



Biodiversity for Opportunities, Livelihoods and Development – The BOLD Project

BOLD, a 10-year project with a budget of USD 80 million, is funded by the Government of Norway. It aims to tackle the effects of climate change on food and nutrition security by promoting the conservation and use of crop diversity.

The project, led by the Crop Trust, extends the efforts of the Crop Wild Relatives (CWR) Project (2011–2021). This focused on safeguarding and leveraging the wild relatives of crops to enhance the resilience of the global food supply.

The Challenge

The world's population will soon reach 8 billion people. According to the UN, 828 million people are affected by hunger, and that number continues to rise.

Our agricultural systems need to produce more food. But that is getting more challenging. Global temperatures are soaring, droughts are becoming more frequent and severe, and pests and diseases are emerging in areas where they were not found before.

These and other challenges are combining to destabilize agricultural yields and change where and how our current crops can be grown successfully.

A BOLD Solution

More resilient crops, robust production systems, and diets that are better for both people and the planet all start with crop diversity.

We urgently need new crop varieties that are tolerant to drought or floods, that flower and set seed earlier to avoid summer droughts, that are resistant to the new pests and diseases that climate change is bringing, and that are more nutritious.



What is BOLD?

BOLD focuses on strengthening food and nutrition security worldwide by supporting the conservation and use of crop diversity.

Genebanks are central to the conservation of crop diversity, but conservation alone is not sufficient. We must make sure that those who can use that diversity – be they farmers, plant breeders or seed producers – know where the diversity they need is available, can access it, and have the skills and knowledge to put it to use.

The BOLD Project helps to strengthen the connection between genebanks and others involved in seed and food systems, to make sure that everyone has access to crop diversity. And that includes the diversity of neglected and underutilized crops.

BOLD takes a multi-pronged and bottom-up approach to address the key challenges facing the conservation and use of crop diversity around the world.

Capacity and Resource Development

BOLD is working with 15 national genebanks in Africa, Asia and Latin America to strengthen their capacity to manage, document, conserve and back up the crop diversity that they hold. The project is also helping the genebanks make their collections more easily available to farmers, plant breeders and others who can put them to use in productive, resilient agricultural systems that enhance food and nutrition security.

Making New Diversity Available

Building on the foundations laid by the pre-breeding and evaluation work done under the [CWR Project](#), BOLD is continuing efforts to broaden the genetic base of seven key food and forage crops: alfalfa, barley, durum wheat, finger millet, grasspea, potato and rice.



BOLD pre-breeding and evaluation crops:
alfalfa, barley, durum wheat, finger millet, grasspea, potato and rice.

finger millet, grasspea, potato and rice. These activities involve farmers and other stakeholders in breeding, and testing the resulting products in the field, thus ensuring that these efforts meet the needs of farmers and the demands of consumers.



Dayak farmer in Borneo holding seed in a community seedbank.
Photo: Michael Major for Crop Trust



National Centre for Genetic Resources and Biotechnology in Nigeria. Photo: Neil Palmer for Crop Trust.

Emergency Reserve for Genebanks

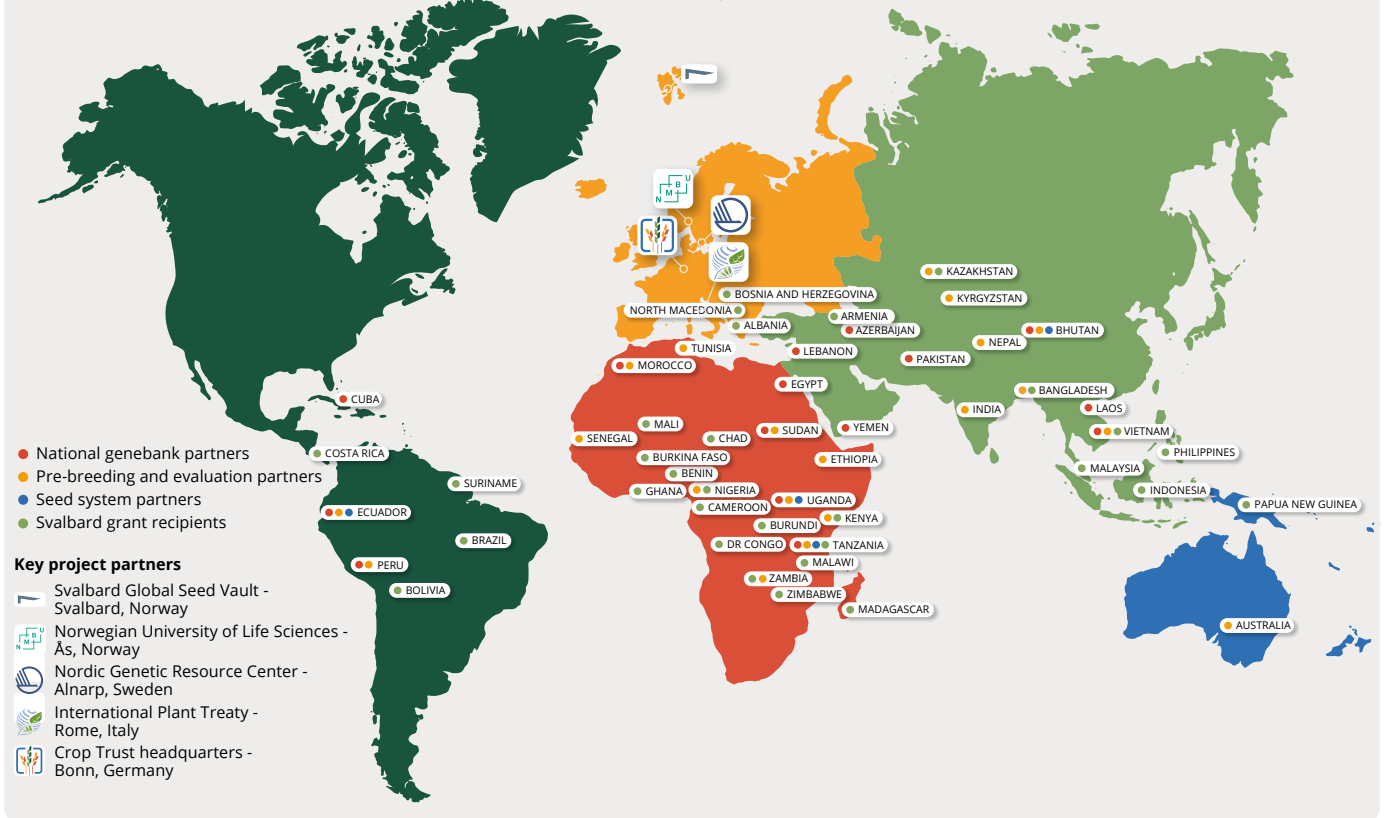
Genebanks and the collections they hold are not indestructible. Natural disasters, political crises, conflict, pest and disease outbreaks, and equipment failure can place them in jeopardy, and trigger catastrophic loss of the invaluable resources they conserve. But until recently there was no ready source of funds to help genebanks quickly in their time of need.

The Emergency Reserve for Genebanks fills this gap. Established jointly by the Secretariat of the International Treaty on Plant Genetic Resources for Food and Agriculture and the Crop Trust, the Reserve provides a funding mechanism that can respond rapidly whenever there is an imminent threat to collections of crop diversity that are managed under the framework of the Plant Treaty.

Any genebank that is in imminent danger can apply for support from the Reserve at <https://bit.ly/emergencyreserve>.

BOLD Around the World

As of February 2024



Genebanks and Seed Systems

Genebanks should be a dynamic part of the seed systems that farmers use to diversify their crop options and that underpin resilient production systems and diversified diets.

Led by the Norwegian University of Life Sciences, research is underway to identify how best to strengthen the connection between genebanks and other seed system actors in four developing countries, to make sure that farmers and plant breeders, in particular, have access to the crop diversity they need.

Safety Duplication at the Svalbard Global Seed Vault

Keeping crop diversity in a genebank is an important first step in ensuring that diversity is preserved and available to plant breeders, farmers and others. But keeping seeds in only one place is also a major risk – if anything goes wrong, the whole collection can be lost.

BOLD is providing technical and financial support to 42 partners in 30 countries to help them regenerate seeds from their collections, back them up at another genebank and also send them to the Svalbard Global Seed Vault for long-term safekeeping.



The director of GRIGADEB in Benin was supported by the BOLD project and deposited accessions of seven crops at Svalbard in 2023. Photo: LM Salazar/Crop Trust

Building Opportunities for Lesser-known Diversity in Edible Resources (BOLDER)

BOLDER is a component of BOLD that aims to enhance the conservation, production and consumption of key neglected and underutilized species (also called “opportunity crops”) that are nutritious, robust, environment-friendly and culturally significant for local communities in Africa.

Crops such as myriad African leafy vegetables were once important for nutrition but have fallen out of favor because of the lack of attention paid to them by researchers, breeders and policymakers. But they provide farmers with more options for their diets and fields alike. BOLDER will work to revive such forgotten foods in four African countries to bolster efforts to develop agricultural systems that are more resilient to changes in a changing climate.

Communications, Engagement and Outreach

The BOLD Project works with numerous stakeholders to raise awareness of the value of crop diversity and advocate for the necessary financial, legal, technical and institutional support. BOLD is building a sustainable community of practice among partners to improve communication, outreach capacity and knowledge exchange. This ensures that the genebanks, plant breeders, farmers, seed producers and others involved in seed systems have the skills and knowledge to continue to advocate for this work long after the project has ended.



Farmer in Kenya holding finger millet, a neglected and underutilized crop. Photo: Michael Major /Crop Trust



Being BOLD with alfalfa in Kyrgyzstan. Photo: Michael Major/Crop Trust



Discover more on bold.croptrust.org

