Policies, programmes and activities related to biodiversity for food and agriculture

Reports from international instruments and organizations

1. Contact information

Name and position of respondent	Marianne Banziger, Deputy Director General, Research and Partnerships
Name of organization	International Maize and Wheat Improvement Center (CIMMYT)
E-mail of organization	CIMMYT-DGOFFICE@CGIAR.ORG
Geographical coverage of your organization	Global

2. Components of biodiversity for food and agriculture covered by your organization

Note: For a complete definition refer to Annex 1 of: http://www.fao.org/nr/cgrfa/biodiversity/guidelines/en/

Sectoral genetic resources for food and agriculture

Animal genetic resources ☐

Aquatic genetic resources ☐

Forest genetic resources ☐

Plant genetic resources ☒

Associated biodiversity of relevance to food and agriculture

Micro-organisms (including bacteria, viruses, protists and fungi) ☐

Invertebrates (including insects, spiders, worms) ☐

Vertebrates (including amphibians, reptiles and non-domesticated birds and mammals) ☐

Wild and cultivated terrestrial and aquatic plants other than crop wild relatives ☐

Please provide details on the components of biodiversity for food and agriculture involved (species, breeds, varieties):

Maize and wheat genetic resources (landraces, improved) and their wild relatives

PRIORITY AREA 1: ASSESSMENT AND MONITORING

1. Does your organization implement or support the implementation of projects or programmes that contribute to the assessment of the status of biodiversity for food and agriculture?

Yes ◉

No ○

If yes, please provide details on the countries and species involved and indicate whether the population trends of these species are monitored:

We assess genetic diversity in ex-situ collections of maize and wheat, held in trust at CIMMYT

2. Is your organization involved in surveying and monitoring population sizes of and/or threats to associated biodiversity species that are known to contribute to regulating or supporting ecosystem services in and around agricultural and food production systems?

Yes ○

No ◉

If yes, please provide details on the countries and species and ecosystem services involved:

3. Is your organization involved in surveying and monitoring population sizes of and/or threats to wild food species?

Yes ○

No ◉

If yes, please provide details on the countries and species involved:

4. Has your organization identified major obstacles to assessing and monitoring components of biodiversity for food and agriculture that are part of its mandate?

Yes ◉

No ○

If yes, please list these obstacles, being as specific as possible regarding the species involved:

Funding

5. What are the priority measures that need to be taken to address these obstacles?

Awareness of the relevance

6. Please describe any additional activities relevant to the implementation of Priority area 1: Assessment and monitoring

PRIORITY AREA 2: CONSERVATION AND SUSTAINABLE USE

Conservation

1. Does your organization take or support actions to protect components of biodiversity for food and agriculture that are at risk from climate change, invasive alien species and natural or human-induced disasters?

- Yes ◉
- No ○

If yes, please provide details on the countries and species involved, the actions taken, the impacts and the lessons learned:

Ex-situ conservation and characterization

2. Does your organization implement or support the implementation of conservation measures for associated biodiversity and/or wild food species?

In situ

- Yes ○
- No ◉

Ex situ

- Yes ◉
- No ○

If yes, please provide details on the countries, measures and species involved:

Maize, wheat and their wild relatives; global

3. If your organization maintains *ex situ* collections of biodiversity for food and agriculture components could you please provide further information on these collections?

CIMMYT manages some of humankind's most diverse maize and wheat collections. Wheat holdings at CIMMYT comprise some 140,000 seed samples from more than 100 countries; the largest unified collection in the world for a single crop. The maize bank contains 28,000 samples of seed, including the world's largest collection of maize landraces, along with samples of maize's wild relatives, teosinte and tripsacum, and of improved varieties. The collections' user interface is managed through GRIN-Global.

Seeds of Discovery, together with various other initiatives, is developing a genetic resources utilization platform, including: documenting the biodiversity of CIMMYT's maize and wheat seed bank; developing informatics tools; breeding "bridging germplasm," which incorporates new diversity in elite wheat and maize; and building professional capacity to use biodiversity to address current and future challenges to maize and wheat production.

4. Has your organization identified major obstacles to enhancing the conservation of biodiversity for food and agriculture, and in particular of associated biodiversity and wild foods?

Yes ◉

No ○

If yes, please provide details:

Funding

5. What are the priority measures that need to be taken to address these obstacles?

Awareness

Sustainable use

6. Does your organization promote management practices that support the maintenance and use of biodiversity for food and agriculture?

Note: For examples of such practices, please refer to Annexes 5 and 6 of http://www.fao.org/nr/cgrfa/biodiversity/guidelines/en/

Yes ◉

No ○

If yes, please provide details on the countries and practices involved:

Iso certification of Genebanks and investment in characterization

7. Does your organization promote the application of ecosystem, landscape and/or seascape approaches?

Yes ○

No ◉

If yes, please provide details on the countries and approaches involved:

8. Does your organization implement or support the implementation of projects or programmes on the use of biodiversity for food and agriculture to cope with climate change, invasive alien species, or natural or human-made disasters?

Yes ◉

No ○

If yes, please provide details:

Genoytypic and phenotypic characterization of maize and wheat genetic diversity; dissemination of maize and wheat genetic resources internationally

9. Does your organization implement or support the implementation of projects or programmes on the maintenance and use of traditional knowledge of associated biodiversity and wild foods?

Yes ◉

No ○

If yes, please provide details:

Socio-economic studies and farmer-participatory use/improvement of maize landraces

10. Has your organization identified any major obstacles to improving the sustainable use of biodiversity for food and agriculture, and in particular of associated biodiversity and wild foods?

Yes ◉

No ○

If yes, please list and describe them:

Funding

11. What are the priority measures that need to be taken to address these obstacles?

Awareness

Access and benefit-sharing

12. Does your organization contribute to the development of mechanisms to improve access to and ensure the fair and equitable sharing of benefits arising from the utilization of biodiversity for food and agriculture?

Yes ◉

No ○

If yes, please provide details on the countries, mechanisms and species involved**:**

Use of the SMTA; advice to the Governing Body of the ITPGFA, as requested

13. Please describe any additional activities relevant to the implementation of Priority area 2: Conservation and sustainable use.

PRIORITY AREA 3: POLICIES, INSTITUTIONS AND CAPACITY

1. Does your organization support countries in developing, reviewing and adjusting their national policies affecting the conservation and sustainable use of biodiversity for food and agriculture, and in particular of associated biodiversity and wild foods?

Yes ◉

No ○

If yes, please provide details and specify the countries involved:

Occasionally, following specific requests by individual countries

2. Does your organization contribute to the development of regulatory frameworks or legislation for biodiversity for food and agriculture, and in particular for associated biodiversity, wild foods and ecosystem services?

Yes ◉

No ○

If yes, please provide details and specify the countries or regions involved:

Advice to the Governing Body of the ITPGFA, as requested

3. Does your organization collaborate with other stakeholders involved in the management of biodiversity for food and agriculture (e.g. farmers, fisher folk, forest dwellers, the breeding industry, government agencies, research institutes and civil society organizations)?

Yes ◉

No ○

If yes, please provide details:

Farmers, the breeding industry, government agencies, research institutes and civil society organizations

4. Does your organization implement or support the implementation of programmes to increase public awareness on the roles and values of associated biodiversity and ecosystem services in and around food and agriculture production systems?

Yes ◉

No ○

If yes, please provide details:

As part of the CGIAR Platform on Genebanks and our own communication efforts related to CIMMYT

5. Does your organization implement or support the implementation of training or capacity-building programmes for the management of associated biodiversity and ecosystem services in and around food and agriculture production systems?

Yes ◉

No ○

If yes, please provide details and specify countries involved:

Mexico through CIMMYT programs. Turkey, Afghanistan, and Iran as per FAO agreements

6. Has your organization identified priorities for future capacity-building and education on associated biodiversity and ecosystem services in and around food and agriculture production systems?

Yes ○

No ◉

If yes, please provide details:

7. Please describe any additional activities relevant to the implementation of Priority area 3: Policies, institutions and capacity.

PRIORITY AREA 4: REGIONAL AND INTERNATIONAL COOPERATION

1. Has your organization contributed to the establishment or strengthening of regional and international research and/ or education programmes to assist countries to better manage biodiversity for food and agriculture?

Yes ◉

No ○

Please provide details:

CGIAR Platform on Genebanks

2. Has your organization contributed to the establishment or strengthening of regional and international programmes to assist countries to obtain training and technologies or develop information systems related to biodiversity for food and agriculture and related ecosystem services?

Yes ◉

No ○

Please provide details:

In the frame of a project, called Seeds of Discovery that supports the genotypic and phenotypic characterization of maize and wheat genetic resources

3. Please describe any additional activities relevant to the implementation of Priority area 4: Regional and international cooperation

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