

# Morocco

## Project title

On-Farm Conservation and Mining of Local Faba bean Landraces for Biotic and Abiotic Stresses in Morocco

**Overall objective:** Enhance on-farm conservation and use of faba bean landraces for food security and to reduce vulnerability to abiotic and biotic stresses

**Crops addressed:** faba bean (*Vicia*)

## Main activities

- Evaluation, selection and identification of useful sources of resistance of faba bean
- Hybridization and incorporation of stress resistance into farmers' preferred faba bean landraces
- Information exchange, technology transfer and capacity building

## Implementing institution

International Center for Agricultural Research in the Dry Areas (ICARDA) and the Morocco National Genebank

## Related website

[www.icarda.org](http://www.icarda.org)



**THE FABA BEAN IS AMONG THE MOST** ancient crops in Morocco and is highly embedded in the traditional crop systems. Furthermore, the Mediterranean Basin is the most important center of diversity for faba bean; however, nowadays, frequent droughts, pests and diseases have severely affected the productivity and availability of this crop. The need for *ex situ* and on-farm conservation of faba bean is becoming ever more imperative to cope with food security and climate change, and the local landraces offer an important genepool for sources of adaptation and tolerance to many biotic and abiotic stresses.

The overall objective of this BSF project is to enhance on-farm conservation and use of faba bean landraces for food security through an integrated approach between on-farm, *ex situ* conservation and breeding activities for better management of genetic resources.

These activities are expected to concretely support the progressive development and implementation of adaptation measures for agricultural systems in Morocco and contribute towards establishing mechanisms to address the intertwined issues of food security and climate change challenges.

Lead farmers representing four major faba bean growing areas were selected in cooperation with the Centre des Travaux, which has been working with farmers in their respective regions for several years. The selection of these lead farmers was done to focus on the diversification needs and environmental conditions faced by the farmers in these areas. Under the close guidance of ICARDA, 359 landraces of faba bean conserved in the National Gene Bank of Morocco and 68 accessions collected during project activities have been planted at sites representing four agro ecological zones.

Male and female farmers and scientists are working together to evaluate varieties and productivity of faba beans resistant to drought and heat stresses. The systematic inclusion of farmers' skills, knowledge and preferences is key element. The farmers involved in this project are lead farmers, who are expected to spread and share the knowledge and experience they gain, thus increasing the potential impact of the results of this project on the communities.

Women farmers' associations and organizations are involved in conducting project activities and disseminating information. The project also includes graduate/ masters' students who are doing their research thesis within the project activities. This faba bean project is linked with a similar BSF funded project in Tunisia on on-farm conservation of durum wheat and barley. Consequently, there is a regular exchange of information and experience between Treaty partners in Tunisia and Morocco. These meetings and exchange visits enhance collaborative efforts in the exchange of technology, promotion of intra- and inter-country linkages, research coordination and the dissemination of technology through multi-disciplinary teams consisting of national policy-makers, scientists, extension workers and farmers, and thereby, enhancing long-term sustainability of the efforts initiated through this project.

***This project is expected to enhance on-farm conservation and use of faba beans, and initiate targeted hybridization to incorporate stress resistance into the farmers' preferred faba bean landraces in order to improve food security and reduce the vulnerability of local communities to abiotic and biotic stresses.***