



HIGH PRIORITY: CLIMATE CHANGE AND FOOD SECURITY

As the effects of climate change are increasingly felt world-wide there is an increasing need for crop breeding and variety development to become more efficient. In this case, 'efficiency' is measured in terms of the work's responsiveness to farmers' (rapidly) changing circumstances. To this end, the **PRGA Program** is focusing its efforts to equip both small-scale farmers and researchers for the challenges ahead.



In partnership with the **ICARDA barley-breeding program**:

- Seeds removed from the field and kept in a gene bank might well not be adapted to the prevailing climate and atmospheric conditions
- However, if landraces and other potentially useful 'varieties' are left to grow year-on-year in the field, they will evolve with the changing conditions
- So, we are developing a dynamic and inexpensive strategy to provide small-scale farmers in 'marginal' areas with genetic resources
- Thereby, increasing farmers' resilience to current and future climate change
- We are also helping farmers establish their own seed-production systems for the varieties they select, and empowering them with an understanding of intellectual property rights with respect to plant material
- The work is being carried out in Algeria, Egypt, Iran and Syria

In partnership with the **Pan-Africa Bean Research Alliance (PABRA)-CIAT**:

- Men's and women's preferences for varieties tend to differ in many contexts, and plant-breeding programs are therefore encouraged to be gender-sensitive
- The hypothesis is there will be situations where men's and women's variety preferences will be the same
- 'Test case' for whether variety-preference convergence can be predicted
- Looking at three scenarios – farmers in stress-dominated environments (drought and crop-failure prone, few market opportunities) who grow beans primarily for home-consumption; farmers with good production potential and good access to markets; and farmers in stressed environments, but where there is market demand for their crops (so part of the production will be marketed)
- PABRA hypothesizes that variety preferences will converge in the two 'extreme' scenarios, while those in the 'intermediate' scenario will diverge
- The work is being carried out in central Kenya, eastern Rwanda–northern Burundi, and Malawi

In partnership with the **Confederación Colombiana de Algodón (CONALGODON) and IFPRI**:

- A recent study by IFPRI & CONALGODON concluded that Colombian cotton growers had benefitted from the introduction of genetically modified (Bt) cotton
- However, the work paid little attention to gender aspects
- Yet, women are involved in cotton production
- So, we are conducting research to determine women's role in the choice of cotton (Bt or normal) either individually or as members of regional cotton associations; the effects of adoption of Bt-cotton on gender-based activities (on and off farm); and men's and women's attitudes to Bt-cotton and what factors influence their decision to adopt it
- The work is being carried out in Colombia



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