and human capacity necessary to use DSI for research and development.

Definition

18. The CGRFA stressed the need for an internationally agreed definition of DSI, or of an alternative term, and noted that its work on DSI would in no way prejudge the outcome of ongoing discussions on DSI, including its scope and definition, in other fora.

Support to countries

19. The CGRFA requested FAO to support countries, in particular developing countries and countries with economies in transition, in building the technical, institutional and human capacity necessary to utilize DSI for research and development related to GRFA.

Work in the biennium 2022–2023

20. The CGRFA requested the Secretary to prepare a document reflecting key practices and experiences on how DSI is generated, stored, accessed and used for research and development related to GRFA, including relevant information on intellectual property protection, for review by the CGRFA Working Groups and the ABS Expert Team.

21. In relation to the CBD, the CGRFA requested the Secretary to submit the information it took note of, on the potential future importance of DSI for characterization, conservation, sustainable use and fair and equitable benefit-sharing and its importance and potential implications for GRFA. The CGRFA further requested its Secretariat to monitor relevant developments under the CBD and in other fora, including in the context of the Post-2020 Global Biodiversity Framework, as they relate to DSI on GRFA, to contribute to the analysis of options, including ABS multilateral mechanisms, discussed under the CBD, and to report back on implications for GRFA, including potential opportunities, challenges and gaps associated with the different options for consideration by the CGRFA Working Groups, the ABS Expert Team and the CGRFA itself at their next sessions, for future work.

22. The CGRFA requested its Secretariat to hold an intersessional workshop, in collaboration with relevant instruments and organizations, to raise awareness among relevant stakeholders of the role of DSI for the conservation and sustainable use of GRFA and the sharing of benefits derived from them, address the state of the art of DSI on genetic resources, present possible implications that related technologies might have for research and development related to GRFA, and consider the challenges associated with accessing and making full use of DSI.

23. The CGRFA also requested its Secretariat to consider the implications of developments in other fora for access to, use of and the sharing of benefits derived from GRFA, with a view to identifying, as appropriate, key aspects that should be taken into consideration in addressing DSI and in creating an enabling environment for, and facilitating, access to GRFA as well as to building capacity to generate, use, share and access data for the conservation, development and sustainable use of GRFA.⁸

IV. ADDITIONAL INPUTS BY CONTRACTING PARTIES

24. The Secretary circulated a notification on 25 May, inviting additional inputs on DSI by Contracting Parties.

25. The compilation of inputs, as received, is available in the document, IT/GB-9/22/17.2/Inf.1.

V. GUIDANCE SOUGHT

⁸ www.fao.org/3/nh331en/nh331en.pdf.

26. The Governing Body is invited to review and take note of the information above, and provide any guidance it considers appropriate in relation to DSI.

27. In providing such guidance, the Governing Body may wish to note that its MYPoW, as it currently stands, foresees the consideration of potential implications of the use of DSI on PGRFA for the objectives of the International Treaty, at the Tenth Session of the Governing Body. Hence, further work in the biennium 2022–2023, including on fair and equitable benefit-sharing under the provisions of the International Treaty, would be needed to prepare for such a consideration at the Tenth Session.