

Food and Agriculture Organization of the United Nations



International Treaty on Plant Genetic Resources for Food and Agriculture

Item 16 of the Provisional Agenda

TENTH SESSION OF THE GOVERNING BODY

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Report of the Global Crop Diversity Trust to the Governing Body

Note by the Secretary

Pursuant to Article 3 of the Relationship Agreement with the Global Crop Diversity Trust (Crop Trust), the Executive Board of the Crop Trust regularly submits reports on the activities of the Crop Trust to the Governing Body of the International Treaty. At its Ninth Session, by Resolution 12/2022, the Governing Body provided policy guidance to the Global Crop Diversity Trust regarding its work.

The report contained in this document provides an update on the institutional and programmatic developments of the Global Crop Diversity Trust that occurred since the Ninth Session of the Governing Body. Issues related to the cooperation with the Global Crop Diversity Trust are reported in a separate document before the Governing Body, which also contains draft elements for a Resolution as possible policy guidance to the Global Crop Diversity Trust for the next biennium.¹

Guidance Sought

The Governing Body is invited to take note of the Report of the Global Crop Diversity Trust, and to consider it in providing policy guidance to the Global Crop Diversity Trust for the biennium 2022–23.

¹ IT/GB-10/23/16.2

FAO-ITPGRFA documents can be consulted at: www.fao.org/plant-treaty/meetings/meetings-detail/en/c/1618930/

I. INTRODUCTION

The Global Crop Diversity Trust (Crop Trust) was established in 2004 under international law as an independent international organization and operates within the framework of the International Treaty on Plant Genetic Resources for Food and Agriculture (Treaty) in accordance with the overall policy guidance provided by its Governing Body. The Crop Trust's objective, as stated in its Constitution, is "to ensure the long-term conservation and availability of plant genetic resources for food and agriculture with a view to achieving global food security and sustainable agriculture." The Crop Trust's Executive Director, Stefan Schmitz, on behalf of the Executive Board, is pleased to submit this report to the 10th Session of the Governing Body of the Treaty.

The report covers programmatic, resource mobilization and communications activities carried out by the Crop Trust since the 9th Session of the Governing Body. A separate document prepared by the Treaty Secretariat covers more specifically collaborative activities between the two organizations, which in the past year has included, *inter alia*:

- Launching a Joint Funding Facility for international (especially Article 15) collections not in CGIAR
- Operating an Emergency Reserve for Germplasm Collections at Risk
- Hosting an online international expert panel discussions on sorghum and millets
- Continuing to align resource mobilization and communications efforts

II. TECHNICAL PROGRAMME

A. Ensuring the conservation and availability of PGRFA

At the core of the Crop Trust is an endowment fund, created to provide financial security to globally important collections of crop diversity in perpetuity. To date, the Executive Board has approved long-term funding from the Crop Trust Endowment Fund for the essential operations of nine of the CGIAR genebanks, of the Centre for Pacific Crops and Trees (CePaCT)², all of which are Article 15 collections, and of the World Vegetable Center. These international collections play a crucial role in the development and implementation of a rational, efficient and effective global system for *ex situ* conservation of PGRFA. The Endowment Fund also supports the running costs of the Svalbard Global Seed Vault (SGSV).

Regarding CGIAR genebanks, this long-term funding is supporting the conservation and availability of 20 international collections of 17 major crops. The support covers essential operations almost fully in the case of rice at the International Rice Research Institute (IRRI) in the Philippines, beans and forages at the Alliance of Biodiversity & CIAT in Colombia, and the seed collection at the International Institute for Tropical Agriculture (IITA) in Nigeria, and partially for the others. In 2022 and 2023, the Crop Trust also provided transition support to the ICRAF genebank to ensure continued maintenance and conservation of valuable tree species.

In addition to long-term funding from the endowment, the Crop Trust has also raised bilateral funding to support its long-term commitments. Total long-term funding from the endowment plus bilateral support amounts to over USD 70 million since 2006.

CATIE

During the biennium, the Crop Trust joined with the Treaty Secretariat to support the rejuvenation of the Article 15 coffee collection maintained by the Centro Agronómico Tropical de Investigación y Enseñanza (CATIE) in Costa Rica. Based on the recommendations of the global coffee conservation strategy, and a follow-up, detailed, accession-by-accession study funded by Felco SA, the collection is being moved to a new, better field site at CATIE, while making sure that all accessions are represented by adequate numbers of trees and are fully documented. This work started with the most at-risk accessions. During May 2022 to May 2023, 168 coffee accessions were identified as priorities, and 6 samples of each, totaling 1,008 plants, were

² The genebank of the Pacific Community (SPC).

grafted to a rootstock and transplanted to a new field site. Additional accessions are targeted to be moved in the coming year.

Svalbard Global Seed Vault (SGSV)

The Treaty cites the need "to take appropriate steps to minimize or, if possible, eliminate threats to PGRFA" (Article 5.2) and the Second Global Plan of Action has as an objective "to provide for the planned replication and safe storage of materials not currently safety duplicated". Safety duplication is recognized by the FAO Genebank Standards for PGRFA as an essential element of good genebank practice. The Crop Trust supports the duplication under black-box conditions of crop collections at the SGSV as an ultimate safety net. A 10-year agreement was signed in 2017 between the Crop Trust, the Government of Norway and NordGen for the management of the SGSV.

At present, the SGSV holds 1,255,323 samples from 99 genebanks, encompassing 1,161 genera and 6,118 species. In 2022, 30 genebanks deposited 69,656 seed samples, with four (Iraq, Uruguay, Spain, and Lithuania) contributing for the first time. In 2023, up to August, 39,787 accessions were sent to the SGSV by 28 institutes; 2,426 of these, originating from four countries (Mali, Benin, Albania, and North Macedonia), were deposited with funding from the BOLD Project. More details are available in the separate report on the SGSV from NordGen.

Projects supporting national genebanks

The Crop Trust also implements projects aimed at strengthening the ability of national genebanks to participate in the global system of *ex situ* conservation. The Crop Trust has received a total of USD 318 million in project funding since its establishment. Current projects are summarized in the next section. The work of the Crop Trust on information systems and on the development of global crop conservation strategies, both of which support the global system as a whole, are described in the subsequent sections.

BOLD Project

The Biodiversity for Opportunities, Livelihoods and Development (BOLD) Project³ was officially launched in June 2021. This 10-year initiative is funded by the Government of Norway (via Norad). BOLD is coordinated by the Crop Trust in close partnership with the Norwegian University of Life Sciences (NMBU), and also with NordGen and the Treaty Secretariat. The Project builds on the successes, partnerships and achievements of the CWR Project⁴. As with the CWR Project before it, BOLD receives advice from a panel of experts, which includes the Treaty Secretariat. The project is divided into the following work packages (WPs).

WP1: Capacity and Resource Development. This element of the project is endeavoring to strengthen the capacity of 15 national genebanks to manage, document, conserve and duplicate crop diversity and make it available to farmers and breeders. Initial external reviews of potential partner genebanks were completed in 2022, which resulted in plans for: (1) upgrading facilities and equipment; (2) training staff on genebank operations and policies; (3) implementing genebank data and quality management systems; and (4) identifying and making available useful diversity. Policy training will be provided by the Treaty Secretariat. An Emergency Reserve⁵, managed together with the Treaty Secretariat, has been established as part of this WP. It provides urgent support to genebanks facing imminent threats. The first face-to-face meeting of WP1 partners was held in May 2023 in Germany. As of 1 August 2023, two WP1 agreements were signed with the national genebanks of Azerbaijan and Ecuador and three new requests for emergency support have been received. The emergency funding requests will be reviewed in consultation with the Treaty Secretariat.

WP2: Making New Diversity Available. This component builds on the work done by pre-breeding and collecting partners in the CWR Project. WP2 facilitates the use of new diversity of these crops by breeders and farmers for climate change adaptation and food security in 20 partner countries. WP2 includes on-farm trials and other participatory activities to ensure a more effective flow of novel crop diversity to breeders and farmers. Seven project agreements were signed in 2022. Six of the projects are pre-breeding and

³ <u>bold.croptrust.org/</u>

⁴ <u>cwr.croptrust.org/</u>

⁵ www.croptrust.org/project/emergency-reserve/

participatory evaluation projects that focus on: (1) alfalfa, (2) barley and durum wheat, (3) finger millet, (4) grasspea, (5) potato and (6) rice. The seventh project is using state-of-the-art informatics to share and analyze all data generated in the pre-breeding and evaluation projects. Three CWR-derived varieties of durum wheat were officially released in 2022: JABAL and JAWAHIR in Morocco and RED GRAIN in Lebanon⁶. Finally, in 2022, variety certification was granted for CIP-MATILDE in Peru⁷, a late-blight resistant and farmer-preferred CWR-derived potato adapted to the high Andes.

WP3: Genebanks and Seed Systems. This WP comprises a research component led by NMBU to explore a diversity of complementary ways of enabling crop diversity to be readily accessible to farmers. Models for strengthening the connections between genebanks and national seed systems will be developed. Innovative pilot efforts by national genebanks in four partner countries will then be supported to actively contribute diversity to national and regional seed systems as examples for other national programs to adopt or adapt, as appropriate. Project launch workshops were held in Uganda, Ecuador, Bhutan and Tanzania with research partners and a wide range of stakeholders. NMBU and its partners co-developed the Genebank and Seed Systems toolkit, comprising a methodological framework and data collection tools. The toolkit was pretested in selected communities in Uganda and Ecuador and finalized according to the received inputs. It subsequently underwent an ethical review.

WP4: Safety Duplication at the Svalbard Global Seed Vault. Having launched a call for proposals in late 2021 in coordination with the Treaty Secretariat, eligible partners were selected after two rounds of reviews. In early 2022, negotiations commenced for 53 selected proposals, and agreements have been signed with 43 partners from 30 ODA countries as of August 2023. These signed agreements encompass 40,438 accessions earmarked for regeneration and 39,382 for safety duplication in Svalbard. As of 31 December 2022, a total of 15,504 accessions have been harvested through the collective efforts of over 30 partners. Furthermore, 2,426 accessions spanning 27 crops have already been duplicated in Svalbard by partners from 4 countries: Mali, Benin, Albania and North Macedonia.

WP5: Communications, Engagement and Outreach. The Communications Team has visited various BOLD partners to capture audiovisual materials, better understand their realities, and find stories to celebrate their conservation efforts. Project partners now collaborate on communications activities in a "community of practice" (see below). A total of 15 blog posts related to the project were published, including the announcement of the BOLD WP4 Regeneration Grant⁸, and the Emergency Reserve funding provided to Yemen⁹. The BOLD Voices video series¹⁰, which spotlights our partners, was launched. The BOLD Website¹¹, as well as the BOLD Project video¹² were finalized. Social media activities for BOLD reached a total of 14M accounts, with 120K likes. Finally, BOLD promotional materials have been created; these include brochures, t-shirts, among others, which we have started sharing with our various partners and other stakeholders.

Seeds for Resilience Project

In mid-2020, thanks to the Government of Germany, the Crop Trust was able to initiate a new five-year project: "National Seed Collections for Climate-Resilient Agriculture in Africa" (Seeds for Resilience). The project aims to: (1) build the capacity of key national *ex situ* collections of PGRFA in Africa; and (2) strengthen links between these genebanks and users. The partner genebanks are as follows:

⁶ www.croptrust.org/news-events/campaigns/jabal-durum-wheat-variety/

⁷ www.croptrust.org/news-events/campaigns/cip-matilde-potato-variety/

⁸ www.croptrust.org/news-events/news/announcing-support-to-back-up-crop-collections-in-the-svalbard-global-seed-vault/

⁹ www.croptrust.org/news-events/news/yemen-genebank-receives-emergency-funding/

¹⁰ www.youtube.com/watch?v=QmK3YlbjPiQ

¹¹ bold.croptrust.org/

¹² www.youtube.com/watch?v=5PksHvZIsOA

Country	Genebank [Acronym] (FAO WIEWS Institute Code)	Priority crops for genebank backlog clearance	Crops selected for participatory germplasm selection
Ethiopia	Ethiopian Biodiversity Institute [EBI] (ETH085)	Faba bean, barley, sorghum, enset, coffee	Barley, durum wheat, teff, black cumin
Ghana	Council for Scientific and Industrial Research - Plant Genetic Resources Research Institution [PGRRI] (GHA091)	Cowpea, maize, rice, <i>Solanum</i> spp, cassava	<i>Corchorus</i> , roselle, <i>Amaranthus</i> , Bambara groundnut
Kenya	Kenya Agricultural and Livestock Research Organization - Genetic Resources Research Institute [GeRRI] (KEN212)	Sorghum, finger millet, pearl millet, cowpea, pigeon pea, <i>Vigna radiata</i>	Sorghum and finger millet
Nigeria	National Centre for Genetic Resources and Biotechnology [NACGRAB] (NGA010)	Sorghum, okra, pearl millet, cowpea, yam	Sorghum and cowpea
Zambia	Zambia Agriculture Research Institute - National Plant Genetic Resources Centre [ZARI-NPGRC] (ZMB048)	Beans, cowpea, sweetpotato, cassava, sorghum	Sorghum, cowpea, sweetpotato, and Bambara groundnut

During 2019, following the model of the Crop Trust's work with the CGIAR genebanks, a systematic review process of operations was undertaken with each of the partner genebanks. These reviews gathered information about the upgrading priorities and needs of partners. Then, in 2020, the partner genebanks prepared their project workplans, with a focus on addressing existing operational backlogs, such as seed viability monitoring, regeneration, safety duplication. By 2021, all project agreements were signed and in place and partners initiated project activities, supported by more than 70 training webinars.

As the restrictions to meet and travel were relaxed, the project conducted the first face-to-face capacitybuilding event in 2022 in Ibadan, Nigeria, in collaboration with IITA's Genetic Resources Center and its first Genebank Operations and Advanced Learning (GOAL) workshop in May in Nairobi, Kenya. During 2023, the project delivered four more in-person workshops:

- (1) regeneration of open pollinated crops at ICRISAT's regional genebank in Niamey, Niger
- (2) regeneration of self-pollinated crops and seed longevity in collaboration with IITA and Aarhus University as part of the OneCGIAR Genebanks Initiative
- (3) GOAL workshop, including a visit to ICARDA in Morocco
- (4) genebank essential operations at IITA (Ibadan, Nigeria)

Some key achievements of all project partners to date include:

- (1) Prepared and conducted documentation audits of seven Standard Operating Procedures (SOP): distribution, conservation, regeneration, characterization, acquisition, safety duplication, and information management.
- (2) For the first time, the following genebanks shared passport data on Genesys: ZARI-NPGRC¹³ (4,612 accessions), NACGRAB¹⁴ (7,682), EBI¹⁵ (30,873) and CSIR-PGRRI¹⁶ (8,019). Collectively, Seeds for Resilience partners now share data on 102,613 accessions on Genesys.

¹³ www.genesys-pgr.org/wiews/ZMB048

¹⁴ www.genesys-pgr.org/wiews/NGA010

¹⁵ www.genesys-pgr.org/wiews/ETH085

¹⁶ www.genesys-pgr.org/wiews/GHA091

- (3) Established "user groups" in different regions of each country and conducted participatory germplasm evaluations to expose users to the diversity conserved by the genebanks.
- (4) Procured motor vehicles, high-quality aluminum foil bags and IT equipment to support essential genebank operations.

Sweetpotato, a model for food-security and long-term conservation of biodiversity project

This project, funded by the UK Government's Darwin Initiative, applies a robust methodology to conserve and use sweetpotato genetic diversity as a model for the long-term, secure conservation of clonal crops. The aim is to collect sweetpotato landraces in Madagascar and Zambia, conserve this diversity both in these countries and *in vitro* and in cryo at CIP, clean the material of pathogens, and return pathogen-free planting material of diverse landraces back to farmers. The 3-year, USD 1.34 million project started in June 2022 and will run through March 2025.

Raising genebank standards through a tailored quality management system (QMS)

The objective of the Crop Trust's work on Quality Management System (QMS) is to develop the capacity of genebank staff to implement continuous improvements in administrative, technical and operational performance within their genebank in accordance with established standards. The Crop Trust and partners organized four types of QMS capacity-building events in 2022–2023:

- (1) GOAL (Genebank Operations and Advanced Learning) workshops: annual in-person events aimed at building the capacities of national and regional genebanks to manage PGRFA in a global context in alignment with international standards. During 2022–2023, the Seeds for Resilience project organized a GOAL workshop in Nairobi, Kenya. Sixty participants from 10 institutions attended the workshop. The BOLD project organized a GOAL workshop in Siegburg, Germany where 61 participants attended from 17 institutions.
- (2) QMS intensives: as part of the activities in quality management, project managers and QMS specialists work closely with genebanks to evaluate their procedures against established international standards and the eight essential elements of quality management. The purpose of "QMS intensives" is to assist staff in further developing SOPs for key genebank procedures, validate protocols and improve the overall workflow and efficiency. Five in-person QMS intensives were conducted during 2022-2023 at GeRRI in Kenya, ZARI-NPGRC in Zambia, CSIR-PGRRI in Ghana, NACGRAB in Nigeria and EBI, Ethiopia.
- (3) QMS Community of Practice (QMS-CoP): these monthly online sessions tackle the technical side of conservation and allow staff to attend an informal forum where topics are addressed and discussed openly. Topics discussed in 2022–2023 during the QMS-CoP include the FAO Genebank Standards, QMS fundamentals, acquisition and safety duplication procedures, genebank operational mapping, implementation of Easy-SMTA, regeneration strategies, occupational health and safety (OH&S) and staff management.
- (4) Genebank Resources on the Web (GROW) webinars¹⁷: online presentations tackling new, speculative and provocative issues related to the genebank's role in the conservation and distribution of plant diversity. On average, 90 people attend the presentations on event day, and an average of 120 people view the YouTube recording.

In addition to these capacity-building events, a QMS audit program is carried out to assist genebanks in adhering to FAO Genebank Standards and Practical Guides. Assessments include the audit plan, review of working documents, execution of the audit, report and completion of improvement actions. Documentation audits are executed remotely on SOPs and provide the first step toward adherence to standards and relevant treaties. Three audits were performed for the Seeds for Resilience project during 2022-2023 on safety duplication, acquisition and information management SOPs.

¹⁷ www.croptrust.org/pgrfa-hub/genebank-resources-on-the-web-grow-webinars/

B. Strengthening information systems for genebanks

The Crop Trust continues to strengthen its support for the implementation of two information systems: GRIN-Global Community Edition¹⁸ (GGCE) and Genesys¹⁹. Close collaboration with the Treaty's Global Information System (GLIS) continues to focus on building synergies and complementarities. As per the policy guidance provided by the Governing Body, the Crop Trust has been participating in the Scientific Advisory Committee of GLIS. The Committee noted with appreciation in its fifth meeting report²⁰ the ongoing collaboration with Genesys and advised the Secretary to collaborate with the Crop Trust on the promotion of GRIN-Global Community Edition.

The Crop Trust continues to convene the monthly teleconferences of the Community of Practice on Data Management in Genebanks. The meetings are in English, Spanish and French language. In 2023, the community consists of 119 staff from international and national genebanks. We also resumed the organization of in-person regional workshops on data management for genebanks in 2023. Representatives from 7 Latin American genebanks (Argentina, Colombia, Brazil, Chile, Ecuador, Paraguay and Uruguay) attended the workshop in Uruguay.

GRIN-Global Community Edition

The Crop Trust collaborated with the US Department of Agriculture (USDA) and Bioversity International to develop and deploy an advanced genebank data management software package, GRIN-Global, which was initially released in 2011. In 2019, work started under the CGIAR Genebank Platform on the next generation of the system, GRIN-Global Community Edition (GGCE). The Crop Trust has strengthened the team that supports genebanks in data management and publishing, which since late 2021 also includes the development and maintenance of GGCE in collaboration with international and national genebanks. GGCE is focused on the use of barcoding and other information technologies to simplify data acquisition and retrieval, and improve data quality in routine operations, including reporting on distributions with SMTA, assignment of DOIs, and interactions with Genesys. The BOLD Project will provide support to 15 national genebanks in information technologies and automation of genebank operations, backed by GGCE. The same approach is also taken in the Seeds for Resilience project, where the five partner national genebanks are receiving similar support to upgrade their information infrastructure and data management.

Genesys

The Crop Trust continued to support the development of Genesys as a fundamental component of an effective global conservation system. Genesys has been managed by the Crop Trust since 2013, with the Treaty Secretariat participating in the advisory committee since the beginning. Genesys now allows searching data across over 4 million active accessions held in 509 collections. The largest providers of data to Genesys are the CGIAR genebanks, USDA NPGS (USA), Embrapa (Brazil), and ECPGR. Genesys continues to automatically inform the DOI Registration Service of GLIS about any changes to passport data for registered material. This helps keep the DOI database updated without genebanks having to send separate updates to the two systems.

The Crop Trust works continuously with existing data providers to help them share up-to-date information about their collections and actively promotes and encourages data publication (automated when feasible) from genebanks. Since September 2022, new agreements to publish data in Genesys have been established with the following institutes: Genetic Resources Institute (Azerbaijan), Banco Central de Germoplasma de Cuba (Cuba), National Gene Bank (Egypt), Lebanese Agricultural Research Institute (Lebanon), Lao National Genebank (Laos), Moroccan Genebank INRA Settat (Morocco), Pakistan Agricultural Research Council (Pakistan), National Plant Genetic Resources Centre (Tanzania), Uganda National Genebank (Uganda), Plant Resources Center (Vietnam), National Genetic Resources Center (Yemen).

¹⁸ ggce.genesys-pgr.org

¹⁹ www.genesys-pgr.org

²⁰ www.fao.org/3/cc6139en/cc6139en.pdf

In this reporting period we extended Genesys with tools for genebanks to upload, document, validate, and publish trait data and make such data searchable²¹, a new Subsetting Tool²² developed by the Alliance Bioversity-CIAT, and improved Embedded Genesys²³.

C. Developing and mainstreaming global crop conservation strategies

In the first years of its existence, between 2004-2010, the Crop Trust brought together groups of experts to develop a series of Global Crop Conservation Strategies (GCCS) to help identify, prioritize and plan actions to ensure the long-term conservation and availability of PGRFA of different crops.

The "Breathing new life into the Global Crop Conservation Strategies" project, funded by the Federal Ministry of Food and Agriculture of Germany (BMEL), started in July 2019 and was completed in June 2023. It delivered 5 updated GCCS (yams, millets, potato, sorghum, and *Vigna* crops) and 10 new strategies²⁴ (cucurbits, temperate forages, vanilla, *Capsicum* crops, eggplants, peanut, brassicas, *Citrus* crops, pea and sunflower). In addition, options for the sustainable development and updating of the strategies, for their implementation, and for facilitating the use of the strategies in Treaty decision-making were discussed at two expert meetings and published in an opinion paper²⁵.

The discussions held during the expert meetings informed the development of a new 3-year project on "Mainstreaming the Global Crop Conservation Strategies in Plant Treaty Processes" led by the Crop Trust in close collaboration with the Secretariat of the Treaty. This project started in December 2022 and is also funded by BMEL. By mainstreaming GCCS in Treaty processes, this project will strengthen both the work of the Treaty and the implementation of the GCCS. The data, results, and recommendations of the GCCS are relevant to many of the existing work areas of the Treaty. As they are produced by subject matter experts acting in their personal capacities, they can provide a valuable additional channel for strengthening the evidence-base for the Treaty's work. Furthermore, mainstreaming the GCCS in the processes of the Treaty could facilitate implementation of the strategies.

Project activities conducted in 2023 included: (1) a baseline survey on the awareness of the strategies among the delegates in the intersessional bodies of the Treaty, (2) a literature review and interviews with key stakeholders to identify entry points for the GCCS with regard to the Treaty's main areas of work, (3) a metaanalysis of published GCCS, (4) preparation of summaries of the GCCS tailored to Treaty stakeholders, and (5) consultations with representatives of the CGRFA, ITPGRFA, BGCI and CGIAR on possible options for the governance, development and implementation of the GCCS. The outcome of these activities are being summarized in a white paper with key recommendations for enhancing the use of the GCCS as sources of evidence for the further development and implementation of the Plant Treaty. The white paper will be submitted to the Secretariat of the Treaty as one of the information documents to be considered by the delegates attending the tenth session of its Governing Body.

RESOURCE MOBILIZATION

The Crop Trust's fundraising priority continues to be the development of the Endowment Fund, to provide predictable and reliable in-perpetuity support to key, globally important genebanks, following the Fund Disbursement Strategy. Based on genebank costing studies, the objective is to provide USD 34 million a year to fund national and international genebanks, as well as the running costs of the SGSV and the Crop Trust Secretariat.

Availability of USD 34 million annually requires capital of USD 850 million, since the long-term objective of the Crop Trust's Endowment Fund is to earn an average annual investment return of 4% plus the rate of USD inflation, so as to preserve the real financial value of the endowment over time while meeting spending commitments. This requires absorbing a commensurate amount of investment risk, with considerable short-term fluctuations of return to be expected. The endowment portfolio is highly diversified and structured for the long-term, and short-term market dislocations do not trigger structural changes to the asset allocation of the portfolio. The Crop Trust, as a responsible asset owner, considers environmental, social and governance

²¹ www.genesys-pgr.org/content/news/158/unleashing-traits-through-dynamic-visualization

²² www.genesys-pgr.org/content/news/156/genesys-rolls-out-the-subsetting-tool

²³ www.genesys-pgr.org/content/news/131/embedded-genesys

²⁴ www.croptrust.org/science-blog/breathing-new-life-into-the-global-crop-conservation-strategies/

²⁵ doi.org/10.5281/zenodo.7610356

(ESG) integration into its investment process to be an important component of its investment strategy, supporting its broader mission and objectives.

From its establishment in 2004 to 31 December 2022, the Crop Trust has received USD 253 million in donor contributions paid into the Endowment Fund. The Crop Trust also received a EUR 50 million concessional loan from KfW (German Development Bank) in October 2017 and an additional EUR 4.4 million towards the interest on the loan. The loan and the contribution towards the interest on the loan are invested in a separate EUR fund. In addition, the Crop Trust has received a total of USD 310 million in project funding and USD 21 million for operating expenses since it was established.

The Crop Trust's fundraising efforts are overseen by both the Executive Board and the Donors' Council. The Donors' Council is composed of governments and private sector donors who contribute at least USD 25,000 or USD 250,000, respectively. The Donors' Council meets biannually and provides financial oversight and advice to the Executive Board.

To help ensure that the Endowment Fund reaches its goal in a timely fashion, the Crop Trust developed and is working on implementing a more diversified fundraising strategy. The newly developed Financing Strategy was presented and approved by the Executive Board in October 2022. In line with the Financing Strategy and the feasibility study conducted by CCS Fundraising in 2021, a recent significant milestone has been the development of initial recommendations by CCS Fundraising for a fundraising campaign. The campaign focuses on the continued key importance of traditional Crop Trust public sector donors (i.e., governments) and highlights the complementary role of the private sector, which includes foundations, corporations and individuals. In addition, resource mobilization through innovative financing instruments will be implemented. Clear and effective communication of the Crop Trust's mission, goals and impact are of paramount importance for a successful campaign, including alignment with broader policy discussions on crisis and climate resilience, biodiversity conservation, food security and rural livelihoods.

The Crop Trust will continue to emphasize stewardship of existing contributors and explore opportunities with potential new donors as well. In addition to endowment fund giving, the Crop Trust will continue to pursue time-bound funding from specific donors for specific projects, for example for the upgrading of individual genebanks, prioritizing collections and crops that are included in Article 15 and Annex 1 of the Treaty. As the endowment fund builds, it is crucial to limit avoidable withdrawals, and the Crop Trust will therefore continue to seek support for the operating expenses of genebanks, the Crop Trust Secretariat and the SGSV.

As previously reported, the Crop Trust is pursuing crop-based fundraising to foster greater engagement, including monetary contributions, from private sector actors, with a focus on companies in the food and agricultural sector. The Crop Trust and the Treaty Secretariat are discussing how to most effectively structure and coordinate approaches to the private sector, bearing in mind the Treaty's Strategy for the Food Processing Industry and the Crop Trust's own Financing Strategy. A project in cooperation with the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and funded by the German Ministry for Economic Cooperation and Development (BMZ) has focused on two avenues. The first is the development of mechanisms to enable companies to engage on specific crop value chains in return for Corporate Social Responsibility (CSR) and Sustainability attention. The second is to help develop consortiums with private sector players to jointly participate in relevant Public-Private-Partnership calls for proposals.

Following past Governing Body resolutions, the Crop Trust continues to collaborate with the Treaty Secretariat in resource mobilization, for example by taking part in the *Ad Hoc* Committee on the Funding Strategy and Resource Mobilization and through regular consultations and exchanges of ideas at the highest level.

COMMUNICATIONS & OUTREACH

Throughout 2022 and 2023, the Crop Trust continued to engage with audiences online and at events, through social media and traditional media, to foster conversation around crop diversity. 2022 saw the launch of the Crop Trust's new website²⁶, the first major product to use the organization's refreshed branding, with a revised logo²⁷ and sharper, more engaging design and typography. The website showcases the Crop Trust's

²⁶ www.croptrust.org/

²⁷ www.croptrust.org/resources/logo-branding

Endowment Fund and projects and features a crop diversity news hub called The Crop Diversity Digest²⁸. Rather than presenting only Crop Trust content, it features stories about partners and world news that impacts the conservation and the use of crop diversity. The Digest provides a platform for outreach campaigns, a showcase for videos and podcasts, a home for the events calendar, and a resource for media outlets. A monthly newsletter called The Dish²⁹ was launched in 2022 to highlight Crop Trust news and events.

To unify the brand and avoid duplication of content³⁰, the websites of the Crop Wild Relatives project³¹ and the BOLD project³² were also re-launched as subsites of the Crop Trust website. Roll-up banners about the Crop Trust, crop diversity, and the Seeds for Resilience and BOLD projects were created to be used at events. Factsheets about crop diversity, genebanks and the Endowment Fund were made and distributed to stakeholders.

In addition, a new institutional video was launched in English³³ and German³⁴ (with the option to turn on subtitles in several other languages) as well as an exciting video³⁵ about the BOLD project.

As per the policy guidance in past Governing Body resolutions, collaboration with the Treaty continued and strengthened in 2022-2023, for example through coordinated outreach efforts and events such as:

- The Global Landscapes Forum Food Forever: Climate-proofing Our Food for Future Generations³⁶
- Extensive campaign around the crop conservation strategies with a blog, video and social media content published bi-monthly to promote the strategies³⁷
- Reporting on the allocation of money from the Emergency Reserve to the Yemen genebank^{38 39}
- Reporting on crisis support to CATIE's coffee collection⁴⁰
- A podcast: An intro to the growing debate⁴¹
- Press releases and opinion pieces around each Svalbard deposit⁴², which also included a virtual tour⁴³ allowing anyone to (virtually) step foot inside the mysterious vault
- A lightning talk by Crop Trust Executive Director Stefan Schmitz at the February 2022 deposit⁴⁴
- Joint side event "Safeguarding Crop Diversity in an Unpredictable World" at GB9⁴⁵
- Virtual panel on "Unlocking the Power of Diversity: The Role of Sorghum and Millets Genetic Resources in Sustainable Agriculture"⁴⁶
- Jointly planning to host the Global Crop Diversity Summit that will take place in November 2023 in Berlin⁴⁷

In support of two major projects, Seeds for Resilience and BOLD (see above), the Crop Trust continued to develop the Community of Practice on Genebank Communications to support staff in partner genebanks to communicate effectively with stakeholders. Activities included capacity development in photography, video, Q&A best practices, and social media, as well as strategy development, the enhancement of the online presence of genebanks and the development and dissemination of communications materials. The Crop Trust also procured basic communications equipment for partner genebanks. At the first in-person BOLD

⁴⁰ www.croptrust.org/resources/catie-will-now-have-a-new-space-to-conserve-its-international-coffee-collection/

²⁸ www.croptrust.org/news-events/

²⁹ www.croptrust.org/news-events/subscribe/sign-up-for-the-dish/

³⁰ www.youtube.com/watch?v=AKmT9RKOSKE

³¹ <u>cwr.croptrust.org/</u>

³² bold.croptrust.org/

³³ www.youtube.com/watch?v=a6VeHf3d29w

³⁴ www.youtube.com/watch?v=58kFMRaOHGY

³⁵ www.youtube.com/watch?v=5PksHvZIsOA

³⁶ conference.globallandscapesforum.org/climate-2022/session/5faf6931-5349-ed11-819a-000d3a45c4a7

³⁷ www.croptrust.org/news-events/campaigns/crop-conservation-strategies/

³⁸ www.croptrust.org/news-events/news/yemen-genebank-receives-emergency-funding/

³⁹ www.croptrust.org/news-events/opinions/a-small-cost-with-a-big-benefit-supporting-genebanks-in-need/

⁴¹ www.corteva.com/resources/feature-stories/growing-debate.html

⁴² www.croptrust.org/blog/take-a-look-inside-the-latest-svalbard-global-seed-vault-deposit/

⁴³ www.croptrust.org/resources/15-years-of-the-svalbard-global-seed-vault-1/

⁴⁴ www.youtube.com/watch?v=9dQM7JiESUE&t=1s

⁴⁵ www.croptrust.org/news-events/events/gb-9-side-event-safeguarding-crop-diversity-in-an-unpredictable-world/

⁴⁶ www.croptrust.org/news-events/events/unlocking-the-power-of-diversity-the-role-of-sorghum-and-millets-genetic-resources-insustainable-agriculture/

⁴⁷ www.croptrust.org/news-events/events/global-crop-diversity-summit-2023/

workshop in May 2023, 14 (out of 15) partners met to chart the way forward. Several staff of the communications team led a social media and a video storytelling training. In addition to BOLD and Seeds for Resilience, communications efforts included content around the Sweetpotato project⁴⁸, setting the scene for more communication around cryopreservation.

The Crop Trust also participated in or hosted events at the CBD COP 15 in Montreal⁴⁹, the UNFCCC COP27 in Sharm El-Sheikh⁵⁰, and the World Food Prize Borlaug Dialog in Des Moines⁵¹. In September 2022, the Crop Trust hosted a Crop Diversity Event in Bonn on "Food Security and Crop Diversity: Actionable Solutions for a Healthy World." This was a gathering of German and Bonn-based stakeholders to celebrate crop diversity.⁵² In addition, the Crop Trust organized and hosted GROW⁵³ webinars, a series of webinars to provide discussions on important genebank-related issues.

Media coverage included exposure in major outlets and global wires, including: Bloomberg⁵⁴ ⁵⁵, Food Ingredients First⁵⁶, New Scientist⁵⁷ ⁵⁸, UN News⁵⁹ ⁶⁰, The Guardian⁶¹ ⁶² ⁶³ ⁶⁴, Euronews⁶⁵, Reuters⁶⁶ ⁶⁷ ⁶⁸, New York Times⁶⁹, as well as appearances on various podcasts⁷⁰ ⁷¹ ⁷².

With new, more targeted management, social media channels experienced significant growth in terms of followers for the period July 2022-June 2023: Twitter +35%, Facebook +236%, LinkedIn +114%, Instagram +62%. Content is published daily, across all channels with a special focus on positioning the Crop Trust and its partners as experts in crop diversity conservation and genebanks but also sharing 'lighter' content and beautiful images. Some of the most engaging campaigns included the release of Jabal wheat⁷³ and, as usual, Svalbard deposits.

These and additional activities were reported in detail to donors and other stakeholders in the 2021⁷⁴ and 2022⁷⁵ Annual Reports, which were developed as websites and summarized in PDF format.

In November 2023, the Treaty and the Crop Trust will collaborate as hosts of the first-ever Global Crop Diversity Summit⁷⁶, to be held in Berlin, Germany. The outreach and engagement around the Summit will begin in September and culminate at the end of November with the sharing of a joint communique with GB10. It will focus on the reliance of agrifood systems on crop diversity and outline recommendations to policymakers on how to strengthen genebanks as sources of crop diversity for researchers, plant breeders and

⁵² www.croptrust.org/news-events/events/crop-diversity-day-2022/

- ⁵⁴ www.bloomberg.com/graphics/2022-global-diet-homogeneous-food-security-risk/
- 55 about.bgov.com/news/ukraines-at-risk-farmers-to-get-seed-capital-from-crops-in-us/
- ⁵⁶ www.foodingredientsfirst.com/news/biodiversity-protection-window-of-opportunity-is-closing-warn-scientists-at-cop15.html
- ⁵⁷ www.newscientist.com/article/2321492-global-food-crisis-is-leaving-millions-hungry-but-there-are-solutions/
- ⁵⁸ www.newscientist.com/article/2321008-priceless-samples-from-ukraines-seed-bank-destroyed-in-bomb-attack/

⁶⁷ www.croptrust.org/news-events/in-the-media/ukraines-giant-seed-bank-at-risk-of-being-lost-as-war-rages/

⁴⁸ www.croptrust.org/work/projects/darwin-initiative-funded-sweetpotato-project/

⁴⁹ www.croptrust.org/news-events/events/cbd-cop-15/

⁵⁰ www.croptrust.org/news-events/events/united-nations-climate-change-conference-cop27/

⁵¹ www.youtube.com/watch?v=q8L9kAXY0rU&list=PLJmPUHZcH-uYmN-nmCsJ5x00yX7ujzqJh&index=12&t=1889s

⁵³ www.croptrust.org/pgrfa-hub/genebank-resources-on-the-web-grow-webinars/

⁵⁹ news.un.org/en/story/2022/12/1131422

⁶⁰ www.croptrust.org/news-events/in-the-media/adapt-or-starve-cop27-spotlights-agriculture-challenges-and-solutions-in-the-face-ofclimate-change/

⁶¹ www.theguardian.com/environment/2022/dec/04/drough-resistant-crop-jabal-durum-wheat-food-diversity

⁶² www.theguardian.com/environment/2022/jun/12/wheat-breeding-climate-crisis-drought-resistant

⁶³ www.theguardian.com/environment/2022/apr/15/seed-banks-the-last-line-of-defense-against-a-threatening-global-food-crisis

⁶⁴ www.theguardian.com/food/ng-interactive/2022/apr/14/climate-crisis-food-systems-not-ready-biodiversity

⁶⁵ www.euronews.com/green/2022/10/13/is-an-arctic-doomsday-vault-the-answer-to-climate-and-war-induced-food-insecurity

⁶⁶ www.reuters.com/business/environment/iraq-uruguay-deposit-crop-seeds-arctic-doomsday-vault-2022-10-12/

⁶⁸ news.trust.org/item/20220328114910-rn628/

⁶⁹ www.nytimes.com/2022/09/27/science/apple-orchards-genetics.html

⁷⁰ www.csis.org/podcasts/reset-table/restoring-crop-biodiversity-through-svalbard-global-seed-vault-stefan-schmitz

⁷¹ www.spreaker.com/user/filterstories/plant-genetics

⁷² theworld.org/media/2022-06-03/ukraine-seed-bank-under-threat-russian-invasion

⁷³ www.croptrust.org/news-events/campaigns/jabal-durum-wheat-variety/

⁷⁴ report.croptrust.org/2021/

⁷⁵ report.croptrust.org/2022/

⁷⁶ www.croptrust.org/news-events/events/global-crop-diversity-summit-2023/ but the final page will be under this, currently inactive, url: www.croptrust.org/gcds/

farmers. It will also serve as an invitation to stakeholders to strengthen collaboration among genebanks. Finally, it will announce the launch of an annual Crop Diversity Day, to be organized by the Crop Trust.