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**FAO Commission on Genetic Resources for Food and Agriculture (CGRFA)
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*"Accelerated action and transformative pathways: realizing the decade of action and delivery
for sustainable development "*

Annex 6

Inputs by

Commission on Genetic Resources for Food and Agriculture

The **Commission on Genetic Resources for Food and Agriculture** is the only permanent intergovernmental body that specifically addresses biodiversity for food and agriculture, in support of, particularly, SDGs 2, 14 and 15. The Commission aims to reach international consensus on policies for the sustainable use and conservation of genetic resources for food and agriculture, access to these resources and the fair and equitable sharing of benefits derived from their use. It initiates, oversees and guides the preparation of global participatory, country-driven sectoral and cross-sectoral assessments. The sectoral assessments address the state of biodiversity and genetic resources in the respective sectors, along with their uses, drivers affecting them, and the challenges and opportunities involved in conserving and using them sustainably to contribute to food security and nutrition. In response to the gaps and needs identified in a global assessment, the Commission may decide to agree on a policy response, for example a global plan of action through which governments commit themselves to promoting the conservation and sustainable use of biodiversity and genetic resources in the respective sector. Implementation of such policy instruments is monitored by countries through the Commission. New global assessments are undertaken after a gap of about ten years. The Commission also prepares technical and policy tools and guidelines to support national implementation of its global action plans.

I. Key policies and measures to ensure “accelerated action and transformative pathways” for realizing the decade of action and delivery for sustainable development

a. Critical gaps in implementing the 2030 Agenda within the area of responsibility of the intergovernmental body (bearing in mind interrelations with other goals and targets)

Two global assessment reports prepared under the auspices of the Commission and launched in 2019, **The State of the World’s Biodiversity for Food and Agriculture**¹ and **The State of the World’s Aquatic Genetic Resources for Food and Agriculture**², clearly show that biodiversity for food and agriculture (BFA) is indispensable to food security, sustainable development and the supply of many vital ecosystem services. Both reports point to a continued decline in BFA and the ecosystem services that food production depends upon. **Drivers** mentioned by reporting countries as having negative effects on BFA include changes in land and water use and management, pollution and overuse of external inputs,

¹ *The State of World’s Biodiversity for Food and Agriculture, 2019* <http://www.fao.org/3/CA3129EN/CA3129EN.pdf>

² *The State of World’s Aquatic Genetic Resources for Food and Agriculture,*
<http://www.fao.org/3/CA5256EN/CA5256EN.pdf>

overexploitation and overharvesting, and the proliferation of invasive alien species. **Loss and degradation of ecosystems and transitions to more intensive production relying on a limited range of species, varieties and breeds** remain **major drivers of loss of BFA and ecosystem services**. The management of genetic resources used in aquaculture has major implications for food security and nutrition, as production from aquaculture now surpasses production from capture fisheries. Significant differences between the aquaculture sector and the terrestrial crop and livestock sectors include the close similarity of farmed aquatic organisms to their wild relatives, the particular importance of non-native species, and the low number of species so far subject to genetic improvement.

The reports point to **critical gaps in data and knowledge** of, and the **limited monitoring programmes** for BFA. They also note that, although efforts to conserve BFA in situ and ex situ are increasing, levels of coverage and protection are often inadequate. **Enabling frameworks** for the sustainable use and conservation of BFA urgently need to be established or strengthened. **Research** on food and agricultural systems needs to become **more multidisciplinary**, more **participatory** and more **focused** on interactions between different components of BFA. Improving the management of BFA and enhancing its contribution to ecosystem services call for better **multistakeholder, cross-sectoral and international cooperation**.

Many findings and recommendations of *The State of the World's Biodiversity for Food and Agriculture* are aligned with those of the **Global Assessment Report on Biodiversity and Ecosystem Services**³ published by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) a few months later. The Commission requested that the report informs and contributes to the global biodiversity agenda, in particular to the implementation of relevant SDGs and the development of the Convention on Biological Diversity's (CBD's) post-2020 global biodiversity framework.⁴

Monitoring progress towards SDG 2.5.

The Commission recognizes the importance of developing targets and indicators for BFA that promote **coherence and cooperation** among international fora and organizations and **reduce the reporting burden** on countries. It has taken a leading role in the development and monitoring of SDG indicators under Target 2.5 (genetic diversity of seeds, cultivated plants, farmed and domesticated animals and related wild species).⁵

FAO maintains **two dedicated databases** for the monitoring of SDG Target 2.5:

- The **Domestic Animal Diversity Information System (DAD-IS)**⁶ provides tools that can be used to monitor national breed populations and to support informed decision-making on the management of animal genetic resources. It provides access to official data on the implementation of the animal component of SDG indicators 2.5.1 and 2.5.2.
- The **World Information and Early Warning System on Plant Genetic Resources for Food and Agriculture (WIEWS)**⁷ provides access to official data on the implementation of the plant component of SDG indicator 2.5.1.

Data show that the number of conserved plant and animal genetic resources (SDG indicator 2.5.1) is rising.

³ Global Assessment Report on Biodiversity and Ecosystem Services, IPBES 2019 <https://ipbes.net/global-assessment>

⁴ CGRFA-17/19/Report, paragraph 40.

⁵ See <https://sustainabledevelopment.un.org/sdg2> for the full description of SDG targets and indicators.

⁶ <http://www.fao.org/dad-is/en/>

⁷ <http://www.fao.org/wiews/en/>

Globally reported accessions of plant genetic resources conserved in genebanks from 100 countries and 17 regional and international centres have reached 5.3 million, representing a 1.8% increase over the previous year. However, the increase was mainly due to materials secured in better storage conditions (80%) rather than newly added diversity collected from the field (20%). Genebank accessions of species in categories of global major concern under the IUCN Red List, comprised 44,500 samples from 1,315 species, including wild relatives of food crops particularly important for global and local food security. Out of 7 643 local livestock breeds (including extinct ones), only 400 are reported to have genetic material stored, out of which 101 are reported to have sufficient material stored to allow populations to be reconstituted.⁸

Results for SDG indicator 2.5.2 (risk classification of local breeds) show that 62 percent of the world's local breeds are classified as being of unknown risk status, 28 percent as at risk and 10 percent as not at risk (if extinct breeds are excluded).⁹ Results differ widely from region to region. In all regions except Europe and the Caucasus and North America, more than 80 percent of local breeds are of unknown status. In Europe and the Caucasus, 38 percent of local breeds have unknown status, 52 percent are considered at risk, and 9 percent are considered not at risk. Improving reporting and reducing the number of breeds with unknown population status remains a challenge, as is the case for crop varieties and wild relatives growing on farm and *in situ*.

b. Priority measures to accelerate action, and ensure transformative pathways to realize the decade of action for achieving the 2030 Agenda.

The Commission stressed the **need to continue raising awareness** of the contribution of genetic resources for food and agriculture (GRFA) to food security and the achievement of the SDGs, especially with regard to family farming, smallholders, indigenous peoples, local communities and traditional knowledge.¹⁰ In addition, it noted the need to **compile and disseminate good practices** for measuring the contributions of GRFA to the achievement of relevant SDGs across sectors and regions.¹¹

The Commission welcomed **The State of the World's Biodiversity for Food and Agriculture**¹² as an important milestone in the **UN Decade on Biodiversity** and as a valuable contribution to discussions on the post-2020 global biodiversity framework. It noted that the report would contribute to raising awareness of the important role of crop and livestock farming, forestry and fisheries in the conservation and use of BFA and that it would help to strengthen collaboration and enhance communication between relevant international fora and instruments.

II. Contribution of the intergovernmental body to accelerated action and transformative pathways and realizing the decade of action and delivery for achieving the 2030 Agenda within its area of responsibility

a. Policy responses to new global assessments

In response to the gaps and needs identified in earlier global assessments, the Commission has already adopted global plans of action for plant, animal and forest genetic resources. These global action plans are

⁸ [CGRFA/WG-AnGR-11/20/Inf.4.](#)

⁹ [CGRFA/WG-AnGR-11/20/Inf.4.](#)

¹⁰ CGRFA-17/19/Report, Paragraph 9

¹¹ CGRFA-17/19/Report, Paragraph 9

¹² <http://www.fao.org/cgrfa/topics/biodiversity/en/>

voluntary global policy frameworks through which governments commit themselves to promoting the conservation and sustainable use of biodiversity and genetic resources in the respective sector.

The Commission agreed with the need for a timely and cross-sectoral follow up to **The State of the World's Biodiversity for Food and Agriculture**, along with developments in other fora that also point to declines in biodiversity of relevance to food and agriculture. It noted that the **follow-up product** should take into account the characteristics of diverse ecosystems and production systems, consider the special needs of developing countries, contribute to the implementation of the SDGs and the post-2020 global biodiversity framework and highlight areas for partnerships with multiple stakeholders.¹³ The Commission agreed on a process through which its Members would review and revise a previously developed set of priority needs and possible actions¹⁴, with the motivation to have them adopted as a global plan of action by the FAO Conference in 2021.¹⁵

It also agreed to the preparation of a Global Plan of Action for Aquatic Genetic Resources for Food and Agriculture.¹⁶

b. Strengthening the national implementation of the Commission's global plans of action

The Commission endorsed several guidelines prepared to assist in the national implementation of its global plan of action on plant, animal and forest genetic resources for food and agriculture.

- It encouraged countries to use the **Voluntary Guidelines for the Conservation and Sustainable Use of Farmers' Varieties and Landraces**^{17/18} in planning and implementing efforts to conserve and sustainably use farmers' varieties/landraces. It also requested FAO to continue supporting countries in the development and revision of their national seed policy and legislation, taking into account the Commission's **Voluntary Guide for National Seed Policy Formulation**.^{19/20}
- Endorsing the **Voluntary Guidelines for Preparing a National Strategy for Forest Genetic Resources**,²¹ it noted the importance of countries having a national or subnational strategy for forest genetic resources in place in view of climate change.²²
- Endorsing the **Guidelines on Developing Sustainable Value Chains for Small-scale Livestock Producers**,²³ it noted the importance of value chains for the marketing of animals developed by community-based breeding programmes.²⁴

¹³ CGRFA-17/19/Report, paragraph 45.

¹⁴ CGRFA-17/19/7/3.

¹⁵ CGRFA-17/19/Report, paragraph 47.

¹⁶ CGRFA-17/19/Report, paragraphs 55–56.

¹⁷ Voluntary Guidelines for the Conservation and Sustainable Use of Farmers' Varieties and Landraces <http://www.fao.org/documents/card/en/c/ca5601en>

¹⁸ CGRFA-17/19/Report, paragraph 64; <http://www.fao.org/3/ca5601en/ca5601en.pdf>

¹⁹ Voluntary Guidelines for National Seed Policy Formulation <http://www.fao.org/3/a-i4916e.pdf/>

²⁰ CGRFA-17/19/Report, paragraph 59.

²¹ [CGRFA-17/19/10.2/Inf.3.](http://www.fao.org/3/a-i4916e.pdf/)

²² CGRFA-17/19/Report, paragraph 75.

²³ [CGRFA-17/19/11.2/Inf.5.](http://www.fao.org/3/a-i4916e.pdf/); Voluntary Guidelines on Developing Sustainable Value Chains for Small-scale Livestock Producers <http://www.fao.org/3/ca5717en/ca5717en.pdf>

²⁴ CGRFA-17/19/Report, paragraph 84.

c. SDG monitoring

The Commission invited FAO to continue elaborating, based on country reporting, the status of the implementation of SDG Target 2.5.²⁵ It stressed the importance of the DAD-IS as the international clearing house mechanism for animal genetic resources.²⁶ It further requested the initiation of a new global information system on forest genetic resources.²⁷ FAO is also developing an information system for farmed aquatic genetic resources. The Commission stressed the need for additional data collection on wild foods, underutilized species and food production, including in home gardens.²⁸

III. Selected recommendations for accelerating progress and moving on transformative pathways for realizing the decade of action, for possible use in drafting the HLPF declaration.

Raise awareness among decision-makers about the importance of biodiversity for food and agriculture to sustainable production, livelihoods, food security and nutrition, and about potential means of developing or strengthening relevant policies.

Recognize the role of agriculture sectors' contribution to biodiversity conservation and sustainable use. The sustainable use and conservation of biodiversity for food and agriculture call for approaches in which **genetic resources, species and ecosystems are managed in an integrated way** in the context of production systems and their surroundings.

Improve understanding of the effects of drivers of change on the sizes and distributions of species populations and on the ecological processes that contribute to the supply of ecosystem services – and take urgent action to address those that are eroding the biodiversity that underpins food and agriculture (such as habitat destruction, pollution, inappropriate use of agricultural inputs, overharvesting, pests, diseases and invasive alien species).

Address the knowledge and data gaps that exist across all categories of BFA, i.e. establish or strengthen monitoring programmes and improve methods and skills for recording, storing and analysing data on changes in the status of species and habitats in and around production systems, and make these data accessible to those that need them.

Promote the use of biodiversity-friendly management practices in crop and livestock production, forestry, fisheries and aquaculture, including, where relevant, traditional management practices associated with local or indigenous communities, and promote the maintenance of viable areas of natural or semi-natural habitat within and around production systems, including those that are intensively managed – where necessary, restoring or reconnecting damaged or fragmented habitats, or establishing and maintaining protected and other designated areas.

Strengthen, at all levels, **enabling frameworks for the sustainable use and conservation** of biodiversity for food and agriculture, and **improve cross-sectoral collaboration and multistakeholder engagement** and cooperation in the management of BFA.

²⁵ CGRFA-17/19/Report, paragraph 66.

²⁶ CGRFA-17/19/Report, paragraph 88.

²⁷ CGRFA-17/19/Report, paragraph 79.

²⁸ CGRFA-17/19/Report, paragraph 9.