National Genebank of Indonesia. Photo: Michael Major

Global Crop Conservation Strategies

What are the global crop conservation strategies?

In 2004, the Global Crop Diversity Trust (Crop Trust) was established to help secure and provide long-term funding for the *ex situ* conservation of plant genetic resources for food and agriculture (PGRFA). As one of its first major steps, the Crop Trust supported the development of crop-specific conservation strategies at the global scale.

Global crop conservation strategies (GCCS) are prepared by crop experts who compile, generate and analyze information on the conservation and use of the genetic resources of individual crops.

Each strategy reports on the composition of the *ex situ* collections and on gaps that need to be filled, on the adherence to international standards for *ex situ* conservation as a measure of safety of the collections, and on the documentation and availability of the material conserved to users.

The strategies identify priority collections and actions needed to strengthen the conservation of PGRFA and to ensure that conservation activities and priorities are well coordinated among stakeholders (including genebanks and their users) worldwide.

As of 2024, 44 GCCS have been published covering about 60 crops including 31 of the 35 food crops listed in Annex 1 of the International Treaty on Plant Genetic Resources for Food and Agriculture (Plant Treaty). The Crop Trust has facilitated 41 of these while other organizations have independently developed the other three. Strategies for the conservation of temperate and subtropical forages have also been published.

How do the global crop conservation strategies relate to the work of the Plant Treaty?

The contracting parties of the Plant Treaty can use the information in the GCCS to identify actions to strengthen the conservation of PGRFA.

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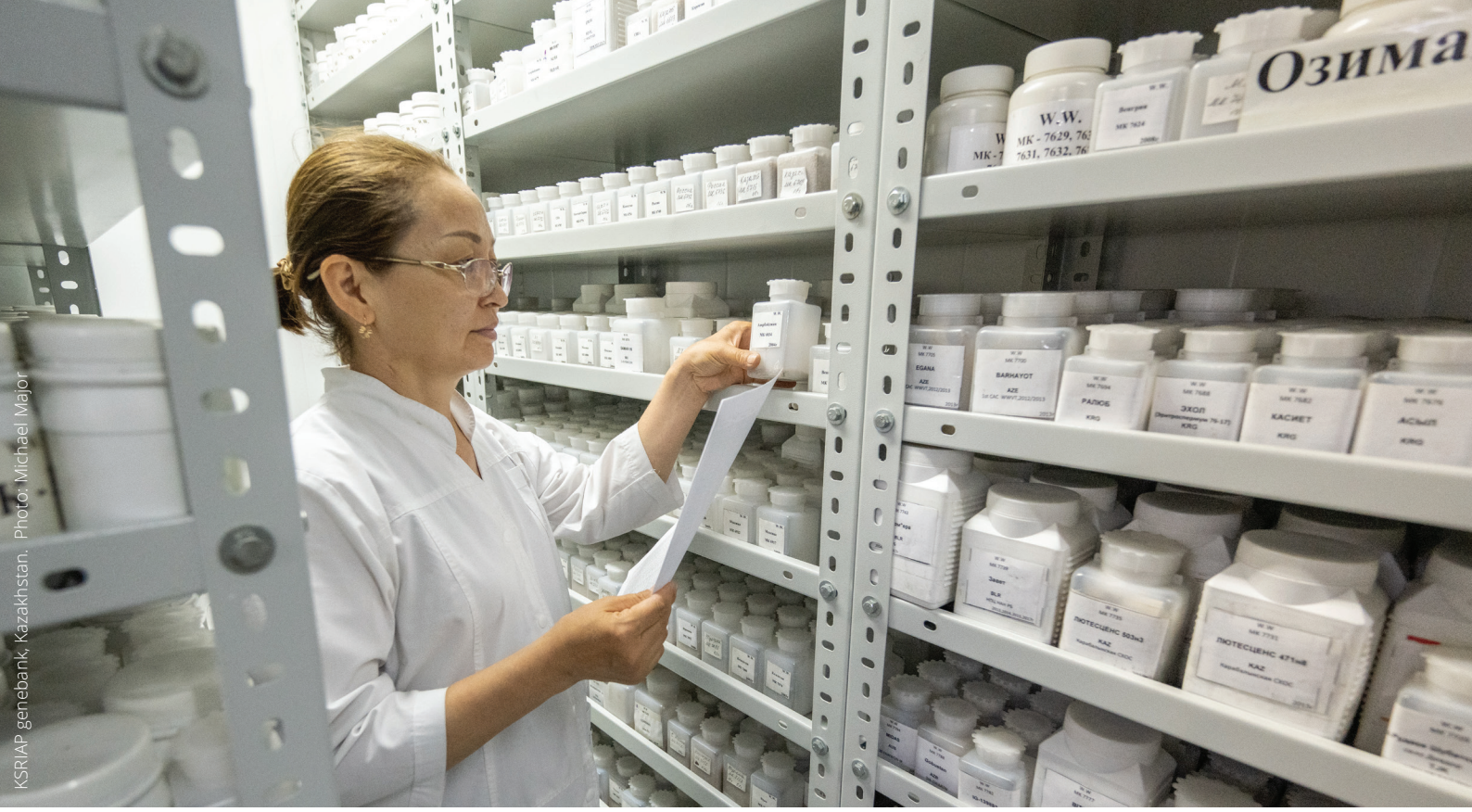

KSRIAP genebank, Kazakhstan. Photo: Michael Major

GCCS relate to the work of the Plant Treaty in multiple ways. The strategies:

- identify actions to strengthen the security of PGRFA conserved *ex situ*;
- identify needs for capacity building;
- identify actions needed to increase the number of accessions available in the Multilateral System (MLS);
- identify existing crop-based thematic groups and contribute to forming new groups;
- contribute to developing and strengthening formal and informal crop networks; and
- identify actions needed to improve the Global Information System on PGRFA.

The successful implementation of the recommendations of these strategies directly contributes to the Plant Treaty and its MLS by securely conserving a greater diversity of PGRFA materials and making it available to users.

Updates, Summaries and Videos for Plant Treaty Stakeholders

To disseminate information about GCCS in relevant Plant Treaty fora the Crop Trust has produced summaries of the GCCS tailored to Plant Treaty stakeholders and video interviews with some of the authors of the GCCS.

Currently, the Crop Trust is also developing short summary updates with key metrics of some of the older strategies. Scan the QR code on the right to view the resources.

GCCS and African Vegetable Biodiversity Rescue Plan

The World Vegetable Center contributed to the development of the Cucurbits, eggplants, *Vigna* and peppers conservation strategies. Maarten van Zonneveld, Head of Genetic Resources, World Vegetable Center, explains how these strategies relate to World Vegetable Center's African Vegetable Biodiversity Rescue Plan.

"The beauty of the GCCS is that they provide a clear roadmap of what to conserve where. Where are the collecting gaps, how many accessions are conserved, in which genebanks, which genebanks need more, capacity strengthening (needs), supporting better infrastructure. In the African Vegetable Biodiversity Rescue Plan we are going to use these GCCS, because cucurbits, *Vigna* and eggplants are very important crop genepools in terms of African vegetable biodiversity."

Published Global Crop Conservation Strategies

The list includes documents developed/or facilitated by several organizations. The strategies are listed in alphabetical order. Scan the QR code on the right to see this list online.

Crop	Year of publication	Strategy title
Apple	2019	A Global Strategy for the Conservation and Use of Apple Genetic Resources
Aroids	2010	Edible Aroid Conservation Strategies
Bananas	2006	Global Conservation Strategy for *Musa* (Banana and Plantain): A Consultative Document Prepared in Consultation with Partners in the *Musa* Research-and-Development Community
Bananas	2016	Global Strategy for the Conservation and Use of *Musa* (Banana) Genetic Resources
Barley	2008	Global Strategy for the *Ex situ* Conservation and Use of Barley Germplasm
Beans	2014	Conservation of *Phaseolus* Beans Genetic Resources: A Strategy
Brassica	2023	Global Strategy for the Conservation of *Brassica* Genetic Resources
Breadfruit	2007	Breadfruit Conservation Strategy
Cacao	2012	A Global Strategy for the Conservation and Use of Cacao Genetic Resources, as the Foundation for a Sustainable Cocoa Economy
Capsicum	2022	A Global Strategy for the Conservation and Use of *Capsicum* Genetic Resources
Cassava	2010	A Global Conservation Strategy for Cassava (*Manihot esculenta*) and Wild *Manihot* Species
Chickpea	2008	Global Strategy for the *Ex Situ* Conservation of Chickpea (*Cicer* L.)
Citrus	2023	A Global Strategy for the Conservation and Use of Citrus Genetic Resources (2023)
Coconut	2018	Global Conservation Strategy for the Conservation and Use of Coconut Genetic Resources
Coffee	2017	Global Conservation Strategy of Coffee Genetic Resources
Cowpea	2010	Global Strategy for the Conservation of Cowpea (*Vigna unguiculata* subsp. *unguiculata*)
Cucurbits	2021	A Global Conservation Strategy for Crops in the Cucurbitaceae Family
Eggplant	2022	Global Strategy for the Conservation and Use of Eggplants
Faba bean	2009	Global Strategy for the *Ex Situ* Conservation of Faba Bean (*Vicia faba* L.)
Finger millet	2012	Global Strategy for the *Ex Situ* Conservation of Finger Millet and its Wild Relatives
Forage (tropical and subtropical)	2015	A Global Strategy for the Conservation and Utilization of Tropical and Sub-Tropical Forage Genetic Resources
Forages (temperate)	2021	Global Strategy for the *Ex situ* Conservation of Temperate Forages
Grasspea	2007	Strategy for the *Ex Situ* Conservation of *Lathyrus* (Grass Pea), with Special Reference to *Lathyrus sativus*, *L. cicera*, *L. ochrus*
Lentil	2008	Global Strategy for the *Ex Situ* Conservation of Lentil (*Lens* Miller)
Maize	2007	Global Strategy for the *Ex Situ* Conservation and Utilisation of Maize Germplasm
Millets	2022	Global Strategy for the Conservation and Use of Genetic Resources of Selected Millets
Oat	2008	Global Strategy for the *Ex Situ* Conservation of Oats (*Avena* spp.)
Pea	2023	Global Strategy for the Conservation and Use of Pea Genetic Resources
Peanut	2022	Global Strategy for the Conservation and Use of Peanut Genetic Resources

Crop	Year of publication	Strategy title
Pearl millet	2012	Global Strategy for the *Ex Situ* Conservation of Pearl Millet and its Wild Relatives
Potato	2006	Global Strategy for the *Ex Situ* Conservation of Potato
Potato	2022	Global Strategy for the Conservation of Potato
Rice	2010	Global Strategy for the *Ex Situ* Conservation of Rice Genetic Resources
Sorghum	2007	Strategy for the Global *Ex Situ* Conservation of Sorghum Genetic Diversity
Sorghum	2022	Global Strategy for the Conservation and Use of Sorghum (*Sorghum bicolor* (L.) Moench) Genetic Resources
Sunflower	2023	Global Strategy for the Conservation and Use of Sunflower (*Helianthus annuus*) Genetic Resources
Sweetpotato	2007	Global Strategy for the *Ex Situ* Conservation of Sweetpotato Genetic Resources
Tea	2019	A Global Strategy for the Conservation and Use of Tea Genetic Resources
Vanilla	2021	Global Strategy for the Conservation and Use of Vanilla Genetic Resources
Vigna	2023	Global Strategy for the Conservation and Use of *Vigna*
Wheat	2007	Global Strategy for the *Ex situ* Conservation with Enhanced Access to Wheat, Rye, and Triticale Genetic Resources
Yams	2010	Towards a Global Strategy for the Conservation and Use of Yam
Yams	2021	Global Strategy for the Conservation and Use of Yam Genetic Resources

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Seed diversity, Zimbabwe. Photo: Michael Major