



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

COMMISSION ON  
GENETIC RESOURCES  
FOR FOOD AND  
AGRICULTURE

**REGIONAL WORKSHOP ON  
TAKING ACTION ON BIODIVERSITY FOR FOOD AND AGRICULTURE IN  
THE NEAR EAST AND NORTH AFRICA**

Meeting report

Amman, Jordan  
7–9 November 2023

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## I. OPENING OF THE WORKSHOP

1. The Regional Workshop on Taking Action on Biodiversity for Food and Agriculture in the Near East and North Africa was held in Amman, Jordan, from 7 to 9 November 2023. The workshop was co-organized by the Secretariat of the Commission on Genetic Resources for Food and Agriculture (Commission), the International Federation of Beekeepers' Associations (Apimondia), and the National Agricultural Research Center (NARC) of Jordan. The list of participants is given in *Appendix IV* to this report.
2. Her Royal Highness Princess Basma bint Ali, Founder of the Royal Botanic Garden and Chairman of the Board of Trustees of the Hashemite Fund for the Development of the Jordanian Badia, gave a welcome address. Her Royal Highness welcomed participants and stressed the importance of biodiversity for food and agriculture (BFA) to the region's agriculture, food security, nutrition and resilience.
3. Mr Nizar Haddad, Director General of NARC, welcomed participants to NARC and wished them a fruitful workshop.
4. Mr Jeff Pettis, President of Apimondia, welcomed participants, thanked them for attending the meeting and stressed the importance of Apimondia's collaboration with FAO on BFA, a topic of great interest to both parties.
5. Mr Dan Leskien, Senior Liaison Officer, Secretariat of the Commission, welcomed participants, thanked NARC for hosting the meeting and supporting its organization, and thanked Apimondia for its collaboration in the organization of the series of regional workshops on BFA. He stressed that the outcomes of the regional workshops would be brought to the attention of the first session of the Ad Hoc Expert Team on Biodiversity for Food and Agriculture, which the Commission established at its last session in July 2023.

## II. ORGANIZATION OF THE WORKSHOP

6. The workshop was divided into five sessions. Session I covered presentations on BFA, the Kunming-Montreal Global Biodiversity Framework and the Commission's Framework for Action on Biodiversity for Food and Agriculture (FA BFA).<sup>1</sup> Session II addressed the status of BFA and its management in the region. Sessions III to V addressed the region's gaps and needs with regard to the three strategic priority areas (SPAs) of the FA BFA: Characterization, assessment and monitoring of BFA (SPA 1); Management of BFA (SPA 2); and Institutional frameworks for BFA (SPA 3).

## III. SETTING THE SCENE: BIODIVERSITY FOR FOOD AND AGRICULTURE – THE GLOBAL LANDSCAPE

7. Mr Jeff Pettis gave a presentation on *Pollinators – the case for an ecosystem approach to biodiversity for food and agriculture*. Mr Nizar Haddad gave a presentation on *Approaches for sustainability of the apicultural ecosystems in the light of climate change*. Ms Monica Kobayashi, Secretariat of the Convention on Biological Diversity (CBD), gave an overview of relevant targets of the Kunming-Montreal Global Biodiversity Framework. Mr Dan Leskien presented the FA BFA.

## IV. THE STATUS OF BIODIVERSITY FOR FOOD AND AGRICULTURE IN NEAR EAST AND NORTH AFRICA

8. National Focal Points for Biodiversity for Food and Agriculture (NFPs BFA) and designated representatives gave presentations on the status of BFA in their countries, including on country activities related to the various strategic priorities of the FA BFA. The Commission Secretariat presented the results of the survey that had been circulated to NFPs BFA and designated

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<sup>1</sup> FAO. 2022. *Framework for Action on Biodiversity for Food and Agriculture*. FAO Commission on Genetic Resources for Food and Agriculture. Rome. <https://doi.org/10.4060/cb8338en>

representatives prior to the regional workshop. The results are summarized in *Appendix III* to this report.

## **V. CHARACTERIZATION, ASSESSMENT AND MONITORING OF BIODIVERSITY FOR FOOD AND AGRICULTURE – GAPS AND NEEDS**

9. Participants broke into subregional working groups (one for the Near East and one for North Africa) to discuss gaps and needs with respect to the national implementation of SPA 1 (Characterization, assessment and monitoring of BFA). The gaps and needs identified by the working groups are summarized in Section 1 of *Appendix II*.

## **VI. MANAGEMENT OF BIODIVERSITY FOR FOOD AND AGRICULTURE**

10. Mr John Parnell, International Consultant Soil Biodiversity, FAO, gave a presentation highlighting the importance of soil biodiversity to food and agriculture. Ms Fani Hatjina, Director of the Institute of Animal Science and Department of Apiculture, ELGO 'DIMITRA' Nea Moudania, Greece, gave a presentation on *From biodiversity to health: the impact of biodiversity on human well-being*. Ms Hien Ngo, Biodiversity and Pollination Expert, FAO Regional Office for Latin America and the Caribbean, gave a presentation on *Pollinator-friendly practices around the world: the case of wild pollinators*. Ms Julie Bélanger, Natural Resources Officer, FAO, gave a presentation on *Biodiversity-friendly practices*.

11. Participants broke into subregional working groups to discuss gaps and needs with respect to the national implementation of SPA 2 (Management of BFA). The gaps and needs identified by the working groups are summarized in Section 2 of *Appendix II*.

## **VII. INSTITUTIONAL FRAMEWORKS FOR BIODIVERSITY FOR FOOD AND AGRICULTURE**

12. Mr Bilal Qteshat, Director, Nature Protection Directorate, Ministry of Environment, Jordan, gave a presentation on *Examples of implementation of action on biodiversity for food and agriculture in Near East and North Africa*. Ms Sol Ortiz, Director General for Policies, Prospective and Climate Change, Ministry of Agriculture and Rural Development, Mexico, gave a presentation on *Implementation of national action on biodiversity for food and agriculture: the example of Mexico*. Mr Khaled Abulaila, Director, Biodiversity and Plant Genetic Resources, NARC, Jordan, gave a presentation on *The status of crop wild relatives and conservation measures taken*. Mr Frédéric Castell, Senior Natural Resources Officer, FAO, gave a presentation on *The example of the FAO Strategy on Mainstreaming Biodiversity Across Agricultural Sectors*.

13. Participants broke into subregional working groups to discuss gaps and needs with respect to SPA 3 (Institutional frameworks for BFA) at national level, including capacity building, strengthening of legal, policy and incentive frameworks, and cooperation and funding. The gaps and needs identified by the working groups are summarized in Section 3 of *Appendix II*.

## **VIII. CLOSING**

14. Mr Dan Leskien thanked NARC for having hosted the workshop and having provided excellent support for its organization and operation. He thanked all the speakers and participants for their enthusiasm and active engagement during the workshop and expressed his gratitude to Apimondia for having co-organized the event. He also thanked the interpreters for their excellent work and the Government of Germany for the generous support that made the workshop possible.

## APPENDIX I

**AGENDA OF THE REGIONAL WORKSHOP ON TAKING ACTION ON BIODIVERSITY  
FOR FOOD AND AGRICULTURE IN THE NEAR EAST AND NORTH AFRICA**

<b>DAY 1: 7 November 2023</b>	
9:30 – 10:00	Registration
<b>OPENING</b>	
10:00 – 10:30	Her Royal Highness Princess Basma bint Ali Nabil Assaf, FAO Representative in Jordan Nizar Haddad, Director General, National Agricultural Research Center, Jordan Jeff Pettis, President Apimondia International, United States of America
<b>SESSION I</b>	<b>SETTING THE SCENE: BIODIVERSITY FOR FOOD AND AGRICULTURE - THE GLOBAL POLICY LANDSCAPE</b>
10:30 – 11:30	<i>Pollinators – the case for an ecosystem approach to biodiversity for food and agriculture</i> Jeff Pettis, President Apimondia International, United States of America <i>Approaches for sustainability of the apicultural ecosystems in the light of climate change</i> Nizar Haddad, Director General, National Agricultural Research Center, Jordan <i>The Kunming-Montreal Global Biodiversity Framework: Creating the synergies</i> Monica Kobayashi, Programme Management Officer for Agricultural Biodiversity and Inland Waters, Secretariat of the Convention on Biological Diversity <i>The Framework for Action on Biodiversity for Food and Agriculture</i> Dan Leskien, Senior Liaison Officer, Secretariat of the Commission on Genetic Resources for Food and Agriculture, FAO
11:30 – 12:00	<i>Discussion</i>
<b>SESSION II</b>	<b>THE STATUS OF BIODIVERSITY FOR FOOD AND AGRICULTURE IN THE NEAR EAST AND NORTH AFRICA.</b>
<i>Reports by National Focal Points for Biodiversity for Food and Agriculture and designated representatives</i> SPA 1: Characterization, assessment and monitoring of biodiversity for food and agriculture SPA 2: Management of biodiversity for food and agriculture SPA 3: Institutional frameworks for biodiversity for food and agriculture	
12:00 – 13:00	Tunisia Kuwait Sudan
13:00 – 14:30	Lunch
14:30 – 15:30	Morocco

	Iran (Islamic Republic of) Lebanon Egypt United Arab Emirates Jordan Iraq
<b>SESSION III</b>	<b>CHARACTERIZATION, ASSESSMENT AND MONITORING OF BIODIVERSITY FOR FOOD AND AGRICULTURE – GAPS AND NEEDS</b>
15:30 – 16:30	<b>WORKING GROUPS – SESSION III CHARACTERIZATION, ASSESSMENT AND MONITORING OF BIODIVERSITY FOR FOOD AND AGRICULTURE – GAPS AND NEEDS</b>  <b>Working groups:</b> <ul style="list-style-type: none"> <li>• Near East</li> <li>• North Africa</li> </ul>
16:30 – 17:30	<b>Session III: Reports from the working groups</b>  <b>Preliminary results of participant survey</b>

<b>DAY 2: 8 November 2023</b>	
<b>SESSION IV</b>	<b>MANAGEMENT OF BIODIVERSITY FOR FOOD AND AGRICULTURE</b>
10:00 – 11:00	<i>Soil biodiversity: the role of earthworms in global food production</i> John Parnell, International Consultant Soil Biodiversity, FAO  <i>From biodiversity to health: the impact of biodiversity on human well-being</i> Fani Hatjina, Director of Institute of Animal Science & Department of Apiculture, ELGO ‘DIMITRA’ Nea Moudania, Greece  <i>Pollinator-friendly practices around the world: the case of wild pollinators</i> Hien Ngo, Biodiversity and Pollination Expert, FAO Regional Office for Latin America and the Caribbean  <i>Biodiversity-friendly practices</i> Julie Bélanger, Natural Resources Officer, FAO
11:00 – 11:30	<i>Discussion</i>
11:30 – 13:00	<b>WORKING GROUPS – SESSION IV MANAGEMENT OF BIODIVERSITY FOR FOOD AND AGRICULTURE</b>  <b>Working groups:</b> <ul style="list-style-type: none"> <li>• Near East</li> <li>• North Africa</li> </ul>
13:00 – 14:30	Lunch
14:30 – 15:30	<b>Session IV Reports from the working groups</b>  <i>Discussion</i>

<b>SESSION V</b>	<b>CREATING INSTITUTIONAL FRAMEWORKS AND ENABLING COOPERATION TO IMPLEMENT THE FRAMEWORK FOR ACTION ON BIODIVERSITY FOR FOOD AND AGRICULTURE</b>
15:30 – 16:30	<p><i>Examples of implementation of action on biodiversity for food and agriculture in Near East and North Africa</i> Bilal Qteshat, Director, Nature Protection Directorate, Ministry of Environment, Jordan</p> <p><i>Implementation of national action on biodiversity for food and agriculture: the example of Mexico</i> Sol Ortiz, Director General for Policies, Prospective and Climate Change, Ministry of Agriculture and Rural Development, Mexico.</p> <p><i>The status of crop wild relatives and conservation measures taken</i> Khaled Abulaila, Director, Biodiversity and Plant Genetic Resources, National Agricultural Research Center, Jordan</p> <p><i>The example of the FAO Strategy on Mainstreaming Biodiversity Across Agricultural Sectors</i> Frédéric Castell, Senior Natural Resources Officer, FAO</p>
16:30 – 17:30	<i>Discussion</i>

<b>DAY 3: 9 November 2023</b>	
10:00 – 11:30	<p><b>WORKING GROUPS – SESSION V</b> <b>CREATING INSTITUTIONAL FRAMEWORKS AND ENABLING COOPERATION TO IMPLEMENT THE FRAMEWORK FOR ACTION ON BIODIVERSITY FOR FOOD AND AGRICULTURE</b></p> <p><b>Working groups:</b></p> <ul style="list-style-type: none"> <li>• Near East</li> <li>• North Africa</li> </ul>
11:30 – 12:30	<p><b>Session V      Reports from the working groups</b></p> <p><i>Discussion</i></p>
12:30 – 13:00	<b>Closing session</b>

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## APPENDIX II

### MAIN GAPS AND NEEDS AND POSSIBLE ACTIONS

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The following sections summarize and consolidate inputs and comments received from the subregional working groups.

#### SECTION 1: CHARACTERIZATION, ASSESSMENT AND MONITORING OF BIODIVERSITY FOR FOOD AND AGRICULTURE – GAPS AND NEEDS

##### Main gaps and needs in the Near East and North Africa

- Limited access to technologies for characterization and monitoring means that stakeholders may face challenges in obtaining the technologies and information needed for the characterization, assessment and monitoring of biodiversity for food and agriculture (BFA). To address these challenges, the region's countries need to invest in cutting-edge technologies.
- Insufficient specialized expertise in the field of characterization, assessment and monitoring of BFA means that organizing training sessions and workshops aimed at enhancing the technical skills of local institutions and other stakeholders is essential. This would help bridge the gap in specialized expertise, promoting better management of data and information related to BFA.
- Inadequate coordination and communication among stakeholders involved in the characterization, assessment and monitoring of BFA can impede progress in its management. It is imperative to improve collaboration among stakeholders, including research institutions and policymakers, in order to improve the implementation of various measures related to the management of BFA and information-sharing in this field. There is also a need to improve collaboration between those involved in plant genetic resources for food and agriculture (PGRFA) conservation and protected area authorities, especially with regard to *in situ* conservation of crop wild relatives (CWRs) and wild food plants.
- Countries often face budgetary constraints that limit their ability to fund research and long-term monitoring programmes for BFA. It is crucial to mobilize both domestic and international financial resources to support initiatives in this field.
- In the case of associated biodiversity specifically, numerous gaps exist, including the following: lack of national programmes; lack of coordination; insufficient skills; lack of awareness and orientation at various levels; insufficient research; and lack of documentation and information systems.
- In the case of wild PGRFA, gaps include the following: lack of active conservation and monitoring in protected areas, including distribution mapping; lack of conservation areas for CWRs; lack of taxonomic skills for identification and collection; lack of skills for collecting breeding material; lack of knowledge and facilities for regeneration and conservation of allogamy (cross-fertilizing) plants; and insufficient documentation systems.
- In the cases of animal genetic resources (AnGR), forest genetic resources (FGR) and aquatic genetic resources (AqGR), gaps include the following: lack of sufficient *ex situ* conservation; insufficient characterization and documentation; and in some cases lack of inventories. In the case of traditional knowledge related to genetic resources, gaps include the following: lack of knowledge in this regard; and lack of national laws supporting the use and registration of traditional knowledge.
- In the case of AnGR, gaps include the following: insufficient support to encourage farmers to use new technologies for raising and monitoring indigenous livestock and poultry breeds; and lack of clear government policy on the monitoring of livestock and poultry genetic resources.

##### Action needs to address the main gaps and needs

- In the case of associated biodiversity, major needs include support for national institutional frameworks, national programmes, appropriate infrastructure and equipment, research, awareness raising and guidance.



- Regeneration of seed crops is needed, particularly for wild PGRFA.
- Characterization needs to be strengthened, particularly characterization of abiotic stresses.
- Active conservation, monitoring and distribution mapping are needed.
- Support for and promotion of the creation of CWR protected areas are needed, as is coordination (on the part of the Commission) with the International Union for Conservation of Nature (IUCN) on the inclusion of CWRs as criteria that trigger conservation measures, similar to those for Key Biodiversity Areas (KBAs) or Important Plant Areas (IPAs).
- Capacity building is needed to improve taxonomic skills for the identification of wild PGRFA, optimal data collection *in situ* and the collection of breeding materials. In addition, capacity building is needed on the multiplication of CWR accessions and their characterization, including on screening for stress conditions and on prebreeding.
- For AnGR, major needs include the establishment of genebanks (including DNA libraries) and the use of variety of different support methods to monitor biodiversity in a timely manner; for FGR and AqGR, major needs include cryoconservation within genebanks. For all three, characterization and documentation need to be established or improved. Because of high species diversity, first steps should address the most dominant species and endemic species.
- National laws and frameworks for the conservation of traditional knowledge should be developed.

**Action to be taken by FAO and the Commission on Genetic Resources for Food and Agriculture to help address the gaps and needs**

- FAO could organize national and regional training sessions and workshops to enhance the technical expertise of stakeholders in the characterization, assessment and monitoring of BFA, including individual or group training in leading institutes overseas. In addition, support could be provided for the development of national regulatory frameworks through meetings and other mechanisms.
- It is essential that FAO support the establishment of long-term training programmes to ensure the sustainability of characterization activities and the entire system. This would ensure that the skills and knowledge acquired persist over time.
- FAO should facilitate coordination among countries in the region and improvements to information management, including by promoting the exchange of data, best practices and resources related to BFA.
- FAO support for the creation of platforms for networking among countries in the region is vital. Such platforms facilitate ongoing information and knowledge exchange, strengthening regional collaboration and cooperation.
- FAO plays a crucial role in mobilizing national and international financial resources to support BFA-related research, conservation and monitoring. This allows the financing of specific projects that address identified needs, including those related to equipment and infrastructure.
- FAO could play a major role in liaising with IUCN to raise the importance of CWRs (a major factor in global food security) as a triggering criterion for conservation, similar to those for KBAs or IPAs.
- FAO should support improvements to regional cooperation in the field of associated biodiversity. For all sectors (PGRFA, AnGR, AqGR and FGR), sharing experiences from different regions is important.
- Infrastructure and equipment need to be provided/facilitated through FAO support.
- For AnGR, AqGR and FGR, the establishment of genebanks is a key action to be supported by FAO. For recalcitrant seeds from FGR and other genetic resources, genebanks are not an adequate mechanism for conservation. Alternative solutions need to be pursued.
- It is necessary for FAO to provide serious scientific and financial support for efforts to improve the awareness level of farmers.

## SECTION 2: MANAGEMENT OF BIODIVERSITY FOR FOOD AND AGRICULTURE

### Main gaps and needs with regard to the implementation and upscaling of biodiversity-friendly practices in the Near East and North Africa

- Persistent shortcomings in *ex situ* conservation techniques impede the effective conservation and possible restoration of components of biodiversity outside their natural habitats.
- Significant challenges related to biodiversity restoration require particular attention and complicate efforts to reinstate threatened ecosystems and species.
- Shortcomings in the management and sustainable utilization of genetic resources need to be addressed. Overexploitation of natural resources is a major threat to biodiversity. Promoting sustainable management practices is imperative in order to avert resource depletion.
- Shortages of the skills needed to identify endangered species potentially impede capacity to accurately manage and safeguard them and their habitats.
- Challenges related to the lack of traceability of genetic resources, including seeds and genetic sequences, can make it difficult to effectively track and manage these valuable resources.
- It is essential to strengthen legal and regulatory frameworks related to the protection of biodiversity and to encourage the application and implementation of biodiversity-friendly agriculture that includes a wide range of measures to sustain BFA.
- Special consideration should be given to the situation of countries that suffer from challenges that affect the availability and sustainability of BFA in a severe way, such as wars, climate change impacts and political problems.

### Specific gaps and needs related to different groups of genetic resources

#### ASSOCIATED BIODIVERSITY

There are significant gaps in the following areas:

- information on good practices or management. Sometimes the basic information needed to put management measures in place is lacking. Knowledge is needed of biodiversity-friendly approaches that adequately fit in a given area (including approaches for wild and managed pollinators).
- legal frameworks and their implementation;
- inclusive research on associated biodiversity and biodiversity-friendly approaches;
- collaboration between institutions in charge of managing BFA and sharing knowledge, such as national genebanks, protected areas authorities and relevant NGOs;
- awareness raising on associated biodiversity and its significance, especially in the context of climate change;
- documentation and utilization of Indigenous Peoples' knowledge; and
- eco-friendly management of wild edible plants and animals (including measures to address unsustainable hunting and collection from the wild).
- the existence of a different legal framework in each country, for example with respect to bans on biodiversity-unfriendly activities, constrains data exchange between countries.

#### PGRFA

There are significant gaps in the following areas:

- knowledge of good management practices, especially for CWRs, wild foods and allogamy plants *in situ* and in disturbed habitats;
- cultivation and utilization of forgotten foods and neglected underutilized species as components of diversified diets and ecosystem-friendly approaches;
- implementation of, and research on, biodiversity-friendly approaches;

- awareness raising on PGFRA, especially wild components, including the mainstreaming of the wide range of plants that contribute to farmers' food baskets (geographically identified), including non-wood forest products (e.g. fruits and fungi); and
- documentation and utilization of Indigenous Peoples' knowledge on the use of various wild plants and traditional varieties.

### AnGR

There are significant gaps in the following areas:

- application of circular economy as part of permaculture;
- animal breeding programmes;
- application of rangeland management, including restoration and up-to-date silvopastoral management systems;
- application of welfare measures (e.g. use of veterinary drugs, including antibiotics);
- *ex situ* conservation measures, including genebanks and other available options;
- belief in raising native breeds; and
- use of new technologies in raising livestock and poultry species.

### FGR

There are significant gaps in the following areas:

- optimal management approaches for agroforestry, including management of biotic and abiotic stresses, in dry ecosystems as well as in other ecosystems, such as those that are semi-dry, semi-humid and humid;
- the establishment and use of early-warning systems; and
- *ex situ* conservation of some flagging species with recalcitrant seeds, such as *Quercus*.

### AqGR

There are significant gaps in the following areas:

- knowledge and awareness about aquaculture;
- promotion of aquaculture and its products;
- information about disease control in aquaculture; and
- application of circular economy as part of permaculture.

### **Action to be taken by FAO and the Commission on Genetic Resources for Food and Agriculture to help countries/stakeholders to implement biodiversity-friendly practices**

- FAO could play a pivotal role in organizing events and initiatives aimed at raising awareness of, and strengthening know-how related to, the significance of biodiversity, its conservation and the implementation of best practices in its management measures. Such awareness is crucial, as it can help reduce the overexploitation of genetic resources and promote environmentally friendly behaviour.
- FAO could support the promotion of traditional knowledge and good practices. Preserving ancestral practices, which have often coexisted harmoniously with nature, is vital for biodiversity conservation. Representatives of NGOs or Indigenous Peoples' communities should be invited to meetings of the expert group. Support for building a database to document Indigenous Peoples' knowledge is needed.
- FAO could play a role in empowering rural women and youth in their endeavours in this field. Women in rural areas play a significant role in maintaining biodiversity through their traditional agricultural practices, seed-saving techniques and sustainable resource management.
- FAO could support countries in the development of national laws aimed at managing and protecting genetic resources and associated biodiversity. Such national laws are crucial for ensuring the sustainable management of genetic resources and preventing their overexploitation. Options could include the development of case studies and/or measures or toolboxes similar to those developed by some of the technical groups of the International Treaty on Plant Genetic

Resources for Food and Agriculture (the Ad Hoc Technical Expert Group on Farmers' Rights and the Ad Hoc Technical Committee on Conservation and Sustainable Use).

- FAO could assist in facilitating the exchange of resources between countries, thus promoting the sustainable use of these resources on a global scale. This would contribute to better biodiversity management and the preservation of the genetic diversity of plant and animal species.
- FAO should develop guidelines and capacity building and provide up-to-date equipment.
- FAO should promote and develop the use of new technologies such as “intelligent farms”.

#### **Need for targets and indicators to monitor the implementation of biodiversity-friendly practices by countries**

- Targets and indicators are important in monitoring change. Support will first be needed with the establishment of baselines and understanding the current state of implementation.
- The Commission should undertake a review of existing indicators to determine whether there is a need to improve them or develop new indicators.

### **SECTION 3: CREATING INSTITUTIONAL FRAMEWORKS AND ENABLING COOPERATION TO IMPLEMENT THE FRAMEWORK FOR ACTION ON BIODIVERSITY FOR FOOD AND AGRICULTURE**

The main challenges needing to be addressed in order to create institutional frameworks that promote the conservation and sustainable use of BFA include:

- lack of and/or insufficient awareness of programmes that raise awareness about the significance of BFA to food security and sustainable agriculture;
- shortages of skilled personnel, and lack of institutions or programmes, for the characterization, management and conservation of genetic resources;
- lack of information or information-sharing mechanisms relevant to BFA.
- lack of adequate regulations and other legal or regulatory frameworks targeting the conservation and use of BFA and related activities;
- lack of local and interinstitutional committees, and inadequate interinstitutional communication: establishing local and interinstitutional committees promotes coordination and collaboration, and strengthens the effective implementation of biodiversity-related policies, strategies and plans of action; and
- insufficient harmonization between different ministries, for example between ministries of agriculture, industry and energy (water and electricity, etc.).

#### **Actions to be taken by FAO and the Commission on Genetic Resources for Food and Agriculture to help countries/stakeholders create enabling frameworks**

Actions are needed in the following areas:

- provision of technical expertise and advice to assist countries and stakeholders in the establishment of institutional frameworks;
- support for the development of national programmes, policies and legal frameworks;
- support for the improvement of awareness raising among decision-makers, practitioners, researchers, farmers and Indigenous Peoples' communities (e.g. development of e-learning models for various actors, including for farmers' schools); and
- development of data/information-sharing systems (FAO and the Commission should play a major role in this field).

### **Development of guidelines to support countries in the establishment of enabling frameworks**

- FAO could provide a standard model of guidance that could be further developed at the national level to ensure consistency with regional and international directives. However, there is a need to ensure adaptability, flexibility and feasibility. Regional collaboration should be encouraged, as appropriate.
- The guidelines could provide guidance on capacity building through workshops and on the simplification and dissemination of information on biodiversity-related best practices.

### **Priorities for a project on the implementation of the Framework for Action on Biodiversity for Food and Agriculture**

The priorities for a project, whether focused on national or regional implementation, will depend on the specific needs of the target area and the project's objectives.

*Priorities for the national level include:*

- building capacity to effectively implement biodiversity-friendly practices, with emphasis on associated biodiversity and wild genetic resources;
- provision of equipment for the characterization, assessment, monitoring and conservation of genetic resources;
- increasing the availability of new technologies that can be used to optimize biodiversity-friendly agricultural practices; and
- increasing stakeholder awareness through engagement.

*Priorities for a project on regional cooperation include:*

- facilitating collaboration among countries in the region to promote the sharing of best practices, information and resources related to the conservation of BFA;
- establishment of regional technological hubs focusing on all aspects of biodiversity; and
- best practices and strategies for the management of associated biodiversity and wild genetic resources.

### **Selection criteria**

- Countries facing the risk of natural and human-made disasters (e.g. those arising because of wars or political instability) are at risk of losing their genetic resources, and this needs to be taken into account in priority setting.
- Countries rich in genetic resources may lack the financial means and technical capabilities to conserve them.
- Economically disadvantaged countries may struggle to preserve their genetic resources, jeopardizing long-term food security.
- At the national level, selection criteria may focus on biodiversity richness and the presence of skilled personnel. National needs and political will need to be considered.
- At the regional level, selection criteria may focus on potential to cooperate and collaborate, common features (biodiversity components, gene pools, etc.) and shared priorities.

## APPENDIX III

### SUMMARY FINDINGS OF THE FAO SURVEY ON THE MANAGEMENT OF BIODIVERSITY FOR FOOD AND AGRICULTURE IN THE NEAR EAST AND NORTH AFRICA

#### Introduction

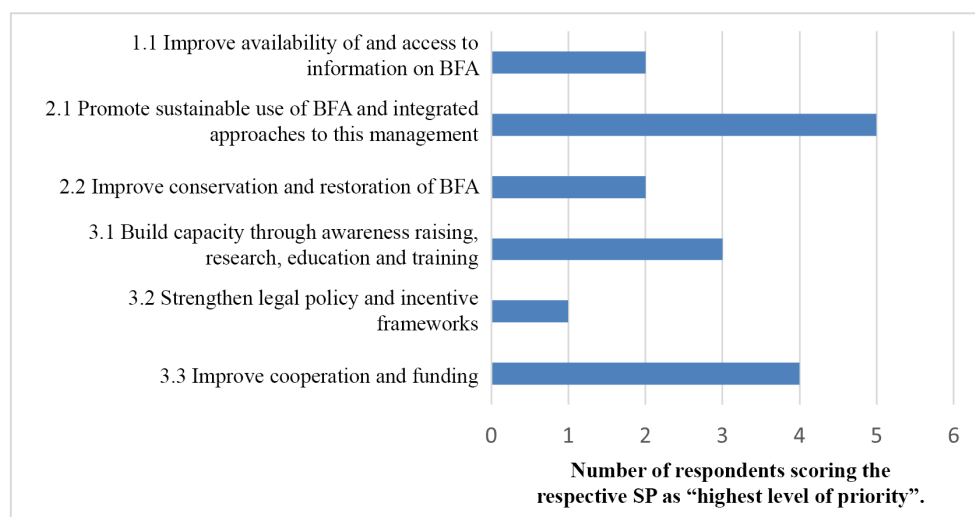
Prior to the workshop Taking Action on Biodiversity for Food and Agriculture in the Near East and North Africa, a 27-question survey was circulated to all National Focal Points for Biodiversity for Food and Agriculture (NFPs BFA) and designated representatives in the region. The survey aimed to generate an overview of activities in the region and facilitate the preparation of brief country reports during the workshop (see *Appendix II*).

Six responses were received within the deadline set by the workshop organizers, and these responses provide the basis for this summary. One additional response was received after the deadline, making a total of seven.

#### Identification of knowledge gaps and training needs

The survey sought to identify which of the six strategic priorities of the Framework for Action on Biodiversity for Food and Agriculture (FA BFA)<sup>2</sup> respondents considered to be of highest priority for training on, or expert assistance with, national implementation (Figure 1). Respondents were asked to provide a priority score for each strategic priority. Seventeen of the 36 ratings placed the respective strategic priorities in the highest priority category, sixteen placed them in the high-priority category and three placed them in the medium-high priority category. In other words, all the respondents scored all the strategic priorities as medium-high priorities or higher. This might imply that the NFPs BFA and designated representatives consider that the strategic priorities listed in the FA BFA remain up to date and relevant to their agendas. The two that received the largest number of “highest level of priority” scores were Strategic Priority 2.1 (Promote sustainable use of BFA and integrated approaches to its management) and Strategic Priority 3.3 (Improve cooperation and funding).

**Figure 1. Priority knowledge gaps and needs (strategic priorities)**



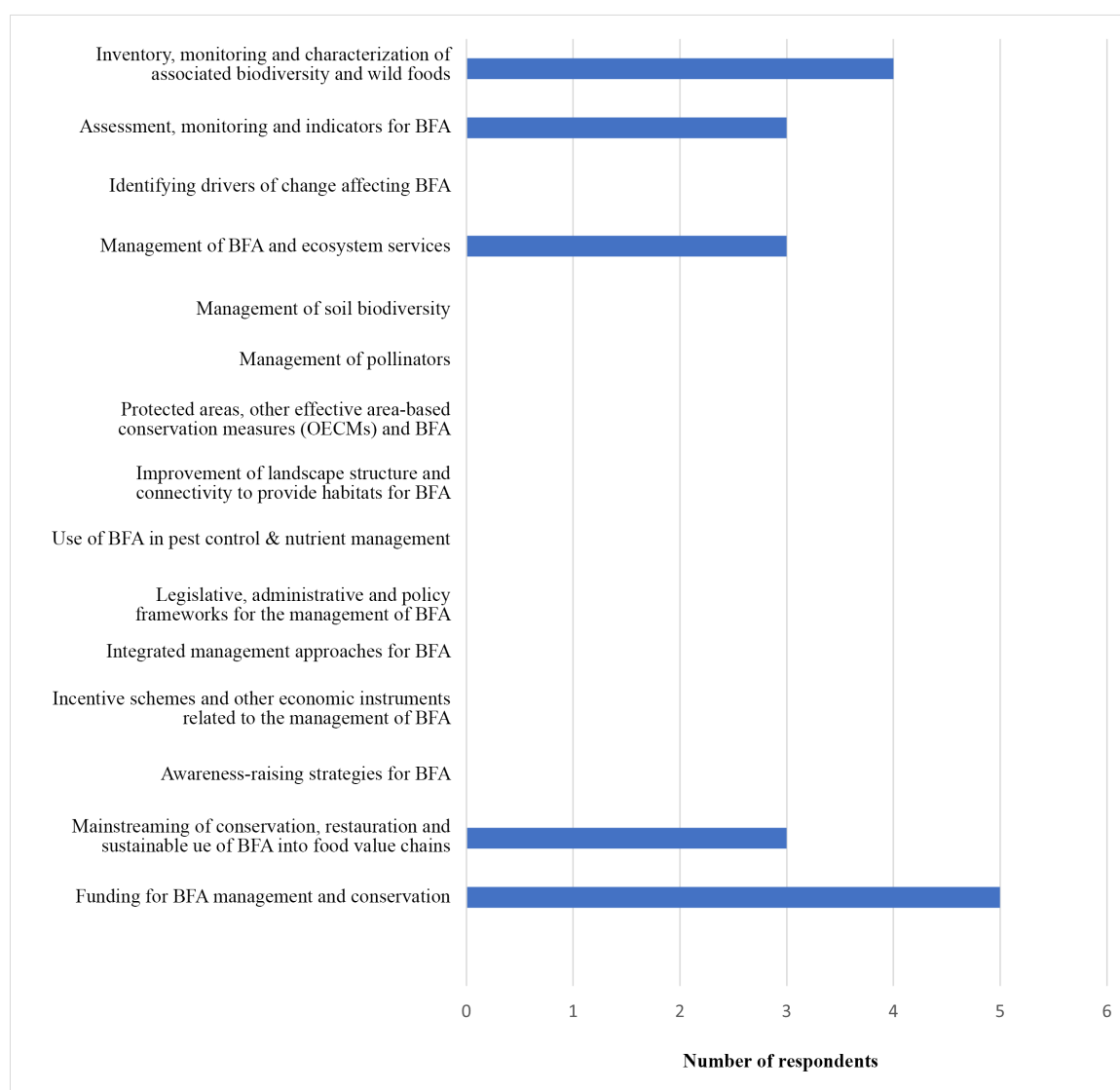
*Notes: Respondents were asked “For which of the following SPs do you consider that training/expert inputs would be particularly useful to assist you with national implementation?”. They were presented with a list of the*

<sup>2</sup> FAO. 2022. *Framework for Action on Biodiversity for Food and Agriculture*. FAO Commission on Genetic Resources for Food and Agriculture. Rome. <https://doi.org/10.4060/cb8338en>

six strategic priorities (SPs) of the Framework for Action on Biodiversity for Food and Agriculture and requested to assign a priority level (Highest level of priority, High priority, Medium-high priority, Medium-low priority, Low priority, Lowest level of priority) to each. The same priority level could be assigned to more than one SP.

Respondents were further presented with a list of 16 topics and asked to mark four for which they considered that knowledge enhancement would be particularly useful. Figure 2 shows that funding for BFA management and conservation was the most popular option.

**Figure 2. Priority knowledge gaps and needs (specific topics)**



Notes: Respondents were presented with a list of 16 topics and asked to mark four for which they considered that knowledge enhancement would be particularly useful.

### Sharing of best practices and lessons learned

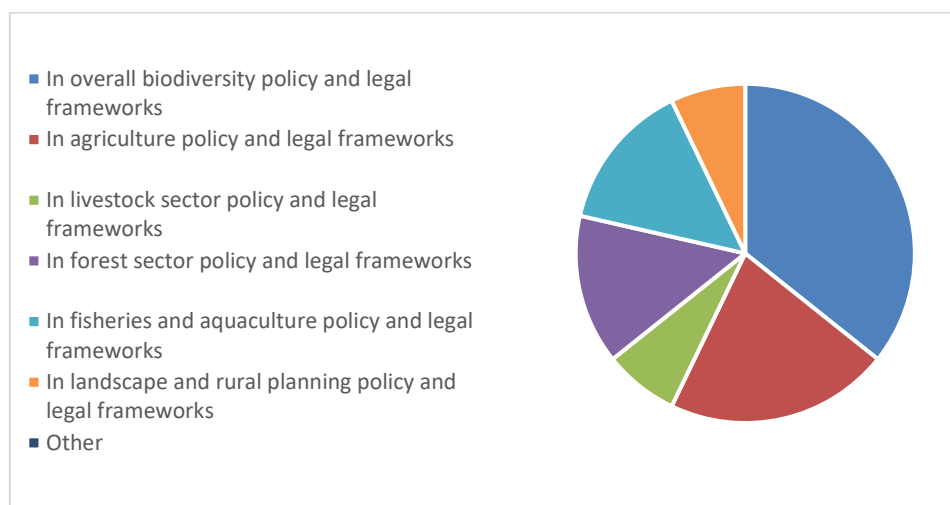
This section of the survey invited respondents to provide examples from their countries of best practices and lessons learned related to the following issues: characterization, assessment or monitoring of BFA; conservation or restoration of genetic, species or ecosystem levels; sustainable use of BFA or integrated approaches to its management; legal policy and incentive frameworks for BFA; multistakeholder, cross-sectoral or regional cooperation in BFA assessment, monitoring, management, conservation or restoration. Respondents were also invited to report country success

stories or lessons learned related to capacity building or awareness raising on BFA. Unfortunately, the response rate in this section was low.

### Status of national implementation

The first question in this section of the survey asked respondents to indicate whether there were national frameworks in their respective countries for the assessment and monitoring of associated biodiversity and wild foods. Three respondents indicated that no such frameworks exist, while three indicated that they do exist. Respondents were also asked to provide their views on policy and legal frameworks and to indicate under which umbrellas (i.e. within which broader policy frameworks) BFA-related policies have been established. The responses indicate that most BFA-related instruments fall within biodiversity and agricultural policy frameworks (Figure 3).

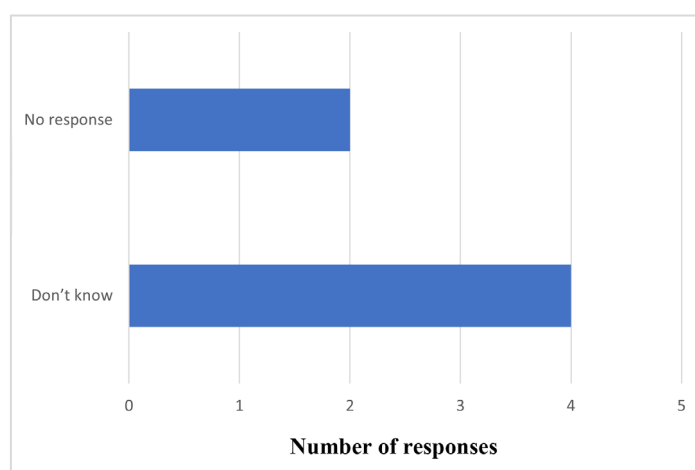
**Figure 3. Frameworks within which policies addressing BFA are located**



*Notes: Respondents were asked the following question: “If policy and legal frameworks for BFA exist in your country, where are they located?” and given a list of options. More than one option could be chosen. The pie chart indicates the share of each option among the total responses.*

Responses to a question about whether various types of economic instruments are used to promote the sustainable management of BFA in the respondents’ countries (Figure 4) suggest a lack of knowledge about the role of economic instruments in the management of BFA. Four respondents explicitly answered “Do not know”, and two did not respond to the question.

**Figure 4. Level of use of economic instruments to promote sustainable management of BFA**

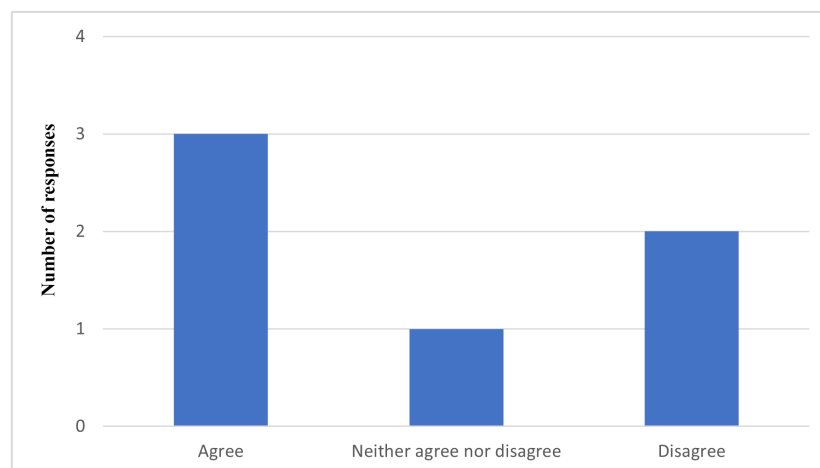




*Notes: Respondents were asked “Which of the following economic instruments are used to promote the sustainable management of BFA in your country?” and given a list of options. The options were BFA relevant fees and charges; BFA relevant taxes; BFA relevant tradable permits; BFA relevant subsidies; Payment for ecosystem services; Biodiversity offsets; Don’t know. More than one option could be chosen.*

Three respondents agreed with the statement “BFA-related policies and instruments are coordinated among each other in my country” (Figure 5), two disagreed and one indicated that they neither agreed nor disagreed.

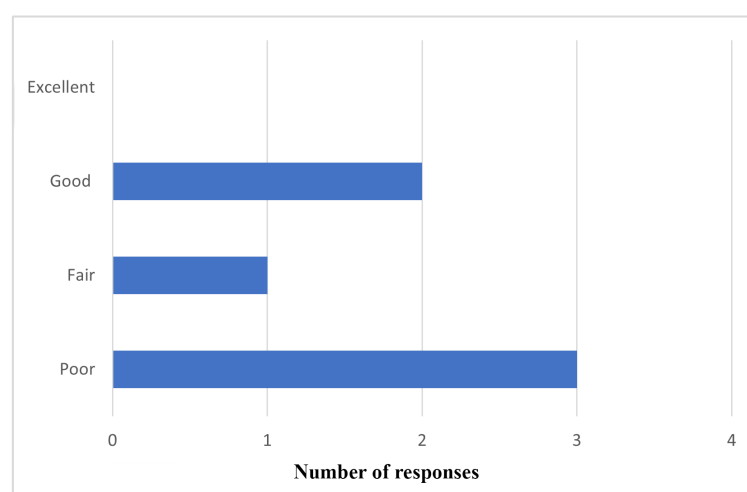
**Figure 5. Status of BFA-related policies and other instruments**



*Notes: Respondents were asked to indicate their level of agreement with the following statement: “BFA-related policies and instruments are coordinated among each other in my country?” by choosing from the following options: Strongly agree; Agree; Neither agree nor disagree; Disagree; Strongly disagree; Don’t know.*

In response to a question about the state of BFA-related cross-sectoral interagency dialogue in their respective countries – a critical factor in the adequate implementation of activities in a multidisciplinary sector such as BFA – three respondents indicated that the level of dialogue was poor, two that it was good and one that it was fair (Figure 6). No respondents reported that the level of dialogue was excellent.

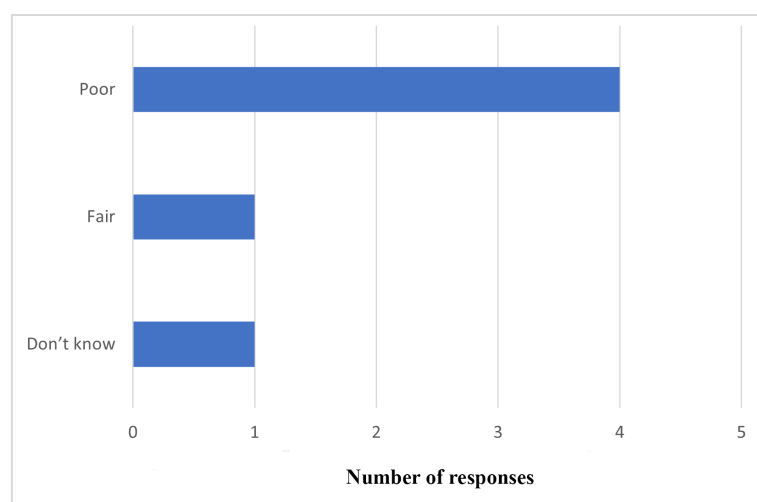
**Figure 6. Status of BFA-related cross-sectoral interagency dialogue**



*Notes: Respondents were asked “How would you describe the level of BFA-related cross-sectoral/interagency dialogue in your country?” and given the following options: Excellent; Good; Fair; Poor; Don’t know.*

In response to a question about the integration and participation of Indigenous Peoples and small-scale producers in decision-making processes in the food and agriculture sector in their respective countries, four respondents indicated that it was poor, one that it was fair and one that they did not know (Figure 7). Once again, no respondents gave a rating of excellent.

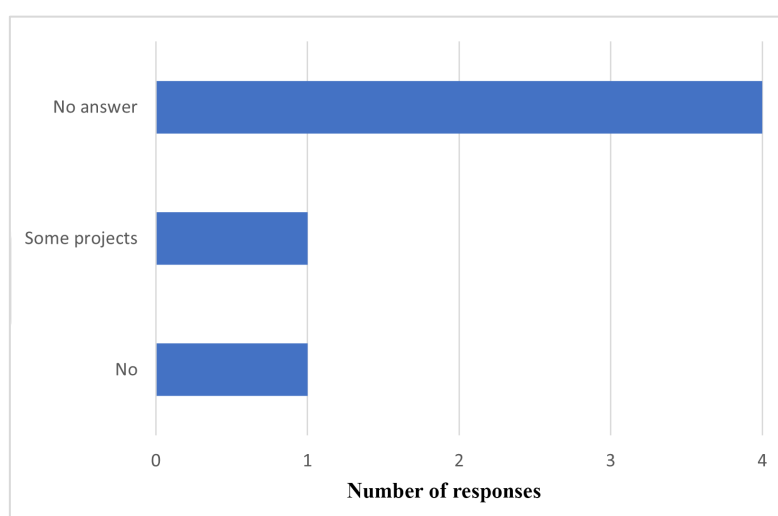
**Figure 7. Status of involvement of Indigenous Peoples and small-scale producers in decision-making**



*Notes: Respondents were asked the following question: “How would you describe the integration and participation of Indigenous Peoples and small-scale producers in decision-making processes in the food and agriculture sector in your country?” and given the following options: Excellent; Good; Fair; Poor; Don't know.*

Answers to a question about respondents' awareness of BFA-related regional transboundary programmes revealed that awareness about such initiatives is very limited. Four respondents did not answer the question, one responded negatively, and one indicated that they were aware of some projects of this kind (Figure 8). This might be an indication that effective intraregional exchanges are still very limited and that insufficient importance has been attached to transboundary information sharing within subregions and regions.

**Figure 8. Level of awareness of regional, cross-boundary BFA-related initiatives**



*Notes: Respondents were asked “Are you aware of any regional, cross-boundary initiatives addressing the conservation and sustainable use of BFA?”*

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Finally, a question on the strategies that respondents would use to raise awareness of conservation and sustainable use of BFA among the general public and policymakers elicited several responses. The following strategies were mentioned: media campaigns including television and social media; education and training; stakeholder engagement – workshops, round tables, etc.; policy dialogue; academic curricula; and festivals and other promotional events.

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**APPENDIX IV  
LIST OF PARTICIPANTS**

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