

PROJECT INFORMATION

BIODIVERSITY FOR OPPORTUNITIES, LIVELIHOODS AND DEVELOPMENT (BOLD) IN VIETNAM

Project's title	Biodiversity for Opportunities, Livelihoods and Development (bold) in Vietnam
Project's partner/ collaboration	
Sponsor/Donor	The Global Crop Diversity Trust
Total budgeted	477.468 USD
Project's period/duration	2023-2024
Principal Investigator (PI)	PGS. TS. Huỳnh Quang Tín
Co-PI	TS. Đặng Kiều Nhân
Project's member	Nguyễn Hữu Lợi (Secretary) Lim Ngọc Hân Lê Thị Thùy Trang
Overall objective	To improve food security and livelihoods of farm households through strengthening capacity and seed system collaboration in participatory rice breeding for climate change adaptation.
Specific objectives	<p>Objective 1. Linking breeding programs, formal and informal seed systems (Vietnamese genebanks, local institutions, universities, and farmers/groups) to utilize plant genetic materials and improve the CWR and BOLD-new rice diversity database</p> <p>Objective 2. Development and release of new rice varieties from the elite CWR-derived pre-breeding lines</p> <p>Objective 3. Characterization of rice germplasm of partner genebanks for the target traits</p> <p>Objective 4. Develop new pre-breeding populations (new stable lines) of rice using novel genetic diversity</p> <p>Objective 5. Participatory evaluation of new pre-breeding populations (segregating generations to new stable lines) at the project areas in Vietnam</p>
Contents	<ol style="list-style-type: none"> 1. Identify partners and conduct baseline surveys at target locations; 2. Conduct farmer-participatory assessments for CWR-derived rice varieties: Field trials to test adaptability in 10 provinces in Vietnam; 3. Characterize main varieties with target traits (resistant to drought, salinity, alum, blast disease, brown planthopper) from the gene bank; 4. Generate new rice populations for target traits and make them available for distribution from partner gene banks; 5. Participatory evaluation of new varieties conducted on farm and in the community
Expected outcome	General outcome: This rice project will improve livelihoods through better understanding

of participatory plant/rice breeding and development of new breeding lines/varieties.

Outcomes:

- Expanded collaborative network of informal and formal seed systems for PPB activities will ensure the development and release of new varieties with farmers preferred traits and better adoption of the newly released rice varieties by farmer communities.
- Ensure that collaboration between partner farmers and local technicians at research institutions and gene banks is sustainable and that distribution of material from gene banks is efficient. Confirm that all partners will improve PPB and genetic material evaluation techniques during project implementation.
- The project will strengthen the capacity of partner farmers, and local technicians to effectively carry out PPB activities and of national genebanks staff to efficiently characterize, evaluate, conserve, document, and utilize germplasm for rice improvement and make it available to farmers and breeders
- Ensure that the BOLD Project releases new varieties (selected new lines/varieties) and breeding lines for use by farmers and breeders in breeding program.
- It is expected that the released potential new varieties (lines/varieties) will be developed and used in different agro-ecosystems of the project sites to improve farmers' income.
- Conservation of new rice varieties and pre-breeding lines in national genebanks in Vietnam will ensure the availability and use of new diversity in rice improvement programs in future.
- Wider dissemination of project findings/results and outreach activities will encourage different stakeholders to conserve and utilize germplasm for developing new climate-resilient rice cultivars/varieties effectively and efficiently.
- Development of improved rice varieties having better adaptation to climatic adversities and good farming practices will improve yield and income of farmers

Specific outputs:

- Expanded collaborative network of informal and formal seed systems including genebanks, local research institutions and farmers, seed clubs for PPB activities
- Technical capacity increased up to 500 partner farmers and 50 local technicians in PPB (rice breeding, agricultural trials for selection, evaluations) and field trial data collected and

managed; genebank staff and breeders trained for efficient characterization.

- At least 2-5 varieties will be adopted by farmers for multiplication at their communities (not released officially yet).
- New rice varieties, well characterized germplasm accessions and new pre-breeding populations developed for the target traits conserved in the Plant Resources Center – National Plant Genebank of Vietnam (An Khanh, Hoai Duc, Ha Noi, Vietnam) and the Regional genebank in Mekong Delta Development Research Institute of Can Tho University, Can Tho City, Vietnam.
- PPB findings/results disseminated through media channels to international, national and local stakeholders, farmers and local authorities and policy makers
- Improved yields and incomes through the application of new rice varieties (resistant and tolerant) and good farming practices.

Contact address

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The banner features logos for CROP TRUST, the University of Agriculture and Forestry (UAF), and the Mekong Delta University (MDU). The text reads: "Biodiversity for Opportunities, Livelihoods and Development in Vietnam (BOLD) Đề tài Đa dạng Sinh học cho Cơ hội, Sinh kế và Phát triển (BOLD) ở Việt Nam". The main title "BOLD-RICE VIETNAM" is in large yellow letters. Contact information at the bottom includes: "Liên hệ: Viện Nghiên cứu Phát triển ĐBSCL - Trường Đại Học Cần Thơ, Khu II Đường 3/2, Phường Xuân Khánh, Q. Ninh Kiều, TP. Cần Thơ, ĐT: 0918181477, E-Mail: hqtin@ctu.edu.vn".

Some activities/implementation photos



Official Launching of the Project on Biodiversity for Opportunities,
Livelihoods and Development (BOLD) – Can Tho University
(13/3/2023)



Training on using GridScore software for data collection of field trials
Can Tho University (14-16/3/2023)



Training on using GridScore to collect data of field trials



Dr. Shivali Sharma sharing how to evaluate rice variety



On-farm trial at the seed club in Bạc Liêu province - 2023



On-farm trial at the seed club in Phu Yen province – 2023



On-farm trial at the seed club in Phu Tho province – 2023