

CGIAR Systemwide Program on  
Participatory Research and Gender Analysis  
for Technology Development and Institutional Innovation  
(PRGA Program)

## **Phase I (1997–2002)**

### **Partnerships**



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## **PART 1: GUIDELINES FOR SMALL GRANT RESEARCH PARTNERSHIPS WITH THE PRGA PROGRAM**

### **Objectives of the Small Grants Program**

- To address important methodological and organizational questions and fill key gaps in the collective knowledge of the field.
- To analyze the impacts of implementing participatory approaches, particularly on poor rural women. One of the main contributions of the research grants/partnerships is their role as vehicles for knowledge exchange, capacity-building and mainstreaming of participatory approaches in a variety of institutions.
- To allow projects to interact and learn from one another in ways that independent projects do not often have the opportunity to do.

### **Small Grants projects are selected on the basis of:**

- Time the project has been in effect (over 24 months).
- A clear and focused research issue and work plan.
- Evidence that the project will work with farmers' organizations or groups.
- Evidence of inter-institutional linkages: international agricultural research centers (IARC), government organizations (GO), NGO, farmer organizations.
- Explicit consideration for issues of gender and difference in the proposed research.
- Involvement of men and women in the research and proposed interventions.
- A strategy for multidisciplinary team work involving social and natural science skills.
- A plan to build on farmers' skills.
- A plan for monitoring, evaluation and impact assessment.
- A clear definition of the roles of all partners in the research and capacity-building.
- The statement of resources available and resources required.
- A plan for sustaining project activities at community level at project phase out.

### **Grant recipients will be willing to:**

- Work on a common research design.
- Provide an accounting of how project resources will be allocated among partners.
- Participate in comparative analyses.
- Implement interventions agreed upon jointly.
- Monitor impact using similar (standardized) procedures and indicators, and process documentation.
- Organize, yearly, a broad-based participatory research (PR) and gender analysis (GA) seminar or workshop at project headquarters.
- Share experiences in annual international PR and GA workshops for peer review.
- Co-publish with local partners and with the PRGA Program.
- Participate in annual impact-assessment seminars and workshops.

### **Recipient institutions and their partners can expect to gain:**

- Information on the impact of PR and GA in agricultural research and technology development.
- Exchange of information and experience with a wider research network.
- Lessons about what works and what doesn't work in terms of PR and GA.
- Enhanced capacity in methods for effective PR, GA and intervention impact assessment.
- Opportunities to publish research results.



## PART 2: INVENTORY OF PARTNERSHIPS

### Participatory Plant Breeding

#### 1. Amplification and use of the concepts of participatory research in cassava improvement

*Country:* Brazil

*Partners involved:*

- CNMPF (EMBRAPA Mandioca e Fruticultura)
- CPAC (EMBRAPA Cerrados)
- IPA (State-level research, extension and development institutions in Pernambuco), EBDA (in Bahia), EMDAGRO (in Sergipe) and PRO-SERTÃO

*Objective:*

To show that the involvement of farmers in early phases of the evaluation of breeders' materials reduces the time spent in the whole breeding process. The purpose is to speed up the processes of transfer, adoption and diffusion of improved genetic materials.

*Project duration:* 1998–2000

*PRGA direct financial contribution:* US\$ 70,000

*Outputs/achievements:*

- Several farmer selections were formally released through this process.
- Feedback and inclusion of farmers' varietal preferences in formal breeding program.
- Identification of several clones with high probability of adoption.
- Broadening of on-farm genetic diversity.
- Training of extension technicians in participatory approaches.
- Multiplication both on-station and on-farm of farmer-preferred clones.
- Interest by farmers in other cassava technologies.

*Publication:*

- Fukuda W; Saad N, 2000. Participatory research in cassava breeding with farmers in northeast Brazil. *Working Document* No. 14. PRGA Program. Cali, Colombia. (Also available in Spanish.)

## **2. Participatory methodologies for the genetic improvement of common bean (*Phaseolus vulgaris*) in Honduras**

*Country:* Honduras

### ***Partners involved:***

- EAP-Zamorano (Escuela Agrícola Panamerica Zamorano)
- IPCA Project (Participatory Research in Central America)
- University of Guelph, Canada
- Bean producers of local agricultural research committees (CIALs) in two regions of Honduras

### ***Objective:***

To develop participatory plant breeding methodologies for the genetic improvement of common beans (*in situ*), the broadening of the genetic base, the utilization of improved germplasm, the development of farmers' capacity to conduct participatory processes, and the generation of varieties suitable to farmers' cropping systems and socio-economic environments.

*Project duration:* 1999–2002

*PRGA direct financial contribution:* US\$ 30,000

### ***Outputs/achievements:***

- Sets of bean breeding populations were developed for testing three alternatives: two participatory methodologies for farmer selection, and one conventional methodology.
- After selection and testing, results from the comparative study of these methodologies provided estimates of the effectiveness, cost–benefits, and acceptability.

### ***Publications:***

- Rosas JC with Proyecto Investigación Participativa en Centro América (IPCA), Proyecto de Reconstrucción Rural (PRR), University of Guelph, Canada and CPRO-DLO/The Netherlands, 2001. Metodologías Participativas para el Mejoramiento Genético del Frijol Común. Report of a PRGA Small Grant for Dec. 2000 to May 2001.
- Rosas JC with Proyecto Investigación Participativa en Centro América (IPCA), Proyecto de Reconstrucción Rural (PRR), University of Guelph, Canada and CPRO-DLO/The Netherlands, 2002. Metodologías Participativas para el Mejoramiento Genético del Frijol Común. Report of a PRGA Small Grant for Dec. 2001 to May 2002.

## **3. Farmer-led participatory maize breeding in middle hills of Nepal**

*Country:* Nepal

### ***Partners involved:***

- LI-BIRD (Local Initiatives for Biodiversity Research and Development)
- Farmer communities at the project sites

- NMRP (National Maize Research Programme) of the Nepal Agricultural Research Council (NARC)

**Objectives:**

- To develop effective participatory methods in open-pollinated maize with a focus on farmer breeding.
- To strengthen local crop-development process through participatory crop improvement methods using farmers' local knowledge and resources.

**Duration:** 1999–2000, July 2001 to June 2002

**PRGA direct financial contribution:** US\$ 30,000

**Outputs/achievements:**

- 545 farmers (316 of them women) were trained.
- Farmers initiated their own breeding program and developed their own maize population.
- Farmer-held diversity increased.
- Farmer seed-selection skills were enhanced and the local crop development process was improved.
- Large numbers of farmers in the project area started pre-harvest selection using mass selection techniques with their specific criteria.
- The research station started to work on farmers' agenda.
- A Farmers' Research Committee (FRC) formed to plan, implement and evaluate the project activities.
- Farmers themselves initiated a breeding program to incorporate the good traits of the Thulo Pinyalo variety into the Rampur Composite variety.
- The number of farmers participating in program activities increased from 98 in 1999 to 369 in 2000.

**Publications:**

- LIBIRD, 2000. Farmer-led participatory maize breeding in middle hills of Nepal. Report of a PRGA Small Grant for Jan. 1999 to Dec. 2000.
- Gyawali S; Bhandari B; Subedi A, 2002. Farmer-led participatory maize breeding in middle hills of Nepal. Report of a PRGA Small Grant for Aug. 2001 to Sep. 2002. Final Report for Second Phase.

#### **4. Incorporation of user channels in participatory improvement of potato in Ecuador**

**Country:** Ecuador

**Partners involved:**

- INIAP (Ecuadorean National Agricultural Research Institute National Program for Roots and Tubers (Potato section))

- Individual farmers and farmer groups, Local Agricultural Research Committees (CIALs)
- Universities in Ecuador

**Objective:**

- To incorporate participatory methodologies into the selection of potato clones to improve the acceptance of improved materials by various actors in the “user chain,” ranging from farmers, merchants and urban consumers to industry.

**Outputs/achievements:**

- A participatory evaluation of promising materials, based on the ideotype was developed by the user chains, and carried out by the network of clone evaluator groups in five provinces of the country.
- Multiplication and diffusion of the most promising clones followed and at least three varieties were released in this way.

**Project duration:** 1999–2000

**Project budget and PRGA contribution:**

- **Total project budget:** US\$ 109,920
- **PRGA direct financial contribution:** US\$ 69,520

## **5. Farmers’ practice of domestication and their contribution to improvement of yam in West Africa**

**Country:** Benin

**Partners involved:**

- IPGRI (International Plant Genetic Resources Institute)
- IITA (International Institute of Tropical Agriculture)
- Université National du Bénin
- IRD (Institut de Recherche pour le Développement)
- INRAB (Institute National des Recherches Agricoles du Bénin)
- CIRAD-IITA (French Agricultural Research Centre for International Development)
- YRCU (Yam Research Coordination Unit)

**Objective:**

To achieve a better understanding of farmers’ domestication of yam and the contribution of local process of yam improvement and production in order to link these processes to yam improvements carried out by formal research.

**Project duration:** 1999–2002

**PRGA direct financial contribution:** US\$ 70,000

***Outputs/achievements:***

Undertook morphological and biochemical characterizations of 68 materials.

***Publication:***

- Grum M, 2002. Farmers practice of domestication and their contribution to improvement of yam in West Africa. Jointly submitted by IPGRI and IITA. Report of a PRGA Small Grant for Feb. 2000 to 13 Aug. 2002.

**6. Developing a participatory research model with a systems approach for improving technologies and their adoption for the cassava–maize intercropping production system used in the Colombian Caribbean Region**

(Support for Antonio López’s Doctoral (PhD) studies at University of Wales, 1998.)

***Country:*** Colombia

***Partners involved:***

- CORPOICA
- University of Wales

***Objective:***

To improve livelihoods by increasing productivity and sustainability of cassava–maize intercropping. To develop methods for incorporating both local knowledge and formal models of how farmers make decisions into participatory technology development.

***Project duration:*** 1 May 1999 to 30 April 2002

***Project budget and PRGA direct financial contribution:*** US\$ 78,000

**7. Best practice, ethical standards, and property rights in participatory plant breeding**

***Partners involved:***

- Selected PPB Small Grant studies conducted with several partners.

***Objective:***

To review the current intellectual property rights (IPR) and case law both internationally and nationally to find any provisions for joint inventorship of employee inventions (patents), joint authorship (copyrights), and joint breeder-ship of employee varieties (breeders’ rights).

***Need for the partnership:***

The initiative on best practice, ethical standards, and property rights was initiated in recognition of the fact that while the technical aspects of collaborative work with genetic resources were

quite advanced, some of the social, political, legal and ethical issues that are also key to these processes were lagging behind.

**Project duration:** 1999–2000

**Publication:**

- Simpson B, 2000. Best practices and ethical standards in participatory plant breeding: Background synthesis of relevant existing codes. Prepared for the Systemwide Program on Participatory Research (PRGA).

## **8. Participatory development of farmer-managed *in-vitro* propagation and biodiversity conservation of cassava**

**Country:** Colombia

**Partners involved:**

- FIDAR (Foundation for Interdisciplinary Agricultural Research and Development)
- CIAT (International Center for Tropical Agriculture)

**Objectives:**

- To develop a low-cost tissue-culture method in support of participatory improvement efforts for cassava.
- To design an *in-vitro* propagation system for cassava that minimizes external inputs and is appropriate for small-scale farmers

**Project duration:** January 2000 to December 2002

**PRGA direct financial contribution:** US\$ 33,000

**Outputs/achievements:**

- A representative farmer from Cauca was trained by CIAT and FIDAR so that he in turn could train a group of 11 women selected by their community to operate the rural lab in their area.
- An artisanal tissue-culture laboratory was set up in Cauca with local equipment, inputs and tools that cost one-twentieth of those used in a conventional laboratory.

**Publications:**

- Restrepo JM; Ospina GI; Hernandez C; Escobar R; Tohme J; Roca W, 2002. Participatory development of low-cost simplified rustic tissue culture for cassava. FIDAR/CIAT. Report of a PRGA Small Grant for Jan–Dec. 2000.
- Restrepo JM; Ospina GI; Hernandez C; Escobar R; Tohme J; Roca W, 2002. Participatory development of low-cost simplified rustic tissue culture for cassava. FIDAR/CIAT. Report of a PRGA Small Grant for Jan–Jun. 2002.

- Restrepo JM; Ospina GI; Hernandez C; Escobar R; Tohme J; Roca W, 2002. Participatory development of low-cost simplified rustic tissue culture for cassava. FIDAR/CIAT. Report of a PRGA Small Grant for Jul–Dec. 2002.

## **9. The Cassava Biotechnology Network in Latin America: Strategies for integrating small-scale end-users in research agenda-setting, testing and evaluation**

*Countries:* Colombia, Brazil, Ecuador, Cuba

*Partner involved:*

- CBN (Cassava Biotechnology Network)

*Objective:*

- To integrate the needs of small-scale cassava farmers, processors and consumers into biotechnology research planning.
- The project focused on four pilot sites in Colombia, Brazil, Ecuador and Cuba.
- Future support from the CBN was to focus on the deeper integration of participatory priority-setting, research and evaluation approaches into the work being done and planned in the various sites.

*Project duration:* January 2000 to December 2003

*PRGA direct financial contribution:* US\$ 70,000

*Outputs/achievements:*

None—project was discontinued.

## **10. Study on participatory plant breeding/biotechnology of sorghum through assessment of farmers' variety development, selection methods, seed systems and management, genetic diversity, and conservation**

(Support for Mekbib Frew's doctoral (PhD) studies at Norwegian Agricultural University, February 2000.)

*Objective:*

To promote a sustainable use of on-farm sorghum diversity and increase the small-scale production for resource-poor farmers in Eastern Ethiopia.

*Partner involved:*

- Agricultural University of Norway

*Project duration:* 2000–2001

***Project budget and PRGA direct financial contribution:*** US\$ 39,600

***Publication:***

- PhD publication pending.

## **11. Participatory improvement of the potato crop in Bolivia**

***Country:*** Bolivia

***Partners involved:***

- PROINPA Foundation (Research and Promotion of Andean Crops)
- Four potato-growing communities in the Bolivian Andes

***Objectives:***

- To increase farmers' capacity and skills so that they can carry out their own breeding program, rather than only selecting varieties
- To determine which crops are grown, the management of the potato crop, farmer knowledge about animals and plants, and to determine the ideal potato characteristics preferred by farmers.

***Project duration:*** March 2001 to July 2002

***PRGA direct financial contribution:*** US\$ 30,000

***Outputs/achievements:***

- Seven training sessions were carried out, including making crosses, extracting seed, transplanting and seedbed management, and evaluation of field material. Formal and informal evaluations followed.

***Publication:***

- Gabriel JL; Salazar M; Herbas J; Thiele G, 2002. Proyecto de Mejoramiento Participativo de Papa en Bolivia. Report of a PRGA Small Grant for Mar. 2001 to Jul. 2002.

## **12. Village-based participatory breeding in the terraced mountain slopes of Yemen**

***Country:*** Yemen

***Partners involved:***

- ICARDA (International Center for Agricultural Research in the Dry Areas)
- AREA (Agricultural Research and Extension Authority, Yemen)

**Objective:**

To compare the efficiency of selection done by farmers with that by breeders, both in farmers' fields and on research stations, using both fixed lines and segregating populations, and both exotic and local germplasm of barley and lentil.

**Project duration:** July 2001 to June 2002

**PRGA direct financial contribution:** US\$ 30,000

**Outputs/achievements:**

- The project concluded that participatory decentralized selection was much more efficient than centralized non-participatory selection: the latter would have missed 64–70% of the entries selected by farmers.
- The project involved both individual farmers and groups of farmers, both men and women, and addressed terrace agriculture with potential benefits for other countries and regions, e.g. Ethiopia, Eritrea, Nepal and the Andean countries.

**Publications:**

- Ceccarelli S, 2002. Village based participatory breeding in the mountain slopes of Yemen. Report of a PRGA Small Grant for Apr. 2001 to Mar. 2002.
- Martini MA; Aw-Hassan A, 2002. Village based participatory breeding in the mountain slopes of Yemen. Report of a PRGA Small Grant for 1 July 2001 to 30 June 2002.

**13. Scaling-up participatory plant breeding: Sustainable seed delivery systems for meeting farmers' needs for diversity and varietal change over time**

**Country:** Mali

**Partners involved:**

- ICRISAT (International Crops Research Institute for the Semi-Arid Tropics)
- Point Sud
- IER (Rural Economy Institute)
- IPR/ISFRA (Mali University)
- CMDT (Mali's Company for Textile Development)
- Gonsolo Village Association

**Objectives:**

- To produce a diversity of sorghum varieties to meet a range of different, specific local needs.
- To document case studies of seed system interventions that address specific strengths or weaknesses of the farmers' system in order to compare approaches under contrasting farming systems and institutional environments.

**Project duration:** 2001–2002

***Outputs/achievements:***

- Detailed analyses of seed availability were conducted in two contrasting villages.
- Variety comparisons were carried out with farmers on their lands using four different approaches across key sorghum-growing areas in Mali.
- Farmers also evaluated progeny trials on station in order to see new material and choose more materials for testing on their farms.
- Seed production plots were planned with farmers, who selected varieties for large-scale seed production.

***Publication:***

- Weltzien E, 2002. Scaling up participatory plant breeding: Sustainable seed delivery systems for meeting farmers' needs for diversity and varietal change over time. Report of a PRGA Small Grant for Mar. 2001 to Mar. 2002.

## Natural Resource Management

### 1. Gender and stakeholder analysis: Integration of gender analysis into research

*Countries involved:* Nepal, Vietnam

*Partners involved:*

- CIMMYT-Nepal (International Maize and Wheat Improvement Center)
- UPWARD (Users' Perspectives with Agricultural Research and Development, CIP)
- CIP-Hanoi (International Potato Center)
- CIAT-Asia (International Center for Tropical Agriculture)
- National partners from Nepal (NARC), Vietnam, Laos, Thailand and The Philippines
- Farmer user groups

*Objectives:*

- To conduct participatory evaluation of the Chinese hand tiller, introduced by CIMMYT and NARC, with five farmer groups in the Terrai of Nepal.
- To train CGIAR (CIMMYT) and NARS (NARC) staff in (participatory) wheat breeding.
- To train CGIAR (CIMMYT) and NARS staff in gender and stakeholder analysis (GSA).

*Project duration:* 1997–2001

*Outputs/achievements:*

- CIMMYT decided to introduce a participatory approach in other areas where it intended to introduce the hand tiller.
- In the project areas (CIMMYT's 2-year hand tiller project), the creation of farmer groups had been encouraged, with farmers using their own criteria for group formation, and CIMMYT brokering some loans via the national agricultural development bank.
- It was decided that capacity-development for these groups would be a main focus in the follow-on program.
- A short training session was held for one CIMMYT and three national scientists, including the introduction of ranking tools for assessing farmer preferences in varietal selection. Preference- and matrix-ranking tools were also introduced in a field trial to enable researchers to differentiate gender preferences.
- First gender and stakeholder analysis (GSA) training was in September 1999 in Kathmandu for CIMMYT and NARC. Basic principles of participatory research and stakeholder analysis were introduced, along with tools demonstrated in the field.
- In March 2000, UPWARD, CIP, CIAT and PRGA gave GSA training in Vietnam to (mostly) NARS participants (Vietnam, Laos, Thailand, The Philippines), including incorporating gender analysis into the project cycle.

## **2. Assessment of the impacts of farmer participation in farmer research groups in the highlands of Kabale**

*Country:* Uganda

### ***Partners involved:***

- FRGs (farmer research groups)

### ***Objective:***

To analyze the types of PR that were used at different stages of research processes conducted with farmer research groups (FRGs) and their impacts in the African Highlands Initiative (AHI), using empirical data from 24 FRGs.

*Project duration:* 1998–2000

### ***PRGA contribution:***

- ***Direct financial contribution:*** US\$ 100,000
- Supported the research fellow position for 3 years.

### ***Outputs/achievements:***

- Gender balance shifted dramatically with men decreasing, and women increasing their participation, 24% of the FRGs were composed of women only.
- Results showed that FRGs generate significant human and social capital, and enable rapid dissemination of technologies.
- Results suggested that FRGs are an effective way of involving poor rural women in research and that FRGs have great potential for catalyzing the participation of farmers as partners in research and development activities.

### ***Publications:***

- Sanginga P; Lilja N; Tumwine J, 2001. Assessing the quality of participation in farmers' research groups in the highlands of southwestern Uganda. *Working Document* No. 19. PRGA Program, Cali, Colombia.
- Sanginga P; Stroud A; Tumwine J; Turyahabwe N; Manzi G, 2002. Assessment of the impacts of farmer participation in farmer research groups in the highlands of Kabale, Uganda. Africa Highlands Ecoregional Programme (AHI) and International Centre for Research in Agroforestry (ICRAF).
- Sanginga PC; Lilja N; Tumwine J, *in press*. The dynamics of participation in farmers' research groups: Lessons from the highlands of southeastern Uganda. *Agricultural and Human Values*, *in press*.

### **3. Impact evaluation of participatory development of integrated insect and disease management (IPM) for the potato crop in San Miguel, Peru**

*Country:* Peru

***Partners involved:***

- CIP (International Potato Center)
- Farmers' field schools (FFS-PR) in San Miguel

***Objective:***

To evaluate the impact of participatory research conducted through farmers' field schools (FFS-PR) in San Miguel, Peru. Both qualitative and quantitative methods were used to gather information from different stakeholders on different impact areas and indicators.

***Project duration:*** January 1999 to December 2001

***PRGA direct financial contribution:*** US\$ 36,000

***Outputs/achievements:***

- The study showed how women's participation could be increased even in projects that work in areas in which women are not directly involved.
- The impacts—both on processes and technologies—measured and observed by this project are the following:
  - Researcher priorities have changed, and institutions have enhanced their capacity to use participatory research and training approaches;
  - Investment in participatory approaches has generated attractive rates of return;
  - The use of participatory approaches allowed farmers to gain access to new materials early on, saving time in the process of adoption and hence in the generation of benefits for farmers;
  - Farmers' understanding of research principles has been enhanced, as has their knowledge about biophysical principles of pest control;
  - Farmers are beginning to use their new knowledge about pest control, which is generating increased productivity and income;
  - Group formation and social links were reinforced, facilitating information exchange and innovation.
- A project workshop was organized at which participants shared empirical results and experiences, reflected on methodologies, discussed future strategies, and identified salient gaps or deficiencies in their implementation of participatory and gender-sensitive approaches.

***Publication:***

- Ortiz O; Orrego R; Nelson R; Leon V, 2002. Impact evaluation of participatory development of integrated insect and disease management (IPM) for the potato crop in San Miguel, Peru. Report of PRGA Small Grant for January 1999 to December 2001.

#### **4. Development and diffusion of integrated *Striga* control practices for small-scale farmers in western Kenya**

*Country:* Kenya

***Partners involved:***

- CARE (International Relief and Development Agency)
- CIMMYT (International Maize and Wheat Improvement Center)
- KARI (Kenya Agricultural Research Institute)

***Objective:***

To evaluate the comparative impact of participatory technology dissemination strategies on the adoption of *Striga* (witchweed) control technologies among subsistence farmers by using two methods: one (participatory) by CARE-Kenya and the other (conventional) by government extension services.

***Project duration:*** January 1999 to November 2001

***PRGA direct financial contribution:*** US\$ 36,000

***Outputs/achievements:***

- The results of the study showed that the participatory approach to dissemination was more effective for several reasons:
  - CARE extension staff trained 204 group-resource persons to train fellow farmers, compared to 6 trained by government extension staff;
  - The communities' capacity to manage their own affairs and thus sustain themselves was enhanced in the CARE approach, whereas with the government approach such capacity was not built into the training;
  - Women were able to take leadership positions in the CARE approach and thus influence decisions within their groups;
  - The government extension approach of using picture series coupled with demonstration plots was effective in training farmers, but less effective than on-farm demonstrations;
  - Most women farmers preferred to adopt technologies that require less resources than *Striga* control and result in higher household income.
- A project workshop was held at which participants shared empirical results and experiences, reflected on methodologies, discussed future strategies, and identified salient gaps or deficiencies in their implementation of participatory and gender-sensitive approaches.

***Publication:***

- Friesen D; Odhiambo GD; Agunda J; Oswald A, 2002. Development and diffusion of integrated *Striga* control practices for small-scale farmers in western Kenya. Report of PRGA Small Grant for January 1999 to November 2001.

## **5. The local people, devolution and the Adaptive and Collaborative Management of Forests research program: A participatory research and gender analysis impact assessment**

*Countries:* Indonesia, Nepal

*Partner involved:*

- CIFOR (Center for International Forestry Research)

*Objective:*

To generate insights into the impacts of the various research approaches (and combinations of research approaches) used in the CIFOR research project “Adaptive and Collaborative Management of Community Forests” (ACM).

*Project duration:* January 1999 to December 2001

*PRGA direct financial contribution:* US\$ 36,000

*Outputs/achievements:*

- A platform was developed to compare findings across research sites, and to extrapolate results. The collaborative approach was used in the participatory action research (PAR) sites, and aspired to a transformation-oriented gender and diversity analysis approach.
- A benchmark was developed for the PAR and the broad issues from the larger geographical areas were identified in a relatively short time span.
- A project workshop was held, at which participants shared empirical results and experiences, reflected on methodologies, discussed future strategies, and identified salient gaps or deficiencies in their implementation of participatory and gender-sensitive approaches.

*Publication:*

- Milne M; McDougall C; Siagian Y; Uprety L; Yuliani L, 2002. The Local People, Devolution and Adaptive and Collaborative Management of Forests Research Program: A participatory research and gender analysis impact assessment. Report of PRGA Small Grant for January 1999 to December 2001.

## **6. Assessment of the impact of stakeholder participation in the diffusion of a Vertisol management technology package in highland Ethiopia**

*Country:* Ethiopia

*Partner involved:*

- ILRI (International Livestock Research Institute)

**Objective:**

The project was conceived after a participatory soil management project produced a technology package of which adoption by farmers seemed lower than its potential. Thus, the objective was to assess the impact of stakeholder participation in the diffusion of a Vertisol management technology package in highland Ethiopia.

**Project duration:** January 1999 to December 2001

**PRGA direct financial contribution:** US\$ 36,000

**Outputs/achievements:**

- The study found that the diffusion process being used by the soils project was supply-driven and did not involve all stakeholders effectively.
- It concluded that there was room for more systematic differentiation of stakeholders and their involvement in the diffusion process.
- The intervention in the form of a Site Stakeholder Committee (SSC) proved to be highly effective in improving communication and sharing of information among stakeholders, and in better addressing the concerns of poor and women farmers.
- A project workshop was held, at which participants shared empirical results and experiences, reflected on methodologies, discussed future strategies, and identified salient gaps or deficiencies in their implementation of participatory and gender-sensitive approaches.

**Publication:**

- Jabbar M; Astatke A; Gebreselassie S; Negatu W, 2002. Assessment of the impact of stakeholder participation in the diffusion of a Vertisols management technology package in highland Ethiopia. Report of PRGA Small Grant for January 1999 to December 2001.

## **7. Evaluating the impact of farmer participatory research and extension in natural-resource management in Zimbabwe**

**Country:** Zimbabwe

**Partner involved:**

- University of Zimbabwe (Institute of Environmental Studies, IES)

**Objectives:**

- To assess the impacts of different participatory research approaches and determine key factors for success or failure.
- To improve the capacity of the IES (implementing agency) of the University of Zimbabwe and its partners in impact monitoring and evaluation.

**Project duration:** February 1999 to November 2000

**PRGA direct financial contribution:** US\$ 96,000

***Outputs/achievements:***

- A detailed comparison of the participatory approaches employed and the impacts achieved by the five PR and extension cases was made.
- Lessons learned and implications for the future were synthesized.
- A project workshop was held at which participants shared empirical results and experiences, reflected on methodologies, discussed future strategies, and identified salient gaps or deficiencies in their implementation of participatory and gender-sensitive approaches.

***Publication:***

- Institute of Environmental Studies, 2002. Evaluating the impact of farmer participatory research and extension in natural resource management in Zimbabwe. IES, University of Zimbabwe. Report of PRGA Small Grant for February 1999 to November 2000.

**8. Community participation and gender involvement in participatory research for management and monitoring of local aquatic resources system**

***Country:*** Vietnam

***Partner involved:***

- ICLARM (International Center for Living Aquatic Resources Management)

***Objective:***

To stimulate equitable community participation in monitoring and evaluating the effects of restoring and rehabilitating fish and other aquatic resources, and to increase local awareness of policy decisions involving fisheries and aquatic resources management.

***Project duration:*** 1999–2002

***PRGA direct financial contribution:*** US\$ 99,942

***Outputs/achievements:***

- A detailed analysis of the gender-differentiated water-uses was completed.

**9. Establishment of a farmer-centered agricultural research network in China**

***Country:*** China

***Partner involved:***

- China Agricultural University, CIAD (Center for Integrated Agricultural Development)

***Objective:***

To accelerate and scale-up farmer-centered research in China in order to promote sustainable agriculture.

**Project duration:** April 2000 to March 2002

**PRGA direct financial contribution:** US\$ 25,000

**Outputs/achievements:**

- Formal establishment of a Farmer-Centered Agricultural Research Network, consisting of 20 institutions: the Network has a clearly defined mission and function, and is the key nation-wide force for promoting PR and stimulating change in the formal research system. Within the network there are five research groups addressing priority issues.
- A participatory pilot project on raising rice seedlings in saline areas was completed. This project was the first participatory, gender-focused study undertaken in China and was given an award by the university.
- Nine of the 20 Network members began participatory projects on a variety of NRM themes.
- A newsletter was published and distributed nationally.
- Funding was obtained from other national and international sources.
- A series of planning and training workshops was held among the members and the materials were widely distributed.

**Publication:**

- Xiaoyun Li, 2002. Establishment of a farmer-centered agricultural research network in China (FCRNC). Report of a PRGA Small Grant for Apr. 2000 to Mar. 2002.

## **10. Integrated nutrient management for building the assets of poor rural women**

**Country:** Uganda

**Partners involved:**

- CIAT-IPRA (Participatory Research Program of the International Center for Tropical Agriculture)
- SWNM (CGIAR Systemwide Program on Soil, Water and Nutrient Management)

**Objective:**

To conduct cost-benefit assessments of existing INM (integrated nutrient management) technologies, undertaking market analyses, and applying gender and stakeholder analysis as part of this approach.

**Project duration:** 2002–2004

**Project budget and PRGA direct financial contribution:** US\$ 250,000

**Outputs/achievements:**

- An understanding of the complex dynamics in intra-household resource allocation and decision-making, and the renegotiations that take place as a result of technical change.

- Development of strategies and mechanisms to ensure that women benefit from and retain control of profitable technological innovations and successful income-generating projects.
- Formulated strategies and technologies that give women more bargaining power.
- Identified and developed strategies for enhancing women's human and social capital that will lead to their central involvement in identifying new technologies and market opportunities.

***Publication:***

- Sanginga P, 2002. Integrated nutrient management for building the assets of poor, rural women. Institutionalizing the use of participatory approaches and gender analysis in research on natural resource management to improve rural livelihoods. CIAT-SWNM. Report of PRGA Small Grant for March–September 2002.

# Impact Assessment of Participatory Research and Gender Analysis

## 1. Participatory monitoring and evaluation: Experiences from Honduras

(Support to Kirsten Probst in PhD studies in NRM.)

*Country:* Honduras

*Partner involved:*

- University of Hohenheim

*Project duration:* July 1998 to June 2001

*PRGA contribution:* full funding of the Research Fellow position held by Kirsten Probst

*Outputs/achievements:*

The experiences in Honduras revealed that participatory monitoring and evaluation (PM&E) contributed to more transparency and accountability within the local groups; it did not, however, necessarily change decision-making structures (e.g. in mixed groups) and structural power differences that often exist between men and women.

*Publication:*

- Probst K, 2002. Participatory monitoring and evaluation: A promising concept in participatory research? Lessons from two case studies in Honduras. Presented at the 2002 PRGA Stakeholder Meeting, April 22–23, Bonn, Germany. Hosted by the German Ministry for Economic Cooperation and Development (BMZ).

## 2. Project inventories

*Partners involved:*

- Various CGIAR, NARS, NGOs and universities

*Objective:*

To describe and analyze a range of practices in both participatory plant breeding (PPB) and participatory natural-resource management (NRM).

*Project duration:* 2000–2002

*Outputs/achievements:*

- Projects from around the world submitted information on research activities, type of gender analysis and participation used, size of project, and a self-assessment of expected impact and research outputs. Seventy-six (76) NRM projects and 72 PPB projects were registered, including most of the CGIAR projects using participatory approaches.

***Publications:***

- The information from both the PPB and NRM inventories is accessible to the public via the PRGA Program's web site (<http://www.prgaprogram.org>), where entries can be updated or added by project leaders at any time. They are searchable by country, region, crop, or resource, and by the implementing CG Center.
- Lilja N; Ashby J, 1999. Types of participatory research based on locus of decision making. *Working Document* No. 6. PRGA Program, Cali, Colombia, 9 p.
- Lilja N; Ashby J, 1999. Types of gender analysis in natural resources management and plant breeding. *Working Document* No. 8. PRGA Program, Cali, Colombia, 6 p.
- Johnson N; Lilja N; Ashby J, 2000. Using participatory research and gender analysis in natural resources management. *Working Document* No. 10. PRGA Program, Cali, Colombia, 28 p.
- Johnson N; Lilja N; Ashby JA; Garcia JA, 2004. The practice of participatory research in natural resource management research. *Natural Resources Forum* 28: 189–200.

**3. The International Potato Center (CIP) development of integrated crop management (ICM) technologies and practices for farmer field school (FFS) for sweet potato in Indonesia (1990s)**

***Country:*** Indonesia

***Partner involved:***

- CIP (International Potato Center)

***Objective:***

To assess what the incorporation of stakeholder participation in NRM research contributes to the magnitude and distribution of project impacts and costs.

***Project duration:*** 2000

***PRGA direct financial contribution:*** US\$ 30,000

***Outputs/achievements:***

- Farmer participation had a significant impact on the technologies produced by the project.
- As a result of farmer input, the scope of the project was broadened from IPM of a single pest (the sweet potato weevil) to ICM.
- Farmers' input led to the identification of plant nutrient management as an area where production efficiency could be improved.
- Farmers' input in the design of a diffusion strategy resulted in the project decision to work through existing extension networks rather than establish independent diffusion capacity.
- Farmer input was also associated with the impact of the technology.
- In an analysis of the impact of the implementation of six sweet potato ICM FFSs by the national program, participation in ICM was associated with higher net income from sweet potato production.

***Publication:***

- Johnson N; Van de Fliert E; Lilja N, 2000. The CIP development of integrated crop management (ICM) technologies and practices for farmer field school (FFS) for sweet potato in Indonesia (1990s). Chapter 2 in Johnson N; Lilja N; Ashby JA (ed.) Characterizing and measuring the effects of incorporating stakeholder participation in natural resource management research: Analysis of research benefits and costs in three case studies. *Working Document* No. 17. PRGA Program. Cali, Colombia, 132 p.

**4. Assessing the impact of user participation in research on soil fertility management: The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) mother–baby trials in Malawi**

***Country:*** Malawi

***Partner involved:***

- ICRISAT (International Crops Research Institute for the Semi-Arid Tropics)

***Objective:***

To assess what the incorporation of stakeholder participation in NRM research contributes to the magnitude and distribution of project impacts and costs.

***Project duration:*** 2000

***PRGA direct financial contribution:*** US\$ 30,000

***Outputs/achievements:***

It was hypothesized that farmer management of baby trials could strengthen farmers' own ability to experiment and to share results with others. Although this type of impact is notoriously difficult to evaluate, data collected by the PRGA Program suggest that baby-trial farmers did not make significant changes in their experimentation practices as a result of the project. An explanation of this result could be that the insistence on following a protocol limited farmers' ability to experiment within the context of the project, hence limiting the participation of the real "innovators" among the general farmer population.

***Publication:***

- Johnson N; Lilja N; Snapp S, 2000. Assessing the impact of user participation in research on soil fertility management: The ICRISAT mother-baby trials in Malawi. Chapter 3 in Johnson N; Lilja N; Ashby JA (ed.) Characterizing and measuring the effects of incorporating stakeholder participation in natural resource management research: Analysis of research benefits and costs in three case studies. *Working Document* No. 17. PRGA Program, Cali, Colombia, 132 p.

## **5. Assessing the impacts and costs of user participation in the diffusion of soil conservation practices in Central America: The ACORDE<sup>1</sup>–World Neighbors Integrated Development Project in Honduras**

*Country:* Malawi

*Partner involved:*

- World Neighbors

*Objective:*

To assess what the incorporation of stakeholder participation in NRM research contributes to the magnitude and distribution of project impacts and costs.

*Project duration:* 2000

*PRGA direct financial contribution:* US\$ 30,000

*Outputs/achievements:*

Levels of adoption of soil conservation practices were high during the project, and continued use and innovation could still be observed at the time of the impact assessment, 20 years after the project began. The project success appeared to be due to the participatory methods used to attract farmer attention, demonstrate benefits of the technology, build human capital to experiment and innovate, and strengthen capacity to share information. Little diffusion was observed beyond the project communities, which suggests that scaling up cannot be left solely to spontaneous diffusion.

*Publication:*

- Johnson N; Lilja N, 2000. Assessing the impacts and costs of user participation in the diffusion of soil conservation practices in Central America: The ACORDE–World Neighbors (WN) Integrated Development Project in Honduras. Chapter 4 in Johnson N; Lilja N; Ashby JA (ed.) Characterizing and measuring the effects of incorporating stakeholder participation in natural resource management research: Analysis of research benefits and costs in three case studies. *Working Document No. 17*. PRGA Program, Cali, Colombia, 132 p.

## **6. Impact-assessment capacity-building training**

*Country:* Kenya

*Partners involved:*

- Various CGIAR, NARS and universities

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<sup>1</sup> ACORDE = Coordinating Association of Resources for Development.

**Objective:**

The seminar—titled “3rd International Seminar on Uniting Science and Participation in Research”—focused on understanding different options for the organization and management of science and participation in participatory, client-driven research processes. During the seminar, two impact-assessment training sessions were organized. The focus of the training was on assessing the impact of the participatory methodology *rather than* the impact of the project.

**Project duration:** November 6–11, 2000

**Outputs/achievements:**

- Sixty conference participants, including all PRGA Program Small Grant recipients, attended the impact-assessment workshop.
- The participants were trained in the following aspects of assessing the impact of PR:
  - identifying stakeholders and their impact objectives;
  - prioritizing objectives, developing specific hypotheses relating to the type of participation used;
  - designing a rigorous methodology for testing the hypotheses.
- The participants found it relatively easy to identify their stakeholders and stakeholder objectives; however, when it came to developing hypotheses about how user participation and gender analysis affected the project, many struggled. They did not feel comfortable with the concepts of choosing a counterfactual and control, and recognizing the implications for extrapolation of bias in the selection of participants.

**Publication:**

- Lilja N; Johnson N, 2002. Guide to impact assessment in participatory research and gender analysis. *Working Document No. 7*. PRGA Program, Cali, Colombia, 63 p.

## **7. Institutional process impacts of participatory rice improvement research and gender analysis in West Africa**

**Countries:** West African countries (Mauritania, Senegal, The Gambia, Guinea Bissau, Guinea, Sierra Leone, Liberia, Mali, Côte d’Ivoire, Ghana, Burkina Faso, Togo, Benin, Niger, Nigeria and Cameroon)

**Partners involved:**

- WARDA (West Africa Rice Development Association)
- National Agricultural Research Centers in West Africa

**Objective:**

To evaluate the effect that the change in research methodology from conventional breeding to participatory breeding has had on the research institute implementing the approach by:

- characterizing and assessing how the national partners implemented the participatory research and gender analysis;

- assessing what have been the specific impacts on breeding goals, methods, partners, and institutional structures.

**Project duration:** May 2001

**PRGA direct financial contribution:** US\$ 0

**Outputs/achievements:**

Survey of WARDA’s 16 national partner institutions showed that:

- The experience with participatory research by WARDA’s national partners clearly provided feedback to breeders in the national programs, and this information led to some specific perceived internal institutional changes in terms of changes in breeding objectives;
- The participatory varietal selection (PVS) approach applied took into account the biophysical and socio-economic environment in which farmers operate, and hence seemed to increase adoption rates compared to the conventional breeding approach;
- The type of gender analysis did not appear to be going much beyond “head-counting.” Most national programs had implemented a “50% women and 50% men” egalitarian approach to choosing the partner farmers, rather than paying attention to the results of gender analysis that would aid in determining the right proportion of various stakeholders in the participant group.

**Publication:**

- Lilja N; Erenstein O, 2002. Institutional process impacts of participatory rice improvement research and gender analysis in West Africa. *Working Document* No. 20. PRGA Program, Cali, Colombia.

**8. Project synthesis workshop: Assessing the benefits of rural women’s participation in natural-resource management**

**Country:** Colombia

**Partners involved:**

- CIP (International Potato Center)
- CIFOR (Center for International Forestry Research)
- ILRI (International Livestock Research Institute)
- ICRAF-AHI (African Highlands Initiative)
- CIMMYT (International Maize and Wheat Improvement Center)
- KARI (Kenya Agricultural Research Institute)
- University of Zimbabwe

**Objective:**

The PRGA Program provided 3-year small grants for 6 projects in order to develop better evidence that achieving the participation of women in the process of natural-resource management (NRM) research is important to adoption and development impacts, and the “process” impacts that involve learning and change. The purpose of this end-of-project workshop

was to continue the exchange of experiences, methodologies and impact findings of empirical studies of the NRM small grants and other invited research cases.

**Project duration:** November 13–17, 2001

**PRGA contribution:** Full workshop costs, including participants

**Outputs/achievements:**

An important finding of these studies was that both “women and development” and “gender and development” frameworks have failed to make functional linkages between technical changes increasing the return on women’s labor in higher-value production and marketing innovations as well as drudgery-relieving technology. Another weakness identified was the failure to go beyond the production-to-consumption chain to include incentives for women producers to invest in maintaining and improving the natural-resource base of production, leading in many cases to a downward spiral of mining these resources by women when new production opportunities arose. A third conclusion, ratified by the Program’s external review panel (CGIAR-PRGA, Internally Commissioned External Review, 2000), was that the use of gender analysis in agricultural and natural-resource management research and development needs to go beyond “head counting” of women to integrate analytical frameworks from the social sciences using concepts of interest groups, stakeholders, and social stratification.

**Publications:**

- Sanginga PC; Lilja N; Gurung B (Ed.), 2002. *Assessing the benefits of rural women’s participation in natural resource management*. Proceedings of the Natural Resource Management Small Grants End-of-Project Workshop, November 13–17, 2001, Cali, Colombia. PRGA Program, Cali, Colombia.
- Johnson N; Lilja N; Ashby JA, 2000. Characterizing and measuring the effects of incorporating stakeholder participation in natural resource management research: Analysis of research benefits and costs in three case studies. *Working Document No. 17*. PRGA Program, Cali, Colombia, 132 p.
- Johnson N; Lilja N; Ashby JA, 2003. Measuring the impact of user participation in agricultural and natural resource management research. *Agricultural Systems* 78: 287–306.

## **9. Benefits and costs of participatory barley breeding in Syria**

**Country:** Syria

**Partner involved:**

- ICARDA (International Center for Agricultural Research in the Dry Areas)

**Objective:**

To assess the benefits and costs of ICARDA’s participatory barley breeding approach as compared to the conventional (centralized) breeding approach, both at the farmer level and as returns to research.

***Project duration:*** December 2001 to August 2003

***PRGA direct financial contribution:*** US\$ 30,000

***Outputs/achievements:***

The results of this study show that there are potentially significant increases to Syrian agriculture from participatory barley breeding. A detailed account of the costs of participatory plant breeding were also included, and showed that the given breeding approach (e.g. conventional, decentralized, participatory) or breeding method used (bulk, pedigree) affected the operational costs, which, however, represent only a relatively small share of the total breeding budget.

***Publication:***

- Lilja N; Aw-Hassan A. Benefits and costs of participatory barley breeding in Syria. Background paper for poster presented at the 25th International Conference of the International Association of Agricultural Economists (IAAE), Durban, South Africa, August 16–22, 2003.

## Workshops

### 1. First international seminar on participatory research and gender analysis for technology development: New frontiers in participatory research and gender analysis

*Country:* Colombia

*Project duration:* September 9–14, 1996

***Publication:***

- CGIAR-PRGA (Consultative Group on International Agricultural Research – Participatory Research and Gender Analysis Systemwide Program), 1997. *New frontiers in participatory research and gender analysis*. Proceedings of the First International Seminar on Participatory Research and Gender Analysis for Technology Development, September 9–14, 1996, Cali, Colombia. PRGA Program, Cali, Colombia, 280 p.

### 2. Second international seminar: Assessing the impact of participatory research and gender analysis

*Country:* Ecuador

***Partners involved:***

- Over 100 researchers and development professionals attended the seminar.

***Objective:***

To understand the status of existing knowledge about the impact of various approaches using PR and GA in agricultural and natural-resource management.

*Project duration:* September 6–9, 1998

*PRGA direct financial contribution:* US\$ 150,000

***Outputs/results:***

Through 14 invited and commissioned paper presentations, research and development initiatives involving farmer participation and GA in the use and conservation of genetic resources, in particular plant breeding, and in NRM were analyzed. Lessons learned from the presentations were synthesized in discussion groups.

***Publication:***

- Lilja N; Ashby JA; Sperling L (Ed.), 2000. *Proceedings of the seminar on Assessing the Impact of Participatory Research and Gender Analysis, September 1998, Quito, Ecuador*. CGIAR Program on Participatory Research and Gender Analysis, Cali, Colombia. 287 p.

### **3. International symposium: Technical and institutional aspects of participatory plant breeding from the perspective of informal sector: An integrated analysis of themes, results and actual experiences**

*Country:* Ecuador

*Project duration:* August 31 to September 3, 1999

#### ***Publication:***

- PRGA Program, 2000. Fitomejoramiento Participativo en América Latina y el Caribe: Memorias de un simposio internacional. (1999: Quito, Ecuador.) Cali, Colombia. Aspectos Técnicos e Institucionales del Fitomejoramiento Participativo desde la Perspectiva del Sector Informal. Un análisis integral de temas, resultados y experiencias actuales. Resumen Ejecutivo.

### **4. Participatory research for natural-resource management: Continuing to learn together**

*Country:* UK

#### ***Partners involved:***

- NRI (Natural Resources Institute)
- IDRC (International Development Research Centre)

#### ***Objectives:***

- Methods and approaches to increase stakeholder involvement.
- Collaborative management of natural resources.
- Collective learning.

*Project duration:* September 1–3, 1999

#### ***Publications:***

- Pound B; Snapp S; McDougall C; Braun A (Ed.), 2003. *Managing Natural Resources for Sustainable Livelihoods: Uniting science and participation*. Earthscan, London Sterling, Vancouver, Canada, and IDRC, Ottawa, Canada.
- PRGA, 1999. *Full text versions of case studies presented at Participatory research for natural resource management: Continuing to learn together. Case studies from a joint CG-PRGA/NRI Workshop, 1st – 3rd September 1999. Chatham, England.* [PRGA Program, Cali, Colombia.] <http://www.prgaprogram.org/modules.php?op=modload&name=DownloadsPlus&file=index&req=getit&lid=102>

## **5. International symposium: An exchange of experiences from South and Southeast Asia**

*Country:* Nepal

***Objective:***

To exchange and compare the diversity of experiences with PPB in the region, to identify gaps in the research to date, and to network South and Southeast Asian institutional plant breeders, farmers and others who are using participatory methodologies. Over 100 scientists, farmers, development practitioners and community organizers from seven South and Southeast Asian countries (plus Jordan and Samoa) met in Pokhara, Nepal, to discuss PPB methodologies, strategies, actors, environments and impacts.

***Project duration:*** May 1–5, 2000

***Publication:***

- CGIAR Systemwide Program on Participatory Research and Gender Analysis, 2001. *An Exchange of Experiences from South and South East Asia*. Proceedings of the International Symposium on Participatory Plant Breeding and Participatory Plant Genetic Resource Enhancement, Pokhara, Nepal, May 1–5, 2000.

## **6. Third international seminar: Uniting science and participation in research**

*Country:* Kenya (Nairobi)

***Project duration:*** November 6–11, 2000

***Publication:***

- Pound B; McDougall C; Snapp S; Braun A (ed.), 2003. *Uniting science and participation*. Earthscan, London Sterling, Vancouver, Canada, and International Development Research Center (IDRC), Vancouver, Canada, 260 p.

## **7. Africa-wide symposium on participatory plant breeding and participatory plant genetic resource enhancement**

*Country:* Côte d'Ivoire

***Project duration:*** May 7–10, 2001

***Partner involved:***

- WARDA (West Africa Rice Development Association)

**Objective:**

- To share a wealth of experience and move forward the fields of participatory breeding and genetic-resource enhancement, particularly on the African continent.
- This symposium brought together scientists (plant breeders, geneticists agronomists, seed technologists, socio-economists) development specialists, community organizers and farmers, drawn from 22 countries (including 16 African nations).

**Publication:**

- Sperling L; Lançon J; Loosvelt M (Ed.), 2004. *Participatory Plant Breeding and Participatory Plant Genetic Resource Enhancement: An Africa-wide exchange of experiences / Sélection participative et gestion participative des ressources génétiques en Afrique : Échange d'expériences*. Proceedings of a workshop held at M'bé, Côte d'Ivoire, May 7–10, 2001. CGIAR Systemwide Program on Participatory Research and Gender Analysis, Cali, Colombia.

**8. Workshop on: Exploring linkages between participatory research and computer-based simulation modeling to increase crop productivity at the small-holder level**

**Country:** Zimbabwe

**Partners involved:**

- ICRISAT (International Crops Research Institute for the Semi-Arid Tropics)
- CIMMYT (International Maize and Wheat Improvement Center)
- Systemwide SWNM (CGIAR Systemwide Program on Soil, Water and Nutrient Management)

**Objective:**

To explore the synergistic effects that can be created when joining very different approaches to crop productivity and soil-fertility management.

**Project duration:** October 15–20, 2001

**Outputs/achievements:**

Participants shared their experiences in participatory research and modeling scenarios, and received a brief training on the APSIM (Agricultural Production Systems Simulator) model using participatory research approaches.

**Publication:**

- CGIAR Systemwide Program on Participatory Research and Gender Analysis (PRGA Program), 2001. *Linking logics II. Exploring linkages between farmer participatory research and computer-base simulation modeling* [CD-ROM]. Workshop held at ICRISAT Oct. 15–20, 2001 in Bulawayo, Zimbabwe.

## 9. Workshop on farmer breeding skill enhancement

*Country:* Colombia

*Partners involved:*

- 13 farmers from the North Coast region of Colombia (6 women, 7 men)

*Objectives:*

- To encourage local experts to continue experimenting with, conserving, and enhancing their genetic resources.
- To explore the feasibility of, and methods for, complementing farmer experts' knowledge and skills.

*Project duration:* October 29 to November 1, 2001

*Outputs/achievements:*

- Participants can now implement a full cassava breeding cycle, understanding phenotype, genotype, dominant and recessive traits, variability, and segregation.
- They can identify feminine and masculine cassava flowers (and their main organs) and know when they are ready for crossing, how to make a cross, protect a pollinated flower, and harvest and plant botanical seeds.

*Publications:*

- Saad N; Hernández LA; Morante N, 2001. *Complementing Farmers' Genetic Knowledge: Farmer Breeding Workshop in Turipaná, Colombia*. CIAT-IPRA, CORPOICA, DFID, PRGA Program.
- Saad N; Hernández LA; Morante N, 2002. Complementing farmers' genetic knowledge: Farmer breeding workshop, 29 Oct. to 1 Nov. 2001, Turipaná, Colombia. In: *Proceedings of the International Symposium: Managing biodiversity in agricultural ecosystems, November 8–10, 2001, Montreal, Canada*. PRGA Program, Cali, Colombia.

## 10. Stakeholder meeting 2002: Participatory monitoring and evaluation: Experiences from Honduras

(The German Ministry for Economic Cooperation and Development (BMZ) hosted this PRGA Program stakeholder meeting in Bonn.)

*Country:* Germany

*Partners involved:*

- University of Hohenheim
- Several CGIAR Centers

**Objective:**

To present results from Small Grants projects and lessons learned from the Program's first phase (1997–2001), and to seek strategic future directions for the Program. The main focus in lessons learned was the assessment of benefits of rural women's participation in NRM research.

**Project duration:** April 22–23, 2002

**Publications:**

- CGIAR Program on Participatory Research and Gender Analysis, 2002. Assessing the benefits of rural women's participation in natural resource management research and capacity building. Final Report submitted to BMZ/GTZ.
- Probst K, 2002. Participatory monitoring and evaluation: A promising concept in participatory research? Lessons from two case studies in Honduras. Presented at the 2002 PRGA Stakeholder Meeting, April 22–23, Bonn, Germany.

## 11. The quality of science in participatory plant breeding

**Country:** Italy

**Partner involved:**

- SGRP (CGIAR Systemwide Genetic Resources Program)

**Objective:**

This workshop emerged from a key recommendation of the panel of the Systemwide Review of Plant Breeding Methodologies in the Future Harvest Centers (October 2002), which suggested that participatory plant breeding (PPB) approaches should be considered among the core breeding strategies within the international agricultural research centers. To move forward the practice, the panel suggested that a workshop be convened to compare and contrast various PPB practices and to assess the state of the art.

**Project duration:** September 30 to October 4, 2002

**Publication:**

- CGIAR Systemwide Program on Participatory Research and Gender Analysis, 2003. *The Quality of Science in Participatory Plant Breeding*. Proceedings of a workshop co-hosted by the CGIAR Systemwide Program on Participatory Research and Gender Analysis (PRGA) and the CGIAR Systemwide Genetic Resources Program (SGRP), Rome, Italy, September 30 to October 4, 2002.

## Gender Analysis

Many of the PRGA Program's partners had limited experience in the use of gender and gender analysis. The challenge can be summarized as: How do we move beyond counting of number of women to a more rigorous gender and social analysis, including the analysis of "power" relations? In order to respond to this challenge, the PRGA Program contracted the following gender studies in collaboration with outside gender experts.

### **1. Women and agricultural technology: Preliminary search for nodes of information and literature**

#### ***Objective:***

To see what had been done to help enhance poor women's access to agricultural technologies that take into account their specific production responsibilities.

#### ***Outputs:***

The report collates the existing sources of information on women and technology, including organizations and programs, web sources, networks, databases, bibliographies and literature.

#### ***Publication:***

- PRGA, 2000. *Women and agricultural technology: Report of a preliminary search for nodes of information and literature*. CGIAR Systemwide Program on Participatory Research and Gender Analysis, Cali, Colombia.

### **2. An approach to technological innovation that benefits rural women: The resource-to-consumption system**

#### ***Objective:***

To identify key factors that lead to meeting the challenge of developing technologies that benefit specific beneficiary groups successfully.

#### ***Outputs:***

The concept of a "resource-to-consumption system" was developed as an approach that brings together the main elements of the production-to-consumption chain used by successful approaches, but with the addition of the dimension of natural-resource management by women.

#### ***Publication:***

- Kaaria SK; Ashby JA, 2001. An approach to technological innovation that benefits rural women: The resource-to-consumption system. *Working Document No. 13*. PRGA Program, Cali, Colombia, 55 p.

### 3. Participatory research and gender analysis

#### **Objectives:**

- To provide an analysis of the methods and approaches currently used within participatory plant breeding (PPB) with respect to gender issues, the use of gender analysis (GA), and user involvement.
- To draw out the implications of researchers' experience with GA and user involvement.
- To analyze and discuss the outputs currently being generated by PPB from a user perspective.
- To identify what more might be done, and how, in order to achieve broader impacts and to capitalize on what has been achieved to date.

#### **Outputs:**

Various “gaps and opportunities” were revealed by the analyses. They are clustered under the headings of Developing and strengthening practice, Supporting breeders and other researchers, Methods and materials development, and Expanding the agenda.

#### **Publication:**

- Rozel C; Jiggins J, 2003. Participatory plant breeding and gender analysis. *PPB Monograph* no. 4. CGIAR Systemwide Program on Participatory Research and Gender Analysis (PRGA Program), Cali, Colombia, 116 p.

### 4. Gender and social capital: The importance of gender differences for the maturity and effectiveness of natural-resource management groups

#### **Objective:**

To contribute to an improved understanding of the gender aspects of social capital manifested in groups for natural-resource management, by investigating how gender-differentiated social groups differ in their activities and outcomes for natural-resource management.

#### **Outputs:**

Findings showed that collaboration, solidarity and conflict resolution all increase in groups where women are present. In addition, norms of reciprocity are more likely to operate in women's and mixed groups. Similarly, capacity for self-sustaining collective action increased with women's presence and was significantly higher in the women's groups. The results demonstrate the importance of gender analysis for collective natural-resource management and particularly the role of women for collaboration in and sustainability of natural-resource management groups.

#### **Publication:**

- Westermann O; Ashby JA; Pretty J, 2005. Gender and social capital: The importance of gender differences for the maturity and effectiveness of natural resource management groups. *World Development* 33(11): 1783–1799.

## 5. Mapping gender imbalances in three impoverished regions

*Countries:* Nepal, Malawi, Bolivia

*Partner involved:*

- Appalachian State University

*Objective:*

To test the hypothesis that gendered issues of poverty have spatial patterns and that by using GIS as a tool, projects can begin to identify and address these issues more effectively.

*Outputs/achievements:*

- GIS technology is now accessible enough to professional organizations that it should be a useful tool for sound decision-making if the challenge of data quality (and access) can be overcome.
- The work showed that mapping gender variables across national boundaries can help shed light on the effects of government policies on gendered poverty in similar biophysical conditions.
- The work also showed that it is important for social scientists to use GIS in order to analyze gender issues on regional scales, rather than sticking only to local-scale case studies and ethnographies.