

May 2023



**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**

**FIFTH MEETING OF THE SCIENTIFIC ADVISORY  
COMMITTEE ON THE GLOBAL INFORMATION SYSTEM**

**Rome, Italy, 8–9 May 2023**

**REPORT**

**ITEM 1. OPENING OF THE MEETING**

1. The fifth meeting of the Scientific Advisory Committee (Committee) was held in hybrid format on 8 and 9 May 2023, in Rome, Italy. Mr Kent Nnadozie, Secretary of the International Treaty on Plant Genetic Resources for Food and Agriculture, welcomed the participants to the meeting, noting that the agenda and the presentations scheduled would help to provide an overview of the work of the Secretariat and also of the relevant activities by the partner organizations. The full list of participants is contained in the document, IT/GB-10/SAC-GLIS-5/23/2/Inf.3, *List of Participants*.<sup>1</sup>

**ITEM 2. ORGANIZATIONAL MATTERS**

**Election of the Co-Chairpersons**

2. The Committee thanked the former Co-Chairpersons for their guidance and leadership and elected Mr Theo VAN HINTUM (The Netherlands) and Mr Dickson NG'UNI (Zambia) as Co-Chairpersons for the meeting.

**Adoption of the Agenda**

3. The Committee adopted the Agenda and timetable and thanked the Secretary for the preparations and the documentation for the meeting. The Agenda, as adopted, is contained in *Annex 1*.

**Organization of Work**

4. The Secretariat provided an overview of the mandate and previous work of the Committee, the structure and content of the Programme of Work (PoW) on the Global Information System (2023–2028), and the requests made by the Governing Body through Resolution 5/2022.

**ITEM 3. OPERATIONS OF THE GLOBAL INFORMATION SYSTEM  
AND IMPLEMENTATION OF THE PROGRAMME OF WORK**

**Support to Contracting Parties and other users with PGRFA information exchange**

5. The Secretariat introduced the document, IT/GB-10/SAC-5/23/3.1, *Report on the Operations of the Global Information System and Implementation of the Programme of Work*, and updated the Committee on the support provided to users to make the plant genetic resources for food and

<sup>1</sup> [www.fao.org/plant-treaty/meetings/meetings-detail/en/c/1628020/](http://www.fao.org/plant-treaty/meetings/meetings-detail/en/c/1628020/)

agriculture (PGRFA) they hold more visible through the Global Information System (GLIS) in relation to objectives 1, 2 and 4 of the PoW.

6. The Committee recalled that the aim of the GLIS was to bridge the gap in communication among the institutions serving as sources of PGRFA, conducting research and added-value activities and those using PGRFA to develop products. The Committee noted the mandate of GLIS to create a directory of links to existing PGRFA information sources and facilitate access to them.

7. The Committee noted the progress made with the promotion and use of the voluntary Digital Object Identifiers (DOIs) and emphasized the usefulness of other permanent identifiers used by genebanks. The Committee noted that holders of PGRFA had voluntarily assigned more than 1.4 million DOIs, so far. The Committee invited the Secretary to continue reporting at future meetings on the metrics related to the use of DOIs. In this context, the Committee recommended that the Secretary improve the reporting about the use of the GLIS Portal, for example, by using additional metrics such as the ‘returning users’.

8. The Committee welcomed the integration of the *Toolbox for Sustainable Use of PGRFA* into the GLIS Portal, resulting in 1 600 new records in the directory of links. It noted the plans of the Secretariat for the possible inclusion of the *Inventory of National Measures, Best Practices and Lessons Learned from the Realization of Farmers’ Rights*. The Committee further noted that some of the information in the directory of links could be relevant for other portals and information systems, including the CBD Access and Benefit-Sharing Clearing-House, and invited the Secretary to explore interoperability with other systems to make these datasets available for further use and publication.

9. The Committee appreciated the ongoing collaboration with WIEWS, Genesys, Web-SDIS and EURISCO, and the CGIAR Genebank Initiative on *ex situ* documentation. It advised the Secretary to continue the collaboration with these entities and systems to enhance synergies and with a view to avoiding duplication of efforts.

10. The Committee recalled the importance of the directory of links of GLIS and reiterated that it would be helpful to increase the number of links to national databases. For this purpose, it invited the Secretary to expand the content of the directory of links.

11. The Committee noted the development of a module in the GLIS Portal for the documentation of PGRFA conserved *in situ*, based on the content of the crop wild relatives (CWRs) descriptors, and invited the Secretary to publish and promote it with users, and also to provide and support training and capacity development, as may be needed and subject to the availability of financial resources.

12. The Committee noted the presentation by the Global Biodiversity Information Facility (GBIF) Secretariat and the potential areas of collaboration regarding the mobilization of datasets at the national level, the improvement of access to CWRs information, the promotion of data standards and the use of crop ontologies. The Committee also noted the ongoing negotiation of a letter of intent between the Secretariats of the International Treaty and GBIF to cooperate on these matters.<sup>2</sup>

13. The Committee noted the presentation delivered by the INCREASE Project and, in particular, the opening of the third round of the citizen science experiment. One component of the project focuses on the enhancement and utilization of omics, the improvement of genomic prediction and analysis tools and building strong relationships between genotype and phenotypes. Another component focuses on the role of citizens and stakeholder groups in evaluating and distributing material for direct use, as complementary to the role of the genebanks. The Committee noted that the documentation of the activities and the results of the project could become a useful resource or a use case for the consideration of the Committee in the future.<sup>3</sup>

14. The Committee noted the information provided by the Secretary on the use of the descriptor “country of provenance” in the GLIS Portal, and that the descriptor was very useful for PGRFA users. In this context, the Committee advised the Secretary to further promote its use through capacity development and awareness raising-activities. The Committee advised the Secretary to further enhance

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<sup>2</sup> [www.gbif.org](http://www.gbif.org)

<sup>3</sup> [www.pulsesincrease.eu](http://www.pulsesincrease.eu)

the proper recording of provenance/country of origin in databases of germplasm collections through capacity development.

### **PGRFA Documentation and Descriptors**

15. The Secretariat presented the document, IT/GB-10/SAC-5/23/3.2, *Support to the Documentation of PGRFA and the Development of Crop Descriptors Lists*, and provided an update on the third phase of the project, “Development of globally agreed list of descriptors for *in situ* crop wild relatives documentation”.

16. The Committee welcomed the progress made by the project, particularly on the adoption of the CWRs descriptors in target countries. The Committee also welcomed the development of the CWR Descriptor Tool v.1 and recommended the Secretary to further promote its use.<sup>4</sup>

17. The Committee emphasised the value of connecting *in situ* and *ex situ* information and noted that it would be valuable for the Governing Body to reiterate its invitation to Contracting Parties to consider developing national inventories of CWRs conserved *in situ*, and call on potential donors and stakeholders to support these processes and initiatives.

18. The Committee noted the presentations by invited speakers on the development and use of crop descriptors list. In this context, it welcomed the recent development of crop descriptor lists for various tropical fruit trees and forage legumes. The Committee also welcomed the process for the development of other crop descriptors in collaboration with the European Cooperative Programme for Plant Genetic Resources (ECPGR), the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), ICAR-National Bureau of Plant Genetic Resources of India, and other partners.

19. The Committee reiterated the invitation to the Secretary to continue developing crop descriptor lists, subject to the availability of resources. The Committee noted the use of ontologies for crop descriptors. The Committee invited the Secretary to provide relevant updates on this matter to the Governing Body or the following meeting of the Committee.

### **Developments Regarding Digital Sequence Information / Genetic Sequence Data**

20. The Secretariat introduced the document, IT/GB-10/SAC-GLIS-5/23/3.3, *Developments Regarding Digital Sequence Information / Genetic Sequence Data*. The document contained a synthesis of DSI/GSD-related outcomes arising from the adoption of the Kunming-Montreal Global Biodiversity Framework by the Fifteenth Conference of the Parties to the Convention on Biological Diversity (CBD COP 15), including the Monitoring Framework, of relevance to the GLIS PoW. The Committee noted the presentation on a pilot study on technical interoperability solutions to link genetic resources information systems to downstream uses of PGRFA-associated information, including DSI/GSD.

21. The Committee expressed its appreciation for the scientific collaborations promoted under GLIS which supports addressing objective 3B of the PoW, including DSI/GSD as its relate to Article 17.<sup>5</sup>

22. In recalling that the Governing Body, at its Ninth Session, used the term “Digital Sequence Information/Genetic Sequence Data”, the Committee noted that CBD COP 15 agreed on the continuing use of the term “digital sequence information” for further discussions. The Committee also noted that the lack of a definition of the term would limit the ability to consider technical and scientific issues of relevance.

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<sup>4</sup> [www.fao.org/plant-treaty/news/news-detail/en/c/1635750/](http://www.fao.org/plant-treaty/news/news-detail/en/c/1635750/)

<sup>5</sup> Objective 3B of the PoW of GLIS is the following: to monitor policy developments in international fora of relevance to the GLIS Vision and the POW-GLIS and document the scientific and technical impacts of national legislation related to accessing and using PGRFA-associated information, including digital sequence information / genetic sequence data, in the context of Article 17.

#### **ITEM 4. PARTNERSHIPS, COLLABORATION AND CAPACITY DEVELOPMENT**

23. The Committee took note of the document, IT/GB-10/SAC-5/23/4, *Report on Partnerships, Collaboration and Capacity Development*, and thanked the partners who made presentations and provided updates at the meeting. The list of presentations is contained in *Annex 2*.
24. The Committee reiterated the importance of collaborations and partnerships for the effective implementation and coherent development of GLIS, and advised the Secretary to continue enhancing collaborations.
25. The Committee noted the usefulness of the commons landscape matrix developed by the DivSeek International Network and advised the Secretary to provide visibility to the tool through the GLIS Portal and expand collaboration for its further development and dissemination with other target groups.<sup>6</sup>
26. The Committee acknowledged the new approach to information and knowledge management adopted by the Benefit-Sharing Fund (BSF) and noted with appreciation that the information generated by the projects supported by the BSF are made publicly available within one year from project completion, and that similar conditions will apply to the projects to be funded under the Fifth Cycle.
27. The Committee noted with appreciation the ongoing collaboration with Genesys and advised the Secretary to collaborate with the Crop Trust on the promotion of GRIN-Global Community Edition, which facilitates, besides the management of the PGRFA collections, the reporting on the distribution of SMTAs and assists with the assignation of DOIs to PGRFA.
28. The Committee noted the relevance of the information contained in WIEWS for the elaboration of the Draft Third Report on the State of the World's Plant Genetic Resources for Food and Agriculture. The Committee also noted that the draft report will be submitted to the Governing Body at its Tenth Session, for comments.
29. The Committee noted that, through the new web interface, EURISCO facilitates access to 43 national inventories providing more than two million accessions from 407 institutions. The Committee noted the collaboration with EURISCO to facilitate the registration of DOIs and the development of crop descriptor lists for *Avena*. The Committee further noted the collaboration with the Secretariat on CWRs and the plans for EURISCO to facilitate access to *in situ* CWRs data from national inventories, with descriptors compatible with the global *in situ* descriptors.
30. The Committee noted the collaboration with the SADC Plant Genetic Resource Centre (SPGRC) on the documentation and information management of PGRFA through the assignation of DOIs and joint capacity development and training activities organized in the region. The Committee noted that the network of 16 countries is using Web-SDIS for the documentation of CWR material through a specific module.
31. The Committee noted that a number of datasets available through GLIS and other information systems of the International Treaty could be of interest to the users of the CBD Access and Benefit-Sharing Clearing-House, and that the Secretariat of the International Treaty and the CBD were exploring interoperability and other relevant areas of collaboration.
32. The Committee noted the Work Package 3 of the CGIAR Genebank Initiative focused on documentation and use of PGRFA and that the Initiative had developed several tools for gap analysis, a dashboard, and other components to increase data interoperability.
33. The Committee emphasized the need to continue providing support to Contracting Parties for documenting PGRFA, making the information available online and promoting the use of genebank curation tools.

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<sup>6</sup> [divseekintl.org/commons-landscape-matrix](http://divseekintl.org/commons-landscape-matrix)

## **ITEM 5. OTHER MATTERS**

34. The Committee invited the Secretary to prepare the next agenda of the Committee in consultation with the Co-Chairpersons and to make arrangements to facilitate the participation of additional observers remotely when feasible.

## **ITEM 6. RECORDS AND CLOSURE**

35. The Co-Chairpersons thanked all the participants for their contributions and the Secretary for his support, and closed the meeting.

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*Annex 1*

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**AGENDA**

1. Opening of the meeting
2. Organizational matters:
  - 2.1 Election of the Co-Chairpersons
  - 2.2 Adoption of the Agenda
  - 2.3 Organization of work
3. Operations of the Global Information System and Implementation of the Programme of Work
  - 3.1 Support to Contracting Parties and other users with PGRFA information exchange
  - 3.2 PGRFA Documentation and Descriptors
  - 3.3 Developments Regarding Digital Sequence Information / Genetic Sequence Data
4. Partnerships, Collaboration and Capacity Development
5. Other matters
6. Records and closure of the meeting

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*Annex 2*

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**LIST OF PRESENTATIONS****Item 2**

-Mr Francisco Lopez, ITPGRFA Secretariat, Overview of the Scientific Advisory Committee and the Fifth Meeting

**Item 3.1**

-Mr Marco Marsella, ITPGRFA Secretariat, Report on Operations and Implementation

-Mr Mario Marino, Toolbox on Sustainable Use and its Integration with the GLIS Portal

-Mr Roberto Papa, Università Politecnica delle Marche, INCREASE project: Participatory Science and Decentralized Conservation of Food Legume Genetic Resources for a Sustainable Future

-Mr Joe Miller and Mr Dag Endresen, GBIF Secretariat, Overview of the Global Biodiversity Information Facility

**Item 3.2**

-Ms Adriana Alercia, ITPGRFA Secretariat, PGRFA Documentation and Descriptors in the context of Article 17

-Ms Joana Magos Brehm, University of Birmingham, PGRFA Documentation under Project 974 in Asia, Sub-Saharan Africa and Near East

-Mr Mauricio Parra-Quijano, Universidad Nacional de Colombia, PGRFA Documentation under project 974 in Costa Rica, Guatemala, Cuba and Spain

-Mr Prem Mathur, Consultant, Alliance of Bioversity International and CIAT, Crop Descriptors and their Values

-Mr Jean Hanson, Emeritus Fellow, International Livestock Research Institute, Using Information for Improved Accession Conservation and sustainable Use: Descriptors

-Mr Nigel Maxtel, University of Birmingham, European PGR Project NEWS: Past & Future

**Item 3.3**

-Mr Pankaj Jaiswal, Oregon State University, Global Policy Meets Data Interoperability

**Item 4**

-Mr Graham King, Executive Director, DivSeek International Network, Open Dissemination of Information for plant Genetic Resources

-Ms Rodica Leahu, ITPGRFA Secretariat, Overview of the Benefit-Sharing Fund Projects and their Information and Knowledge Components

- Mr Matija Obreza, The Crop Trust, Update on Genesys PGR and GRIN-Global Community Edition GGCE

-Mr Stefano Diulgheroff, FAO, Overview of WIEWS and Recent PGR reports

-Mr Lorenzo Maggioni, ECPGR Secretary, Update from ECPGR

-Mr Mike Daka, SADC PGRC, The SADC Plant Genetic Resources Centre and Web-SDIS

-Mr Matthew Dias, CBD, Access and Benefit-sharing Clearing-House