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Summary of the Seventeenth Session of the Commission on Genetic Resources for Food and Agriculture: 18-22 February 2019

The seventeenth session of the Food and Agriculture Organization of the United Nations (FAO) Commission on Genetic Resources for Food and Agriculture (CGRFA) was held from 18 to 22 February 2019 at FAO Headquarters in Rome, Italy.

Highlights of the meeting included:

- The public launch of the report on the State of the World's Biodiversity for Food and Agriculture, which was lauded as a major milestone for FAO and the Commission that will contribute to achieving several Sustainable Development Goals (SDGs), in particular SDG 2 (zero hunger) and SDG 15 (Life on land) and communicate the Commission's inputs to the development of the post-2020 global biodiversity framework.
- Approval of the final draft of the report on the State of World's Aquatic Genetic Resources (SOW-AQGR) and a request to FAO to prepare its launch. This report represents the first assessment of aquatic genetic resources for food and agriculture (GRFA). The Commission further decided to establish the *Ad Hoc* Working Group on AQGR as a regular Intergovernmental Technical Working Group.

The Commission also reviewed the implementation of its work on plant genetic resources, animal genetic resources, forest genetic resources, and micro-organism and invertebrate genetic resources, and considered cross-sectoral matters, including:

- GRFA for food security and nutrition;
- access and benefit-sharing for GRFA;
- "digital sequence information" on GRFA; and
- GRFA and nutrition.

The Commission further reviewed its Strategic Plan and Multi-year Programme of Work 2018-2027 and discussed cooperation with other international instruments and organizations.

A Brief History of the CGRFA

The CGRFA is an intergovernmental body focusing on the conservation and sustainable use of GRFA and the fair and equitable sharing of benefits derived from their use. Originally established in by the FAO in 1983 as the Commission on Plant Genetic Resources for Food and Agriculture, the Commission was renamed in 1995 to reflect its broadened mandate to encompass all components of biodiversity for food and agriculture, including plant, animal, forest, aquatic, and micro-organism and invertebrate genetic resources. The CGRFA currently comprises 178 countries and the European Union (EU).

The Commission produces regular global scientific assessments (State of the World reports) of GRFA agricultural subsectors, as well as cross-sectoral assessments. Based on the trends, gaps, and challenges identified in these assessments, the Commission aims to develop consensus on policy measures that are summarized in Global Plans of Action (GPAs) and other documents through which governments commit to take action to conserve and sustainably use GRFA.

The Commission follows a ten-year work cycle that includes assessment, policy development, and review of implementation for each of the GRFA subsectors, including developing and monitoring FAO's Global System on Plant Genetic Resources and the FAO Global Strategy for the Management of Farm Animal Genetic Resources. The CGRFA also facilitates cooperation

In This Issue

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between FAO and other relevant bodies on GRFA policy issues, including the Conference of the Parties to the Convention on Biological Diversity (CBD). The Commission's regular sessions are held every two years and extraordinary sessions are convened when necessary. The CGRFA has four subsidiary bodies, the Intergovernmental Technical Working Groups (ITWGs) on plant, animal, forest, and aquatic genetic resources, to address specific issues in these sectors. Additional intersessional bodies are set up on an *ad hoc* basis as needed.

Key Turning Points

Plant Genetic Resources: In 1996, the Commission's work on plant GRFA resulted in the presentation of the first report on the State of the World's plant GRFA and the first GPA, adopted through the Leipzig Declaration at the International Technical Conference on Plant GRFA held in Leipzig, Germany. The Declaration comprises a set of activities covering capacity building, as well as *in situ* and *ex situ* conservation of plant GRFA. The GPA for the conservation and sustainable utilization of plant GRFA also recognizes the crucial roles played by farmers, seed curators, and breeders in managing these resources. Together with other guidelines, strategies, and codes of conduct, these measures came to be known as the Global System for Plant GRFA. In 2011, the Commission adopted the second GPA on plant GRFA.

ABS and the ITPGR: In 1983, the FAO established the International Undertaking (IU) on Plant Genetic Resources for plant GRFA, a non-binding instrument aiming to ensure that plant GRFA are explored, collected, conserved, evaluated, utilized and made available for plant breeding and other scientific purposes.

In 1993, the CGRFA considered the implications of the CBD and its objective to ensure the fair and equitable sharing of the benefits arising from the use of genetic resources for its work, especially for the IU. Recognizing that the CBD would play a central role in determining policy on plant genetic resources, the Commission agreed that the IU should be revised to be in harmony with the CBD. In 2004, the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGR) entered into force under the auspices of the FAO. The Treaty is a legally binding instrument that targets the conservation and sustainable use of plant genetic resources for food and agriculture and equitable benefit-sharing for sustainable agriculture and food security. The ITPGR established a Multilateral System (MLS) of access and benefit-sharing (ABS), which facilitates access to a specified list of plant GRFA, balanced by benefit-sharing in the areas of information exchange, technology transfer, capacity building, and commercial development. This list of crops defines the scope of the MLS and includes 35 crop genera and 29 forage species.

In response to the adoption of the Nagoya Protocol on ABS under the auspices of the CBD in 2010, the Commission developed a set of Elements to Facilitate Domestic Implementation of ABS in the different Subsectors of GRFA, which were welcomed by the Commission at its fifteenth session in 2015.

Animal Genetic Resources: The Commission's work on animal GRFA has been guided by the Global Strategy for the Management of Farm Animal Genetic Resources. Initiated by FAO in 1993, the Global Strategy serves as a technical and operational framework for assisting countries. It comprises: an intergovernmental mechanism for policy development; a country-based global infrastructure to help states plan and implement national strategies; a country-level technical support programme; and a reporting and evaluation system to guide the Strategy's implementation and facilitate collaboration. A communication and information tool, called the Domestic Animal Diversity Information System, assists in the Strategy's implementation. In 2007, the first International Technical Conference on Animal Genetic Resources presented the first State of the World's Animal Genetic Resources for Food and Agriculture report (SOW-ANGR) and adopted the GPA and the Interlaken Declaration on animal GRFA. In 2013, the Commission endorsed a set of voluntary guidelines for *in vivo* conservation of animal GRFA. In 2015, the Commission adopted the second SOW-ANGR.

MYPOW and Strategic Plan: To enable the Commission to fulfill its full mandate in the medium and long term, the Commission adopted its Multi-year Programme of Work (MYPOW), a rolling 10-year work plan covering the totality of biodiversity for food and agriculture, including plant, animal, forest, aquatic, and micro-organism and invertebrate genetic resources, and major outputs and milestones. The MYPOW also covers a range of cross-sectoral matters relevant to several or all components of biodiversity for food and agriculture. At its twelfth session in 2009, the Commission adopted its Strategic Plan 2010-2017, identifying processes and cooperation needed to achieve the agreed outputs and milestones. The MYPOW and Strategic Plan outlined a 10-year cycle, during which the Commission aimed to:

- conduct a global assessment;
- adopt or update a GPA;
- develop guidance for implementation for plant, animal, forest and aquatic GRFA, and micro-organisms and invertebrates; and
- publish a global assessment of the State of the World's Biodiversity for Food and Agriculture (SOW-BFA) after the completion of each cycle.

Forest Genetic Resources: In 2013, the Commission considered the first SOW report on forest genetic resources of importance to sustainable forest management, food security, poverty alleviation, biodiversity conservation, and environmental sustainability and adopted the first GPA on Forest Genetic Resources.

CGRFA 17 Report

On Monday morning, CGRFA 17 Chair William Wigmore (Cook Islands) opened the session. Maria Helena Semedo, FAO Deputy Director-General, highlighted the establishment of the FAO Biodiversity Mainstreaming Platform and current work on finalization of a strategy on mainstreaming. She stressed that the SOW-BFA report is a milestone in FAO history that will contribute to the development of the post-2020 global biodiversity framework.

Convention on Biological Diversity (CBD) Deputy Executive Secretary David Cooper underscored biodiversity's contribution to food security and resilient agriculture and food systems and noted that the voices of the agricultural sector are essential in designing the post-2020 biodiversity framework.

Kent Nnadozie, Secretary of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGR), highlighted the Treaty's achievements, including its Multilateral System of ABS.

Irene Hoffmann, CGRFA Secretary, reported on the Commission's intersessional activities, highlighting the finalization of the SOW-BFA and the draft report on the SOW-AQGR, noting that the SOW-BFA would be launched during the week.

Delegates adopted the meeting's annotated agenda including the timetable (CGRFA-17/19/1 and 1/Add.1Rev.1).

The following report summarizes discussions and outcomes under each agenda item, which were finalized on Friday in the context of the adoption of the report of the meeting.

The Role of GRFA for Food Security and Nutrition

On Monday morning, delegates considered a review of the Commission's work on this item (CGRFA-17/19/2), containing sections on raising awareness of the role of GRFA, and the SDGs, and Background Study Paper No. 69 titled "Biodiversity for food and agriculture and food security – an exploration of interrelationships."

Delegates identified issues that should be further studied before publishing the paper and a brochure, including agriculture development policies, extension programmes, nutrition, the needs of family farming practices and smallholders in awareness-raising activities, and the benefits of diversification of agricultural systems.

On future work, delegates suggested, among other issues, developing a manual or information system for data collection on wild food crops in home gardens, awareness raising, resource mobilization and links with other FAO programmes and the UN High-Level Political Forum on Sustainable Development.

Final Outcome: In the relevant section of the CGRFA 17 report (CGRFA-17/19/DR), the Commission:

- takes note of Background Study Paper No. 69 and requests the Secretariat to review it and prepare a brochure on the contribution of GRFA to food security and the achievement of relevant SDGs;
- invites countries to link availability and affordability of nutrient-dense foods and improved dietary diversity with the conservation and sustainable use of GRFA and to integrate these aspects into their food security and nutrition policies; and
- invites countries to raise awareness of the role of GRFA for food security and nutrition and implement the Voluntary Guidelines for Mainstreaming Biodiversity into Policies, Programmes and National and Regional Plans of Action and Nutrition.

ABS and GRFA: Distinctive Features and Specific Practices of Different Subsectors of GRFA

This agenda item was considered in plenary on Monday. An informal group met on Tuesday and Wednesday to discuss future work of the Commission, including terms of reference for the Team of Technical and Legal Experts on ABS (TTLE-ABS).

On Monday, delegates considered the report of the TTLE-ABS, including a set of draft explanatory notes on the distinctive features and specific practices of different subsectors of GRFA (CGRFA-17/19/3.2), and additional inputs to the development of the notes (CGRFA-17-19/3.2/Inf.1-4).

Delegates discussed which issues should be considered by the ITWG to further develop the draft explanatory notes, including:

- identifying challenges regarding ABS in different subsectors;
- compiling best practices and lessons learned;
- monitoring and evaluation of the effectiveness and impacts of ABS measures; and
- the role of free prior informed consent to protect the rights of farmers and fishers.

The informal group discussed whether the TTLE-ABS should reconvene to discuss one or several of the items proposed or whether all items should be addressed by the ITWGs. On Wednesday, delegates approved the group's proposal to reconvene TTLE-ABS to survey legislation, administrative procedures, and policy approaches.

Final Outcome: In the relevant section of the CGRFA 17 report (CGRFA-17/19/DR), the Commission welcomes the draft explanatory notes, requests FAO to disseminate the ABS elements with the finalized explanatory notes, and encourages Members to consider and use them, as appropriate.

The Commission also requests the CGRFA Secretariat to prepare for review by the ITWGs:

- a review of the Commission's past work on ABS for GRFA;
- a survey of legislative, administrative, and policy approaches, including best practices to ABS for different subsectors of GRFA and traditional knowledge associated with GRFA held by indigenous peoples and local communities to identify typical approaches, lessons learned, challenges, and possible solutions;
- an overview of developments under other international agreements and instruments relevant to ABS and GRFA; and
- a proposal for options for future work of the Commission on ABS for different subsectors of GRFA.

The Commission further requests the TTLE-ABS to review the survey of legislative, administrative, and policy approaches.

The draft explanatory notes, including the revised list of distinctive features of GRFA, are in an appendix to the report.

"Digital Sequence Information" on GRFA

On Monday, the Secretariat presented documents on the item (CGRFA-17/19/4 and 4/Inf.1) and sought guidance on:

- the need for further analysis on digital sequence information (DSI) and GRFA;
- subsector-specific work on DSI by the Commission's subsidiary bodies;
- an invitation to countries and stakeholders to provide capacity building and financial support to allow developing countries to make use of, and benefit from DSI; and
- addressing the status and use of DSI in future SOW reports.

Jack Heinemann, University of Canterbury, New Zealand, presented the Exploratory Fact-Finding Scoping Study on DSI for GRFA (Background Study Paper No. 68), highlighting sections on: terminology; current uses of DSI in biotechnologies; DSI's role in research and product development and GRFA management; and status of DSI storage and exchange.

Asia urged investigating whether the dematerialized use of GRFA infringes the right of GRFA owners and if stringent treatment of DSI leads to restrictions on research and development. Calling for benefit-sharing when DSI is used in commercial applications, Costa Rica, Africa, and Indonesia stressed the "direct link" between DSI and genetic resources. Chile, Africa, and Argentina highlighted the need to coordinate with other international bodies.

Brazil proposed investigating the implications of DSI use in critical food and agriculture areas such as crop and animal pathogens, including vaccines for livestock.

Europe noted that subsector specific information could be useful and opposed the inclusion of DSI in all future SOW reports. Japan proposed postponing further analysis on DSI until after the fifteenth meeting of the CBD Conference of the Parties in late 2020. CBD noted that the CBD Working Group on the post-2020 global biodiversity framework could bridge divergent views on DSI. ITPGR highlighted its work towards a new definition of genetic parts and components in the draft revised

Standard Material Transfer Agreement, and the use of digital object identifiers.

Chair Wigmore presented draft decision text on Tuesday, noting agreement to address opportunities, challenges, and capacity of using DSI and to coordinate work with ongoing processes, including the CBD and ITPGR.

On Wednesday, delegates established a contact group to further discuss the issue. On Thursday, DSI contact group Co-Chair Marliese von den Driesch (Germany) reported that the group agreed on the need to further review DSI of GRFA at CGRFA 18, including innovation opportunities and challenges of capacity to access DSI technologies and use them for the conservation and sustainable use of GRFA, and share the benefits arising from DSI of GRFA. The group also agreed to recognize ongoing efforts under the CBD and the ITPGR, and country measures to regulate DSI of GRFA.

***Final Outcome*:** In the final report of the meeting (CGRFA-17/19/DR), the Commission, *inter alia*:

- agrees on the need for further review of DSI at CGRFA 18, and requested the ITWGs to address innovation opportunities, capacity challenges, and implications for conservation and sustainable use and the sharing of benefits derived from GRFA;
- notes the importance of coordination with the CBD and the ITPGR; and
- invites countries and stakeholders to provide capacity building and funding to support access to, generation, analysis, and sharing of DSI.

The Role of GRFA in Mitigation of and Adaptation to Climate Change

On Monday, delegates considered the assessment of the role of GRFA in mitigation of and adaptation to climate change (CGRFA-17/19/5), and submissions by countries on the implementation of the Voluntary Guidelines to Integrate Genetic Diversity into National Climate Change Adaptation Planning (CGRFA-17/19/5/Inf.1).

India, Brazil, Europe, Canada, Africa, and Saudi Arabia supported preparing a scoping study on current knowledge of the role of GRFA. The US objected, preferring to advance the development of the proposed country-driven global assessment of the role of GRFA.

On Friday during closing plenary, Europe called for including Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) reports among the sources of information for the scoping study. Brazil, supported by Ecuador, objected, suggested reference to "relevant sources." Brazil said the sentence on fast-tracking of the work on this topic, was unnecessary.

***Final Outcome*:** In the final report of the meeting (CGRFA-17/19/DR), the Commission:

- requests FAO to prepare a scoping study on the role of GRFA in adaptation to and mitigation of climate change, taking into account Intergovernmental Panel on Climate Change (IPCC) reports including the forthcoming IPCC special reports on terrestrial and marine systems, and other relevant sources;
- requests the Secretariat to prepare a draft work plan for the preparation of a global country-driven assessment for review by the ITWGs and for consideration by CGRFA 18; and
- notes that the draft work plan should be integrated into the FAO strategy on climate change, and brought to the attention of United Nations Framework Convention on Climate Change (UNFCCC), and other relevant organizations.

Nutrition and GRFA

On Monday, the Secretariat introduced the review of work on GRFA and nutrition, including FAO and country-level implementation of the Voluntary Guidelines for Mainstreaming Biodiversity into Policies, Programmes and National and Regional Plans of Action on Nutrition, and awareness-raising activities (CGRFA-17/19/6).

On Tuesday, delegates continued their discussion. Members called for research on: using GRFA to promote nutrition; promoting high quality and affordable nutrient-dense foods, and improvement of agricultural systems; and best practices on GRFA and nutrition, including lessons learned in mainstreaming biodiversity into nutrition policies, and multi-level promotion of underutilized crops. Brazil cautioned that new food-based indicators should be relevant and prevent a national reporting burden. Some Members noted the need for more evidence, and opposed the inclusion of sub-species level guidance in the Voluntary Guidelines.

Members and observers also discussed: the need to allocate more resources to the Benefit-sharing Fund of the ITPGR to support healthy diets based on conservation and use of local varieties; support for the genetic improvement of plant varieties and livestock breeds to enhance nutritional value; greater recognition of the value of ancestral knowledge; and the upcoming International Day for Biological Diversity 2019 theme "Our biodiversity, our food, our health."

On Friday during the closing plenary, Argentina suggested adding a reference to ensure that policy frameworks are in accordance with World Trade Organization rules. Delegates agreed to add "in accordance with trade and other relevant international agreements" to the text. On Europe's proposal for coordination with the Committee on World Food Security (CFS), delegates agreed to request the Secretariat to share information on the Commission's work on GRFA with the CFS in order to inform work on the voluntary guidelines for food systems and nutrition.

Final Outcome: In the report of the meeting (CGRFA-17/19/DR), the Commission, *inter alia*:

- welcomes the work on GRFA and nutrition, including the implementation of the Voluntary Guidelines and National and Regional Plans of Action on Nutrition, and invited countries to raise awareness of and implement the guidelines;
- notes the importance of traditional knowledge and native and forgotten foods;
- requests FAO to compile best practices and lessons learned in mainstreaming biodiversity into nutrition policies and programmes; and
- requests FAO to explore the possibility of generating new indicators for assessing biodiversity in nutrition.

Biodiversity for Food and Agriculture

The State of the World's Biodiversity for Food and Agriculture: On Tuesday, delegates considered the main conclusions of the SOW-BFA (CGRFA-17/19/7.1-3) and discussed follow up actions, including: requesting FAO to integrate the report's findings into FAO's biodiversity mainstreaming strategy, and encouraging countries to respond to findings of the national reports they submitted as input, as appropriate and according to their capacities. Several Regions urged FAO to support countries facing challenges in reporting, and suggested countries could use the SOW-BFA to guide policies, programmes, and projects.

Final Outcome: In the relevant section of the CGRFA 17 report (CGRFA-17/19/DR), the Commission requests the Secretariat to:

- disseminate the report widely and communicate its key messages;
- submit the report to the Executive Secretary of the CBD and other international organizations and instruments for dissemination;
- present the report at relevant international meetings to inform the global biodiversity agenda, in particular implementation of relevant SDGs and the post-2020 global biodiversity framework; and
- reflect the report's main findings in FAO policies and programmes.

The Commission requests FAO to bring the report to the attention of its next Conference and calls on governments and donors to provide financial resources for translating the report and the "in-brief" version into all UN languages. The Commission further invites countries to disseminate the report nationally, raise awareness in future policies, programmes and activities, as appropriate and in accordance with their needs and capabilities, and invites donors to support implementation, including for data collection initiatives and national capacity development.

Needs and possible actions in response to the SOW-BFA: Delegates discussed this item in plenary on Tuesday and in a contact group on Wednesday and Thursday morning. Delegates considered a report of the Group of National Focal Points for BFA on follow-up actions (CGRFA-17/19/7.2) and a set of revised draft needs and possible actions for follow-up (CGRFA-17/19/7.3), including a proposal for the Commission to invite FAO to adopt this document as a GPA on Biodiversity for Food and Agriculture (GPA-BFA).

Several countries said it was premature to adopt a GPA-BFA, with some requesting more time to further develop the draft needs and actions. The US questioned whether a GPA-BFA is needed. Others recalled that national action is voluntary, and in accordance with national priorities and relevant international frameworks, with some noting the need for capacity building. Delegates also discussed options for further intersessional work to finalize a GPA-BFA.

On Wednesday, the contact group developed a non-paper identifying options for intersessional work. On Thursday, contact group Co-Chair Renata Negrelly Nogueira (Brazil) reported that the group had agreed to state that the issue of BFA calls for timely and clear cross-sectoral follow up at the global, regional, and national levels; and that such follow up should be complementary to other processes, voluntary, contribute to the SDGs and the post-2020 biodiversity framework, and build on partnerships among multiple stakeholders. The group also presented an intersessional process to develop a GPA-BFA.

Final Outcome: In the report of the meeting (CGRFA-17/19/DR), the Commission, *inter alia*:

- agrees with the report's call for timely and clear cross-sectoral follow-up and that the follow-up products should be actionable at country, regional, and global levels; complementary to, not duplicative of, and coherent with other initiatives in FAO and in other international fora, and voluntary;
- notes that the follow-up product will be based on the revised draft needs and possible actions contained the appendix with further contributions from Members and observers; and
- requests the Secretariat to invite concrete text proposals and comments on the draft needs and actions contained in the appendix; and
- requests the Secretariat to convene, subject to available funds, an open-ended meeting of the Group of National Focal Points for BFA to review and revise the document for consideration at CGRFA 18, with the motivation to adopt it as GPA-BFA by the FAO Conference at its 42nd session.

The appendix, entitled "Biodiversity for Food and Agriculture – Revised Draft Needs and Possible Actions," includes sections on: rationale, outlining key findings of the SOW-BFA report; nature of the document; and objectives, structure, and organization. The needs and possible actions are outlined under three priority areas on: assessment and monitoring of BFA; management of BFA; and institutional frameworks for BFA.

Launch of the SOW-BFS: On Friday morning, CGRFA Chair Wigmore welcomed participants to the launch of the SOW-BFA, noting the report is a milestone for FAO and an important contribution to the UN Decade on Biodiversity and the discussions on the post-2020 framework.

FAO Director-General José Graziano da Silva highlighted the wealth of information the report brings together, noting that it covers a gap in knowledge and sets a baseline for the future. He drew attention to the risks of uniform agricultural production; the need to increase productivity while reducing chemical inputs and preserving forests; and the importance of *in situ* conservation by farmers, highlighting the beginning of the 2019-2028 Decade on Family Farming.

CGRFA Secretary Hoffmann expressed satisfaction on the finalization of a major endeavor. Julie Bélanger, CGRFA Secretariat, presented the report's key messages, highlighting that:

- biodiversity is indispensable for food security;
- biodiversity for food and agriculture is affected by major global trends, including climate change, international markets, demography, and land and water use and management;
- diversification in agriculture promotes resilience, food security and nutrition, while improving livelihoods;
- knowledge of associated biodiversity, including micro-organisms and invertebrates, needs to be improved;
- policy measures are needed to support biodiversity-friendly management practices in all sectors; and
- cross-sectoral collaboration and multi-stakeholder engagement in the management of biodiversity for food and agriculture needs to be improved.

Bernard Lehmann, Swiss Secretary of State for Agriculture, highlighted the importance of inter-departmental coordination in the preparation of his country's national report. He stressed the need to motivate farmers, strengthen co-existence of biodiversity and agriculture also at the ecosystem level, ensuring adaptation to local conditions, and strengthen political engagement. He underscored domestic efforts to promote biodiversity for improved nutrition and make sustainable agriculture profitable through government support.

Ram Kumari Chaudhary, State Minister of Agriculture and Livestock Development, Nepal, provided an overview of her country's agricultural biodiversity, including almost 800 food value plant species, and outlined domestic policies and strategies. She stressed the pivotal role of BFA, noting that no country is self-sufficient in food species.

Naoko Ishii, Chief Executive Office and Chairperson, Global Environment Facility (GEF), said the report rightly rings an alarming bell on BFA asking how the world can recover from

the biodiversity loss that has already occurred. She outlined the GEF's programme on food and land-use restoration that focuses on comprehensive land-use planning using a landscape approach and value chain management. She underlined the need for action across ministries, and with business and civil society.

Normita Ignacio, Executive Director, SEARICE, Philippines, said the SOW-BFA, like many studies before, highlights the important role of smallholder food producers, whose livelihoods often depend on cultivating and conserving biodiversity. She asked delegates to use the report to inspire real action, noting that "smallholders feed the world, so we must put their interests before all others."

Via video message, CBD Executive Secretary Cristiana Paşca Palmer highlighted a decision of the CBD Conference of the Parties to mainstream biodiversity into all economic sectors, including agriculture, and said the theme of International Biodiversity Day 2019 is "Our biodiversity, our food, our health." She encouraged FAO and the Commission to continue their active involvement in the development of the post-2020 biodiversity framework using the SOW-BFA report.

In another video message, Phil Hogan, EU Commissioner for Agriculture and Rural Development, said the report will help policy makers, stakeholders, and citizens better understand the linkages between biodiversity and agriculture. He said the report will influence the updating of EU policies on climate and environment, noting it can have a long-lasting impact towards sustaining life on earth.

In closing, CGRFA 17 Chair Wigmore noted that the report is the beginning of a process towards taking more action to feed the world without impacting the biodiversity that is the basis of our lives.

Aquatic Genetic Resources

On Tuesday, delegates considered the report of the ITWG-AQGR (CGRFA-17/19/8.1) highlighting: the revised draft report on the State of the World's Aquatic GRFA (SOW-AQGR) (CGRFA-17/19/8.2/Inf.1); options for follow up to the report; and the report of the second session of the FAO Committee on Fisheries (COFI) Advisory Working Group on Aquatic Genetic Resources and Technologies.

Europe supported finalizing and launching the SOW-AQGR report. Asia, with Brazil, noted the need to strengthen capacity building with a high-level education system for aquaculture management. South Africa supported developing voluntary guidelines.

On options for follow up to the report, Africa and Asia supported drafting a GPA-AQGR. The US and Japan underscored the need for close collaboration with COFI. Europe highlighted the need for capacity building and active promotion of successful genetic improvement technologies. Brazil recalled that follow-up actions are voluntary, collaborative, and based on national needs and priorities. Europe and South Africa requested considering establishing a permanent ITWG. The International Planning Committee on Food Sovereignty underlined the need to protect the livelihoods, culture, and indigenous knowledge of small-scale fisheries communities.

***Final Outcome*:** In the report of the meeting (CGRFA-17/19/DR), the Commission, endorses the *Ad Hoc* ITWG report, decides to establish a regular ITWG, and stresses the importance of collaboration with COFI.

On the SOW-AQGR, the Commission, requests FAO to finalize, launch, and distribute the report in 2019.

On options for follow-up to the SOW-AQGR, the Commission requests FAO to review the proposed objectives, overall structure and list of follow-up strategic priorities, and prepare a draft GPA for aquatic GRFA.

Plant Genetic Resources

On Tuesday, members of the CGRFA Secretariat and the ITWG on plant GRFA (ITWG-PGR) introduced the relevant documentation on plant GRFA, including the report of the ninth meeting of the ITWG-PGR (CGRFA-17/19/9.1) and proposed FAO activities in support of implementation of the GPA-PGR (CGRFA-17/19/9.2) as well as information documents providing further detail on these activities.

Delegates discussed proposed follow-up activities to the second GPA-PGR, status and trends of seed policies, and the preparation of the third SOW-PGR on Wednesday.

Implementation of the second GPA-PGR: On *in situ* conservation and on-farm management, many Members welcomed the proposal to hold two international symposia on on-farm management of farmers' varieties/landraces (CGRFA-17/19/9.2/Inf.3.) and on *in situ* conservation of crop wild relatives and wild food plants (CGRFA-17/19/9.2/Inf.4). They noted these symposia could be an opportunity for:

- increasing knowledge about on-farm genetic diversity;
- promoting cooperation mechanisms between countries;
- discussing funding approaches;
- developing strategies for plant conservation and sustainable use; and
- addressing the interface between *ex situ* conservation and on-farm management.

Members and observers also emphasized the need to: include smallholder farmers in decisions on *in situ* conservation; revise national plans on wild crop relatives; and focus on capacity building.

On the implementation of the Genebank Standards for Plant Genetic Resources for Food and Agriculture (CGRFA-17/19/9.2/Inf.5), Brazil opposed preparation of practical guides on the use of Genebank Standards and monitoring of their implementation by the Commission or the ITPGR. Members and observers also discussed:

- measures to ensure the sustainability of community seed banks;
- using genebank information to improve crop varieties;
- the need for close collaboration with ITPGR; and
- the role of genebanks in supporting climate change adaptation in agriculture.

On the draft revised reporting format for monitoring GPA-PGR implementation (CGRFA-17/19/9.2/Inf.6), the Secretariat outlined future development of the World Information and Early Warning System on plant GRFA (WIEWS), including search and retrieval functions for crop varieties, country profiles, and improved linkages between the ITPGR's Global Information System on plant GRFA (GLIS), GENESYS, which is a global portal for plant GRFA, and WIEWS.

During the closing plenary, after a discussion on the term "seed security response" in the context of national seed systems, Members agreed to use the term "seed security." Canada proposed, and Members agreed, to request a report from FAO on the specific roles of databases (WIEWS, GLIS and GENESYS) with a view to streamline country reporting to the Commission and the Treaty.

Final Outcome: In the report of the meeting (CGRFA-17/19/DR), the Commission, *inter alia*:

- requests FAO to continue to support countries in the development and revision of their national seed policies and legislation;
- requests FAO to continue supporting countries, in collaboration with the Treaty, in strengthening their crop improvement capacity;
- requests FAO to hold, subject to the availability of extra-budgetary resources, the symposia in cooperation with the ITPGR secretariat and make the outcomes available to ITWGs, the Commission, and the governing body of the ITPGR;
- endorses the Draft Guidelines for the Conservation and Sustainable Use of Farmers' Varieties and Landraces and requested their publication and dissemination;
- requests FAO to continue supporting national genebanks and to prepare practical guides for the use of the Genebank Standards;
- endorses the revised reporting format proposed for monitoring the implementation of the second GPA;
- requests FAO to complete the restructuring of WIEWS and continue developing the WIEWS portal and strengthening cooperation with GLIS and GENESYS to avoid duplication; and
- invites FAO to continue elaborating, based on country reporting, the status of implementation of SDG Target 2.5 (genetic diversity).

Status and trends of seed policies: Delegates commented on document CGRFA-17/19/9.3, which includes a proposal to carry out in-depth case studies on the effects of policies, laws, and regulations on on-farm diversity of plant GRFA in collaboration with the ITPGR, which would also clarify the term "farmers' seed system." Members suggested examining, *inter alia:*

- how factors beyond seed policies, such as rural development strategies, impact seed availability;
- the impact of plant variety protection and the need to protect plant variety rights;
- the term "farmers' seed systems" and its different interpretations;
- interactions between small-scale farmers' seeds and their livelihoods;
- accessibility and affordability; and
- flexibility in seed policies to allow for farmers' seeds exchange and commercialization.

North America suggested also studying the role of International Union for the Protection of New Varieties of Plants (UPOV) in promoting access to new and diverse genetic resources. Following discussion on involving the ITPGR and UPOV, the Secretariat proposed that the Commission and ITPGR "coordinate the study, in consultation" with UPOV.

Final Outcome: In its report (CGRFA-17/19/DR), the Commission, *inter alia*:

- requests FAO to carry out in-depth case studies in coordination with the ITPGR and in consultation with UPOV;
- further requests that the case studies consider the effects of seed policies, laws, and regulations on on-farm diversity of plant GRFA, smallholders' access to sufficient, affordable, diversified, and locally adopted plant GRFA, and food security and nutrition under different seed systems; and
- requests FAO to clarify the terms "farmers' seed systems," "informal seed systems," "formal seed systems" and "integrated seed systems."

Preparation of the Third SOW-PGR: The Secretariat presented on the process for preparing the third SOW-PGR (CGRFA-17/19/9.4 and 4/Inf.1), including a proposal to submit additional country information through summative narratives.

Canada proposed a thematic study on the global flows of plant GRFA from and to genebanks. Ecuador expressed reservations over Canada's proposal, noting the lack of financial resources. Some Members called for financial and technical assistance to developing countries to support reporting.

Final Outcome: In the report of the meeting (CGRFA-17/19/DR), the Commission, *inter alia*:

- endorses the approach proposed for the preparation of the third report on SOW-PGR;
- requests national focal points to report through WIEWS in 2020 on the implementation of the second GPA;
- requests the focal points to provide summative narratives on the progress made and the remaining gaps and constraints; and
- requests FAO to propose thematic background studies, including on the global exchange of germplasm from and to genebanks, to complement the information used for the preparation of the report.

Forest Genetic Resources

Delegates considered the report of the fifth meeting of the ITWG on forest genetic resources (ITWG-FGR) **(**CGRFA-17/19/10.1), a report on the implementation of the GPA-FGR and an update on the GPA-FGR, including suggested follow-up actions (CGRFA-17/19/10.2 and 10.2/Inf.1).

Implementation of the GPA-FGR: Noting the low number of country reports submitted, the Secretariat observed that implementation was "relatively good" in countries that had submitted reports, and that many identified continued challenges in reporting species-specific data.

Members highlighted the importance of sustainable forest management (SFM). Ecuador lauded the GEF for including SFM in the seventh replenishment cycle. Brazil said GPA implementation depends on availability of funding. Africa requested financial assistance to enable developing countries to fill data gaps.

Some Members underlined the need for an agreed definition of "agroforestry" to eliminate differences among environmental processes. The US urged broader participation in the ITWG, with Members agreeing that regional forest commissions can assist countries in reporting.

Final Outcome: In the report of the meeting (CGRFA-17/19/DR), the Commission, *inter alia:*

- adopts the funding strategy for the implementation of the GPA-FGR;
- endorses the Voluntary Guidelines for Preparing a National Strategy for Forest Genetic Resources; and
- requests FAO to continue coordinating and supporting the implementation of the GPA in collaboration with regional networks and relevant international organizations.

Preparation of the Second SOW-FGR: The Secretariat presented the scope, outline, and preparatory process for the second SOW-FGR (CGRFA-17/19/10.3). Many Members supported the proposed outline and timeline for preparing the second SOW-FGR, draft guidelines for preparing country reports, and a request to FAO to begin developing a global information system for forest GRFA. Europe said the new global information system should link to existing systems. Brazil suggested modifications to WIEWS to avoid duplications and ease the

reporting burden. The Secretariat responded that there is limited overlap between forest and plant GRFA and they use different targets and indicators.

During the closing plenary, Europe proposed and Members agreed to clarify that the new global information system will make data easily accessible and usable to all data providers.

Final Outcome: In the report of the meeting (CGRFA-17/19/DR), the Commission, *inter alia:*

- adopts the outline and the timeline for the preparation of the second SOW-FGR;
- takes note of the draft guidelines for the preparation of country reports for the second SOW-FGR;
- requests FAO to invite regional networks on forest genetic resources and relevant international organizations to contribute to the SOW-FGR; and
- requests FAO to initiate the development of a new global information system on forest genetic resources.

Animal Genetic Resources

On Wednesday, delegates considered the following documents:

- the report of the tenth session of the ITWG-ANGR (CGRFA-17/19/11.1);
- a review of implementation of the GPA on ANGR (CGRFA-17/19/11.2);
- a review of methods for identification and valuation of ecosystem services provided by livestock breeds (CGRFA-17/19/11.2/Inf.1);
- the funding strategy for implementation of the GPA (CGRFA-17/19/11.2/Inf.2);
- a report on the Domestic Animal Diversity Information System (DAD-IS) (CGRFA-17/19/11.2/Inf.3 Rev.1);
- a report on status and trends of animal GRFA (CGRFA-17/19/11.2/Inf.4);
- the revised draft guidelines on developing sustainable value chains for small-scale livestock producers (CGRFA-17/19/11.2/Inf.5); and
- the status of preparation of guidelines on results-based incentive systems supporting the continued provision of ecosystem services (CGRFA-17/19/11.2/Inf.6).

Europe stressed the importance of DAD-IS and urged updating national data, including on domesticated honeybees. Canada encouraged enabling DAD-IS to include species distribution, and urged measures to reduce the number of unknown breeds recorded. Africa requested training on the use of this tool. The US said DAD-IS should be supported through regular programme resources.

Africa requested FAO to raise awareness of indigenous breeds and species, and to strengthen partnerships for implementation of the GPA.

The US asked for refinements of the concepts and methods used to identify and value ecosystem services provided by livestock breeds. Brazil underlined the need for additional studies and scientific evidence. Canada asked for more examples of ecosystem services provided by livestock breeds.

On Friday during closing plenary, Canada proposed additional text requesting the Secretariat to develop an analytical study on factors influencing unknown status of breeds.

***Final Outcome*:** In the final report of the meeting (CGRFA-17/19/DR), the Commission endorses the ITWG-ANGR Report.

On the review of the implementation of the Animal GRFA GPA, the Commission, *inter alia*:

- requests FAO to continue improving knowledge and scientific evidence of livestock species and breeds in provision of ecosystem services;
- endorses the revised FAO guidelines on developing sustainable value chains for small-scale livestock procedures; and
- endorses proposed procedures for the next review of GPA implementation.

The Commission also requests FAO to:

- call on donors to support country implementation of the GPA, and disseminate the results of the FAO Trust Account projects;
- further maintain and develop DAD-IS, including through allocation of regular programme resources, and refine procedures for data exchange; and
- include in DAD-IS data fields for monitoring the diversity of managed honeybees relevant to food and agriculture.

Micro-organism and Invertebrate Genetic Resources

On Wednesday, the Secretariat introduced relevant documents, including a draft work plan for the sustainable use and conservation of micro-organism and invertebrate genetic resources (MIGR) (CGRFA-17/19/12.1 and 12.2, and 12.2/Inf.1.Rev.1 – Inf.3). Delegates supported the draft work plan, suggested ways to speed up the work, and prioritized work on pollinators and biological control agents. Asia appealed to donors for technical and financial assistance. Africa called for attention to ABS implications.

On Thursday, Japan cautioned against duplication of efforts with other international instruments and urged that the work plan take into account available human and financial capacities. The US said there is a need for more discussion on the proposed MIGR functional groups.

Future work on sustainable use and conservation of MIGR: The Expert Group on MIGR met to elaborate on MIGR functional groups to be addressed in the forthcoming CGRFA sessions. Following the meeting, Expert Group Co-Chair Johannette Klapwijk presented a revised workplan on MIGR, which recommends addressing: pollinators, including honeybees, and biological control agents at CGRFA 19; soil micro-organisms and micro-organisms relevant for ruminant digestion at CGRFA 20; and edible fungi and micro-organisms for food processing at CGRFA 21.

On Friday, during the closing plenary, Europe suggested the workplan on MIGR annexed to the meeting report also include work on micro-organisms and invertebrates vital for monitoring pests and diseases, including invasive alien species. They also requested text indicating that the work plan will be monitored together with activities on the follow-up to the SOW-BFA.

***Final Outcome*:** In the final report of the meeting (CGRFA-17/19/DR), the Commission adopts the Work Plan for the Sustainable Use and Conservation of MIGR; emphasizes linkages with the follow-up to the SOW-BFA; and requests FAO to present at CGRFA 18 options for work foreseen for CGRFA 19 and 20.

Strategic Plan

On Thursday, the Secretariat presented the progress report and review of the draft revised Strategic Plan for the CGRFA (2018-2027), including the MYPOW (CGRFA-17/19/13).

In discussions, delegates stressed the need to:

- enhance coordination among the Commission's ITWGs;
- avoid duplication of work with ITPGR;
- prepare a draft work plan on climate change for consideration by CGRFA 18 and 19;

- enhance financial and technical support; and
- identify best practices to increase the generation and sharing of non-monetary benefits of research and development.

In future CGRFA sessions, Europe requested consideration of: innovation opportunities and capacity challenges related to DSI in the MYPOW; the role of biodiversity below species-level for nutrition; and deliverables agreed in the Elements to facilitate domestic implementation of ABS for different subsectors of GRFA.

The US objected to discussions on the use of DSI and the potential implications for conservation, sustainable use, and ABS of GRFA at CGRFA 21.

On requesting the Secretariat to develop an options paper on the future organization of work, many Members proposed adding a reference to ABS and DSI to a paragraph on sustainable use and conservation of GRFA.

Germany said ABS and DSI are different agenda items that should not be included in the options paper on future organization of work. Poland supported the ITWGs' collaboration on sustainable use and conservation, but not on ABS.

Some Members asked for the integration of in-depth discussions on obstacles encountered by countries while implementing GPAs and the financial implications of the different options. Brazil suggested postponing the review of implementation of the upcoming GPA on AQGR to 2027.

Delegates considered a revised MYPOW on Thursday. They agreed to Europe's proposal to add an item on follow up to the SOW-BFA for CGRFA 18. Opposed by Argentina, the US requested deleting an item on considering DSI and implications for GRFA conservation and sustainable use from the agenda of CGRFA 21. Delegates eventually agreed to Europe's proposal to "review the Commission's work on DSI" instead.

Secretary Hoffmann clarified that the options paper for the future organization of work will include the financial implications of activities, including establishment of new ITWGs.

Europe requested clarifying that the main product on ABS will be the survey of domestic legislative, administrative, and policy measures, including best practices and lessons learned. Delegates then approved the MYPOW and session planning as amended.

Final Outcome: In the report of the meeting (CGRFA-17/19/DR), the Commission, *inter alia:*

- adopts the Strategic Plan for the CGRFA (2018-2027);
- requests the Secretary to prepare an options paper, with financial implications, for future organization of the Commission's work for consideration by the ITWGs and the Commission at CGRFA 18; and
- requests the Secretary to transmit the Strategic Plan for the Commission (2018-2027) to the Executive Secretary of the CBD as a contribution to the process of developing the post-2020 global biodiversity framework.

The MYPOW (2018-2027) contains major milestones for sectoral and cross-sectoral matters.

Cooperation

On Thursday, delegates considered a summary on cooperation with other agreements and instruments and reports on cooperation by several organizations (CGRFA-17/19/14 and 14/Inf.1-6). The CBD, ITPGR, the Nordic Genetic Resource Centre, and the Global Crop Diversity Trust reported on cooperation in the past biennium. Delegates suggested strengthening collaboration with the CBD on the post-2020 global biodiversity framework and regular reporting on joint activities between the Commission and the ITPGR.

Final Outcome: In the report of the meeting (CGRFA-17/19/DR), the Commission requests the Secretariat to continue seeking inputs on prioritized themes of its regular sessions from international instruments and organizations. The Commission also requests the ITPGR Secretariat to continue strengthening cooperation to promote coherence in areas of relevance, including:

- the preparation of the third SOW-PGR;
- the organization of international symposia on on-farm management and development of crop GRFA, and *in situ* conservation of crop wild relatives and food plants;
- monitoring and implementation of the second GPA-PGR;
- ABS;
- DSI; and
- the GLIS and WIEWS, targets and indicators as well as the development of the post-2020 biodiversity framework.

Closing Session

In the closing plenary on Friday afternoon, Members considered the final report and its appendices (CGRFA-17/19/DR) and suggested textual edits. The Commission adopted the final report with minor amendments.

Noting the achievement of two important milestones with the launch of the SOW-BFA report and the presentation of the SOW-AQGR report, René Castro Salazar, Assistant Director General of Climate, Biodiversity, Land and Water Department, FAO, said he was confident that the decisions taken during the session would allow words to be turned into deeds.

CGRFA Secretary Hoffmann urged delegates to "distribute, reiterate and retweet" the messages of the SOW-BFA to give it real impact.

Representatives of all regions thanked the Secretariat and the Chair for their excellent work and each other for the collaborative spirit during the week.

Chair Wigmore closed the session at 7:05 pm.

A Brief Analysis of CGRFA 17

"The foundation of our food systems is under severe threat and if we don't act now, it may never recover." This is, in a nutshell, the conclusion of the first-ever report on the State of the World's Biodiversity for Food and Agriculture (SOW-BFA). To most delegates, it did not come as surprise. The pollinators, soil organisms, and plants that support agriculture, evaluated in this report, are subject to the same pressures as the plants and animals used to produce food themselves, but to date they have received far less attention in the debate on biodiversity conservation and sustainable use. Despite these disturbing findings, the report's launch was celebrated as a major milestone for the Commission on Genetic Resources for Food and Agriculture (CGRFA) itself, but also for the Food and Agriculture Organization (FAO) and the wider community of biodiversity-related processes, as it embarks on the development of the post-2020 biodiversity framework. Expectations are high that this report will not only guide the Commission's future work and national-level implementation, but also extend the Commission's reach to other international processes.

But the SOW-BFA was not the only item discussed. The meeting's agenda included a long series of items, ranging from technical work on subsectors of genetic resources for food and agriculture, such as plants, animals, and micro-organisms, to

cross-sectoral matters, such as access and benefit-sharing (ABS) and "digital sequence information" (DSI) on genetic resources for food and agriculture (GRFA), and their role in climate change and nutrition. While many acknowledge the large amount of technical work completed during the session, some wondered whether the Commission should have spent more time on the follow-up to the SOW-BFA, given its importance for the post-2020 biodiversity framework.

This brief analysis will explore the potential of the SOW-BFA to help the Commission move beyond its usual audience of GRFA experts and practitioners and contribute to broader discussions on biodiversity conservation. As one delegate put it. "The Commission should move beyond its comfort zone to showcase the importance of genetic resources for global challenges such as the Sustainable Development Goals (SDGs) and the post-2020 biodiversity framework."

The Commission in Context

The Commission's "comfort zone" is defined by its role as the only permanent intergovernmental body to specifically tackle biodiversity for food and agriculture within a complex maze of international organizations and processes addressing biodiversity or sustainable agriculture. At the intersection of the two, the Commission is well placed to respond to the challenges related to reducing the drivers of biodiversity loss, while at the same time contributing to the redesign of agricultural and food systems by enhancing sustainable use of biodiversity. Many CGRFA 17 participants acknowledged this unique position, and lauded the solid products produced by the Commission, on the basis of intensive technical work conducted by its intergovernmental technical working groups (ITWGs) and other advisory bodies. This technical work is well respected and appreciated among scientific experts and practitioners involved in the day-to-day tasks of genetic resources management, such as genebank operators, plant and animal breeders, and agricultural producers. At the same time, delegates have repeatedly asked the Commission to take steps to unlock the value of its work for a broader audience.

CGRFA 17 took place at a time of dynamic policy development on interlinked matters regarding biodiversity and sustainable agriculture. The next two years are expected to be crucial for shaping global biodiversity governance. The fourteenth meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD) in late 2018 launched negotiations on the post-2020 global biodiversity framework. This process will take stock of the 2020 Aichi Biodiversity Targets and define the international community's ambition on biodiversity-related matters for the coming decade and beyond. Furthermore, negotiations are underway on biodiversity in areas beyond national jurisdiction under the UN Convention on the Law of the Sea. The Multilateral System of access and benefit-sharing under the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGR) is being revised, which may result in a complete revamping of the Treaty. Finally, GRFA conservation and sustainable use is also essential for the implementation of several SDGs.

The importance of GRFA for sustainable agriculture is reflected in Target 2.5 on maintaining the genetic diversity of seeds, cultivated plants, farmed and domesticated animals and their related wild species. Sustainable agriculture is central to SDG 2 (End hunger, achieve food security and improved nutrition and promote sustainable agriculture). It is also essential to the achievement of other SDGs. Agriculture is recognized as a key driver of biodiversity loss. Sustainable agriculture can limit the pressures on biodiversity, and support the conservation of GRFA and associated biodiversity such as pollinators and soil organisms, as shown in the SOW-BFA, thus contributing to SDG 15 (Life on land). Genetic resources can also be the basis for developing solutions that reduce greenhouse gas emissions from agriculture and make agriculture more resilient to the impacts of climate change, thus contributing to SDG 13 (Climate action).

The strength of the Commission is that it functions as an evidence-based body that synthesizes knowledge submitted by members in national reports that is disseminated, as voluntary guidance, through FAO structures operating at international, regional, and national levels. In doing so, it provides a link between national and international dimensions of global challenges linked to GRFA. This allows the Commission to develop valuable knowledge outputs to both inform the global biodiversity and sustainable development agendas and promote national implementation. A recent evaluation of FAO's contribution to integrated natural resource management for sustainable agriculture found that the Commission is an "exemplary provider of global and strategic knowledge products." As many acknowledged during the week, the negotiations towards a post-2020 biodiversity framework provide an opportunity for the Commission to make its knowledge available to a larger community and ensure that the role of GRFA conservation and sustainable use is adequately reflected in the wider realm of biodiversity-related global challenges.

From Knowledge Generation to Impact

The SOW-BFA report was certainly the highlight and main outcome of the session, and its launch was celebrated at a high-level event. However, it is only one among several major assessments of the status and trends of global biodiversity to be launched or published in 2019. At the beginning of the year, the WWF's Living Planet Index found that the average population size of vertebrate species has dropped by more than half since the 1970s. In May, the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) is expected to release its Global Assessment of Biodiversity and Ecosystem Services. According to the IPBES Secretariat, the report will provide a comprehensive analysis of where the world stands regarding the Aichi Targets. It will also rank the relative impacts of different activities and global processes, including agriculture, on biodiversity and project the possible states of future biodiversity under six future scenarios. In early 2020, the Global Biodiversity Outlook will be released by the CBD Secretariat as the official assessment of progress towards the Aichi Targets.

How does the work of the Commission compare to these and other knowledge generating processes? Under its regular cycle of work, the Commission produces a global assessment for each sub-sector of GRFA roughly every ten years. The release of each report is followed by the development of a Global Plan of Action outlining key actions for national governments and other stakeholders to address key challenges and knowledge gaps identified in the SOW report. The latest example of such a sub-sector specific assessment is the report on the State of the World's Aquatic Genetic Resources, approved by the Commission at this session together with a mandate to develop a Global Plan of Action. Delegates saw these decisions as proof that the Commission is successful in expanding its model to all subsectors of GRFA. The only sub-sector for which the Commission has

not produced an assessment to date is micro-organisms and invertebrate GRFA. However, delegates commented that the workplan adopted for this sub-sector is a significant step in that direction.

Members sought to replicate the same approach for the SOW-BFA, by attempting to adopt a GPA on biodiversity for food and agriculture. Some expressed reservations however, cautioning that the adoption of a GPA would be premature. Others even suggested that such a GPA would be unnecessary. The Commission decided to reconsider the issue at the next session in 2021, leaving it open whether a GPA will be adopted or not.

This delay caused some participants to express their frustration that the CGRFA will "miss the boat" on the post-2020 biodiversity framework as it will have to participate in the discussions without an accepted document summarizing the policy implications of the SOW-BFA report. While GPAs are strictly voluntary, they contain concrete guidance for action that can be directly implemented by policy makers and practitioners at the domestic level and through international cooperation. In addition, the Commission produces standards, guidelines, and codes of conduct that further translate the SOW reports into actionable knowledge.

Contributing to the Post-2020 Biodiversity Framework

While the Commission has an impact within the community of GRFA experts and practitioners, some participants noted that it still needs to reach a wider audience. One expert highlighted that other science-policy bodies have additional tools that the Commission might find useful, such as dedicated resources to develop comprehensive communication strategies. Another proposed starting by using existing FAO structures more efficiently, noting that the high-level nature of the launch event, and reports on the SOW-BFA in mainstream international media were encouraging steps in this direction.

A seasoned observer noted that the CGRFA could use its extensive network of national experts to bring the importance of sustainable agriculture to the attention of other processes. He noted however, that to do so, it is important for the Commission to complement its technical subsectoral assessments with more holistic work, such as the SOW-BFA, that connects the knowledge on GRFA and sustainable agriculture to global challenges. "This may push some Commission experts outside of their comfort zones," he admitted, noting however that "the time is right for this work to make a difference."

Upcoming Meetings

Second Intergovernmental Conference (IGC) on Marine Biodiversity of Areas Beyond National Jurisdiction (BBNJ): The second session of the IGC on an international legally binding instrument (ILBI) on the conservation and sustainable use of BBNJ will continue work on the elements of a draft text of an ILBI. **dates:** 25 March - 5 April 2019 **location:** UN Headquarters, New York **contact:** UN Division for Ocean Affairs and the Law of the Sea **email:** doalos@un.org **www:** https://www.un.org/bbnj/

UNPFII 18: The 18th session of the UN Permanent Forum on Indigenous Issues will be held under the theme of "Traditional knowledge: generation, transmission and protection." UNPFII 18 will follow up on the outcome document of the World Conference on Indigenous Peoples on implementation of action plans, ways to enhance participation of indigenous peoples at the UN, and implementation of the UN system-wide action plan on indigenous peoples. **dates:** 22 April - 3 May 2019 **location:** UN Headquarters, New York **contact:** UNPFII Secretariat **email:** indigenous_un@un.org **www:** https://www.un.org/development/desa/indigenouspeoples/

IPBES 7: The seventh session of the plenary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES-7) will consider, *inter alia*: the report of the Executive Secretary on the implementation of the first work programme for the period 2014-2018; the global assessment of biodiversity and ecosystem services; review of the Platform at the conclusion of its first work programme; the Platform's next work programme; and institutional arrangements. **dates:** 29 April - 4 May 2019 **location:** Paris, France **contact:** IPBES Secretariat **email:** secretariat@ipbes.net **www:** https://www.ipbes.net/event/ipbes-7-plenary

Global Symposium on Soil Erosion: Held under the theme "stop soil erosion, save our future," this symposium aims to be a platform to discuss the latest information on the status of interventions and innovations to prevent soil erosion and related land management. **dates:** 15-17 May 2019 **location:** Rome, Italy **contact:** Global Soil Partnership Secretariat **email:** GSP-Secretariat@fao.org **www:** http://www.fao.org/about/meetings/soil-erosion-symposium/en/

4th World Congress on Agroforestry: This Congress aims to raise the local, regional, and global profile of agroforestry and significantly increase awareness, support, engagement and investment, including a global roadmap for agroforestry with clear targets. **dates:** 20-25 May 2019 **location:** Montpellier, France **contact:** Emmanuel Torquebiau, CIRAD, Montpellier **email:** emmanuel.torquebiau@cirad.fr **www:** https://www.cirad.fr/en/news/all-news-items/articles/2017/events/4th-world-congress-on-agroforestry

Seventh Global Soil Partnership Plenary Assembly: The Plenary is the decision-making body of the Global Soil Partnership (GSP). It reviews and prioritizes GSP actions. **dates:** 5-7 June 2019 **location:** Rome, Italy **contact:** Global Soil Partnership Secretariat **email:** GSP-Secretariat@fao.org **www:** http://www.fao.org/global-soil-partnership/resources/events/detail/en/c/1170347/

Second meeting of the *Ad Hoc* Technical Expert Group on Farmers' Rights: Established under the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGR), the expert group will continue deliberations on an inventory of national measures, best practices, and lessons learned, and on options for encouraging, guiding, and promoting the realization of farmers' rights. **dates:** 20-23 May 2019 **location:** Rome, Italy **contact:** ITPGR Secretariat **email**: pgrfa-treaty@fao.org **www**: http://www.fao.org/plant-treaty/meetings

Ninth meeting of the *Ad Hoc* Open-ended Working Group to Enhance the Functioning of the Multilateral System of Access and Benefit Sharing: This meeting will continue deliberations on the reform of the ITPGR's Multilateral System, including a revised Standard Material Transfer Agreement. **dates:** 17-21 June 2019 **location:** Rome, Italy **contact:** ITPGR Secretariat **email**: pgrfa-treaty@fao.org **www**: http://www.fao.org/plant-treaty/meetings

FAO Conference: The 41st Session of the FAO Conference will review the state of food and agriculture, reports from regional conferences and reports from the technical committees. **dates**: 22-29 June 2019 **location**: Rome, Italy **contact**: Louis Gagnon, FAO Secretariat **email**: Louis.Gagnon@fao.org **www**: http://www.fao.org/unfao/govbodies/gsbhome/conference/en/

Committee on World Food Security: The 46th session of the FAO Committee on World Food Security (CFS) will be held in October. **dates**: 14-18 October **location**: Rome, Italy **contact**: CFS Secretariat **email**: cfs@fao.org **www**: http://www.fao.org/cfs/cfs-home/plenary/en

SBSTTA 23: The twenty-third meeting of Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) of the Convention on Biological Diversity (CBD) will review possible elements for the post-2020 framework, including any implications arising from the IPBES global assessment, the draft of the fifth edition of the Global Biodiversity Outlook as well as other relevant information and sources of knowledge. **dates:** 14-18 October 2019 (tentative) **location:** to be confirmed **contact:** CBD Secretariat **email:** secretariat@cbd.int **www:** https://www.cbd.int/

WG8J 11: The eleventh meeting of the CBD Working Group on Article 8(j) will examine the role of traditional knowledge, customary sustainable use and the contribution of the collective actions of indigenous peoples and local communities to the post-2020 framework. **dates:** 19-21 October 2019 (tentative) **location:** to be confirmed **contact:** CBD Secretariat **phone:** +1-514-288-2220 **fax:** +1-514-288-6588 **email:** secretariat@cbd.int **www:** https://www.cbd.int/

International Union for the Protection of New Varieties of Plants (UPOV): The 53rd Ordinary Meeting of the UPOV Council will take place in November. **date**: 1 November 2019 **location**: Geneva, Switzerland **contact**: UPOV Secretariat **email**: upov.mail@upov.int **www**: https://www.upov.int/meetings/en/details.jsp?meeting_id=50801

ITPGR GB 8: The eighth meeting of the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture will address a series of items on conservation and sustainable use of plant genetic resources for food and agriculture, the revision of the Treaty's Multilateral System, and farmers' rights. **dates**: 11-16 November 2019 **location**: Rome, Italy **contact**: ITPGR Secretariat **email**: pgrfa-treaty@fao.org **www**: http://www.fao.org/plant-treaty/meetings/

SBSTTA 24: The twenty-fourth meeting of the CBD SBSTTA is expected consider the draft of the post-2020 framework from a scientific and technical perspective. **dates:** 18-22 May 2020 (tentative) **location:** to be confirmed **contact:** CBD Secretariat **email:** secretariat@cbd.int **www:** https://www.cbd.int/

CBD COP 15, Cartagena Protocol COP/MOP 10, and Nagoya Protocol COP/MOP 4: The 15th meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD COP 15), the tenth Meeting of the Parties (COP/MOP 10) to the Cartagena Protocol on Biosafety and the fourth Meeting of the Parties (COP/MOP 4) to the Nagoya Protocol on Access and Benefit-sharing are expected to address a series of issues related to implementation of the Convention and its Protocols, and adopt the post-2020 global biodiversity framework. **dates:** October 2020, exact dates to be confirmed **location:** Beijing, China **contact:** CBD Secretariat **email:** secretariat@cbd.int **www:** https://www.cbd.int/

CGRFA 18: The eighteenth session of the Commission on Genetic Resources for Food and Agriculture will convene in early 2021. **dates:** 1-5 March 2021 **location:** Rome, Italy **contact:** CGFRA Secretariat **email:** cgrfa@fao.org **www:** http://www.fao.org/cgrfa/en/

For additional meetings, see: http://sdg.iisd.org/

Glossary

ABS	Access and benefit-sharing
ANGR	Animal genetic resources
AQGR	Aquatic genetic resources
BFA	Biodiversity for Food and Agriculture
CBD	Convention on Biological Diversity
CGRFA	Commission on Genetic Resources for Food and Agriculture
DAD-IS	Domestic Animal Diversity Information Service
DSI	Digital sequence information
FAO	Food and Agriculture Organization of the United Nations
FGR	Forest genetic resources
GEF	Global Environment Facility
GLIS	Global Information System
GPA	Global Plan of Action
GRFA	Genetic resources for food and agriculture
ITPGR	International Treaty on Plant Genetic Resources for Food and Agriculture
ITWG	Intergovernmental Technical Working Group
MIGR	Micro-organism and invertebrate genetic resources
MYPOW	Multi-Year Programme of Work
PGR	Plant genetic resources
SDGs	Sustainable Development Goals
SOW	State of the World
SOW-AQGR	Report on the State of the World's Aquatic Genetic Resources for Food and Agriculture
SOW-BFA	Report on the State of the World's Biodiversity for Food and Agriculture
WIEWS	World Information and Early Warning System on PGR