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

Reports from international instruments and organizations

1. Contact information

<table>
<thead>
<tr>
<th>Name and position of respondent</th>
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<tr>
<td>Name of organization</td>
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<tr>
<td>Geographical coverage of your organization</td>
<td>The Americas (North, Central, South, and the Caribbean) = 34 countries</td>
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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/

**Sectorsal 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):

The diversity of native and introduced crop species, their local landraces and traditional varieties, wild relatives, edible wild species, pasture and forage species, forestry species, and locally adapted livestock breeds.

**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:

   IICA is presently conducting a baseline study of indigenous crops in Central America, their occurrence, distribution, inter- and infra-specific diversity and current conservation status (both in situ and ex situ).

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:

   Surveys of domesticated crop diversity, yes (see Question 1 above), but not of any wild food species as yet.

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:

Baseline data is largely missing on the occurrence, distribution, diversity and conservation status of many native crop species. Many NARS are technically weak and/or underfunded, particularly in the area of GRFA conservation and use. De facto restrictions and obstacles exist that limit or prohibit the access and benefit sharing of GRFA between countries, causing some countries to be highly possessive of their date and unwilling to share even accession information about materials held in their collections. Many of the subregional PGR networks are presently weak, stagnant or defunct. Many countries suffer from a dearth of trained GRFA specialists and a lack of basic know-how regarding GRFA management, conservation and use.

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

Raise awareness within NARS and among national decision-makers about the importance and latent development potential of existing native crop diversity. Obtain project funds to study, document, conserve and utilize native crop diversity, and strengthen NARS’ capacity by training local professionals in their value, management and use.

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:

IICA participated in the development of the "Strategic action plan to strengthen conservation and use of Mesoamerican plant genetic resources in adapting agriculture to climate change - SAPM 2014-2024". IICA promotes both ex situ and in situ conservation of plant genetic resources and encourages their use in diversifying production systems to boost their resilience and capacity to adapt to climate change, and enhance their contribution to food and nutritional security. Due to the lack of suitable ex situ conservation capacity and infrastructure in many countries, an emphasis has been placed on in situ and on-farm conservation and use of crop diversity. IICA, through its support to PROCINORTE and NORGEN, helped organize a tri-national workshop entitled "Conservation and Development of Indigenous Plant Genetic Resources: Sharing the Canadian, Mexican and American Experiences” in Quebec City, Canada, in May 2016. The workshop’s objectives were to increase understanding and awareness of the conservation status and importance of indigenous crop diversity for food security and adaptation to climate change.

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:

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

IICA does not maintain any collections of GRFAA.

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:

Lack of institutional awareness and technical capacity in many countries. A dearth of baseline data and general documentation on GRFAA in *ex situ* collections, as well as on their current occurrence and utilization on-farm (in situ).

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

Awareness raising, technical training and institutional capacity building.

Sustainable use

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

Yes  
No  

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

IICA's Medium Term Plan 2014-2018 specifically states that, as one of its eleven key contributions towards achieving the Institute's strategic objectives, IICA will focus its efforts on "Ensuring that producers and consumers benefit from greater use of native species, promising crops and native genetic resources with food potential." IICA participated in the development, inauguration and implementation of the "Strategic action plant to strengthen conservation and use of Mesoamerican plant genetic resources in adapting agriculture to climate change - SAPM 2014-2024". IICA promotes both *ex situ* and *in situ* conservation of plant genetic resources and encourages their use in diversifying production systems to boost their resilience and capacity to adapt to climate change, and enhance their contribution to the food and nutritional security of its 34 member states. Due to the lack of suitable *ex situ* conservation capacity and infrastructure in many countries, an emphasis has been placed on promoting *in situ* and on-farm conservation and use of crop diversity.
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:

IICA has provided training, offered workshops, and otherwise promoted the concept of Ecosystem-based Adaptation (EbA) throughout Latin America and the Caribbean, particularly as applied to agroecosystems and the conservation of agrobiodiversity contained therein. IICA recommends and promotes the inclusion of this ecosystem approach in national agricultural development plans and strategies as a means to enhance the resilience and sustainability of their production systems. IICA also promotes and supports a territorial approach to agricultural development, for example, through the framework of subregional development strategies, such as ECADERT in Central America.

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:

IICA conducts awareness raising activities about the importance of using biodiversity for increasing and ensuring the sustainability of farming systems, and promotes the on-farm conservation and use of local agrobiodiversity by family farmers to reduce their vulnerability to disasters and enhance their resilience and food security in the face of climate change.

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:

Within the context of our support to small scale family farmers, we promote the use of wild-collected leafy greens (e.g., "quelites", "yuyos", etc.) and other wild fruits and vegetables to enhance food security and nutrition. Through our support to PROCINORTE and its NORGEN Task Force, IICA helped organize a tri-national workshop entitled "Conservation and Development of Indigenous Plant Genetic Resources: Sharing the Canadian, Mexican and American Experiences" in Quebec City, Canada, in May 2016. The workshop's objectives were to increase awareness of the conservation status of indigenous plant genetic diversity and associated traditional knowledge, and their importance for achieving food security and for adapting farming systems to climate change.

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

Awareness raising, capacity building, information dissemination, adoption of (and compliance with) enabling policies.

**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:

IICA compiled and disseminated information on ex situ repositories as sources of native crop germplasm, and on institutions that could provide long-term ex situ storage services and where Central American countries could deposit duplicate samples of their germplasm collections as security back-ups in the event that their materials become lost at home.

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

Regrettably, there has been an extremely low level of implementation of the ITPGRFA in Latin America and the Caribbean, where most of the countries are Contracting Parties, yet continue to ignore their Treaty obligations and fail to take advantage of the benefits of its Multilateral system of germplasm access and benefit sharing. This unfortunate situation has been exacerbated by the adoption of the CBD's Nagoya Protocol, which has created more confusion and uncertainty amongst the countries, with the end result being a de facto freeze on legitimate germplasm exchanges which, in turn, inadvertently encourages illegal and undocumented international movement of germplasm and biopiracy.

**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:
IICA worked closely with Bioversity International and technical representatives from Mexico and all of the countries of Central America to produce the “Strategic Action Plan to Strengthen Conservation and Use of Mesoamerican Plant Genetic Resources in Adapting to Climate Change (SAPM) 2014-2024” which was financed by the Benefit-sharing Fund of the ITPGRFA, and includes a strong institutional and policy strengthening component. The Strategic Action Plan was endorsed by the ministers of the Central American Agricultural Council (CAC). IICA, through its support to the Northern regional cooperative agricultural research program, PROCINORTE, provided support to a tri-national (Canada, Mexico, and U.S.A.) workshop hosted by the North American Genetic Resources Network (NORGEN) on the management and use of ancestral plant genetic resources by indigenous groups, held in Quebec City on May 10-11, 2016.

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:

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:

Through its various projects and mechanisms of providing technical cooperation to its member states, IICA regularly collaborates with International Agricultural Research Centers of the CGIAR (CIMMYT, CIAT, CIP and Bioversity International), the sub-regional genetic resources networks (NORGEN, REMERFI, TROPIGEN and REGENSUR), NARS and farmers’ groups to help them access and mobilize appropriate genetic resources and make them available for farmers, breeders, and national public and private research and/or development agencies and 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:

IICA was instrumental in raising the awareness of the Central American ministers of agriculture about the importance of native plant genetic resources for adapting their food production systems to climate change, facilitating the PAEM’s endorsement by the CAC, and contributing to the high-level public launch of the PAEM strategy in Guatemala City. Through its various projects and mechanisms of technical cooperation, IICA conducts frequent workshops and webinars, publishes popular and technical articles, and offers presentations and interviews that educate and increase public awareness about the important role of agricultural biodiversity in the resilience and long-term sustainability of food production systems and associated natural ecosystems. The regional genetic resources networks facilitated by the various PROCI programs (NORGEN, REMERFI, TROPIGEN and REGENSUR) likewise conduct public awareness-raising activities on the roles and values of genetic resources conservation and use.
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:

Training workshops are frequently organized to promote the management and cultivation of specific crops, for example, locally selected varieties of maize, common beans, potato, tomato, sweet pepper, avocado and cassava in Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica and Panama. Diversity studies conducted and catalogs produced on local varieties of common bean landraces in Guatemala and Nicaragua. IICA conducted a workshop on Ecosystem-based Adaptation (EbA) focusing on agricultural ecosystems (agroecosystems) and the important role of agrobiodiversity (crop diversity, genetic resources) in enhancing the adaptation, resilience, and sustainability of those agroecosystems and the ecosystem services they provide.

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:

IICA's priorities for future workshops and capacity building activities to promote the use of agrobiodiversity will focus on (a.) gender awareness and the important role played by farm women in the conservation, dissemination and use of local agrobiodiversity; (b.) the effective use of crop genetic diversity for adapting farming systems to climate change such as crop diversification for enhancing the resilience of family farmers; and (c.) the adoption of territorial or landscape approaches for the integral management and sustainable use of agrobiodiversity and associated species.

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:
IICA hosts and staffs the Executive Secretariats of the sub-regional cooperative agricultural research programs PROCINORTE, PROCITROPICOS and PROCISUR, and promotes their genetic resources networks, NORGEN, TROPIGEN and REGENSUR, respectively. IICA has also provided support to several of the International Symposia on Genetic Resources for Latin America and the Caribbean (SIRGEALC). IICA worked closely with Bioversity International and technical representatives from Mexico and all of the countries of Central America to develop the “Strategic Action Plan to Strengthen Conservation and Use of Mesoamerican Plant Genetic Resources in Adapting to Climate Change (SAPM) 2014-2024” which is a roadmap for regional collaboration and cooperation on GRFA conservation and use. The Strategic Action Plan was endorsed by the ministers of the Central American Agricultural Council (CAC). IICA, through its support to the Northern regional cooperative agricultural research program, PROCINORTE, provided support to a tri-national (Canada, Mexico, and U.S.A.) workshop hosted by the North American Genetic Resources Network (NORGEN) on the management and use of ancestral plant genetic resources by indigenous groups, held in Quebec City on May 10-11, 2016. A Strategic Action Plan for the Southern Cone region is currently being developed to improve and enhance the conservation and use of genetic resources, under an agreement signed between FAO and IICA. Known as the LANIIT Project, the development of the action plan is being coordinated by FAO and IICA, the technical implementation will be carried out by national agricultural research institutes of Brazil, Paraguay and Uruguay, and the South-South collaboration will be facilitated through the TROPIGEN and REGENSUR genetic resources networks of PROCITROPICOS and PROCISUR, respectively. The LANIIT Project seeks to promote and strengthen the implementation of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) to improve food security in the context of climate change in Latin America.

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:

Training and support was provided to local scientists in the taxonomic identification and agromorphological characterization of germplasm accessions comprising the national Capsicum collections of Perú and Bolivia. Technical advice and support was provided to the nascent PGR program in Bolivia, promoting and facilitating their adoption of the GRIN-Global genebank database management system, and the preparation of a Catalogue of Bolivian Capsicum Germplasm.

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

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