



HAL
open science

Analysis of major Participatory Plant Breeding experiences worldwide

Salvatore Ceccarelli, Adnan Al Yassin¹, Isabelle Goldringer, Pedro Mendes Moreira, Veronique Chable

► **To cite this version:**

Salvatore Ceccarelli, Adnan Al Yassin¹, Isabelle Goldringer, Pedro Mendes Moreira, Veronique Chable. Analysis of major Participatory Plant Breeding experiences worldwide. 1er Congrès SOLIBAM, Institut National de Recherche Agronomique (INRA). UR SAD Paysage (0980)., Apr 2012, Rome, Italy. 1 p. hal-01210045

HAL Id: hal-01210045

<https://hal.science/hal-01210045v1>

Submitted on 6 Jun 2020

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



SOLIBAM – WP6

Analysis of major Participatory Plant Breeding experiences worldwide



Salvatore Ceccarelli¹, Adnan Al Yassin¹, Isabelle Goldringer², Pedro Mendes Moreira³, Véronique Chable⁴

1 - ICARDA, The International Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria, S.CECCARELLI@CGIAR.ORG, a.yassin@cgiar.org; 2 - INRA, UMR8120, 91190 Gif sur Yvette – France, isa@moulon.inra.fr; 3 - Departamento de Ciência Agronómicas, ESAC, 3040-316 Coimbra, Portugal, pmoreira@esac.pt; 4 - INRA, SAD Paysage, 65 rue de Saint Brieuc, 35042 Rennes – France, Chable@rennes.inra.fr

WP and Task objectives :

WP6, Task 6.1 develops methodologies for participatory research

Context

For 20 years, several projects have developed innovative approaches of participatory research as participatory plant breeding (PPB). To ensure the success of the project, it was essential to critically analyse the major previous PPB experiences worldwide, with particular attention to Europe, Africa, and Mediterranean countries.

Objectives

To analyse historical experiences of PPB in different European, African, and Mediterranean countries in order to identify the different structures of organisation: roles and interactions between stakeholders (farmers, breeders, end-users, scientists), the shaping of new markets/products/channels, achievements and key issues



Pictures from INRA, UCO and ICARDA collection

Methods

We have assembled an inventory of 22 PPB cases covering Wheat (5), Legumes (3), Cauliflower, Barley (6), Maize (3), Tomato, Faba bean (2), Sweet Potato, Cassava, Sorghum (3), Rice (1) Millet (1), Fonio (1) and Potato from UK, France (2), Ethiopia, Portugal, Spain (2), Uganda, Ghana, Burkina Faso, Mali, Algeria, Iran, Eritrea, Nepal (2), Yemen, The Netherlands, Nicaragua and China.



Results

The cases assembled in this analysis show that several breeding methods can be successfully used in PPB programs and therefore in those addressing organic agriculture. One innovative strategy is the organization of breeding programs specifically designed for organic agriculture in some case different stakeholders including commercial breeding/trading companies and consumers.

It is possible to organize participatory breeding program using all the most advanced experimental supports (such as design programs that finds efficient designs for experiment randomization, partially replicated designs, spatial analysis) available to conventional breeding programs. One important innovative strategy is the organization of a PPB program in a way that can lead to the formal registration of a variety but the practical application is not achieved, taking into account the current requirements of catalogue registration. Another issue is the creation of new farmers' organisations (like seed associations and seed farmer network in Europe) to manage collectively the plant breeding and seed production; a new legislative space has also to be created to recognise the farmer's rights.

