

# Jordan and Iran

## Project title

Use of genetic resources to establish a multi-country program of evolutionary participatory plant breeding

**Overall objective:** Enhance food security by empowering farmers' communities to manage genetic diversity.

**Crops addressed:** Wheat (*Triticum et al.*), barley (*Hordeum*), rice (*Oryza*) and maize (*Zea*).

## Main activities

- Establish and strengthen participatory and evolutionary breeding programs
- Provide farmers with the possibility of producing specifically adapted varieties thus contributing to increasing the sustainability of agricultural production
- Expand landraces collections and document farmers' knowledge
- Establish genebanks and distribute newly developed populations to farmers
- Training and capacity building of farmers in participatory plant breeding and rice crosses
- International Conference on breeding involving six countries from the Near East

## Implementing institution

National Center for Agricultural Research and Extension (NCARE), Jordan and Centre for Sustainable Development (CENESTA), Iran.

## Related website

[www.ncare.gov.jo](http://www.ncare.gov.jo)  
[www.cenesta.org](http://www.cenesta.org)



**FARMERS' KNOWLEDGE IS BEING USED TO** support and strengthen national participatory plant breeding programs (PPB) and to start new programs of evolutionary participatory plant breeding (EPPB) in Iran and Jordan by developing locally-adapted varieties of wheat, barley, rice and maize while enhancing biodiversity within and among farmers. Particular attention is being paid during this BSF project to gender-differentiated knowledge of local landraces and cultivation practices. A strategy for facilitating women's access to and control over seeds is also being tested and monitored.

By pro-actively involving women farmers, this project endeavors to empower those who are traditionally in-charge of agronomic practices and entitle them to access and manage relevant PGRFA on a more equitable basis. NCARE and CENESTA are working to adapt local crops to climate change and thus, to mitigate its impact on food security from a gender sensitive perspective.

This BSF project works with farmers to help them cope with climate change and the impact this has on their lives and their food security. It does this by strengthening their agricultural means with solutions such as PPB and EPPB and by using traditional varieties that were lost in previous decades. Activities include the choice of germplasm, participatory trials in 22 villages, evaluation and selection of varieties that are stable in relation to environmental changes and present preferable traits, multiplication and collection. Subsequent base broadening activities will allow farmers to produce specifically adapted improved varieties, thus contributing to increasing the sustainability of their agricultural systems.

The project is also contributing to building capacities and skills of national breeding institutes and NGO practitioners in participatory and gender sensitive breeding methodologies, and providing them with a pool of genetic material for further improvement. This will ensure that project outcomes will be sustained over time and have a multiplier effect in other regions of the two countries.

*This project is expected to benefit women and men farmers by strengthening their ability to manage genetic diversity through participatory and evolutionary breeding programs and by expanding the existing collections of wheat, barley, rice and maize in Iran and Jordan. It is also helping build the skills and technical capacity of national breeding institutions, and providing plant genetic material for further improvement.*

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