PRGA

# ANNUAL REPORT 2003

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## PRGA PROGRAM

FUTURE HARVEST

CGIAR

# Annual Report 2002-2003:

# Outline



## PRGA Program

**Program on Participatory Research and Gender Analysis for Technology Development and Institutional Innovation:**

**A CGIAR Systemwide Program**

PRGA

CGIAR

FUTURE HARVEST

Cali, Colombia

# ANNUAL REPORT 2002-2003

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

**Co - Sponsor:**

**CIAT - Centro Internacional de Agricultura Tropical (Convening Center)**

**CIMMYT - Centro Internacional de Mejoramiento de Maiz y Trigo**

**ICARDA - International Center for Agricultural Research in the Dry Areas**

**IRRI - International Rice Research Institute**

# Contents to the Outline

## 1.1. Background

In 1997, the CGIAR created the PRGA Program, that is, the systemwide Program on Participatory Research and Gender Analysis for Technology Development and Institutional Innovation. The Program's objective was to assess and develop methodologies and organizational innovations for gender-sensitive participatory research, and to operationalize their use in plant breeding, and crop and natural resource management. The idea and plan for the Program were the result of a seminar held in 1996 among a group of 50 research and development professionals representing a range of different types of institutions and the world's major regions. All were highly experienced in participatory research and gender analysis (PRGA), gathering together to address the priority issues and challenges in the field. Although much had already been achieved through on-farm adaptive research by the time this meeting took place, there was a perception that the impact of user participation in agricultural researchwhether as researchers, decision makers, and priority setterscould be more profound and durable.

Focusing on the need to stimulate the inclusion of a user perspective, particularly that of women, in pre-adaptive research, the participants of the planning meeting determined that an urgent need existed to "strengthen, consolidate, and mainstream gender analysis and participatory research in a high-priority, high-visibility program that recognizes farmer participation as an important strategic research issue". The idea was to pool resources and knowledge within the CGIAR system to accelerate the development of new methodological tools, capacities, and institutional strategies for participatory research (PR).

Because of its recognized leadership in this area, CIAT was asked to convene the Program. Three other CGIAR centersCIMMYT, IRRI, and ICARDAagreed to act as co-sponsors.

The strategy and structure of the Program were designed for the task at hand. Three decentralized working groups were formed. These were the Participatory Plant Breeding Working Group (PBG), the Participatory Natural Resource Management Working Group (PNRM-wg), and the Gender Analysis Working Group (GA-wg). Each had a representative in the planning group, and each made a 5-year work plan that has provided the basis for the annual agenda of work and budgeting. The elements of the GA Group's work plan were substantially planned into the PBG and PNRM Group's 5-year work plans to ensure integration of gender with these areas of work.

In 1997, the CGIAR Gender Program, which had been staffed from the CGIAR Secretariat, was formally incorporated into the systemwide PRGA Program.

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1. For an explanation of this and other acronyms and abbreviations used in the text, see Appendix 15.

The working groups comprise practitioners from IARCs, national agricultural research institutes (NARIs), NGOs, and indigenous research systems, mixing expertise from both the biophysical and social sciences to implement a common work plan. The members meet periodically at the Program's biannual international seminar, at research workshops, and at field sites. An important mode of work is through e-mail networks. While each working group has its specific work plan, the three have in common four elements that form the main thrust of the Program's approach: methodology development, capacity building, partnerships and networks, and institutionalization.

The PRGA Program is now 6 years old. Together with its partners, the Program has been a factor in creating a strong momentum to implement participatory approaches not only within the CGIAR system, but also on a broader scale. Many respected scientists and practitioners are using these approaches in their research, and *demand is growing* (although as yet, unmet) for training. The Program has shown that PRGA embodies rigorous methods that are scientifically grounded.

The Program's work has built a body of evidence that shows that these methods are delivering broad impact by producing technologies and resource management options that are well suited to end users' needs, thus significantly reducing the possibility of farmers rejecting newly developed technologies. In addition, PR is producing "process impacts", resulting in, for example, increased human and social capital, which is essential to the sustainability of rural development and innovation. Among those who benefit most from the implementation of these approaches are the most needywomen, the very poor, and marginal groupswho are often overlooked by conventional research. Finally, the PRGA Program has demonstrated how participatory and gender-sensitive approaches can be cost efficient because of their increased impact and reduced time overall to produce relevant technologies.

### 1.1.1. New directions since 2002

#### 1.1.1.1. Lessons learned

Although the PRGA Program has made considerable progress, as outlined above, several lessons have been learned from these achievements. These are summarized as:

- Absence of a core of PRGA expertise in the CGIAR. A survey conducted among the CGIAR centers shows that the total amount invested in PRGA activities is US$27 million. This amount is spread among 144 projects across 16 centers in the CGIAR, leading to extreme fragmentation of human and financial resources, and thus prompting the question: is investing resources in PRGA activities paying off?

- Unmet demand for capacity development. The predominance of a researcher-led type of participation in research, combined with highly limited use of gender analysis (GA) methods, has led to a huge and unmet demand for capacity development, particularly in the CGIAR centers. But capacity development efforts will not have lasting impact if these are not accompanied by organizational change.

- Learning and experimentation with methods is widespread. Evidence from impact case studies also demonstrates that the use of PRGA methods in research generates a process of learning and change, particularly in method innovations that result from farmers feedback. Results of impact case studies conducted with ICRISAT, ICARDA, World Neighbours Canada, and WARDA demonstrate that user participation lead to feedback that change priorities and practices of research institutions. Systematizing methods and learning, together with capacity building to use PRGA methods more effectively, have contributed to scaling-up, that is, reaching more people more quickly.

- Learning and change does not extend to organizations. However, learning and change remain at project level. The absence of feedback from project to organization has implications for learning to be sustained beyond the project's life.

#### 1.1.1.2. Objectives

Hence, while it is important to continue with efforts to build compelling evidence of impact, there is a real need to focus attention on developing capacity for PRGA, combined with organization-development skills for their institutionalization. More specifically, the strategy for the PRGA Program's phase 2 will focus on the following:

- Capacity development in methods that ensure gender-equitable, stakeholder-client representation in research decision making; and networking within a cadre of champions who support each other and who can make a difference.

- Continue to build compelling evidence of impact.

- Develop action research partnerships to institutionalize PRGA approaches within a core of IARCs and NARS.

- Communications and partnerships for disseminating information and devolving Program activities, responsibilities, and decision making to stakeholders.

### 1.1.2. Overview of progress, 2002-2003

Outputs for 2002-2003 included:

- State-of-the-art analyses were published as PPB Monographs. These four commissioned documents, now completed, are extensive studies on participatory plant breeding (PPB) and gender analysis (GA).
- More than 120 case studies of PPB were identified and described for the PPB inventory, now available on the PRGA Program's Web page.
- Fifteen PPB reports from projects funded by the PRGA Program were received and published.
- PRGA Program scientists advised and partially supported three PhD students working in the PPB field.
- The Program's impact assessment research has established and maintains an inventory of participatory projects. It conducts impact studies in collaboration with various research institutes, and engages in methods development, and capacity building in impact assessment of participatory approaches with partner institutions.
- Several Intra-Center Committees were established to foster organizational strategies for PRGA work.
- Methods for integrating plant breeding (PB) and natural resource management (NRM) into joint projects were developed.
- A book entitled Managing Natural Resources for Sustainable Livelihoods: Uniting Science and Participation was submitted to co-publishers, Earthscan and IDRC, in July 2002. An external review was completed in September 2002 and the book was published in August 2003.
- Several weaknesses in the PRGA Program's Web site were identified. The Program decided to upgrade the contents of the existing Web site, while developing a **new Web site** with improved navigation, searchability, and interactivity.
- With strong support from the senior management at JIRCAS and from the Lao-CIAT Forages and Livestock Systems Project, the PRGA Program designed and facilitated a workshop entitled Improving Adoption of Agricultural Technologies.
- The Program collaborated in the publication of several papers.

- The PRGA Program co-hosted, with the System-wide Genetic Resources Programme (SGRP), a workshop on The Quality of Science in Participatory Plant Breeding. Held at IPGRI, Rome, from 30 September to 4 October 2002, the workshop assessed critical advances in the social and biological sciences shaping PPB practice, and evaluated the breadth of its impact to date.

- At the same workshop, the PRGA Program presented a paper on the Benefits and Costs of Decentralized Participatory Barley Breeding at ICARDA, Syria.

- The Program presented another paper on Why has impact assessment research not made more of a difference? at an international conference on the impact of agricultural research and development. The conference, entitled Measuring the Impact of User Participation in Natural Resource Management Research, was organized by the CGIAR's Standing Panel on Impact Assessment (SPIA) for 4-7 February 2002, at San José, Costa Rica.

- Paper presented on the Impact of Participatory Research and Gender Analysis in Plant Breeding at the 2002 CGIAR Annual General Meeting in Manila, the Philippines.

- Organized the PRGA Stakeholder Meeting for 30 June1 July 2003, held in Cali, Colombia.

### 1.1.3. Logical framework for the PRGA Program's second phase

The objectives of the Program's future strategies have been formed by a synthesis of experiencesgenerated from the Program's accomplishments and lessons learnedthat was combined with consultations with stakeholders and recommendations from the Internally Commissioned External Review (ICER). The objectives for the second phase are listed below:

#### 1.1.3.1. Outputs and activities

The PRGA Program's outputs and activities tend to fall into groups, according to the Program's objectives. These are:

i. Develop a capacity to encourage gender-equitable, stakeholder-client representation in research decision making, and networking within a cadre of champions who support each other and who can make a difference

- Generate methods for using gender and/or stakeholder analyses for technology development
- Promote organization-development skills and planning
- Development of concepts and skills for impact assessment
- Create a network within a cadre of champions who support each other and who can make a difference

ii. Continue building compelling evidence of impact

- Conduct empirical studies on participatory research methods in PB and NRM
- Develop and disseminate tools and methods that enable scientists to capture the impact of products and processes, and integrate learning from impact assessment into research planning and adaptation (learning and change)

iii. Action research partnerships on institutionalizing PRGA approaches with a core of IARCs and NARS

- Conduct institutional assessments with partner organizations to assess opportunities and constraints for institutionalizing PRGA methods
- Form partnerships with organizations that enable the PRGA Program to have a major impact on (1) integrating PRGA into agricultural research, and (2) enhancing methods and approaches that contribute to improving the livelihoods of the very poor, particularly rural women
- Develop tools that go beyond generic gender diagnosis and analysis to (1) enable the design of tailored analyses, and (2) guide researchers in interpreting GA results so they may effectively address their implications in research planning and adaptation

iv. Communications and partnerships for disseminating information

- PRGA interactive Web site
- Dissemination
- Publications
- Enhance the support function of the working groups PBG, PNRM-wg, and GA-wg

### *1.1.3.2. Gains*

These include:

- Greater access to a global exchange of PRGA expertise among a wide range of institutions.
- Accelerated learning from experiences; and new, widely applicable, methodologies for PRGA generated.
- Considerable savings and increased impact from NARS generated by better-designed technologies.
- Indigenous systems of crop development and NRM strengthened and integrated with formal research in a mutually reinforcing way.
- Poor rural women become meaningful participants in research and its beneficiaries.
- Greatly accelerated development and adoption of diverse germplasm in major food crops.

#### *1.1.3.3. Users*

Poor rural farmers, IARCs, NARIs, NGOs, and rural grassroots organizations

#### *1.1.3.4. Collaborators*

IARCs, NARS, NGOs, grassroots organizations, and universities

#### *1.1.3.5. CGIAR system linkages*

The main ones focused will be Enhancement and Breeding (25%), Crop and Livestock Production Systems (25%), Protecting the Environment (30%), and Organization and Management (20%).

**Note:**
*See Appendix 1 for a description of the PRGA Program's logical framework, and Appendix 2 for details of the distribution of the Program's budget allocations.*

## 1.2. Strategies

During 2003, the PRGA Program goals have been adapted as a result of lessons learned from activities in phase 1 and of inputs received from various consultations with stakeholders during the same period. As a result, the major focus for the second phase, beginning 2003, will be on the following strategies:

- Mainstream PRGA approaches.
- Increase the development of capacity in GA, PR, impact assessment, and use of organization-development concepts and tools.
- Institutionalize these approaches within the organizational context.
- Continue to build evidence of the impact of using gender-sensitive, participatory research methods.
- Develop action research partnerships to institutionalize PRGA approaches within a core of IARCs and NARS.
- Develop communications and partnerships for disseminating information.
- Devolve the Program's activities, responsibilities, and decision making to Stakeholders.

The following briefly describes the most important facets of these strategies.

### 1.2.1. Mainstreaming PRGA approaches

Mainstreaming the Program's outputs is critical to its success. Client-oriented research and development (R&D) requires skilful interactions between researchers and end users of technology to ensure that innovations are appropriate and rapid adoption occurs.

Mainstreaming the use of PRGA will have been achieved if these research approaches and principles are:

- Widely accepted by donors, IARC management, and scientists as valid for achieving scientific research goals (e.g., soil analysis and gender analysis have equivalent legitimacy and validity as research tools).

- Used scientifically in a discriminating fashion to improve research in the CGIAR systemnot for advocacy or for the sake of appearances.

- Assigned sufficient resources at the system level to enable IARCs to apply the approaches and methods when needed to solve priority research problems, to learn from one another's experiences, and to conduct strategic research for developing new applications and cutting-edge methodologies.

- Applied to increase gender-equitable stakeholder and client participation in relevant research processes and decisions so that feedback to research, and research efficiency and effectiveness are improved; technology appropriate to different stakeholders is developed; and adoption rates increase among the CGIAR's priority client groups such as poor rural women.

- Used by IARCs to develop and promote collaborative research partnerships that incorporate gender-sensitive stakeholder and client participation and contribute to empowering poor rural women to access new opportunities through technological innovation.

- Used to encourage gender-equitable stakeholder and client representation in CGIAR external and internal reviews, impact assessment, and consultations for strategic planning.

- Integrated into the structure and culture of the organization. Specifically, PRGA approaches and principles would be reflected in terms of reference (TORs) and personnel evaluation systems of researchers; incentive systems at the organizational level; policy statements of the organization; core funding within the organization.

### 1.2.2. Partnerships based on collaborative advantage

Given the complexity of research problems, the Program was designed for implementation through interinstitutional collaboration. A special task force at the Systemwide Planning Meeting developed the principles guiding these partnerships. Partnerships among IARCs, NARIs, NGOs, and governmental regional offices (GROs) are to be decentralized. Methods are to be introduced into ongoing projects, consistent with their priorities. Emphasis is given to horizontal arrangements where collaborative advantages are sought. The goal is to create a synergy between and among collaborators so that, together, they may produce or accomplish something new that cannot be done by any one organization. Table 1a shows the Program's partnerships:

- The principles for successful partnerships adopted by the Program are:
- Compelling, shared vision and sense of purpose.
- Strong, skilful, shared leadership that purposely seeks to create collaborative advantage.
- Shared problems of definition and approach.
- Guidelines for using methodologies and organization innovations based on comparisons across agro-socioeconomic environments, technologies, and user groups.
- Common learning process derived from sharing global experiences.
- Power equity.
- Interdependency and complementarity.
- Cost-effective divisions of research labor as a result of joint research and development capacity.
- Mutual accountability.
- Building on ongoing IARC research where possible, with 50/50 co-financing by the Program when partner institutions agree to contribute at least 50% of the resources needed for collaborative activities.

### 1.2.3. Gender analysis

Using GA as a research tool is basic to developing technology aimed at alleviating the poverty of severely disadvantaged social groupsespecially poor rural women. The Program's strategy is to:

- Promote the use of GA.
- Not only understand the implications of women's existing roles and responsibilities in agriculture and NRM for technology development and institutional innovation, but also identify new opportunities for innovation that involve a concomitant change in women's status.

Integration is more effective than isolation; thus GA is a central component in the Program's research, capacity-building, and partnership-development activities. Analysis of differences among stakeholder groups is a first step in designing a good PR agenda. Gender analysis, together with the analysis of other differentiating characteristics within and among groups of technologies, can help ensure that technologies will be useful and used.

The focus is on mainstreaming gender and/or stakeholder analysis principles, methods, and tools in PB and NRM research so that their use becomes an integral part of the processes of research design and implementation within the CGIAR system.

Participatory research in PB and NRM integrates GA into the research process and involves:

- Diverse stakeholder groups.
- Our capacity-building strategy gives our partners the skills needed to integrate gender and stakeholder analysis and partnership principles as critical components of the PR processes in which they are involved.
- Our information dissemination and public awareness activities make visible the needs of both men and women innovators and users of technology.
- The Program develops criteria for assessing the extent to which GA and user involvement in the research process have been achieved and what impact they have had.
- The Program does not limit itself to gender as the sole user-differentiating variable for women in PR just for the sake of involving them, but also to build skills in GA outside the context of PB and NRM research, and to advocate gender-staffing policies per se.

The Program itself should be an example of gender-sensitive stakeholder participation in its own organizational structure, and functions to serve as a "learning lab". Gender-sensitive stakeholder representation is sought in all the Program's collaborative partnerships at all levelsfrom the Advisory Board that advises management to the formation of stakeholder committees in projects receiving small grants.

### 1.2.4. Capacity building

In phase 1, the strategy for capacity development focused largely on the use of methods and approaches for conducting PRGA. Specifically, these were:

- Gender and stakeholder tools and methods.
- Research approaches built on sound use of gender and stakeholder analyses.
- Participatory research methods, processes, and skills for NRM and PB.
- Forming and sustaining effective partnerships for participation.
- Methods, tools, and procedures for impact assessment, participatory monitoring, and evaluation.

Additionally, capacity for on-going projects, using PRGA approaches, was supported through a small grants program (Appendix 3). An inherent objective of the small grants was to build local capacity through learning workshops that the PRGA Program supports. Recipients of the grants were committed to conducting a joint workshop or seminar in their own institutions to expand awareness of the results of PRGA approaches, to promote exchanges with NARS, and to participate in international events sponsored by the Program.

The Program also promotes awareness building, involving donors and senior management of the CGIAR centers (Appendix 4).

For phase 2, the strategy for capacity development will focus more specifically on building capacity to encourage a process of gender-equitable, stakeholder-client representation in research decision making. This will require enhancing capacity in the following areas:

- Methods for using gender and/or stakeholder analyses for technology development.
- Skills and planning in organization development.
- Concepts and skills for impact assessment.
- Networking within a cadre of champions who support each other and who can make a difference.

### 1.2.5. Impact assessment

The PRGA Program's goal in its impact assessment work during the first phase (1997-2002) was to provide compelling evidence of impact of gender-sensitive participatory research.

The strategy to provide that evidence had three components:

- Develop original impact assessment frameworks tailored to the particularities of assessing the impact of a method, as well as develop specific tools for impact assessment.
- Conduct several collaborative empirical studies on applying these frameworks and tools.
- Build capacity through networking for mutual support and learning among the users of participatory methods.

The PRGA Program's stakeholder meetings during 22-23 April 2002 (Bonn, Germany) and 30 June-1 July 2003 (Cali, Colombia) endorsed the idea that the current impact assessment strategy had been effective, and that the same strategy should be continued during the second phase. The Cali meeting also proposed placing greater effort on enhancing the usefulness of impact assessment as a tool for institutional learning and change.

## 1.3. Five-Year Synthesis Report

This Synthesis Report tells the story of 5 years of PRGA Program activities on a global scale and captures the essence of the Program's achievements during its first phase (1997-2002).

Because each of the four strategy elementsmethodology development, capacity building, partnerships and networks, and institutionalizationhas been the thrust of the PRGA Program's activities and has contributed substantially to its impact, they will be recurring themes throughout the report.

### 1.3.1. Major findings

#### *1.3.1.1. Scientific*

The PRGA approach embodies rigorous systematic methods that are scientifically grounded and whose results are valid.

#### *1.3.1.2. Delivering broad impact*

Compared with conventional research, participatory approaches produce technologies and resource management options that are better suited to end users, thus increasing the economic benefits from adoption. In addition, participatory research produces impact on processes, thus helping to generate human and social capital, and is therefore more enduring than is the impact of most other technologies.

#### *1.3.1.3. Beneficial to women, the very poor, and marginal groups*

Enables research to target these groups who are often overlooked by conventional research; and helps scientists understand the relationships among women and men farmers and/or stakeholders and how these affect, and may be affected by, research and development interventions.

#### *1.3.1.4. Cost efficient*

Reduces the overall time required to produce relevant technologies, and significantly reduces the possibility that technologies are rejected by farmers once they have been developed.

#### *1.3.1.5. Widely used, with a growing demand*

Many respected CGIAR scientists are using PRGA approaches in their research, and demand, as yet unmet, is growing for training in the scientific use of PRGA methods in agriculture.

### 1.3.2. The five major accomplishments

The Program's five major accomplishments over 2002-2003 are:

#### *1.3.2.1. Global assessment of the state of the art and emerging issues*

Participatory research and gender analysis is being implemented in many places around the world. The institutions, purpose, and way in which the approaches are implemented vary. As a result of several key studies commissioned and/or conducted by the PRGA Program, as well as an extensive inventorying process, we now have a global benchmark of the quantity, quality, and scope of participatory and gender-sensitive research being conducted around the world by different types of institutions.

For example, we can know what types of institutions are using which types of participation at different stages of their research projects, with what objectives and results. A close assessment of these cases tells us the main achievements and obstacles, and also the emerging challenges and issues for further research.

### *1.3.2.2. Demystification of participation and gender analysis*

As a scientific community we now know much more about the variable nature, and potential applications of PRGA. Not all participation is the same. We know that an array of different "divisions of labor" between farming communities and researchers can be used during various stages in the research process to produce distinct outcomes. The institutional environments in which these research approaches are implemented also affect the way in which the research unfolds. Moreover, we have learned that different kinds of participatory approaches give diverse clusters of both product and process impacts that bear on the well-being of rural communities. These findings help us make sound judgments about when and how to apply participatory and gender-sensitive methods when planning our research.

### *1.3.2.3. Support and engagement in cutting-edge research*

As a strategy to push forward the field of participatory and gender-sensitive research, the PRGA Program has run a competitive small grants program. So far, 9 projects have been funded for work in NRM and 13 projects in PPB. Results show that good progress was made in addressing gender needs.

Although the small grant projects have been the PRGA Program's main arm in the field, Program staff have also engaged directly in cutting-edge research. For example, a Program staff member, together with outside legal expertise, have conducted a study that addressed the challenging issue of how to attribute intellectual property rights that emerge from collaboration between researchers and farming communities. This work is beginning to fill a major gap in the international arena, where current agreements draw prime attention to plant breeders' rights and farmers' rights, but fail to address the division of benefits that could result from collaborative work.

### *1.3.2.4. Rigorous evaluation of the impact and costs of participatory approaches*

Appreciating compelling evidence of the impact of using participatory approaches is the only way that scientists and research managers will begin to incorporate these approaches into their research. While impact of participatory research is recorded, the differential effect of using participatory, in contrast to other,

approaches has rarely been systematically analyzed and documented; nor has the effect of using varying types of participation during different stages of research been assessed.

The PRGA Program has developed and applied tools for empirical impact studies in both PPB and NRM. Four impact cases studies have been completed and three more are in progress and expected to be completed. Both impact and costs were studied, with a focus on documenting impact of processes in different types of participatory research, as well as impact of involving farmers at different stages of research. The studies evaluated impact on technology and adoption, human and social capital, and feedback to formal research.

Initial findings suggest that higher degrees of farmer involvement and control in research yield higher levels of empowerment; give voice to farmers' technology priorities, including women's priorities; speed up technology adaptation; increase human capital; boost adoption; and have positive impact on farmers' profits. Empirical evidence also exists that participatory research reduces the costs of developing technologies that are not adopted by intended users.

#### *1.3.2.5. PRGA community of knowledge and practice*

To facilitate the use of participatory approaches, the PRGA Program has used several strategies to build and articulate or network a community of knowledge and practice. We have stimulated a worldwide exchange of expertise through various listservs, organized three biannual international seminars that gathered over 500 PRGA practitioners from around the world, created three publicly accessible databases with information on projects using these approaches, and established a network of PRGA liaisons and gender focal points in all the CGIAR centers. In addition, Program staff have organized and participated in numerous training workshops on PRGA methods. Several training manuals have been published.

## 1.4. Program Organization

### 1.4.1. Staffing

To provide a core of outstanding scientific capacity that can be deployed to work with individual IARCs or other inter-center initiatives and programs, the Program maintains a nucleus of internationally recruited specialists who support collaborative research and capacity building. Program staff facilitate identification of research opportunities and needs, contribute to training, support the synthesis and international exchange of lessons learned among the various participants, and promote the dissemination of results.

Staff (Appendix 5) are being recruited as funding permits and outposted to partner institutions to reinforce the research of IARCs and our partners, as well as carry out capacity building. The PRGA Program's principal staff, based at CIAT, are:

- Barun Gurung, PhD Anthropology, Senior Research Fellow
  Coordinator, PRGA Program
- Nina Lilja, PhD Agricultural Economics, Senior Scientist
  Impact Assessment
- Ralph Roothaert, PhD Crop and Weed Ecology, Senior Scientist at the Forages for Smallholders Project
  Joint appointment with CIAT and ILRI, Addis Ababa, Ethiopia

### 1.4.2. Advisory Board

#### *1.4.2.1. Role*

The Advisory Board's role is three part: to guide the functioning of the PRGA Program toward its main goal and aims, to provide general advice to the Coordinator of the Program, and to participate in resource mobilization for the Program.

#### *1.4.2.2. Objectives*

- To establish the Program's guidelines, principles, and policies.
- To advise the Coordinator on strategy, including fund seeking, networking, planning, and evaluation.
- To represent the Program in international forums.

#### *1.4.2.3. Frequency and location of Advisory Board meetings*

The Advisory Board meets regularly once a year, although meetings can also be called on an ad hoc basis, depending on the Program's needs. However, during its 30 June-1 July meeting, held in Cali, Colombia, the Advisory Board made the following decisions on its meetings:

- The Board will meet electronically every 6 months, dates to be scheduled by agreement 12 months in advance. The Coordination will make a brief report on progress at this electronic conference.

- A definite schedule of PRGA Annual Board Meetings will be agreed upon and board members will be asked to firmly commit themselves to this schedule 12 months in advance.

- An annual meeting will be held every year in the last week of June, with the location to be agreed on each yearit will probably rotate from one Board member's location to another.

- A budget line item for the Board meetings will be explicitly designated.

The schedule for the next five years is as follows:

2004 PRGA Board Meeting No. 6Monday, 28 June to Wednesday 30
2005 PRGA Board Meeting No. 7Monday, 27 June to Wednesday 29
2006 PRGA Board Meeting No. 8Monday, 26 June to Wednesday 28
2007 PRGA Board Meeting No. 9Monday, 25 June to Wednesday 27
2008 PRGA Board Meeting No.10Monday, 23 June to Wednesday 25

### *1.4.2.4. Composition of the Advisory Board*

The Advisory Board is composed of nine elected members:

- Three representatives, one elected from each of the three working groups.

- Five representatives, one elected from each of the stakeholder groups in the initiative: NARIs, NGOs, IARCs (not including the convening center), donors, and farmers.

- One member from the convening center.

The Advisory Board will have a regional and gender balance. Current Board members are:

**Jacqueline Ashby**
Convening Center representative
Director, Natural Resource Management
CIAT

**Aden A. Aw-Hassan**
NRM representative
Coordinator, Dry Land Resources Management Project
ICARDA

Position vacant
NARS representative

**Gordon Prain**
CGIAR representative
CGIAR/SIUPA
c/o CIP

Position vacant
Donor representative

**Janice Lesley Jiggans**
Gender representative
Department of Rural Development Studies

**Monica Kapiriri**
NGO representative
KAMPALA, UGANDA

**Bhuwon R. Sthapit**
PPB representative
*Senior Rice Breeder*
Nepal Agricultural Research Council (NARC)

**Farhad Mazhar**
Farmer representative
Managing Director
*UBINIG*, India

### *1.4.2.5. Duration of terms*

Advisory Board members shall each serve a term of 3 years.

### *1.4.2.6. Means of appointment*

Membership to the Advisory Board will be proposed:

- Either by an ad hoc nominating committee, made up of current Advisory Board members, from candidates nominated by current members of the PBG, PNRM-wg, and GA-wg and endorsed by the Advisory Board as a body.
- Or at an acceptable stakeholder forum.

Table 1a. The PRGA Program's partners in innovation.

| Partners | | |
|---|---|---|
| **Continent** | **Int'l or regional** | **Country of project** |
| **AFRICA** | CIMMYT | Yemen |
| | ICARDA | Syria |
| | ILRI | Tanzania |
| | IPGRI | Malawi |
| | WARDA | Zimbabwe |
| | AHI (ICRAF) | Uganda |
| | SWNM (SP) | |
| **ASIA** | Himalayan network | Nepal |
| | UPWARD (CIP) | |
| | LI-BIRD | Nepal |
| | CIMMYT | |
| | SRBLI | |
| | IRRI | |
| | IPGRI | |
| **LATIN AMERICA** | | Bolivia |
| | CIAT | Colombia |
| | CIP | Peru |
| | TLAP (SP) | Ecuador |
| | IPCA | Honduras |
| | EAP-Zamorano | Honduras |
| | CBN | Brazil |

a.For an explanation of the acronyms and abbreviations, see Appendix 15.

## 2.1. Overview

Participatory plant breeding (PPB) is a major thematic area of the PRGA Program's work. The Plant Breeding Group (PBG), established in 1996, initially identified four key outputs for advancing the field of PPB:

- To assess and develop effective participatory methods in plant breeding, with a focus on farmer-led breeding, plant selection (segregating lines), and variety selection (fixed lines).
- To involve and target beneficiary groups in PPB through the development of social methods for working with users and better anticipating their needs.
- To identify and develop effective ways of organizing PPB in research.
- To ensure user access to the products of PPB through appropriate seed system support.

The PBG subsequently identified a fifth area, which is critical to the development of sustainable and equitable PPB:

- To ensure users can access the products of PPB through identification of appropriate property rights and other forms of benefit sharing.

## 2.2. Work Plan

- Assessed and developed effective participatory methods in plant breeding, with focus on:
  - Breeding by farmers
  - Plant selection (segregating lines)
  - Variety selection (fixed lines)
- Developed methods for involving direct and indirect stakeholders, thus accurately targeting beneficiary groups and involving them in PPB.
- Identified and developed effective organization forms for operationalizing PPB in research.
- Assured user access to products of PPB by identifying effective organizational forms and links to supporting seed services.

1. For an explanation of this and other ancronyms and abbreviations used in the text, see Annex 15.

### 2.2.2. Activities

- Inventory and compare existing participatory methods across crops and environments.
- Identify and compare existing strategies for strengthening farmer-led breeding (in reference to self-pollinated, open, and vegetatively propagated crops).
- Implement experimental research to compare classical breeding approaches with participatory plant selection and participatory variety selection in reference to the three crop types.
- Assess impact of various participatory strategies on the three crop types and across diverse environments with respect to farmers' objectives such as yield stability, production, and genetic diversity.
- Disseminate results and relevant methods by crop type and environment, and according to priority goals.
- Identify opportunities for institutionalizing relevant PPB methods by crop type and environment, and according to priority goals.
- Revise diagnostic methods for assessing stakeholder preferences for plant varieties in the short, medium, and long term.
- Assess methods to involve users in plant breeding, differentiating them by type, for example, gender, wealth, and end use (e.g., consumers, processors, and seed producers).
- Analyze the social and economic impact of various PPB methods on different users.
- Analyze the costs of alternative participatory methods to involve different users in plant breeding.
- Revise methods for assessing indirect stakeholder roles and needs.
- Synthesize findings on how to involve hidden and indirect stakeholders in participatory approaches.
- Synthesize case study findings on how to resolve conflicts among diverse users and stakeholders in germplasm resources.

- Publish guidelines on the cost-benefit ratios of different approaches to involve and target differentiated users.
- Inventory and compare different divisions of labor among farmers
- Revise the ways that existing breeding programs organize and fund links with farmers.
- Identify promising links and innovations.
- Partners of organizational innovations also monitor and evaluate (including conducting cost-benefit analyses of different links and forms) those innovations for PPB.
- Formulate guidelines for decision makers on promising organizational forms.
- Revise communication tools for improving farmer-scientist interactions.
- Assess various methods and tools for understanding local seed systems.
- Identify strategies for strengthening local seed systems.
- Revise and develop methods to link participatory approaches in breeding with local seed systems and markets.
- Identify incentives and roles of CBOs and NGOs in enhancing seed and seed information flow.
- Explore constraints and opportunities to include products of PPB in existing regulatory frameworks.

## 2.3. Capacity Building in Participatory Plant Breeding

### 2.3.1. "Quality of Science" meeting, Rome

The workshop on The Quality of Science in Participatory Plant Breeding was held at IPGRI's headquarters, in Rome, from 30 September4 October 2002. It resulted from a key recommendation made by the panel of the Systemwide Review of Plant Breeding Methodologies in the CGIAR (October 2002), which suggested that PPB approaches be considered as among CGIAR's core breeding strategies.

Although the meeting was small, with 35 participants, it brought together some of the leading practitioners in PPB within the Future Harvest Centers and 7 representatives of the genetic resources area in different centers. On recognizing that important innovative and creative work in PPB was developing within regional and national networks, and civil society groups, the workshop also drew expertise from Mesoamerican PPB networks, the South Asian "Using Agricultural Diversity" Network, SEARICE, CIRAD, FAO, University of California, the DFID-supported plant science programs, and the NARS of Brazil, China, Cuba, Malawi, and Solomon Islands.

The workshop's overall brief was to assess those critical advances in the social and biological sciences shaping PPB practice, evaluate the breadth of its impact to date, and identify key scientific challenges. A multi-institutional organizing committee debated long and hard to focus this broad brief into six key topics (Appendix 6). Plenary sessions and subsequent working groups were organized around the following issues: what we know, what we don't know, and how we should design R&D work to move a given issue forward.

Truly novel research developments were presented in the realm of PPB: priority setting, on-farm trial design and experimentation, impact and cost-benefit assessment, property rights, and biotechnology (particularly "participatory" molecular marker-assisted selection). Those integrative approaches that aim to better link the production objectives of PPB with the more holistic aims of genetic resource management and empowerment were also explored in detail. Finally, the group outlined an explicit agenda for action in "priority areas in PPB", including the need to work on seed policy and regulatory reform to ensure that the products of PPB actually reach the intended end users, particularly the world's more marginal men and women farmers.

### 2.3.2. Plant Breeding Group consultation

In August 2002, the PRGA Program's Coordination initiated a consultation process with the PBG about future directions. The following questions were posed:

1. What is your opinion of the value and functioning of the PBG?

2. What type of structure do you feel would best suit the purpose of PBG?

3. If you feel devolving management of the PBG to its members is desirable, which functions do you feel should be managed by group members and which should be managed by the PRGA Program?

1. If you feel that changes should be made to the current structure of the PBG, how would you propose operationalizing these changes?

2. Are there other comments, questions, or observations you would like to make on any aspect of the PBG or about the PRGA Program in general?

See Appendix 7 for the feedback received.

### 2.3.3. PBG minutes

#### *2.3.3.1. Role and contributions on institutionalization*

- To institutionalize PPB, changes must be made in variety release systems and seed production.
- Develop a monograph on PPB for students and researchers and/or practitioners in PPB.
- Strengthen policy influence from both international bodies and grassroots levels.
- Draw lessons from case studies of PPB institutionalization
- CGIAR and FAO to work together to influence policy on seed systems and seed regulation.
- Conduct policy workshops that include ministers, technocrats, NARS, and farmers.

#### *2.3.3.2. Developing methods for integrating PPB and NRM into joint projects*

For example, to integrate clean-seeds production systems with participatory NRM

#### *2.3.3.3. PPB feedback on strategy*

PBG representatives proposed working with other selected representatives to provide feedback from the broader group membership, using listserv e-mail, on future directions and strategies of both Program and Working Group. Although all members are free to structure their own consultation process, below are types of questions that may prove useful. These were synthesized from contributions by Bazile, Ceccarelli, Grando, Kimani et al., Lançon et al., Snapp, Stroud, and consultations with PBG members (November 2002).

*1. What are your initial reactions to the 2003-2007 PRGA Program's logframe (Appendix 1)? Are there areas where you have questions or need further clarification? Are there particular items for which you wish to express support or raise concerns?*

SUMMARY: Stakes mentioned in the logframe look determinant for the future of all research institutions. However, two aspects are not clear: (a) integrated participatory research that could generate real innovation, and (b) participation mechanisms enabling users and researchers to innovate.

*2. Attached is a summary of the feedback to the PRGA Working Group Consultations held last year. What do you see as being the major implications of the responses received for how the Group should move forward? Do they imply any changes for how the Group is organized, managed, or functioning? If so, how?*

SUMMARY: All members agree that the PRGA Program's PBG has done tremendous work in, for example, building a network, generating and building collective knowledge on field cases, collecting data, distributing information, and conceptualizing. They suggest no change in organization, except a little more disconnection from the CGIAR internal and specific stakes and more paper diffusion.

Some feel that more emphasis could be put on training in PPB procedures, including terminology and principles, methods of analyzing data, and building of collaborative (institutions) research projects.

Institutionalization, however, needs special organization (either a process or tool) to define PRIORITY questions and to ATTRACT more breeders and other scientists. It could also help coordinate participatory approaches within the CGIAR or even outside the CGIAR and NARS.

*3. What do you see as being the top three issues on which the Working Group should focus over the next 3 years? Why? What WG activities would best address these issues? What suggestions do you have for acquiring the necessary funding to support them?*

SUMMARY: The proposals involve the production of three major categoriesknowledge, tools, and methods (including impact indicators)that are scientifically valid (assessed by pairs). These categories can be applied to crops that are not priority for NARS evaluation of PPB methods in situ. Ways of applying can include impact studies (including cost-benefit analyses), institutionalization, and scaling up. Means of applying would comprise supporting projects with explicit large-scale approaches, decentralized organization to stimulate innovation, and links with conventional breeding programs (including other, non-CGIAR, organizations).

*1. What ideas and suggestions do you have about how the PNRM-wg or the PBG operate? What listserv should be facilitated in the future?*

SUMMARY: Most members prefer both networks to be maintained separately, although links between them should be increased because "distinction is against the real spirit of participatory research". Arguments are that the PBG network works better independently, it is already very large and not too specific, and has yet to resolve its problems.

PRGA Program should continue with coordination, although some think it would do a better job if run more independently from the CGIAR.

### 2.3.4. PPB Small Grants Program

The purpose of the PRGA Small Grants Program is to build capacity for applying PRGA approaches to ongoing research. The funded projects contribute methodological and organizational innovation to the field of PRGA and rigorous evaluations of the impact of applying participatory and equity-enhancing approaches, with special attention to the effects on poor, rural women. Projects analyze the outcomes of these methods, comparing them with those of conventional research methods, and evaluate the effects on the research process itself.

Eligibility for small grants requires partnerships among two or more different types of organizations. The program has helped foster research partnerships among IARCS, NARS, NGOs, universities, and grass-roots organizations in Africa, Asia, and Latin America. Table 2a details several projects funded by the Small Grants Program.

### 2.3.5. Affiliated projects

Includes support to students, and collaboration with partners.

#### *2.3.5.1. Support to students*

Three doctoral theses continue to be funded by the PRGA Program. They are making good progress, with fieldwork near completion and dissertation writing already started. They focus on subjects key to filling gaps within the PPB field: local seed systems, farmers' decision-making in PPB in the context of a systems perspective, and how to break the nexus between poverty and agrobiodiversity.

- **Mekbib Frew Ethiopian**

Began doctoral studies at the Agricultural University of Norway in February 2000. His research is entitled Diversity of Seeds, Seeds of Diversity: Food Security through Enhancement of Sorghum. As stated in the proposal document, the project's main goal is to promote a sustainable use of on- farm sorghum diversity and increase small-scale production for resource-poor farmers in eastern Ethiopia. This region is a center of origin for the crop, with a unique diversity of farmers' varieties, knowledge, and management systems. Despite more than 40 years of formal and scientific breeding, adoption of modern varieties is very low. The project explores the hypotheses that (1) a discrepancy lies between modern varieties and those preferred by farmers (who are mostly women), and (2) local materials can be improved without sacrificing diversity or resulting in loss of adaptation. To understand farmers' decision-making processes, the project must adopt a participatory, gender-sensitive, approach, which is likely to be more fruitful than the traditional top-down approach.

To improve the region's food security by enhancing biodiversity conservation and use, baseline information is needed on farmers' knowledge and technology, and on the extent of on-farm genetic diversity and loss. The project seeks to address issues through on-farm studies of genetic diversity management, assessment of farmers' breeding methods and seed systems, and quantification of farmers' success in variety development. Research methodology will include multisite experiments under farm and research station conditions. Findings are expected to lead to the development of a breeding strategy in which farmers and the formal sector can interact effectively and local diversity is conserved.

- **Antonio José López Colombian**

Pursuing doctoral studies at the University of Wales. His dissertation Farmers' Knowledge and Formal Models of Their Decision Making in Participatory Improvement of Cassava-Maize Intercropping aims to develop methods for incorporating both local knowledge and formal models of how farmers make decisions into participatory technology development. The fieldwork for the doctorate is being conducted in Colombia's Caribe Region

López reports the following highlights so far:

> For production system characterization: three production systems and five types of farmers were identified in the Caribe Region, as according to key agrobiophysical variables, farm area, land tenure, and land tenure stability.

For farmers' knowledge and modeling: farmers have a sophisticated decision-making model for integrating market information, family necessity, and food security. They appear especially concerned over weed control, the amount of area to which cassava is planted, and specific harvesting procedures. In general, no strong differences by gender were noted in reference to these key concerns. However, in terms of detailed knowledge, gender and production system differences are obvious in relation to knowledge domains. For example, farmers from production system 5 clearly classify soil according to color and structure, whereas, in production systems 2 and 3, farmers identify two types of soil based only on texture. Likewise, men farmers in production system 5 had a sophisticated understanding of the relationships between maize and weed residues, mulch, soil erosion, soil fertility, and soil moisture. In contrast, women consider cassava leaf color intensity, cassava-maize attractiveness, and increases in cassava root diameter when maize residues are removed after harvest.

**Kirit K. Patel Indian**

Pursuing PhD studies at the Society for Research and Initiatives for Sustainable Technologies and Institutions (SRISTI). Kirit's project is on Breaking the Nexus Between Poverty and Agrobiodiversity: Institutional and Policy Changes for Supporting Farmer-Led Participatory Crop Improvement and Conservation.

In the context of the growing success of participatory approaches, the project aims to understand the extent to which various successful PPB projects have achieved the conflicting goals of crop improvement and on-farm conservation of agrobiodiversity. It examines the various instruments of incentives and benefit sharing that successful PPB projects use to encourage participating farmers and communities. The project will also analyze current policy environments to identify constraints affecting the operationalization of various incentives and benefit sharing for farmers to continue on-farm conservation and improvement of a diverse genepool. Some PPB projects reported in the literature from western India and Nepal were tentatively considered for possible fieldwork and data collection. This brief report explains how the project evolved, given situations in the field, and discusses the updates on research approaches and activities being used.

### *2.3.5.2. Collaboration with partners*

A publication, Quantitative Analysis of Data from Participatory Methods in Plant Breeding, was produced. The papers in this volume were presented at a workshop of the same title and held at the Castle of Rauischholzhausen Conference Center of the Justus Liebig University, Germany, during 23-25 August 2001. Participants were CGIAR scientists who wanted to review and discuss the different quantitative techniques used for analyzing data generated by participatory methodologies in the context of plant breeding.

Participatory plant breeding (PPB) is gaining wider acceptance worldwideit is increasingly being used within the CGIARand its merits and limitations are beginning to be better understood. Many scientists involved in these efforts, however, have realized that the quantitative techniques needed to analyze the data from the participatory methodologies used in PPB are still not well known or understood by many practitioners. Further discussion and exchange of methods and ideas are needed.

The workshop was organized by CIMMYT and the Justus Liebig University, and sponsored by CIMMYT, IRRI, the PRGA Program, and other participating CGIAR centers. Experts from outside the CGIAR were also involved.

Scientists from different disciplines (breeders, social scientists, biometricians, and agronomists) and crop backgrounds (maize, rice, potato, cassava, sorghum, barley, and agroforestry) were brought together for the workshop. All 21 participants were experienced in PPB and had also worked on interdisciplinary teams. They represented 10 CGIAR centers (CIAT, CIMMYT, CIP, ICARDA, ICRAF, ICRISAT, IITA, IPGRI, IRRI, and WARDA), Justus Liebig University, University of Wales, and Michigan State University.

The workshop was organized around three themes:

- Designing and analyzing joint experiments involving variety evaluation by farmers.
- Identifying and analyzing farmers' evaluations of crop characteristics and varieties.
- Dealing with social heterogeneity and other research issues.

The PRGA Program agreed to provide CIMMYT with a grant of US$1500 to be budgeted toward the printing costs of this publication.

## 2.4. Research Monographs, Nos. 1 to 4

**Title:** Technical and Institutional Issues in Participatory Plant Breeding: From the Perspective of Formal Plant Breeding
A Global Analysis of Issues, Results, and Current Experience

**Authors:** Eva Weltzien, Margaret E. Smith, Laura S. Meitzner, and Louise Sperling

**Summary:** This publication reviews what has been done in PPB from the perspective of formal sector institutions such as national plant breeding programs, CGIAR institutes, or extension services. It includes an inventory of PPB cases worldwide, detailed description of about a dozen illustrative cases, analyses of key technical and institutional issues, and assessment of gaps in current knowledge on PPB methods, organization, and results. The document defines PPB as comprising approaches that involve close farmer-researcher collaboration to bring about plant genetic improvement within a species. It describes goals of PPB programs, the reasons for involving farmers and other end users in PPB, and the areas in which PPB is expected to be beneficial.

PPB programs were grouped in various ways to detect and conceptualize trends. These groupings emphasized the key factors that have stimulated development practitioners' interest in PPB: the goals that PPB can achieve, the environments in which it might have impact, and the nature and degree of farmers' participation in different projects.

Most programs focused on productivity enhancement, particularly in marginal environments. Another important goal was to ensure the possibility of releasing varieties adapted to specific (often marginal) production conditions through policy changes. Other goals, such as biodiversity enhancement and farmer capacity building, were secondary in most PPB programs.

Formally led PPB programs tend to cluster in production environments of high stress (marginal) and subsistence. Surprisingly, however, an increasing number of projects are addressing less stressed, more market-driven contexts.

Farmers' participation in formally led PPB can be considered in terms of the stages of the breeding process during which it occurs, the nature of farmers' contributions, and the degree of decision making. These three dimensions together describe the "quality of participation".

In terms of "stage", in most of the PPB cases examined, farmer participation occurred during the testing of (genetically fixed) varieties. The involvement of farmers in setting breeding priorities and targets is also reasonably common. Much less has been done to explore farmers' potential contributions to setting the overall goals of a breeding program, generating variability, or selecting experimental varieties from among segregating populations. Participation between researchers and farmers in the variety diffusion process is beginning to receive more attention.

The nature of contributions that farmers had made included providing key information from their knowledge and experience, and genetic materials, and being involved in the actual breeding process. The farmers' contributions provide breeders with insights needed to identify appropriate varieties and improve seed production and distribution systems. The degree of participation within formally led PPB was overwhelmingly consultative, that is, farmers gave advice, but had no real decision-making power.

For this review, 48 cases were identified, studied, and inventoried. Of these, 11 case studies were presented in greater depth in the body of the report, having been chosen to represent the diversity of crop types, geographic regions, and scales of PPB programs, and to show some of the different motivations the formal breeding sector had for pursuing PPB.

The case studies showed work in progress with farmers involved in different stages of the breeding process. Crops were of the cross-pollinated, self-pollinated, and clonally propagated types. The research was located in Asia, Africa, Latin America, and Mesoamerica, and addressed farmers' needs in a wide variety of agroecological conditions from extremely hot, dry, desert margins to very high rainfall, high altitude, rugged conditions. Some cases deal with highly market-oriented production and others with subsistence-oriented systems where production shortfalls are frequent. Most of the case studies represented production systems in which the formal breeding sector alone, without the farmers' direct involvement, had only limited success.

Case studies involving different institutional partners and collaborative arrangements are also represented. The cases emphasized different broad goals, with some addressing issues that farmers identified and initiated, while others merely consulted farmers and used the information to orient selection programs or other breeding activities.

The book uses the information from the case studies to describe key outcomes: lessons learned from themes on biophysical and socioeconomic environments, breeding strategies involving farmers, issues of participation, gender/user differentiation, institutions in formally led PPB, and transfer of benefits. The review concludes by focusing on identifying gaps in our understanding that must be addressed by future PPB research.

### 2.4.2. PPB monograph, no. 2

***Title:*** Technical and Institutional Issues in Participatory Plant Breeding: From the Perspective of Farmer Plant Breeding
A Global Analysis of Issues, Results, and Current Experience

***Authors:*** Shawn McGuire, Gigi Manicad, and Louise Sperling

***Summary:*** Farmer-led PPB excites great interest for its promise in crop improvement, biodiversity conservation, and farmer empowerment. Although its potential is most anticipated for unfavorable areas beyond the reach of formal breeding, PPB could have significant impact across a wide range of contexts.

This report considers research that sought to support farmers' own systems of crop development and seed exchange (farmer-led PPB) in light of these different goals, and from the perspectives of the range of organizations promoting PPB. It presents an overview of farmer-led breeding and a framework for support, giving the first major comparative analysis of farmer-led PPB.

This document broadly defines farmer-led breeding to include both deliberate actions and those bound in farmers' practice, to consider collective as well as individual processes, and to include systems of seed storage and exchange. A review of current knowledge about farmer-led breeding points to areas of similarity and difference from formal breeding. Farmers often bring a wider set of criteria to crop development than does formal breeding. They also seek to balance maintenance with crop improvement, and local with broad adaptation, although details are sparse on the nature and success of such balances.

Farmer-led breeding can be considered as a series of processes for managing gene flow, in parallel with formal breeding, which influences crop genetic structure and performance, and determines who receives germplasm and information. These processes include introduction of new diversity (and its testing), recombination, selection, storage, and exchange of planting material. Knowledge remains patchy on the biological and social impact of these processes. Farmers' actual interest in breeding may be supported by a range of socioeconomic factors (failure of formal breeding, importance of crop, absence of policy barriers), as well as biological factors (visible diversity, self-pollination, environmental variation, experience with crop). As a social process, farmer-led breeding and seed exchange involve particular groups differently, often giving particular roles to gender or wealth.

The core of this report describes and analyses 11 case studies of projects that pioneer different aspects of farmer-led PPB. They represent activities in Africa, Asia, and North and South America, initiated by institutions ranging from independent farmers' initiatives to the CGIAR, and involve crops from all breeding systems. PPB projects are active, not just in marginal areas, but across a broad spread of agroecologies.

These cases address a range of goals, the most common being conservation and improvement of germplasm. Many of these cases also sought to expand farmers' crop options, although only a few cases made this a central goal, exclusive of interest in conservation. An additional goal in several cases was empowerment through promoting self-reliance. Finally, one case concentrated on helping post-disaster adjustment. In most cases, the degree of overlap between crop conservation and development was striking. Although goal-setting generally had local input, there was little discussion of this process or of problem diagnosis.

### 2.4.3. *PPB* monograph, no. 3

***Title:*** BiotechnologyAssisted Participatory Plant Breeding: Complement or Contradiction?

***Authors:*** A. M. Thro and C. Spillane

***Summary:*** Contemporary plant biotechnologies and farmer PPB have evolved from different disciplines and along different trajectories. The question has emerged as to whether they could complement each other as approaches to improving rural livelihoods in developing countries. The very existence of PPB suggests that farmers' landraces do not contain all that farmers need; and that biotechnology can offer new tools for getting and managing variation.

This book explores international thinking on biotechnology and farmer PPB. The authors' goal was to encourage discussion and inform on:

- Whether and how biotechnology can benefit small-scale, resource-poor farmers in developing countries.
- Whether farmers can more fully participate, as colleagues or leaders, in shaping and creating benefits.
- The potential of specific biotechnologies to strengthen farmer participatory research.

The study included an extensive series of interviews, discussions, and surveys throughout 1999 and 2000, involving at least 500 farmers, participatory researchers, plant breeders, and biotechnologists in developing and developed countries. The authors conclude that:

- Real potential exists for synergy between plant biotechnology and participatory research to assist resource-poor, small-scale farmers.
- Farmer participation could strengthen biotechnology research with "reality checks" to sharpen its focus.
- The opportunities are unrealized. Only a handful of biotechnology-assisted participatory projects exist. Most of these use tissue culture, an inexpensive biotechnology that can provide benefits quickly.

Success in applying biotechnology-assisted PPB will depend on:

- Communications, that is, on mechanisms for sustained communication between biotechnologists, plant breeders, participatory research practitioners, farmers, and the public.
- Investment. Public investment requires public support in donor and developing countries. But little interaction exists with the public about the agricultural research needs of developing countries.
- Short-term benefits for farmers to compensate farmers for the risks and costs of experimentation, and address their most pressing needs, without sacrificing opportunities for long-term benefits.
- An explicit social vision that is clearly articulated and shared among project partners; and, a shared understanding of what a given project would mean for that vision.
- Effective "problem transfer", for example, a problem is "transferred" when researchers identify the farmers' needs as their own.
- Access to enabling technologies by developing, via negotiation with proprietary sources, a public biotechnology toolbox or strategic alliances with key public research institutions.
- Effective and efficient regulatory systems that are designed to ensure responsible use of transgenic biotechnology. They also create costs, often exceeding research costs, which directly affect what technologies are developed for and with resource-poor farmers.

Because of its capacity for multidisciplinary research, its focus on poverty eradication, and its experience in animating and sustaining long-term partnerships, the CGIAR is in a unique position to integrate biotechnology and farmer participatory research.

### 2.4.4. PPB monograph, no. 4

**Title:** Participatory Plant Breeding and Gender Analysis

**Authors:** Cathy Rozel Farnworth and Janice Jiggins

**Summary:** Empirical enquiry and experience has shown that technology is not necessarily gender neutral; neither are knowledge and information. We know that women's roles in seed handling, agricultural production, food processing, trading, and purchase are vital to food security and family well-being, and that these roles and the knowledge on which they are based can be substantially and importantly different to that of men's. Yet, even as women acutely need income-generating, labor-saving, and productivity-increasing technologies to enable them to fulfill their roles more easily, gender issues still remain to be fully incorporated into technology development. The continuing failure of much technology R&D to recognize women's actual and potential contribution to technology development and use is not only detrimental to the economic security and social status of women and their families, but also, indeed, to the success of R&D in meeting national and regional objectives.

This book has therefore been commissioned by the PRGA Program to address these gaps with respect to plant breeding. The document aims to:

- Provide an analysis of the methods and approaches currently used within PPB with respect to gender issues, the use of GA, and user involvement.
- Draw out the implications of researchers' experience with GA and user involvement.
- Analyze and discuss the outputs currently being generated by PPB from a user perspective.
- Identify what more can be done, and how, to achieve broader impact and capitalize on what has so far been achieved.

***Monograph's layout:*** The authors chose case studies from around the world to help highlight particular points, provide inspiration, and show how lessons can be drawn from practice. These studies are heavily illustrated with tables and boxes.

Rather than summarize the findings of each chapter, the authors chose to conclude, where appropriate, particular chapters with a section entitled Gaps and Opportunities, which attempts to draw out the lessons of the material presented and discussed. The final chapter brings together the lessons learned in the preceding chapters, to provide pointers for the future.

***Chapter 2--User Differentiation:*** Discusses the strengths and limitations of gender analysis in differentiating and understanding users. It argues for gender-sensitive differentiation along the food chain. The effectiveness of gender-sensitive methods, alone and in combination with other tools, is examined, as is the question of who might carry out gender analysis in a PPB situation.

***Chapter 3--Diagnostic Tools:*** Emphasizes the importance of not subsuming particular user interests within broad-brush analytical categories like "household". Presents methods for diagnosing the interests of particular user categories, including stakeholder analysis and SWOT. Because such methods have poor predictive capacity, approaches to help predict future decision-making patterns and to deal with situations of rapid change are also presented.

***Chapter 4--User Involvement in R&D:*** Highlights how women can be located and involved in PPB. Presents ways, through institutional development, of opening up spaces for user involvement in, for example, the plant breeding cycle (crossing, screening and testing, and evaluation). Then follows a section on approaches to capacity building to strengthen user involvement.

***Chapter 5--User Involvement in Dissemination and Communication:*** Argues that the manifold spaces opened up by worldwide devolvement of service provision to local government and nonpublic actors have created opportunities to involve multiple actors and institute co-learning. The ways in which seed is being multiplied and disseminated is examined, as is the diffusion of experimental capacity and breeding capacity among users. The issue of quality maintenance during scaling up is addressed.

***Chapter 6--Evidence for, and Assessment of, Gender-Differentiated Impacts:*** Argues that the literature on impact studies in PPB is inadequate for providing a gendered understanding. It assesses the contributions that some conventional impact studies have made, and examines the role of PPB in innovation. User participation in the provision of impact data is discussed, and the impact of PPB processes on social dynamics examined.

***Chapter 7--Forward-Looking Summary:*** The conclusions that may be drawn from each chapter are elaborated here. Further steps for action are presented.

**Table 2a.Projects on participatory research and gender analysis that have been funded by the Small Grants Program, together with the due dates of the first and last sets of technical reports.**

| Project title | Recipient | Duration in years (date to date) | Dates (first reports) | Total amount of grant | Dates (last reports) |
|---|---|---|---|---|---|
| Farmer-Led Participatory Maize Breeding in Middle Hills of Nepal (second phase) | LI-BIRD | 2 years (1 July 2001-30 June 2002) | 28/2/02 | $30,000 ($15,000 authorized on 10/9/01 on signing of LOA) | 30/9/02 |
| Village-Based Participatory Breeding in the Mountain Slopes of Yemen (second phase) | ICARDA | 2 years (1 July 2001-30 June 2002) | 28/2/02 | $30,000 ($15,000 authorized on 10/9/01 on signing of LOA) | 30/9/02 |
| Metodologías Participativas para el Mejoramiento Genético del Frijol Común [*Participatory Methodologies for the Genetic Improvement of Common Bean*] | IPCA | 4 years (March 1999-April 2003) | 11/6/02 | $8000 ($4000 authorized on 20/11/02 on signing of LOA) | 11/12/02 |
| Participatory Development of Farmer-Managed *in vitro* Propagation and Biodiversity Conservation of Cassava (second phase) | FIDAR | 1 year (1 Jan 2002-31 Dec 2002) | 30/6/02 | $33,000 ($20,000 authorized on 14/12/01 on signing of LOA) | 31/12/02 |
| Study on participatory plant breeding/biotechnology of sorghum through assessment of farmers' variety development, selection methods, seed systems and management, genetic diversity, and conservation | Agricultural University of Norway | 2 years | 15 Aug 2000; 15 March 2001 | $39,699 ($10,000 advanced on signing of LOA; $7,732 authorized, following proposal approval by PRGA Program; $11,726 authorized on 18/4/02, corresponding to funds that should have been disbursed in 2001) | 15 Aug 2001; 15 March 2002<br><br>Final reports: 15 Aug 2002; 15 March 2003 |

| | | | | | |
|---|---|---|---|---|---|
| The Cassava Biotechnology Network in Latin America: Strategies for Integrating Small-Scale End Users in Research Agenda Setting, Testing, and Evaluation | CBN | 3 years (1 Jan 2000-31 Dec 2003) | 30 June 2002 | $70,000 (US$35,000 on 1 Nov 2000) | |
| Integrated Nutrient Management for Building the Assets of Poor Rural Women | IPRA | 2 years (1 Jan 2002-28 Feb 2004) | 31 Aug 2002 | $250,000 (grant paid in full after signing of LOA) | 28 Feb 2003; 31 Aug 2003<br><br>Final: 28 Feb 2004 |
| Proyecto de Mejoramiento Participativo de Papa en Bolivia [*Project on Participatory Improvement of Potato in Bolivia*] (second phase) | Fundación PROINPA | 1 year (March 2001-July 2002) | 12/5/02 | $30,000 ($15,000 authorized on 20/11/01 on signing of LOA) | 12/11/02 |
| Metodologías Participativas para el Mejoramiento Genético del Frijol Común (second phase) | EAP-Zamorano | 1 year (1 July 2001-30 June 2002) | 22/5/02 | $22,000 ($10,000 authorized on 27/11/01 on signing of LOA) | 22/11/02 |
| Farmers' Practice of Domestication and Their Contribution to the Improvement of Yam in West Africa | IPGRI | 3 years (1999-2002) | 31/8/99<br>29/2/00 | $70,000 ($35,000 authorized on 23/3/99 on signing of LOA) | 31/8/00<br>28/2/01<br>13/8/02 |
| 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 Caribe Region | CORPOICA | 3 years (1 May 1999-30 April 2002 | 31 Oct 1999;<br>30 April 2000;<br>31 Oct 2000;<br>30 April 2001;<br>31 Oct 2001 | $78,000 ($26,000 disbursed on signing of LOA on or shortly after 20 April 1999) | 30 April 2002 |

## 3.1. Work Plan, Activities, and Progress

In 2003, the PNRM Working Group's work plan was focused on consolidating outputs from activities conducted in previous years, specifically:

- Completing the book Managing Natural Resources for Sustainable Livelihoods: Uniting Science and Participation
- Consolidating the establishment of the PNRM Resource Center by expanding the collection of PNRM methods, tools, and resources developed by Group members
- Developing a synthesis document on Farmer Participatory Research for Integrated Pest Management

In addition, the PNRM-wg played a role in influencing the agenda of the CGIAR Challenge Program on Water and Food. In January 2003, the Group nominated colleagues to serve on the independent panel responsible for selecting concept notes to advance to the proposal-writing stage. Elske van de Fliert (FAO Regional Vegetable IPM Programme in South and Southeast Asia) and Will Allen (Collaborative Learning for Environmental Management, Manaaki Whenua - Landcare Research NZ Ltd) served on the panel.

## 3.2. Specific Outputs 2002-2003

### 3.2.1. PNRM book

The book mentioned above, Managing Natural Resources for Sustainable Livelihoods: Uniting Science and Participation", was submitted to Earthscan and IDRC in July 2002 for publishing. Following an external review in September 2002, and further refinement and editing, the book was finally published in August 2003. See Appendix 8 for a summary of the book.

The book is an important product of a workshop co-sponsored by the PRGA Program and the Natural Resources Institute (NRI, UK). It was held at the NRI in Chatham, England, in September 1999. The workshop explored a diversity of experiences in the management of common property and protected areas, natural resource management at the landscape and watershed levels, soil and water management, and land care and rehabilitation. Emphasis was given to the following key questions:

- What innovative approaches are being developed for collective participation and decision making in research on NRM problems and processes?

- What new linkages have been established between farmer-led research initiatives and formally led ones?

- What methods are proving most useful for participatory research with gender and stakeholder analysis and for improving the involvement of specific groups of actors in planning, monitoring, and evaluating NRM research?

The book will be promoted at a workshop to be held during the Millennium Ecosystem Assessment meeting in Alexandria, Egypt, in March 2004.

### 3.2.2. PNRM Resource Center

In 2000, at the PRGA Program's 3rd International Seminar, the PNRM-wg set the following objectives for a PNRM Resource Center:

To contribute to networking, mainstreaming, and institutionalization of PNRM by acting as an information clearing house and resource center

- To develop and adapt methodology collaboratively for those gaps identified through an inventory. The inventory may be organized as a toolbox, with examples of how different methodologies fit particular cases. A possible focus for the toolbox comprises institutional innovations and methods to improve priority setting, methods to increase the speed of technology evaluation, and methods to enable scaling up of technology

An initial inventory of tools, methods, and learning resources developed by PNRM-wg members was taken during 2001 and made available online in 2002 in the PNRM area of the PRGA Program's Web site at <http://www.prgaprogram.org/pnrm/resources/pnrm_tools.htm>

PNRM resources are organized by author, topic, and type. Topics include:

- Collaborative Adaptive Management
- Collaborative Planning and Management
- Environmental Monitoring
- Integrated Crop Management
- Integrated Pest Management
- Integrated Soil Fertility Management
- Participatory Action Research
- Participatory Learning and Change
- Participatory Monitoring and Evaluation
- Participatory Research Methods
- Policy Development
- Quality of Science
- Social Capital
- Sustainable Development and Environment
- Sustainability Indicators

Types include case studies, decision-support tools, guides and handbooks, and quantitative methods.

During 2003, the collection doubled to more than 80 items. When the PRGA Program's new Web site is launched in late 2003, further value will be added to the collection by making it searchable and extending the classification system. The resources will be classified again by author, topic, and type, and also by purpose and stage of innovation.

### 3.2.3. Concept paper on PRGA for the CGIAR Challenge Program on Water and Food

Several PNRM-wg members collaborated on an overview of participatory research and learning (PR/L) processes and their relevance to watershed management and development. This synthesis draws heavily on the Group's book, Managing Natural Resources for Sustainable Livelihoods: Uniting Science and Participation (copublished by Earthscan and IDRC in August 2003), and on other key resources. The synthesis will be used as a guide by researchers for formulating proposals and by reviewers for selecting them.
It is available online at <http://gisweb.ciat.cgiar.org/wcp/download/cpwf_pr.pdf>

### 3.2.4. Synthesis document on farmer PR for integrated pest management

In 2001, the PRGA co-funded a study tour and learning workshop on Farmer Participatory Research for Integrated Pest Management (FPR-IPM), together with the CGIAR Systemwide Program on IPM, the Global IPM Facility, CAB International, and SDC. Six innovative integrated pest management projects from Asia, Latin America, and Africa participated in mentored, reciprocal, study-tour exchanges. Each exchange involved a pair of projects from different geographical regions and employed significantly different methodologies. A learning workshop, involving the study tour participants, their mentors, resource persons, and an array of other IPM projects, was held at the conclusion of the study tours to share and synthesize lessons learned and disseminate them to a wider IPM audience. The resources developed through the study tours and learning workshop were published in a 2-CD set available at <http://www.prgaprogram.org/natural.htm#fpr-ipm>

A small working group is developing a synthesis document, drawing on the study-tour case studies and the collective analyses developed at the workshop. The document is addressed to:

- IPM and/or ICM researchers who would like to understand the essential principles of participatory research and how they can be used to strengthen and complement conventional research

- Development practitioners looking for an up-to-date synthesis of key issues to consider when planning and engaging in participatory research and learning (PR/L) for improving integrated crop and pest management

- Program managers who desire a richer understanding of the potential of PR/L in identifying and exploiting practical opportunities for improved livelihoods

- Policy makers and donor representatives who need support for decisions on investments in research and learning initiatives

The outline of the document is given in Box 3A. A draft of the document will be circulated to project stakeholders at the end of 2003, and publication is expected by March 2004.

**Box 3A**

Issues discussed in the synthesis document on *Participatory Research and Learning in Integrated Pest Management*

**1. Introduction**
- Are participatory research and participatory learning two sides of the same coin?
- Why another publication on PR/L?
- The context: participatory research and learning for integrated pest management

**2. Navigating the landscape of participatory methodologies**
- What are the differences between conventional and participatory approaches to agricultural innovation?
- How do conventional and participatory approaches complement each other?
- How does participatory research differ from participatory learning?
- How do research and learning approaches complement each other?
- How can experiments be used in learning and research?
- How does participatory research use experimentation differently to participatory learning?
- Who participates in whose research and learning?

**3. What difference does PR/L make to IPM?**

**4. Managing PR/L processes**
- Which should come first, research or learning?
- Why is doing the groundwork so important?
- What aspects merit attention and why?
- Who's coming to innovate?
- How can gender and other diversity concerns be integrated in the process?
- How should we monitor and evaluate PR/L processes?

**5. Applications of PR/L in IPM**

**6. Enabling PR/L in IPM**

**7. Financing PR/L in IPM**
- Why should governments and donors invest in PR/L?
- How can the financing of PR/L be put on a sustainable basis?
- How can the effective use of funds for PR/L be fostered?
- Should farmers be paid for taking part in PR/L activities?

**8. Facilitation and mentoring**

**9. Organizational forms**

## 3.3. Coordinating the PNRM Working Group

The PNRM-wg is open to all practitioners and developers of participatory research approaches for natural resource management. The group interacts through an e-mail discussion list, meetings, seminars, and via small, self-organizing subgroups formed to undertake specific projects.

Since 1999, the Group has grown from an inaugural group of 25 members to 150 from 37 countries, and has the following institutional profile:

| | |
|---|---|
| NARES | 12 |
| CGIAR | 62 |
| Other IARCs | 3 |
| NGOs | 18 |
| Consultants | 12 |
| Universities | 29 |
| Students | 5 |
| Donors | 4 |
| FAO | 5 |
| Total | 150 |

## 3.4. NRM Small Grants

- **University of Hohenheim**

Project title: Assessing Approaches to Innovation Development in NRM through Participatory Monitoring and Evaluation
Collaborating institutions: Univ. Hohenheim (reporter: Kirsten Probst), CIAT-Hillsides, AFOCO, IPCA, GTZ-Forestry Program, DED (German Development Service)

- ***IPRA-SWNM***

Project title: Integrated Nutrient Management for Building the Assets of Poor Rural Women
Collaborating institution: IPRA (CIAT's Participatory Research in Agriculture Project)

- **University of Essex**

Project title: Social and Human Capital for Improving Agricultural Productivity and Natural Resource Management
Collaborating institution: Univ. Essex

- **SRISTI**

Project title: Breaking the Nexus Between Poverty and Agrobiodiversity: Institutional and Policy Changes for Supporting Farmer-Led Participatory Crop Improvement and Conservation
Collaborating institutions: Univ. Guelph (Sally Humphries), SRISTI (Anil Gupta, President), LI-BIRD, IIM-A

## 4.1 Overview

The PRGA Program's general objective of mainstreaming includes several discrete but interrelated activities:

- Capacity development for gender-sensitive participatory research, complemented with organizational development for institutionalization
- Demonstrating concrete evidence of impact for institutional learning and change
- Supporting networks of development practitioners
- Developing learning cases
- More active seeking to develop a high-level support function from stakeholders, particularly donors and influential members, who will provide intellectual direction and advocate for the Program's objectives both within and outside the CGIAR

As planned, the Program has focused primarily on reaching the core scientists of the CGIAR, NARS, and other institutions who may have concerns about the rigor and concrete impact of participatory approaches. This emphasis was adopted on advice from the ICER and a TAC Breeding Review Panel, who felt that, given the substantial progress made in advancing participatory plant breeding (PPB) approaches and methods, it was time to advance change among the "mainstream" breeding community. Three separate "institutionalization" activities were therefore funded: a PPB workshop on the "Quality of Science"; a set of in-depth PPB impact studies (year 1); and a series of PRGA Program working papers on the "Quality of Science" (year 2).

## 4.2.Institutional Assessments

The CGIAR centers themselves need to reflect, synthesize, and develop well-rooted strategies for PRGA work. CIP's recent ICER on participatory research showed that this sort of reflection is fundamental for institutionalizing the approach. Strong center-based conviction and key change agents for PRGA approaches are essential for strong systemwide commitment.

Intra-Center Change Committees were established to foster organizational strategies for PRGA work.

Events to help form and/or reinforce such Committees were planned under the PRGA Program's umbrella at CIP, CIAT, and ICARDA. The following prerequisites were collaboratively identified for forming such Intra-Center Change Committees:

- Pre-existing organizational forms and/or functions related to PRGA activities, or the likelihood of such organizational forms coming into existence without the PRGA Program having to lead such formation
- Demonstrated commitment and experience in PRGA activities
- Commitment and support from management
- Willingness and potential for institutional change
- Existence of "champions" within the organization. These champions should be sufficiently senior and/or respected for their work in the organization's hierarchy. However, although management support is crucial, change cannot be top-driven

Organizational change is slow, and the process is often confronted with obstacles such as resistance; the need to continuously re-assess and build on the champions' capacity to lead change; and, frequently, the contingencies of the champions' own scientific research affecting their capacity to lead change. Nevertheless, some general guidelines for the functioning of these Intra-Center Change Committees are outlined below:

- Conduct institutional analysis to identify opportunities and constraints for institutionalizing PRGA approaches within the organization
- Generate horizontal and vertical support for the initiative within the organization through activities such as seminars, workshops, and internal publications
- Develop and implement an action plan for institutionalization
- Develop skills, particularly for developing and managing processes for organizational change
- Critically review, evaluate, and revise action plans according to context and lessons generated
- Network and exchange experiences with, and so learn from, other centers and/or partner institutions involved in similar activities
- Analyze, write up, and disseminate experiences through, for example, external publications, seminars, and workshops

### 4.2.1. The International Potato Center (CIP)

Principal contact persons: Oscar Ortiz (CIP); Barun Gurung (PRGA Program)

The Working Group on Participatory Research at CIP was an important catalyst for the establishment of Intra-Center Change Committees. The CIP Working Group received considerable support from leadership, and included members from several projects within the Center. Barun Gurung from the PRGA Program first visited in July 2002 to discuss and develop an action plan for collaboration between the Working Group and the PRGA Program for further institutionalization. Based on discussions with the Research Director and key members of the Working Group, an initial institutional assessment was planned.

An intern, under the supervision and guidance of the Working Group's Coordinator, was contracted to conduct the survey. Considerable time was spent orienting the intern to the organizational assessment framework. The study began in July 2002, and initial results were presented to CIP management and senior staff. Recently, a first draft was circulated among all Working Group members, and is expected to be finalized in October 2003.

The report and action plan for the future institutionalization of PRGA approaches at CIP will be submitted to the PRGA Program in November 2003.

### 4.2.2. The International Center for Tropical Agriculture (CIAT)

Principal contact persons: Barun Gurung (PRGA Program); Mathew Blair (Beans Project, CIAT)

Barun Gurung conducted the CIAT case study, assisted by an intern (Harriet Menter). The study's initial phase was conducted between July and October 2002, and a first draft completed by November 2002. The major lessons were presented to CIAT staff during the November Annual Review in 2002.

The action plan that emerged was based on the identification of two major groups through which PRGA approaches are expected to be institutionalized in CIAT: the Gender and Diversity (G&D) Committee for CIAT, and the Germplasm Group. The G&D Committee was established in 2003 and is currently conducting its own study on CIAT's organizational culture. When the study is completed in October 2003, the PRGA Program and the G&D Committee will jointly develop a plan of action for institutionalization.

The Germplasm Group is an informal group of breeders from several CIAT projects. It is facilitated by a bean breeder (Mathew Blair), who is also the PRGA Center Liaison for CIAT. The Group, with support from the PRGA Program, has initiated a process to systematize the involvement of the client in technology development within CIAT's various germplasm projects. An initial activity is under way to promote, across all of CIAT's germplasm projects, the existing "practices" already used by breeders to engage end users. When the survey is completed, a discussion workshop, which the PRGA Program will facilitate, will be held in November 2003 to generate a plan of action for systematizing the process of end-user engagement in technology development. The plan of action will include a selection of "best practices", and an assessment of the organizational implications (i.e., structural) for their integration into research practice.

### 4.2.3. The International Center for Agricultural Research in the Dry Areas (ICARDA)

Principal contact persons: Aden Aw-Hassan (agricultural economist, ICARDA); Barun Gurung (PRGA Program)

Collaboration between the PRGA Program and ICARDA has been extensive, through both the Small Grants Program in PPB and Aden Aw-Hassan's membership of the PRGA Program's Advisory Board. Several collaborative studies between the PRGA Program and ICARDA have been conducted for several years, particularly in PPB. The reports and impact studies conducted by the Program have served as important milestones in providing evidence of the efficacy of participatory approaches in agricultural research.

Based on this existing collaborative experience, Barun Gurung and Aden Aw-Hassan held extensive discussions on how to proceed toward developing an action plan for institutionalization in ICARDA. An institutional assessment was commissioned in late October 2002 and a final draft has been completed and submitted to the PRGA Program for review. Once this review is completed, the final draft will be submitted in November 2003.

The action plan for establishing the Intra-Center Change Committee at ICARDA is being developed and will be presented with the final report in November, at which time, Barun Gurung will visit ICARDA for further discussions.

### 4.2.4. Forum for Agricultural Research in Africa (FARA)

With incomes and food security in sub-Saharan Africa worsening and natural resources deteriorating at alarming rates, there is urgent need for research to engage more effectively with the rural poor, particularly smallholder farmers, women, and target groups from highly vulnerable areas suffering adverse effects of HIV/AIDS and climate change. However, much of the effectiveness of research and development (R&D) systems in addressing the needs and demands of their constituency groups, particularly of smallholders and women, is critically constrained by organizational considerations. R&D systems predicated on a "supply driven" agenda of innovation cannot effectively respond to the smallholders' complex social and environmental realities.

An additional constraining factor in addressing the needs of smallholders and women is the limited capacity for using gender-sensitive participatory approaches, particularly of the CGIAR centers. Findings of the PRGA Program demonstrate that end users such as women are brought into the research process at very late stages, usually to evaluate technologies that have already been developed and are ready for dissemination. Consequently, such technologies are often inappropriate for the needs of the poor and women (Annual Report of the PRGA Program, submitted to BMZ 2003).(1)

The PRGA Program and FARA propose to strengthen, consolidate, and mainstream gender analysis and participatory research in a high priority, highly visible program. This program would recognize and promote gender equity and gender-sensitive participatory approaches as an important strategic process in making R&D organizations demand driven.(2) One avenue for doing so is through developing enhanced capacity for gender-sensitive participatory approaches, combined with enhanced capacity for organizational innovations that will sustain the use of such approaches beyond the project's life through their institutionalization within the procedures, structures, and cultures of the participating organizations.

(1)
One key lesson learned in participatory research is that involving stakeholders early in research leads to better targeting, greater sense of ownership, and higher impact. Only by recognizing current incentive structures and feeding into existing learning processes can impact assessment contribute to better decision making and ever-increasing impact. Assessing the extent to which R&D organizations have been able to learn and change because of their experience is an important element in mainstreaming PRGA approaches.

(2)
"Mainstreaming" is an umbrella concept that includes five separate but interrelated components: (a) capacity development for PRGA and organizational development; (b) development of a cadre of change agents trained in PRGA and organization-development skills; (c) a network of support and exchange between change agents; (d) adaptation of organizational structures and/or practices to initiate demand-driven agenda; and (e) formation of a high-level group that represents farmers' interests, particularly those of smallholders and women, and functions as a body that ensures accountability for instituting demand-driven agenda in participating organizations.

The PRGA Program and FARA will work closely with the three subregional organizations (SROs)(3) in Africa to improve the performance of agricultural research for development, particularly of highly vulnerable target groups and areas suffering adverse effects of HIV/AIDS and climate change.

A workshop will be held to design a challenge program (CP) for sub-Saharan Africa (SSA). The SSA-CP would be owned by stakeholders, and would build and add value to previous efforts.

*See Appendix 9 for an example of a workshop evaluation.*

## 4.3. Goals and Objectives of the SSA-CP Workshop

The specific objectives of the workshop to design the Sub-Saharan Africa Challenge Program are:

- To clarify the expected outcomes and objectives of the SSA-CP
- To analyze the current constraints of the "INRM system" in agricultural R&D to make it more effective and efficient, and identify emerging opportunities
- To identify the SSA-CP's "niche", thus adding value to SROs, NARS, and partners
- Building on existing experience, to elaborate on the research program, structure, and priorities; and identify links between program structure and implementation
- To clarify the nature of the institutional arrangements needed to operationalize the SSA-CP
- Most significantly, to share ideas, "new science'", and new approaches, and to enhance partnerships

(3)
These are the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA); the Conseil Ouest et Centre Africain pour la Recherche et le Développement Agricoles/West and Central African Council for Agricultural Research and Development (CORAF/WECARD); and the Southern African Centre for Co-operation in Agricultural and Natural Resources Research and Training (SACCAR).

## 4.4. LI-BIRD

A Nepal-based NGO, Local Initiatives for Biodiversity, Research, and Development (LI-BIRD), has been conducting farmer participatory maize breeding in Gulmi District in Western Hills, Nepal, since 1999. As well as focusing on developing a new farmer-preferred maize variety, the NGO had a specific emphasis on strengthening farmers' breeding and the informal seed selection and maintenance process.

The PRGA Program and LI-BIRD began their collaborative impact study with a planning workshop in October 2002. The study's specific objective was to assess those changes in farmers' skills and economic benefits that may result from increased knowledge. Excellent baseline data exist on the participating farmers, and the same 100 farmers in two sites were surveyed to assess changes in human capital resulting from project impact. Although this study was delayed by Maoist insurgency in the Gulmi area, data collection was completed by July 2003, and data are currently being analyzed.

The results of this study will be discussed at the learning workshop to be held during LI-BIRD's annual planning meeting in February 2004. The workshop will involve a facilitated discussion and feedback on the impact study's results, linking field activity and organizational adaptability. The expected outcome of the learning workshop will be an action plan for organizational effectiveness.

## 5.1. Overview

The establishment of the Gender Analysis Working Group (GA-wg) was a major development that emerged from the recently concluded stakeholder meeting held in Cali, Colombia, during 30 June-1 July. The PRGA Program stakeholders generally agreed that a GA working group had to be established to "reverse the extreme dilution" of gender and gender analysis within both the practice of participatory research and the CGIAR system in general.

Several participants from the meeting joined to form a working group and emphasized the following themes as important to research and development:

- An explicit gender perspective in all policies and programs
- Gender equality as a development goal in its own right
- Gender equality as a cross-cutting theme; key to achieving other development goals

In setting up these objectives, the GA-wg also outlined the first tasks that the PRGA Program needs to accomplish:

- Set up a comprehensive working group on gender analysis (GA)
- Membership to the working group should comprise high-level representation, executives, all CGIAR focal points (those who were interested), and non-CGIAR members
- The PRGA and Gender & Diversity Programs should advocate and lobby the CGIAR system to get a starting function, that is, a gender coordinator, facilitator, or gender specialist

The GA-wg also set out some guidelines for a larger, two-tiered strategy on gender in the CGIAR and the PRGA Program. These are:

### 5.1.1. CGIAR

- Ensure that explicit gender policy statements are contained in the larger CGIAR policy documents and in those of individual CGIAR centers (e.g., Mid -Term Plans)
- Focus on capacity development for gender analysis methods through training, mentoring schemes for young professionals, and rural women

- Create a "Gender" listserv, building on existing ones such as the PRGAinfo listserv
- Create an inventory of ongoing gender projects and the outputs related to these. For example, such a process could build on earlier works such as that of Hillary Feldstein (1997)(1), as well as on experiences outside the CGIAR
- Establish links with gender archives
- Revive "classical" papers and gray literature (i.e., "unpublished stuff")
- Document "best practices", case studies, and lessons learned
- Identify gaps and initiate new research
- Create a Web site
- Create virtual conferences on specific themes of emerging issues

### 5.1.2. PRGA Program

In the Program, the GA-wg would:

- Play an advisory role on:
  - "How to" mainstream gender analysis in PPB and PNRM
  - Monitoring and evaluating the PBG, PNRM-wg, and other working groups
- Develop capacity for GA through training and mentoring
- Expand partnerships with other organizations (e.g., research and grassroots) working on gender issues

## 5.2. Defining Gender

"Gender" refers to the roles and responsibilities of men and women, and the relationships between them. Gender does not simply refer to men or women, but to the way their qualities, behavior, and identities are determined through socialization. These roles and responsibilities are culturally specific and can change over time. Gender is seen as the social construction of men and women's roles in a given culture or location.

(1) Feldstein H. 1997. PRGA Website

Gender roles are distinguished from sex roles, which are biologically determined. Gender refers to the socially determined roles played by men and women. These different roles are influenced by historical, religious, economic, cultural, and ethnic factors. As men and women are defined in the weave of specific social fabrics, the relationships they share constitute what is known as "gender relations".

Poor targeting, inequitable distribution of benefits and burdens, and poor operational and maintenance structures have hindered development projects from addressing issues of sustainable development in water resources management. Community participation and management approaches have also failed to address these issues, largely because communities are often seen as a collection of people with a common purpose.

The reality is that a community is not a collection of equal people living in a particular geographic region. It is usually made up of individuals and groups who command different levels of power, wealth, influence, and ability to express their needs, concerns, and rights. Communities contain competing interest groups. Where resources are scarce, there is competition for supplies, and those at the lowest end of the power spectrumthis often implies the poorwill go without. Power issues place women in a disadvantaged position. Applying a gender analysis helps development agencies better target their resources and the needs of different gender groups.

People-centered approaches do not always ensure that gender perspectives are taken into account. Thus, a deliberate strategy of gender mainstreaming can be useful to ensure that these issues are part of analyses, project planning, and evaluations.

## 5.3. The Gender Typology

The tool Gender Typology helps researchers analyze how they are using gender analysis (GA) and, likewise, how it affects their research, as well as technology design and adoption. It upholds the premise that those who participate in the different decisions made during research, particularly during technology design, have an important impact, both on the processes and products of research. Gender Typology outlines three ways in which GA can be used:

- Diagnosis oriented: Differences in gender and stakeholder problems and priorities are diagnosed. They may or may not go on to be considered in priority setting and technology design and evaluation

- *Design oriented*: In addition to being included in diagnoses, gender-differentiated problems and priorities are taken into account in research and development design

- *Transfer oriented*: Different technology dissemination methods are designed to overcome differences in access to an already developed technology that is thought to have similar appeal to women and men

Each way of conducting GA may be implemented in the three different stages of innovation (and 16 steps) outlined in the tool Participation Typology.

Related to GA, but also encompassing other stakeholder categories, is the analysis of how projects select participants. This single aspect of participation has proved to have significant effects on the attainment and spread of impact. Many different ways exist to choose participants (or allow them to select among themselves). Often, a project's processes and technology outcomes has a disproportionate impact on those participatinghence, the importance of selecting purposefully.

When a project allows its participants to select among themselves or be selected by their communities, then, usually, the biases and exclusions already existing in the community become reflected in the research. Not surprisingly, the most disadvantaged and women are often excluded. By bringing up this issue and asking projects to spell out and think through their methods for selecting participants, the PRGA Program has helped PR move away from biases found in much of the conventional research.

## 5.4. Establishing the Gender Analysis Working Group

The PRGA Program has begun communicating with representatives of the GA-wg, particularly to develop a strategy statement and to identify potential facilitators for the working group. So far, three nominations have come in and the Program is waiting for additional nominees.

***Note:***
*See Appendix 10 for a list of the GA-wg members*

## 5.5. Africa Gender Initiative

The concept paper for the Africa Gender Initiative was presented by CIAT's Rural Innovation Institute in close collaboration with the PRGA Program. Details of the paper are as follows:

### 5.5.1. The problem

Persistent rural poverty is rooted in the impoverishment of women. Not only are women a growing proportion of the rural poor, but also the welfare of rural children and overall household food security in poor countries is vitally affected by women's access to resources and technology for food production and income generation.

The incidence of poverty among women is growing. Since the 1970s, the percentage of rural women below the poverty line has increased by 50%, whereas that of men increased by 30%. Currently, almost 60% of the world's 1000 million poor are women and, of the 333 million living in absolute poverty, 70% are women.

Recognition of this problem and action to address it is nothing new: for at least two decades, several initiatives have been working steadily to document the worsening situation of rural women and to promote and disseminate technology designed to help poor rural women improve their access to technology, productive resources, and income. Today, however, new challenges are found not only in the feminization of poverty, but also in the globalization of the world's economy, which is changing the face of small-farmer agriculture.

These concerns highlight several issues: first, the diagnosis of technology needs and constraints faced by poor rural women has to be much more dynamic, and updated on a regular basis to keep up with the rapid rate of change in their conditions and needs. Very little is known at present about how these needs and constraints are changing. Second, the development of technologies for women needs to be closely associated with the identification and development of new opportunities and increasing labor productivity, in contrast to the approaches used in the 1980s and 1990s, which focused on alleviating drudgery and women's traditional agricultural responsibilities.

### 5.5.2. Key issues

Most technologies developed and practices promoted by public agricultural research centers do not adequately address women's needs and priorities

Numerous tools exist for gender analysis and diagnosis but, seemingly, no tools or guides to help scientists and extension agents effectively feed diagnostic results into research planning and adaptation

Likewise, a host of gender theories and models (e.g., intra-household) exists, but practical applications enabling those theories to be used for improving women's livelihoods are few

### 5.5.3. Objectives

The overall goal of the Africa Gender Initiative is to strengthen the capacity of our national R&D partners to develop innovative agricultural technologies and income generation opportunities that address women's special needs and constraints. This project will work in close collaboration with the PRGA Program, which is currently involved in work in Africa. The goal will be to scale up the lessons learned and experiences derived from the PRGA Program's on-going research. The Initiative's specific objectives are:

- To develop tools that help researchers and scientists assess information and circumstances from gender analysis, and to identify significant factors, promising next steps, and "best bet" options

- To provide researchers, extension agents, and development practitioners with guides and tools, and training as to their application

- To develop mechanisms for applying results from gender theories and models (e.g., intra-household), and to enable the theories to be applied to improve women's livelihoods

- To institutionalize the use of gender considerations in NARES and in the academic training of agricultural researchers (e.g., at universities)

- To increase opportunities for rural women by sensitizing rural communities on gender issues and enhancing women's roles in R&D processes

### 5.5.4. Key focal areas of research

#### *5.5.4.1. Empirical research*

This will involve conducting research to address key gaps and challenges, and to feed results into current initiatives:

- Research on developing mechanisms to apply results from gender theories and models (e.g., intra-household), and to enable the theories to be used to improve women's livelihoods

- Impact assessment to compare the technical, process, and cost-benefit impact of projects that apply gender analysis with those that don't.

- Assessment of R&D projects to see how the integration of gender analysis influences agricultural technology development, its appropriateness, and likely adoption by women

- Methods to improve the effectiveness of impact assessment by providing tools to use impact assessment information in learning that leads to change

### *5.5.4.1. Capacity building and tools development*

- Capacity building of partners in using GA in research
- Tool development and testing, including decision-support tools, guides, and aids
- Application of tested tools GA, applied theory, impact assessment
- Building gender awareness, and the social and human capital of communities
- Application of theoretical concepts and models
- Use of GA moves from diagnosis to technology development and implementation

### *5.5.4.2.Mainstreaming and institutionalizing the use of gender considerations in NARES and in the academic training of agricultural researchers (e.g., at universities)*

- Integrating GA in existing projects versus developing special GA projects
- Integrating GA components versus mainstreaming GA
- Iterative feedback loops that integrate GA results into the innovation process
- Supporting networks that support organizational change to integrate GA priorities into R&D
- Enhancing gender equity in R&D institutions and links with universities and educational initiatives

## .1 Overview

Impact assessment (IA) work by the PRGA Program is designed to provide a body of scientifically credible evidence about the state-of-the-art in the CGIAR centers and elsewhere in the use of participatory approaches and the results obtained. This information is provided to scientists, research managers, and development practitioners who want to decide whether and how to use these approaches for agricultural and natural resource management research. To accomplish this, the Program's impact assessment research has established and maintains an inventory of participatory projects, conducts impact studies in collaboration with various research institutes, and engages in methods development and capacity building in impact assessment of participatory approaches with partner institutions.

The next section 6.2 will critically look at the Program's impact assessment research results from the first phase (1997-2002), and the lessons learned from the second phase. Section 6.3 will summarize the outputs achieved in the reporting period of April 2002-March 2003. The concluding section 6.4 will list the expected milestones for the next reporting period.

## .2.From Assessment to Learning and Change

In this section, we take a critical look backwards and discuss if the Program's impact assessment strategy has been worthwhile, and what the lessons were for the Program's second phase, and their implications for impact assessment.

Some of the methodological challenges we have been facing have demanded a new and original framework. That is, the way research is designed and implemented, and how research outcomes are assessed have had to change dramatically over the past decades. Today, research must be client-driven, collaborative, and responsive to diverse objectives. These changes have significant implications for impact assessment (IA).

First, impact assessment practitioners must document a much broader range of project impacts, for example, impact on poverty alleviation and environmental sustainability.

Second, our understanding of the number of stakeholders in impact assessment has grown dramatically and now includes center management, researchers, donors, partner institutions, beneficiaries, and civil society organizations. Different stakeholders demand different types of information in different formats. Internal rates of return and cost-benefit analyses may have been sufficient for the accountability functions of impact assessment, but they will not satisfy those who are interested in knowing how and why a project affected people's lives.

Third, a growing number of stakeholders seek information, not about the impact of a project's products, but rather of its processes. It is important that those involved in R&D projects learn from the experience and adapt their priorities and practices to continuously improve their contribution to the ongoing process of innovation.

How has the Program been able to respond to this methodological challenge? The PRGA Program staff, together with its many collaborators, has developed, tested, applied, and disseminated IA framework and tools with small grant recipients and working groups. We now have published guides on how to assess the impact of methods; these are found in four working documents (nos. 6, 7, 8, and 17) and one book Assessing the Impact of Participatory Research and Gender Analysis (2001) by N. Lilja and others. That these guides have been used by many of the small grant recipients is shown in their written results of project analyses. We also have over 160 cases in the Web-based project inventory, and these projects attempt to document wider ranges of impact based on these guides.

The second part of the Program's impact strategy has been to conduct collaborative impact studies. We have been directly involved in 21 projects by providing funds and some capacity building in IA. In 10 of these cases, the Program has also contributed a significant amount of human resources to conduct the assessment. In PPB, collaborative impact studies have been completed with ICARDA in Syria and WARDA in West Africa. Currently, we are conducting or completing studies with EMBRAPA in Brazil, LI-BIRD in Nepal, CIAT in Vietnam and Thailand, and CIMMYT on methods. The "PPB small grants" recipients who received IA training were CORPOICA, EMBRAPA, FIDAR, ICARDA, INIAP, IPGRI, and PROINPA. In NRM, we have directly collaborated with CIP, ICRISAT, and World Neighbours Canada, and are now collaborating with IPRA (the participatory program at CIAT) in assessing the impact of farmer research committees (also known as CIALs). The "NRM small grants" recipients who received IA training were CIFOR (Indonesia), CIMMYT (Kenya), CIP (Peru), ICRAF-AHI, ILRI (Ethiopia), and the University of Zimbabwe.

The third and last component of the Program's impact assessment strategy was to assist with capacity development, emphasizing mutual support and learning. This was implemented by the Program's IA economist, who dedicated a significant amount of time to collaborative impact studies. The economist designs and implements, and the center or institute's staff provide tools, framework, and resources. The small grant recipients are brought together in workshops to share experiences and build IA skills. For example, in Nairobi 2001, we had over 60 participants in an IA training workshop. Another effort, very recently initiated, is to work with the University of Florida to develop training materials for Web-based dissemination, potentially in collaboration with African universities. Also, an IA Web page has been established to promote the exchange of experience and evidence.

Has this capacity building, with its emphasis on mutual support and learning, paid off? One example is WARDA and its 17 national program partners: over 5 years, the PRGA Program provided them with continuous training support in participatory methods and IA. Other organizations have also contributed to the training effort. All the collaborative training efforts have paid off and, by 2000, the participatory variety selection (PVS) approach to upland rice improvement had reached a sustainable level. The approach is now common practice among the NARS, not a novelty. WARDA's national partners are conducting upland, lowland, and irrigated PVS trials in about 100 sites in 17 West African countries, and had involved more than 4000 farmers in the evaluation of improved rice varieties.

Impact assessment results are now being used to reinforce scientific credibility of these methods, attract donor support, disseminate the use of these methods among NARS, increase management support, and provide training.

Although IA in PRGA has introduced a novel focus of documenting process impact (i.e., feedback, human and social capital), the current use of IA results still comes up against several limitations:

- Its focus on measurement
- Extractive nature rather than empowering
- Oriented toward donor needs only
- Conducted to make judgments based on standard indicators
- Struggle for objectivity and distance between evaluators and participants
- Externally oriented
- Lack of links with M&E

Addressing the challenges of moving from assessment to learning and changing the focus in IA is the Program's main task in IA work in its second phase. The Program will also identify ways in which IA research can be more effective in (1) demonstrating the ability of agricultural research to contribute to development goals, and (2) facilitating the use of IA results for joint decision making by various stakeholders. Assessing the extent to which R&D organizations have been able to learn and change because of their experience is an important new area for IA in the CGIAR system overall. Scientists are now increasingly applying participatory approaches to their research to better understand their clientspoor peopleand their wants and needs, and thus design technologies that fit better with the complexity of their livelihoods. A similar process needs to occur in IA. One key lesson learned in participatory research is that involving stakeholders early in research leads to better targeting, greater sense of ownership, and higher impact. Only by recognizing current incentive structures and feeding into existing (if incipient and imperfect) learning processes can IA contribute to better decision making and ever-increasing impact.

## 6.3 Milestones Reached in 2002-2003

The Program's IA work for 2002-2003 includes four components:

- Conducting empirical studies in the impact and costs of participatory plant breeding
- Synthesis and dissemination of impact results through presentations to various stakeholders
- Building and maintaining the Program's IA Web site
- Methodology development for improving the role of IA in contributing to institutional learning and change

### *6.3.1. Impact study results for April 2002-March 2003*

Over the past 4 years, in collaboration with many institutions and individuals, the PRGA Program has systematically collected scientifically credible empirical evidence of the impact and costs of participatory research in NRM and PB by conducting impact case studies. These studies analyze both the impact and costs of PRGA. Both qualitative and quantitative data are used, including existing project documentation; open-ended interviews with project staff, farmer participants, and other key informants, including community leaders and policy makers; and statistical and econometric analyses of survey data.

One case study was completed during this reporting period, with ICARDA in Syria. Another impact study, with WARDA in Côte d'Ivoire, was completed in February 2002, and written and published in 2003 as a PRGA Program working document. Two other collaborative impact case studies were started and are still in progress: one with EMBRAPA in Brazil, and the other with Local Initiatives for Biodiversity, Research and Development (LI-BIRD) in Nepal. Below is a brief summary of each of these impact studies.

#### *6.3.2.1. ICARDA (barley in Syria)*

Principal contact persons: Nina Lilja (agricultural economist, PRGA Program); Aden Aw-Hassan (agricultural economist, NRM Program); Salvatore Ceccarelli and Stefania Grando (barley breeders, Germplasm Program); William Erskine (Assistant Director GeneralResearch, ICARDA)

Decentralized participatory barley breeding begun at ICARDA in 1997 when the initial 208 barley lines were planted on farmers' fields in nine villages throughout Syria. The impact case study assessed benefits and costs of ICARDA's participatory barley breeding approach, compared with the conventional (centralized) breeding approach, both at the farmers' level, and as returns to research. The program benefits were estimated, ex ante, by the economic surplus model, comparing conventional and participatory breeding. The program's cost structure was analyzed ex post, and costs of conventional and decentralized breeding were constructed for comparison. Farmer benefits were measured, ex post, by comparing adoption benefits and changes in human capital between 86 participating and 106 non-participating farmers. We also calculated the opportunity cost of farmers' time in research.

The results showed potentially significant increases to Syrian agriculture from participatory barley breeding. The discounted, research-induced benefits to Syrian agriculture from conventional barley breeding are US$21.9 The model's results also show that the benefits in reduced research lag and the 10% yield increase resulting from participatory research increase total benefits by 90% (US$42.7). The higher adoption ceiling for participatory breeding, compared with conventional breeding, increases the benefits a further 50% (US$54.6). These are ex ante estimates of the potential benefit of PPB. Realizing these benefits depends partly on functioning extension and seed systems because, without them, autonomous diffusion may be slow.

Findings indicate that the infrastructure and personnel constitute the largest share of the breeding budget, comprising 77% when combined. The breeding approach (whether conventional, decentralized, or participatory) or breeding method used (bulk versus pedigree) affects operational costs, which represent a relatively small share at 23% of the total breeding budget. The relative changes in costs were then calculated for changes in budget allocations according to breeding approach. The shift from conventional to participatory research increased operating costs by 56% (from US$XXX,XXX to $122,154).

However, simply concluding that PPB is more costly than conventional breeding is erroneous. In reality, the share of overhead and personnel costs remains fixed, and operations are adjusted according to the availability of funds. Also, most breeding programs today are already decentralized, and what our results show is that the changes in costs from conventional decentralized to participatory decentralized breeding is very small. Further calculation shows that the move from conventional to participatory breeding only increases the total breeding budget by 2%.

***Note:***
*For more information about this study, see:*
*Lilja N; Aw-Hassan A. 2003. Benefits and costs of participatory barley breeding. Paper accepted as a poster presentation at the International Agricultural Economics Association meeting, held in Durban, Rep. of South Africa, August 2003. (Also forthcoming as PRGA Working Document.)*

### *6.3.2.2. WARDA (rice in West Africa)*

Principal contact persons: Nina Lilja (agricultural economist, PRGA Program); Olaf Erenstein (production economist, WARDA)

The participatory rice breeding and gender analysis approach has been used by WARDA since 1996, and subsequently adopted by its national partners. The approach can be characterized as "functionally motivated participation", that is, trying to understand better what farmers want or need, and to feed back insights to formal research for improving future on-farm productivity.

The collaborative impact study with WARDA was completed in early 2002. Breeders and social scientists from 16 of the 17 national programs were interviewed during the annual Participatory Rice Improvement and Gender/User Analysis Workshop (PRIGA) in Côte d'Ivoire in May 2001. The impact of incorporating participatory research approaches at different stages of the varietal development process can be argued to go beyond the economic benefits associated with better crop type. "Process impacts" have occurred as a result of the participation itself rather than as a result of the technologies developed via participatory research methods. Some of these "institutional process impacts" include internal institutional changes such as changes in breeding goals and objectives, breeding methods, and spillover effects to varietal development in other crops. They also include changes to external relationships with other institutions such as seed production systems and varietal release mechanisms, and changes to these institutions themselves.
The experience with implementing participatory research has clearly provided feedback to breeders in the national programs, and this information has led to some perceived and specific internal institutional changes. Half of the national scientists say that they have changed their breeding goals, and three quarters say they have also changed their breeding methods and the ways in which they conduct breeding. Changes in external institutions such as seed production or varietal release systems have been less successful, probably because less attention was paid to forming partnerships with other stakeholders in seed and varietal release institutions and mechanisms, and more attention given to interactions with farmers. Only one third of the respondents said that they had created or improved partnership arrangements in rice research. Involvement of other stakeholders is therefore another area in which potential exists for improving labor and the institutional and demographic context of gender; or it could remain an area limited to measuring gender differences in varietal preferences.

***Note:***
*For more information about this study, see:*
*Lilja N; Erenstein O. 2002. Institutional process impacts of participatory rice improvement and gender analysis in West Africa. Working Document, no. 20. PRGA Program, Cali, Colombia.*

### *6.3.2.3. EMBRAPA (cassava in Brazil)*

Principal contact persons: Nadine Saad (PhD candidate in human geography); Nina Lilja (agricultural economist, PRGA Program); Wania Fukuda (plant breeder, EMBRAPA)

This impact case study builds on a previous study on participatory cassava breeding in Brazil conducted collaboratively by the PRGA Program and EMBRAPA. (Fukuda and Saad, July 2001)(1), The main emphasis of the current study is to look at the impact of participatory research in terms of type of cassava variety developed, its adoption, and the economic benefits of adoption. We also look at the implications of participatory research for different stakeholder groups, and determine how representative the results are to various stakeholders. The Brazilian cassava project is functional in its approach, and its main objective is to bring improved cassava varieties to farmers, based on their own selection criteria. Farmer empowerment is not a specific objective for the project. Hence, we will not specifically assess the human and social capital impact in this case.
The study's specific objectives are:

- To assess the "soundness" of the methodology (do the results benefit intended users? Is the approach more successful in certain types of communities?)

- To assess the adoption of new cassava clones selected and introduced through participatory varietal selection trials (is participatory research producing superior varieties for the intended users?)

- To assess the reasons for adoption (is the biggest constraint to adoption in fact the availability of "good clean seed", rather than the improved characteristics?)

- To assess the economic benefits from adoption and implications for "well-being" (has the adoption of new cassava clones improved the well-being of the adopters?)

Data collection began in mid-2002, with interviews of 22 participating and non-participating farmers in four communities. Collection was completed in late-2002, and is now being analyzed. Publication is expected in December 2003.

(The final analysis was delayed because one researcher began PhD studies, and another took maternity leave.)

.(1) Fukuda and Saad. July 2001.

#### *6.3.2.4. LI-BIRD (maize in Nepal)*

Principal contact persons: Nina Lilja (agricultural economist); Barun Gurung (anthropologist, PRGA Program); Anil Subedi, Sanjaya Gyawali, and Anu Adhikari (LI-BIRD)

Details of this case study can be found in Section 4.4.

### *6.3.2. Dissemination of impact assessment research results*

The year 2002-2003 provided an opportunity to reflect on some of the findings, and the results of the PNRM and PPB impact assessments were synthesized into presentations at five international meetings:

- *Impact of User Participation in Natural Resource Management Research*
  PRGA Stakeholder and Donor Meeting
  22 April 2002, Bonn

- *Impact of Participatory Plant Breeding: An Overview*
  "Quality of Science in PPB" Meeting
  30 September-4 October 2002, Rome

- *Benefits and Costs of Decentralized Participatory Barley Breeding at ICARDA, Syria*
  "Quality of Science in PPB" Meeting
  30 September-4 October 2002, Rome

- *Impact of Participatory Research and Gender Analysis in Plant Breeding*
  CGIAR Annual General Meeting
  2002, Manila, Philippines

- *Scaling up and out the Impact of Farmer Participatory Research*
  CIAT Annual Review
  December 2002, Cali, Colombia

The presentations listed above are available in PowerPoint format on the PRGA Program's Web site.

Publications based on the PRGA Program's IA research were also produced:

- Johnson N; Lilja N; Ashby JA. 2003. Measuring the impact of user participation in natural resource management research. Agricultural Systems

- Lilja N; Aw-Hassan A. 2003. Benefits and costs of participatory barley breeding. Paper accepted as a poster presentation at the International Agricultural Economics Association meeting, held in Durban, Rep. of South Africa, August 2003.

- 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.

### *6.3.3. The impact assessment Web site*

The Program created an impact assessment Web site, which provides access to all publication outputs of the Program's IA research: project inventories, impact case studies, guides on IA methods, and PowerPoint formats of synthesized results presented at the various international meetings. The site also offers access to other reviewed and recommended IA research methods and empirical results. The electronic addresses are:

- Impact assessment Web page:
http://www.prgaprogram.org/impact_assessment/impact.htm

- Inventory Web page:
http://webpc.ciat.cgiar.org:8080/prgainventory/inventory.htm

### 6.3.4. Methodology development for institutional learning and change

Program staff participated in the workshop on the Role of Impact Assessment in Institutional Learning and Change (ILAC), organized by the CGIAR Standing Panel on Impact Assessment (SPIA). The workshop was held during 4-6 February 2003 at IFPRI in Washington DC. One of its activities was to develop a proposal for systemwide effort in ILAC.

## 6.4 Major Expected Milestones for March 2003April 2004

- Two impact case studiesof EMBRAPA and LI-BIRDare completed and results published as PRGA working documents

- Three new impact case studies are conducted by:

  - IPRA (CIAT); a study on CIALs in Colombia, cofinanced by IPRA and the PRGA Program
  - CIAT-Asia; a cassava-based NRM study in Vietnam and Thailanda funding proposal was submitted to and accepted by SPIA
  - CIMMYT; a study on the development of participatory methods at CIMMYT, cofinanced by CIMMYT and the PRGA Program

- Impact assessment research results are synthesized in PowerPoint presentations and working documents and/or journal articles. These are disseminated to stakeholders at the international meetings. The following presentations are planned:

  - FARA meeting, 19-20 May 2003, Dakar, Senegal
  - PRGA Stakeholders Meeting, 30 June1 July 2003, Cali, Colombia
  - International Agricultural Economics Association Annual meeting, 18-22 August 2003, Durban, Rep. of South Africa

- A course module and materials on the IA of PRGA approaches are developed and taught as a graduate course at the University of Florida in June 2003

- The Program's IA Web site offers a wide range of resources on methods for IA of participatory and gender analysis research, as well as empirical studies

- Workshop on IA methods is planned and organized for mid-2004 Impact assessment for learning and change is integrated into two proposals for the Challenge Program on Water and Food (one by the PRGA Program and the other by ICARDA), and the Program's Gender in Africa Initiative

As we mentioned in Section 1.3.2.5, to facilitate the use of participatory approaches, we used several strategies to build and articulate a community of knowledge and practice. We also stimulated worldwide exchange of expertise through three listservs (PRGA-info, PBG, and PNRM) and organized a new Web site with various services. A network was established among PRGA liaison contacts and gender focal points in all the CGIAR centers. Three publicly accessible databases with information on projects were created (Expertise, the PPB project inventory, and the PNRM project inventory), and various training events were conducted with participants from all around the world.

## .1. Listservs

The PRGA Program manages three electronic listservs:

### 7.1.1. PRGA-info

This is a general listserv used by the Program for information dissemination and administrative purposes. Members of the other Program listservs are automatically subscribed to this list. Currently, the listserv has 420 members.

### 7.1.2. PBG Listserv

The Plant Breeding Group is the main listserv of the Program's working group of the same name. It currently hosts 200 members from over 100 countries and a range of different types of institutions. This listserv has been very active in discussing and contributing to several key pieces of work, including the PPB guidelines document, and the intellectual property rights (IPR) study.

### 7.1.3. PNRM Listserv

The Participatory Research for Natural Resource Management Listserv is a forum for researchers from the CGIAR and partner organizations who are practicing and developing participatory approaches for NRM. It is intended to provide continuity for the PNRM Working Group when between face-to-face meetings.

## .2. The PRGA Program's New Web Site

Several weaknesses of the PRGA Program's Web site were identified in the presentation given at the stakeholder meeting in Cali (30 June1 July 2003). (You can download this presentation from: <http://www.prgaprogram.org/download/stakeholder_mtg_03/communication_web.ppt>) The Program was thus prompted to upgrade the contents of the existing Web site, while it developed a new site with improved navigation, searchability, and interactivity. User input, from the PRGA Program's working groups, was considered when developing criteria for choosing a contents management application (Box 7A).

**Box 7A**

**Criteria for choosing a contents management application**

- A Web development application that is also a community-building tool
- A Web development application that is easy to use so that the Web site can be maintained by staff who understand the contents, have some Web development skills, but are not necessarily IT professionals
- An application that offers an integrated set of tools for supporting the PRGA Program's communities of practice. We aim to avoid a "patchwork" approach where many different tools from various sources are used
- A design process that is user, not technology, led and that can ensure accessibility and reliability for users who have older browsers, low bandwidths, small monitors, and older printers
- Open-source applications are free. If an open-source application can provide the functionality sought, this would represent significant cost savings to the Program. Because open-source software is the product of ongoing innovation by a community of developers, and therefore belongs to the community, it is more compatible with the PRGA Program's approach than proprietary software
- An application that meets CIAT's security standards while offering:
  - An expertise directory with definable and extendable fields and user input capability
  - Searchable databases of documents and resources with user input capability. This is necessary for our toolbox of methods and learning resources, and for our project inventories
  - Capacity to search the whole site
  - Capacity to support multiple CGNET listservs and to permit archiving of listserv messages by linking with Web-based forums
  - Capacity to queue user input for approval by a PRGA Program administrator
- An application that has the capacity to meet future user demands for functions such as:
  - Asynchronous discussion
  - Chatting
  - Capacity to support collaborative work by small subgroups (e.g., joint writing projects, and document reviews)
  - Capacity to support multiple-language interfaces

The PRGA Program also participates in the following electronic services:

- id21, a development research reporting service, funded by DFID, that summarizes the latest development research
- Livelihoods ConnectDFID's learning platform for sustainable livelihoods approaches
- Microfinance Gateway, which is an information forum on microfinance
- Participation Resource Centre, which is an information service for participation and development
- Several IDS (University of Sussex) collaborative research sites

The International Institute of Rural Reconstruction (IIRR) assists the rural poor around the world to improve their lives by building on their unique assets and strengths. The IIRR achieves this through field research, training, publications, and field programs with poor communities and through partnerships with others designing the new Web site.

Based on consultations with Bellanet, PostNuke was identified, evaluated, and selected as the PRGA Program's Web development and contents management application.

**Note:**
See Appendix 11 for a graph showing Web site traffic for 2002-2003.

The 10 most popular resources on the PRGA Program's Web site are:

- Geilfus F. 1997. 80 herramientas para el desarrollo participativo: diagnóstico, planificación, monitoreo, evaluación. PROCHALATE-IICA, San Salvador, El Salvador. 208 p.
- Lilja N; Ashby JA; Sperling L, eds. 2000. Proc. seminar on "Assessing the Impact of Participatory Research and Gender Analysis", held September 1998, in Quito, Ecuador. PRGA Program, Cali, Colombia. 287 p.
- Sanginga P; Lilja N; Gurung B, eds. 2002. Assessing the benefits of rural women's participation in natural resource management. Proc. workshop on "Natural Resource Management (NRM) Small Grants End-of-Project", held 13-17 November 2001, in Cali, Colombia. PRGA Program, Cali, Colombia.

- Saad N. 2002. Farmer processes of experimentation and innovation: a review of the literature. Working Document, No. 21. PRGA Program, Cali, Colombia.
- PRGA Program. 2000. Proc. "Participatory Research for Natural Resource Management: Continuing to Learn Together", a joint CG-PRGA/NRI Workshop, held 1-3 September 1999, in Chatham, England.
- Feldstein H. 1999. An inventory of gender-related research and training in the Consultative Group on International Agricultural Research (CGIAR) centers, 1996-1998. PRGA Program, Cali, Colombia.
- Arevalo M. 2002. History of institutionalization of participative research in CORPOICA. Presentation in PDF format.
- 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.
- Ortiz O; Orrego R; Nelson R; León V. 2002. Impact evaluation of participatory development of integrated insect and disease management (IPM) for the potato crop in San Miguel, Peru. PRGA Small Grant report, Jan 1999-Dec 2001.
- PRGA Program. 2000. Equity, well-being, and ecosystem health. 62 p.


During 2003, the PRGA Program added two new sections to its Web site: Web Site of the Week, and Special Feature.
The address of the latter is:
<http://www.prgaprogram.org/pnrm/resources/pnrm_special.htm>

The following Special Feature items were developed:

- Facilitation: A Core Competency for Participatory Natural Resource Management
- Appreciative Inquiry
- Partnerships and the World Summit on Sustainable Development
- Knowledge Management and Communities of Practice
- Spotlight on Africa (for more details, see Appendix 12)

***Note:***
*Appendix 13 has descriptions of those sites highlighted in "Web Site of the Week".*

## 7.3. The PRGA Program's Liaison Contacts in the CGIAR Centers

The PRGA Program's center liaison officers are persons appointed by the Director General of each CGIAR center (Box 7B). Their role is to disseminate information, research results, and small grant opportunities from the PRGA Program to other CGIAR scientists and research partners.

**Box 7B**

**The PRGA Program's liaison contacts in other CGIAR centers**

| CGIAR center | Liaison officer |
|---|---|
| IFPRI | Ruth Meinzen-Dick |
| IITA | Nicoline de Haan |
| ICARDA | Aden Aw-Hassan |
| IRRI | Thelma Paris |
| CIMMYT | Mauricio Bellón |
| WARDA | Howard Gridley |
| IPGRI | Pablo Eyzaguirre |
| ICRAF | Steve Franzel; Ann Stroud (AHI) |
| IWMI | Barbara van Koppen |
| CIAT | Matthew Blair |
| CIFOR | Cynthia McDougall |
| CIP | Oscar Ortiz |
| ICLARM | Mahfuzuddin Ahmed |
| ICRISAT | Eva Weltzien |
| ILRI | Mohamed Jabbar |
| ISNAR | Helen Hambly |

As the Program embarks on its second phase, with particular emphasis on institutionalizing gender-sensitive PR in international and national agricultural research systems, a more substantial role for the liaison officers is envisioned, coupled with more opportunities to participate in PRGA Program-sponsored activities and provide input to Program directions.

**Note:**
See Appendix 14 for PRGA Program's terms of reference for liaison officers.

## 7.4. The PRGA Program's Expertise and Project Inventory Databases

### 7.4.1. Expertise

Expertise is a specialized directory designed to help users locate each other, especially those with particular types of expertise in participatory research or learning approaches.

The PRGA Program's Expertise Database is playing an outstanding role within the community of which it is a part. The community now numbers more than 120 members, in less than a year.

A database should have the following desirable characteristics:

- Permits contact with people with expertise and specific profiles
- Enables the user to decide about the degree of confidentiality and access to personal information by other users
- Contains an agreement of confidentiality
- Has language management

A user of Expertise may be asked questions like the following:

- Do you have expertise in participatory research or learning approaches? Yes/No. If yes, please continue to question X...
- What is your disciplinary background corresponding to your highest level of education?
- What is your profession or skill in applying participatory research or learning approaches?
- In what areas have you applied your expertise in participatory research or learning approaches?
- In which geographic regions have you applied your expertise?
- What languages do you speak, read, and write with fluency or proficiency?

The types of organizations that would use Expertise are:

- University
- NGO
- National research institute
- CGIAR center
- Community-based organization
- Private consulting firm
- Governmental agency
- Industry
- Independent consultants
- Farmer or producer organization
- Consumer organization

### 7.4.2. Project inventories

During 2001, a selected group participated in a survey by the PRGA Program to determine the impact of participatory plant breeding (PPB) and participatory natural resource management research (PNRM) projects.

These results were compiled and posted as project inventories on the PRGA Program Web site by Peggy McKee (consultant, PRGA Program) and Doryan Colunge (Web master, Information Systems, CIAT).

Our goal is to provide a systematic assessment of the impact resulting from the use of participatory research (PR) and gender analysis (GA), and to make this information available to researchers, development practitioners, farmers, donors, and others interested in the field.

## 7.5. Learning and Capacity Building

Learning and capacity building have been key elements in the PRGA Program's strategy for mainstreaming the use of participatory and gender-sensitive approaches. The Program's ICER, conducted in November 2001, reported the following on the Program's achievements in this area:

> *Capacity building on the design, planning, and implementation of participatory efforts have implications not only for improving the delivery and impact of research but also for wider human and social capital formation among the actors as well as in the targeted communities. The Program in this regard has made good progress. The effort of two regionally based (Asia and Africa) PRGA fellows has been instrumental.*
> *Prain et al. 2000 (1)*

Training by the PRGA Program has included awareness building, skill enhancement, and practical field application. The Program has incorporated its findings on impact and types of participation and gender analysis into workshops offered in many parts of the world and in widely distributed training materials.

(1) Prain et al. 2000.

Numerous training events have been held on:

- Participatory research methods, processes, and skills for NRM and PB
- Tools and methods for gender and/or stakeholder analyses
- Participatory monitoring and evaluation, and impact assessment procedures
- Elements and skills for forming and sustaining effective partnerships for participation

The Program has also built partnerships for capacity building into collaborative research projects with other systemwide programs and networks.

Workshops have been instrumental in increasing the understanding of PRGA approaches, and building practical skills for their application. Demand for capacity building has increased and is currently beyond the Program's actual capacities.

## 7.6. Building Capacity in Social and Gender Analysis in the Eastern Himalayan Region

This activity will bring together researchers involved in biodiversity and NRM-related projects for iterative training on social and gender analysis (S/GA) concepts and methodologies. A team of trainers-cum-mentors will work with 18 participants from the Eastern Himalayan Region, which encompasses northern and northeastern India, Bhutan, Bangladesh (Chittagong Hill Tracts), and eastern Nepal. A coordinating group, the Northeast Network, will help develop and implement the training program, and facilitate interaction and networking among the participants, who will thus become "emerging regional specialists on social and gender analysis in NRM". The project will take 2 years, and involve a series of training courses in concepts and practical methods; the courses being implemented through a small grant and action plan. Results will be disseminated through various media, including papers for publication in refereed journals.

### 7.6.1. Background and rationale

Several NRM research partners in the Eastern Himalayan Region have requested support and training to implement social and gender analysis in the field. Expertise in S/GA is notably lacking among researchers in the region, particularly in the NRM context. The project will adapt and build on the framework first developed by an IDRC project in Vietnam on Engendering Research in which the project team worked with regional partners in the project's design and development.

This iterative training program aims to address issues identified by partners as critical in training and capacity building in S/GA in NRM:

• A need for on-going training programs that support researchers over time and build on continual learning. Social and gender analysis is not learned overnight, nor in one short training program. Participants need to continually build on their skills and practice over time, and will therefore need long-term support and input through an iterative learning process that includes challenges and difficulties along the way.

• A need for training and support for the practical application of S/GA in the field. Many researchers have some conceptual understanding of social and gender issues but feel at a loss as to how to practically implement S/GA practices in the field, and in a socioculturally appropriate manner. What are the tools and methods? How are these approaches integrated with natural science approaches and methods? How does one move beyond the "analysis" to a transforming agenda that improves livelihood conditions and increase equity among disadvantaged groups?

• A need for socioculturally relevant training programs. Asia possesses an incredible diversity of culture and language, so much so that training programs in Vietnam may not be relevant to a researcher from Bangladesh. Societal, cultural, religious, and language differences abound, and while opportunities for cross-cultural learning may exist between these groups, there are also advantages to training programs that are socioculturally relevant and in a common language. Likewise, where political and cultural hegemony issues exist such as those between Indians residing in the Indo-Gangetic Plains and minority groups in the Northeast, a dimension of power and, sometimes, hostility is added that can hinder training.

For example, evidence suggests that many gender norms and social structures are shared across Pakistan, Bangladesh, the Indian Plains, and Sri Lanka, yet cultural groups from NE India may have more in common with counterparts in Southeast Asia. Efforts to build a socioculturally appropriate training program can help build a favorable environment for sharing and learning, as well as be more cultural relevant in discussing social and gender issues and methods for their analysis.

• S/GA relevant to NRM research. As discussed above, most S/GA training programs are not directed at NRM researchers nor do they consider issues in the NRM context. Thus, a need exists to consider the issues and approaches most relevant to NRM research.

### 7.6.2. Objectives

- To build the capacity of researchers in the Eastern Himalayan Region to integrate and practically apply S/GA in biodiversity and NRM-related projects

- To support partners in developing approaches and methodologies suitable to the regional context of the Eastern Himalayas

- To develop training processes and materials appropriate to the region

- To assist NRM researchers interested in S/GA research to obtain peer support and to network in the region

The major objectives and strategies for the PRGA Program's second phase will build on the lessons and strengths of the past. It will also focus more specifically on mainstreaming PRGA approaches, as described in section 1.1.1.2:

- Capacity development in methods that ensure gender-equitable, stakeholder-client representation in research decision making; and networking within a cadre of champions who support each other and who can make a difference
- Continue to build compelling evidence of impact
- Develop action research partnerships to institutionalize PRGA approaches within a core of IARCs and NARS
- Communications and partnerships for disseminating information and devolving Program activities, responsibilities, and decision making to stakeholders

## .1. PRGA Program's Stakeholder Meeting

The Program's Stakeholder Meeting was held in Cali, Colombia, from 30 June to 1 July 2003. The Meeting's principal objectives were:

- To provide an opportunity for the stakeholders to give inputs to the draft of the Program's 2003-2007 logical framework before it is finalized and approved by the Program's Advisory Board on 2 July
- To provide an opportunity for each of the two working groupsPNRM-wg and PBGto formulate work plans in light of future programmatic directions and emerging opportunities in the field
- To identify funding prospects and strategies for accessing funds
- To identify key partnerships, especially with the CGIAR's Challenge Programs

The workshop was limited to 45 persons, who represented the following stakeholder groups: the Program's Advisory Board, funding partners, center liaison officers, 7 representatives elected from each working group, selected resource persons, and staff.

During the Stakeholder Meeting, the PRGA Program's Coordination and the PBG representative consulted with the wider working group for inputs to the Program's draft of its 2003-2007 logframe (Appendix 1).

The following procedure was used to start the consultation:

- Correspond by e-mail several days before the Meeting, discussing the questions for consultation
- Send messages with the consultation questions to the PBG via the listserv
- Agree on responsibilities for summarizing the responses in time for presentation at the Stakeholder Meeting

## 8.2.Challenge Programs

A proposal was submitted to the Challenge Program on Water and Food, entitled Ensuring Benefits for Those who Need Them Most: Building Strong Institutions for Managing Inclusive multi-Stakeholder Processes for Watershed Development. The goal is "To improve the long term sustainability and equity of water management by enable the rural poor, especially women, to gain greater influence over the agendas and outputs of agricultural and natural resource management research by mainstreaming and scaling up R&D practices that integrate the social, institutional and biophysical dimensions of natural resource management". The partners of the project would include those working in the Nile and Yellow River Basins: the China Agricultural University, CIAT, CIP, Farm Africa (Ethiopia, Kenya, Tanzania), ILRI, Makerere Institute of Social Research (Uganda), and the PRGA Program. The budget requested is US$900,000, and would be received from the Small Grants Program. The decision on the proposal's funding will be announced in October 2003.

## 8.3.Future Events

### 8.3.1. Millennium Ecosystem Assessment Meeting

A workshop promoting the book Managing Natural Resources for Sustainable Livelihoods: Uniting Science and Participation will be presented at the Millennium Ecosystem Assessment Meeting to be held in Alexandria, Egypt, in March 2004. A description of the workshop is given in Box 8A.

**Box 8A**

**Promotional workshop for the book *Managing Natural Resources for Sustainable Livelihoods: Uniting Science and Participation***

**Workshop's title**
A World Café[1] on *Uniting Indigenous and Scientific Knowledge and Epistemologies for Sustainable Livelihoods and Improved Management of Natural Resources*

**Café Host**
Barry Pound, Natural Resources Institute (NRI), UK

**Presenters**
- Sieglinde Snapp, Michigan State University, USA
- Cynthia McDougall, Centre for International Forestry Research (CIFOR), Indonesia
- Diane Rocheleau, Clark University, MA, USA
- Ann Braun, PRGA Program

**Objectives and outcomes**
The presenters will reflect on the process of research for natural resource management when this research is part of a learning process shared by multiple stakeholders. Their presentations draw on chapters from their forthcoming book *Managing Natural Resources for Sustainable Livelihoods: Uniting Science and Participation*, and will focus on:

- Challenges of complexity and dynamism in natural resource management and the social construction of indigenous and scientific knowledge and world views
- Partnership and scale issues inherent in integrating indigenous and scientific knowledge
- Principles of "good practice" for participatory natural resource management research
- Current and future challenges in natural resource management research

Café participants will be invited to test the ideas offered by the presenters against their wider experiences. The Café will then develop an extended analysis of the material to be presented as an input for a companion publication to the book.

**The World Café procedure**
36 participants will be seated at 4 tables under the themes of "Complexity", "Partnership and Scale", "Good Practice", and "Challenges".

***Plenary presentations***

### 8.3.1. Future publication

Gurung B; Menter H. Mainstreaming gender-sensitive participatory approaches: the CIAT case study. In: Pachico D, ed. Scaling up and out: achieving widespread impact through agricultural research. Centro Internacional de Agricultura Tropical (CIAT), Cali, Colombia. (In press.)

## .1. Refereed Journal Articles

Buruchara R; Sperling L; Ewell P; Kirkby R. 2002. The role of research institutions in seed-related disaster relief: Seeds of Hope experiences in Rwanda. Disasters 26(4). Special issue.

Gurung B. 2002. Addressing food scarcity in marginal mountain environments: a participatory seed management initiative with women and men in eastern Nepal. Mountain Res Dev 22(3):240-247.

Longley C; Sperling L, eds. 2002. Beyond seeds and tools: effective support to farmers in emergencies. Disasters 26(4). Special issue.

Sperling L. 2002. Seeds of Hope in Rwanda - what have we learned? Geneflow p 24-25.

Sperling L. 2002. Emergency seed aid in Kenya: some case study insights on lessons learned during the 1990s. Disasters 26(4). Special issue.

## .2. Working Documents

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

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.

Saad N. 2002. Farmer processes of experimentation and innovation: a review of the literature. Working Document, No. 21. PRGA Program, Cali, Colombia.

Sanginga PC; Lilja N; Tumwine J. Year? Assessing the quality of participation in farmers' research groups in the highlands of Kabale, Uganda. Working Document, No. 19. PRGA Program, Cali, Colombia.

(1) For an explanation of the acronyms used in this section, see Appendix 15.

## 9.3. Reports

PRGA Program, CGIAR. 2002. PRGA Program: synthesis of Phase I (1997-2002). Prepared by Nadine Saad. PRGA Program; CIAT, Cali, Colombia. (Version with color illus. and photos published in 2003.)

PRGA Program, CGIAR. 2002. PRGA Program's summary annual report, 2002. Prepared by Nadine Saad. PRGA Program; CIAT, Cali, Colombia.

## 9.4. Proceedings published by the PRGA Program

CIAT; JIRCAS; PRGA Program. 2002. Proc. workshop on "How Participatory Research Can Complement Conventional Research Approaches", held in Tsukuba, Japan, 4-8 March 2002.

PRGA Program, CGIAR. 2002. Proc. Stakeholders Meeting, held in Bonn, Germany, 22-23 April 2002. (Hosted by the German Ministry for Economic Cooperation and DevelopmentBMZ.)

PRGA Program, CGIAR. 2003. Proc. Stakeholders Meeting, held in Cali, Colombia, 30 June1 July 2003.

## 9.5. Books

PRGA Program, CGIAR. 2002. Quantitative analysis of data from participatory methods in plant breeding. PRGA Program, Cali, Colombia.

2003. Managing natural resources for sustainable livelihoods: uniting science and participation. Earthscan; IDRC.

## 9.6. Book Chapter

McDougall C; Braun A. The roles and complementarities of traditional research, participatory research and diversity analysis in natural resource management. In: Pound B; McDougall C; Snapp S; Braun A, eds. Uniting science and participation. Earthscan; IDRC (In press.)

## 7. Monographs

Farnworth CR; Jiggins J. 2003. Participatory plant breeding and gender. PPB Monograph, No. 4. PRGA Program, Cali, Colombia.

McGuire S; Manicad G; Sperling L. 2003. Technical and institutional issues in participatory plant breeding: done from a perspective of farmer plant breeding. PRGA Program, Cali, Colombia. (Also available as Working Document, No. 2.)

Thro AM; Spillane C. 2003. Biotechnology-assisted participatory plant breeding: complement or contradiction? PPB Monograph, No. 3. PRGA Program, Cali, Colombia. (Also available as Working Document, No. 3.)

Weltzien E; Smith M; Meitzner L; Sperling L. 2003. Technical and institutional issues in participatory plant breeding from the perspective of formal plant breeding. (Series: A global analysis of issues, results, and current experience.) PRGA Program, Cali, Colombia.

## 8. Papers Presented at Workshops

PRGA Sanginga P; Lilja N; Gurung B, eds. 2002. Assessing the benefits of rural women's participation in natural resource management. In: Proc. workshop on "Natural Resource Management (NRM) Small Grants End-of-Project", held in Cali, Colombia, 13-17 Nov 2001

PRGA Program, CGIAR. 2002. Proc. workshop on "Natural Resource Management (NRM) Small Grants End-of-Project", held in Cali, Colombia, 13-17 Nov 2001.

PRGA Johnson N, N Lilja and JA Ashby. "Measuring the Impact of User Participation in Natural Resource Management Research." CGIAR-SPIA meeting in Costa Rica, February 2002.

PRGA Program, CGIAR. Lilja N. J.A.Ashby and N. Johnson. Farmer participatory research: scaling up and out the impact of participatory research. CIAT Annual review, December 2002, Cali, Colombia.

PRGA Program, CGIAR. N. Lilja and A. Aw-Hassan. Benefits and Costs of Participatory Barley Breeding. Paper submitted in December 2002 and accepted to the International Agricultural Economics Association meeting in Durban, South Africa, August, 2003.

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Fukuda, W.; Saad, N. 2000. Investigación participativa en mejoramiento de yuca con agricultores del nordeste de Brasil. Empresa Brasileira de Pesquisa Agropecuária (EMBRAPA)- Centro Nacional de Pesquisa de Mandioca e Fruticultura (CNPMF)- Consultative Group on International Agricultural Research (CGIAR)-PRGA Program, Cali, CO. (Also Working Document No. 14; available in English and Portuguese)

Prain, G.; Hambly, H.; Jones, M.; Leppan, W.; Navarro, L. 2000. Internally commissioned external review. PRGA Program, Cali, CO.

# Appendices

## PRGA Program's Logical Framework for 2003-2007

| **Overall goal and purpose of the PRGA Program** | | | |
|---|---|---|---|
| **Narrative Summary** | **Measurable Indicators** | **Means of Verification** | **Important Assumptions** |
| ***Goal:***<br><br>Improve the competencies of the CG System and collaborating institutions to mainstream the use of gender-sensitive participatory approaches in Plant Breeding, crop, and Natural Resources Management research. | • By the end of 5 years, participating institutions in the CG system and NARs have an increased capacity to use PR&GA methods and institutionalize them in their own organizations<br>• Use of PR and GA integrated into the participating CG centers and partner institutions' core research<br>• PR and GA incorporated into organizational policies and practices of at least 2 IARCs and 5 NARs at the end of 5 years | • Program monitoring and assessment of use of PR & GA approaches by IARCs and their partners, including institutional analyses of mainstreaming and process outcomes<br>• Program monitoring and assessment of PR&GA capacity in the participating institutions<br>• External review reports<br>• Reports of collaborating institutions | • CGIAR centers and partner institutions willing to commit staff and budget to using PR&GA, to contribute to capacity building, and to integrate PR&GA into their core research agenda |
| ***Project purpose:***<br><br>Assess and develop methodologies to mainstream PR&GA approaches through organizational change | • effective approaches developed and disseminated for mainstreaming PR&GA methods; methods recognized and understood by relevant senior management and staff; and being applied appropriately by at least 70% of institutions supported by Program research and capacity building at the end of 5 years<br>• impact of mainstreaming PR&GA approaches documented in multiple studies | • Program publications; IARC annual reviews, reports and publications<br>• Published results of Program's impact studies<br>• Results of Program partnerships<br>• External review reports<br>• Reports of collaborating institutions | • donor commitment to the Program constant over the 5 year period<br>• IARCs and other institutions collaborating with the Program able to include results in the institution's reports and annual reviews<br>Stakeholders willing to contribute actively to Program planning and evaluation |

| **Overall Output I: Capacity developed to encourage gender-equitable, stakeholder client representation in research decision-making, and networking a cadre of 'champions' who support each other and who can make a difference** | | | |
|---|---|---|---|
| **Narrative summary** | **Measurable indicators** | **Means of verification** | **Important assumptions** |
| Specific outputs:<br><br>1. Development of effective methods and capacity for using PR & GA; Impact Assessment; and organizational development concepts and skills for mainstreaming these approaches | • field training manual for PR & GA, IA, Organizational development developed and widely disseminated. This document should also provide a brief review of existing PR&GA, IA, and OD methods, and draw on best practices in developing guidelines<br>• Methods workshop held for PR, GA, IA and OD, training a minimum of 80 participants in a variety of 'best practice' approaches; and follow-up support extended to participants to enable them to continue change process in their respective institutions | • Published field manual<br>• Training reports<br>• Collaborators' reports<br>• Annual report and Program's Web site | • Potential partner institutions are willing and interested in collaborating with the PRGA Program<br>• Funding partners interested in supporting capacity building<br>• IARCS and partner institutions willing to commit budget and human resources for internal capacity development |
| 2. Assessment of effects of institutionalization of PR& GA approaches through organizational change | • Research results published and disseminated on the process of institutionalization through organizational change | • Workshop summary reports<br>• Manuals produced from workshop outcomes<br>• Annual report and Program's Web site<br>• Collaborators' reports | • Centers and NARS interested in and contributing budget and human resources to participate in workshops and to host local follow-up training |
| 3. Identification of opportunities and constraints for mainstreaming PR&GA through organizational change | • Institutional analysis conducted with partner institutions and 'best practices' analysed and disseminated through publications<br>• Collaborative action research undertaken, and strategic | • Program publications, possible PhD dissertation<br>• Program Web site<br>• Annual reports<br>• Collaborators' reports | • Partner institutions willing and interested in participating in action research<br>• Funding partners interested in supporting small grants schemes to |

| **Overall Output II:** | **Evidence of the impact of participatory research (PR) methods assessed, and methods developed to permit impact assessment (IA) results to be effectively integrated into research and development (R&D) decision making** | | |
|---|---|---|---|
| **Narrative summary** | **Measurable indicators** | **Means of verification** | **Important assumptions** |
| ***Specific outputs:***<br>1. Empirical studies on PR methods in PB and NRM assessed | • At least 5 partnership studies undertaken and published as working documents and in professional journals, plus an analysis of impact of different PR approaches under contrasting conditions, including biophysical, institutional, and policy environments<br>• Published results and impact of methods disseminated to CGIAR liaison contacts (to disseminate to center scientists), PNRM-wg and PBG, CGIAR libraries, and donor community. Twice a year, a list of all PRGA *Program publications and* Web site addresses sent to CGIAR director generals for distribution<br>• Research briefs and PowerPoint presentations, prepared to succinctly highlight IA results, are widely disseminated to IARCs, NARS, and NGOs<br>• Workshops conducted to exchange results<br>• IA tools developed and training materials made available | • IA studies and methods<br>• Program's publications, briefs, presentations, journal articles, books, Web site<br>• Annual reports, workshop proceedings | • IARCs and partner institutions willing to collaborate in IA<br>• Funds available to conduct empirical studies |
| 2. Tools and methods developed and disseminated to enable scientists to capture impact of products and processes, and integrate learning from IA into research planning and adaptation (learning and change) | • Collaborative action research conducted with at least 5 partners to develop, test, and assess methods for (a) improving information resulting from IA (product and process impacts), (b) identifying IA objectives and tools to achieve them, and (c) assessing the contribution of IA to organizational learning and change<br>• Studies and guidelines are widely disseminated to IARCs, NARS, and NGOs<br>• Capacity development through training, consultancies, and learning workshops | • Published studies on IA tools and methods, and assessments of their effectiveness in improving the usefulness of IA and stimulating organizational learning and change<br>• Annual reports, collaborators' reports, Program's Web site | • Partner institutions interested and willing to participate in action research<br>• Funding partners interested in supporting these initiatives |

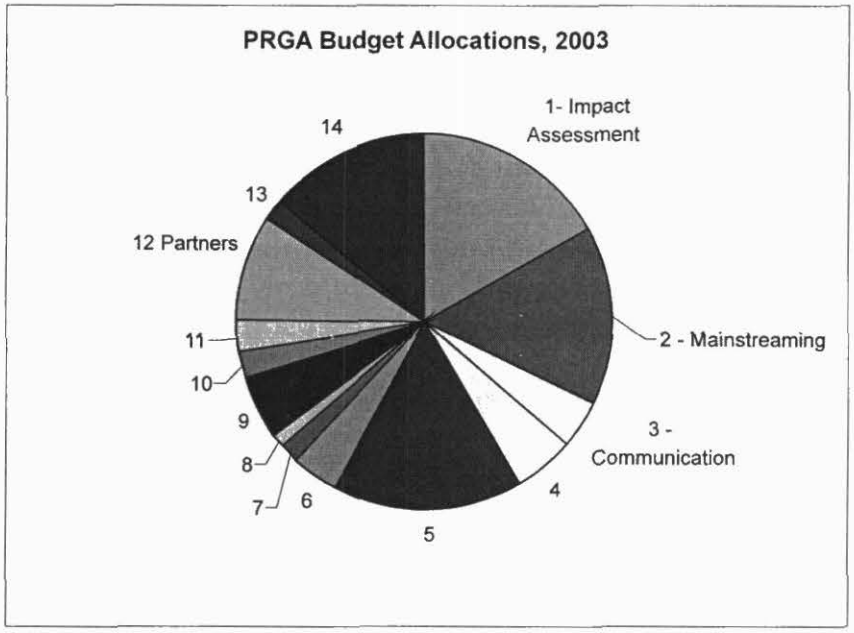
**verall Output III: Action research partnerships formed to institutionalize PR&GA with core group of IARCS and NARS**

| rrative summary | Measurable indicators | Means of verification | Important assumptions |
|---|---|---|---|
| ***ecific outputs:*** Opportunities and constraints identified for mainstreaming PRGA approaches into agricultural research institutions, and strategies developed to institutionalize these approaches | • Action research undertaken with 8 IARCs or partner institutions, and studies published<br>• 5 internal working groups formed to spearhead organizational change and mainstream PRGA in their respective institutions<br>• Mentoring and capacity building provided to partner institutions to guide and lend support to the mainstreaming process | • Program's publications, journal articles<br>• Collaborators' reports and publications<br>• Annual report and Program's Web site | • Partner institutions willing and interested in engaging in action research for mainstreaming PRGA and organizational change<br>• Funding partners interested in supporting action research and capacity building |
| Partnerships formed with organizations that enable the PRGA Program to have a major impact on: (a) integrating PRGA into agricultural research practice, and (b) enhancing methods and approaches that help improve the livelihoods of the very poor, particularly rural women | • Robust partnerships are formed with Challenge Programs, regional networks, and prominent national partners that have, or have the potential to have, considerable impact on the rural poor<br>• The nature of collaboration takes the form of either (1) exploiting synergies in objectives, (2) taking opportunities to considerably expand the integration or improve the quality of the PRGA practiced, or (3) incorporating PRGA approaches where they would otherwise be absent or weakly applied<br>• PBG and PNRM-wg are engaged in the partnership process, as reflected in their work plans | • Collaborators' reports<br>• Annual report and Program's Web site | • Potential partner institutions are willing and interested in collaborating with the PRGA Program<br>• With support from the Program, working groups are willing and interested in collaborating with different partners<br>• Funding partners interested in supporting fruitful engagement with partners |
| Capacity of IARC and NARS scientists to use "best practice" for PR, GA, and IA, and organizational development methods is considerably strengthened through training of trainers | • Methods workshops held for PR, GA, and IA, training a minimum of 80 trainers in a variety of "best practice" approaches; and follow-up support extended to trainers to enable them to provide training and technical support to scientists in their institutes<br>• Manuals produced on "best practice" in PR, GA and IA, based on workshop outcomes | • Workshop summary reports<br>• Manuals produced from workshop outcomes<br>• Annual report and Program's Web site<br>• Collaborators' reports | • Centers and NARS interested in and contributing budget and human resources to participate in workshops and to host local follow-up training |

| **Overall Output IV: Partnerships and communication for devolution and disseminating information** | | | |
|---|---|---|---|
| ***Narrative summary*** | **Measurable indicators** | **Means of verification** | **Important assumptions** |
| ***Specific outputs:*** | | | |
| 1. PRGA Program's interactive Web site launched and attracts a large and diverse range of users who not only read, but also contribute to the site's contents | • Site developed that is friendly and accessible to users in developing countries with slow modem connections<br>• Site contains a rich set of research findings and resources that are relevant to users, and is regularly updated | • Monthly Web site statistics: number of hits, visitor sessions, and downloads | • Users have the interest and time to contribute to Web site contents<br>• A qualified individual (Communications Officer) is identified to manage and update the site's contents<br>• Donors interested in providing support for the technical development of the new site and the Program's capacity for communications |
| 2. Awareness of PRGA research results and other publications is considerably heightened, particularly among agricultural scientists | • Systems in place to regularly publicize new PRGA research results through PRGA-info Listserv, Web, and printed copies to authors, donors, and CGIAR libraries<br>• PRGA Program's liaison contacts regularly forward publicity on PRGA to their Center scientists<br>• New sources of distribution are identified<br>• Membership to PRGA-info Listserv doubles to 800 members | • PRGA-info Listserv membership (number and profession)<br>• Monthly Web site statistics, particularly downloaded publications<br>• Requests for hard copy publications, including from scientists who are not members of PRGA-info Listserv | • PRGA Program has the capacity to strengthen relationships with its liaison contacts and ensure their commitment to disseminating information on PRGA<br>• A qualified individual (Communications Officer) is identified to promote awareness<br>• Donors are interested in supporting the Program's capacity for communications |
| 3. Research results published in media favored by nonacademic audiences and researchers not well acquainted with the PRGA field | • Packaging of research results in 1-2 page brief forms, disseminated both as hard copy and electronic form<br>• Mailing list built to include IARC and NARS scientists, NGO practitioners, civil society organizations, and policy makers | • Mailing list membership for briefs (numbers and professions) | • Donors interested in supporting the Program's capacity for communications and mailing costs<br>• A qualified individual (Communications Officer) is identified to prepare briefs from PRGA Program's research publications |
| 4. Enhanced support function from working groups and other partners | • Assist in fund raising, particularly in areas of their expertise<br>• Increased decision-making in Program activities related to their area of expertise<br>• Establishing objectives and activities related to their area of expertise | • Funds raised in areas of expertise of working groups<br>• | • interest and willingness of working groups and other partners to participate actively in the Program decision-making through shared responsibilities |

# Appendix 2

## Budget Allocations for 2003




| Project Title | Personnel | Amount (US$) |
|---|---|---|
| Impact assessment | Nina Lilja, impact studies | 163,000 |
| Mainstreaming and institutional'n | Barun Gurung | 144,000 |
| Communications and outreach | Communications Officer<br>½ Ann Braun | 40,000 |
| ILRI-PRGA Program, participatory research/Forages | ½ Ralph Roothaert | 47,500 |
| Non-project staff | Project Manager<br>½ Louise Sperling<br>Administrative Assistant<br>½ driver | 155,700 |
| PNRM-wg | Facilitator | 40,000 |
| PBG | | 15,000 |
| Challenge programs | | 10,000 |
| Stakeholder and Advisory Board meetings | | 55,000 |
| Other meetings (e.g., AGM, CIAT AM) | | 19,000 |
| Publications production and dissemination | | 29,000 |
| Support to partners (small grants, PBA impact studies, EMBRAPA) | | 85,642 |
| Supplies and operations | | 20,000 |
| Indirect costs | | 132,000 |
| | **Total** | **955,842** |

# Appendix 3

## Conditions and Opportunities for the Awarding of Small Grants

### Conditions

Small Grants for projects are awarded on the basis of prior agreement to the following conditions:

That:

- A contribution is made to methodology or organizational innovation in the field of participatory research (PR) and/or gender analysis (GA)
- A commitment is made to take a comparative perspective
- A work plan submitted
- Evidence is provided that the project in question will work with farmer organizations or groups
- Collaborative research will be conducted with at least two of the following interinstitutional linkages: international agricultural research centers (IARCs), governmental organizations (GOs), nongovernmental organizations (NGOs), and farmer organizations
- Explicit consideration will be given to issues of gender and stakeholder differences in the proposed project
- Both men and women are involved in both the research and proposed interventions
- Any strategy for multidisciplinary team work involves social and natural science skills
- Plans are made to build on farmers' skills
- Plans are made for monitoring and evaluation (M&E) and impact assessment (IA)
- Roles of all partners in research and capacity building are clearly defined
- A clear statement is given of the resources available and the resources needed
- Plans are made for sustaining the Project's activities at community level an phasing out the Project itself
- Plans are made for organizing a farmer stakeholder oversight committee that will receive regular progress reports on the Project

Grant recipients will also be willing to:

- Work on a common research design with agreed-upon key variables to be monitored across sites
- Provide an accounting of how project resources will be allocated among partners
- Participate in comparative analysis
- Implement interventions agreed upon jointly
- Monitor impact, using similar procedures and indicators and to ensure documentation.
- Organize a broad-based seminar or workshop at the Small-Grant Program headquarters under the auspices of the CGIAR 'Program on Participatory Research and Gender Analysis for Technology Development and Institutional Innovation (PRGA Program)
- Undergo peer review by sharing experiences at international workshops held annually by the PRGA Program
- Co-publish with local partners and the PRGA Program
- Participate in annual IA seminars or workshops organized by the PRGA Program
- Participate in internally or externally commissioned reviews or visits by PRGA Program staff, members of Technical Advisory Committee (TAC), other CGIAR entities, and donors

For its part, the PRGA Program agrees to:

- Facilitate e-mail discussions, where key variables will be commonly monitored across sites
- Exchange information and experience with a wider research network, facilitated by a mechanism of "process exchange", whereby project teams can share ideas and advances every 6 months
- Synthesize lessons about what works with PRGA methodology and what does not, as derived from comparative analyses
- Convene annual regional or international seminars, workshops, or other training, as needed, in methods for effective PR, GA, and IA
- Publish research results in PRGA Program publications

Contribute expertise to seminars or workshops organized at the Small-Grant Program headquarters

**Example of a Letter of Agreement (LOA) on a Plant Breeding Small Grants Fund**

Date
Name and address of recipient

Dear ...

I am pleased to inform you that a grant of US$ (amount in numbers) (amount in words) to the (recipient institution, country) has been approved by the Plant Breeding Small Grants Fund of the CGIAR systemwide Program on Participatory Research and Gender Analysis for Technology Development and Institutional Innovation (hereafter PRGA Program), convened by the International Center for Tropical Agriculture (hereafter CIAT). The PRGA Program is sponsored by ACIAR (Australia); IDRC (Canada); and the governments of Denmark, Germany, Italy, Japan, the Netherlands, New Zealand, Norway, and Switzerland.

This grant is subject to the availability of funds from our sponsors and the conditions stated below:

**1. Purpose:** This grant will finance the activities of the project entitled (title of project) (hereafter the Project) as submitted to the PRGA Program. The (recipient institution), representing this Project, and the PRGA Program are subject to the conditions and opportunities stipulated below. The Project will take place in (place).

**2. Budget:** The grant is intended to cover expenditures shown in the proposal submitted to the PRGA Program and summarized in the table below (values are in USD):

| | Year 1 | Year 2 | Year 3 | **Total** |
|---|---|---|---|---|
| Supplies | | | | |
| Services | | | | |
| Travel | | | | |
| **Total** | | | | |

**The PRGA Program's policy specifies that no more than 9% of the above total grant can be used to cover project administration costs.**

3. **Reporting:** The (recipient institution) will report to Projects Office at CIAT in Cali, Colombia, as follows:

Technical research reports for the Project shall be submitted at 6-monthly intervals throughout the Project's duration, according to the technical reporting format The final report format may include changes. Due dates are as follows:

| Technical report | Due date after receipt of the signed LOA |
|---|---|
| First | 6 months |
| Second | 12 months |
| Third | 18 months |
| Fourth | 24 months |
| Fifth | 30 months |
| Final | 36 months |

Annual financial reports detailing the funds expended by the (recipient institution) with respect to this grant shall be submitted according to the financial report format The financial administrator of the (recipient institution) should certify the financial reports. Any subsequent disbursement of funds is conditional on the timely submission and acceptance of both financial and technical reports by the CIAT Projects Office. Due dates are as follows:

| Financial report | Due date after receipt of the signed LOA |
|---|---|
| First | 12 months |
| Second | 24 months |
| Third | 36 months |

**4. Payments:** On receiving the countersigned copy of this contract, CIAT will make the first payment of US$ (amount in numbers) (amount in words). The following disbursements will be as follows:

- Second disbursement: US$ (amount in numbers) after acceptance of the first year technical and financial reports
- Third disbursement: US$ (amount in numbers) after acceptance of the second year technical and financial reports

The aforementioned payments will be made to the following bank and bank account. Should the information below be incomplete, please return the signed copy of contract, specifying the correct information:

| | | | |
|---|---|---|---|
| Name of account: | _____ | Account no.: | _____ |
| Bank name: | _____ | Bank branch: | _____ |
| Branch address: | _____ | Swift code: | _____ |

5. **Co-financing:** The (recipient institution) and partner institutions agree to contribute US$ (amount in numbers) toward the Project, which is the amount specified in the approved version of the proposal submitted to the PRGA Program's Coordination Office.

6. **Property rights:** It is understood that, in any publication or production of any material, including written material, films, and tapes that result from this Project, the (recipient institution) will recognize the financial support of the PRGA Program. All publications should include the following acknowledgement:

> This work was carried out in collaboration with the CGIAR systemwide Program on Participatory Research and Gender Analysis for Technology Development and Institutional Innovation, convened by CIAT, Cali, Colombia.
>
> It is also understood that the publication of the Project results will be effected jointly by all partner institutions involved in carrying out the Project, unless all parties agree otherwise in writing. The (recipient institution) shall send one copy of any written materials and one copy of any audiovisual materials to the PRGA Program's Coordination Office at the address given in Paragraph 7. The PRGA Program shall have the right to use, copy, and distribute them.

7. **Communications:** The (recipient institution) shall forward to the CIAT Projects Office, at the address given below, a copy of this contract signed by an authorized representative of the (recipient institution). All reports shall also be sent to the following address:

> Head, Projects Office, CIAT
> A.A. 6713, Cali, Colombia
> Phone: (57-2) 445 0000 ext. 3004; fax: (57-2) 445 0073
> E-mail: prga@cgiar.org

Any inquiries in pursuit of technical or research concerns should be directed to the PRGA Program's Coordination Office at CIAT at the following address:

Assistant Coordinator
PRGA Program, CIAT
A.A. 6713, Cali, Colombia
Phone: (57-2) 445 0000 ext. 3131; fax: (57-2) 445 0073
E-mail: prga@cgiar.org

8. **Return of funds:** Within a reasonable time after the Project is completed, the (recipient institution) shall return to CIAT any grant funds not used for the Project.

Yours sincerely,
Joachim Voss
Director General
CIAT

Agreed, in the name of the (recipient institution)

Per: _____

Title: _____

Date: _____

# Appendix 4

## Donor Agencies

International Development Research Centre (IDRC)
PO Box 8500
Ottawa, Canada K1G 3H9
Fax: (1-613) 567 7749

Istituto Agronomico per l'Otremare,
Italian Ministry of Foreign Affairs
Via Antonio Cocchi, 4
50131 Firenze, Italy
Phone: (39-055) 506 1328; fax: 506 1333

Ministry of Foreign Affairs
DCO-OZ (Research and Developing Countries Division)
PO Box 20061
2500 ED The Hague, Netherlands

Ministry of Foreign Affairs and Trade (MFAT)
Stafford House 40
The Terrace, Private Bag 18 901
Wellington, New Zealand

Royal Ministry of Foreign Affairs
PO Box 8114
Dept. N-0032
Oslo, Norway

Swiss Agency for Development and Cooperation (SDC)
Federal Ministry of Foreign Affairs
Eigerstrasse 73
CH-3003 Bern, Switzerland
Fax: (41-31) 324-1693

Canadian International Development Agency (CIDA)
200 Promenade du Portage
Gatineau, Quebec, Canada K1A 0G4
Phone: (819) 997-5006; toll free: 1-800-230-6349
Fax: (819) 953-6088

# Appendix 5

## PRGA Program Personnel

The following lists the members of staff of CGIAR's systemwide Program on Participatory Research and Gender Analysis for Technology Development and Institutional Innovation (PRGA Program), based at the International Center for Agriculture (CIAT) in Cali, Colombia:

### Principal staff

Barun Gurung, PhD in Anthropology
Senior Research Fellow
Program Coordinator

Nina Lilja, PhD in Agricultural Economics
Senior Scientist
Impact Assessment

Ralph Roothaert, PhD in Crop and Weed Ecology
Senior Scientist, Forages for Smallholders Project
Joint appointment between CIAT and the International Livestock Research Institute (ILRI, Addis Ababa, Ethiopia)

### Support staff

Support staff positions are funded by the PRGA Program and are based at CIAT, Cali, Colombia.
Alvaro Vélez, Program Administrative Assistant (100%)
Claudia Gironza, Program Executive Assistant (100%)
Freddy Escobar, Assistant (40%)

### Consultant

Ann Braun, PhD in Ecology
Facilitator, PNRM-Working Group
Also, Coordinator, Development of the PRGA Program Web site

Ann Braun, PhD in Ecology (University of California)
Ann supports R&D organizations in the development of creative learning processes. Her professional competencies include facilitation of learning communities, training and mentoring in participatory and user-sensitive approaches for sustainable agriculture and NRM, systematization of experiences and lessons learned, and program evaluation. She has served as facilitator for the PRGA Program's PNRM-Working Group since 2000, and coordinates the development of the PRGA Program's Web site. Ann has worked for the CGIAR system in Southeast Asia and Latin America as an agricultural ecologist and in the development of PR methods.

# Appendix 6

## The Workshop on the "Quality of Science in Participatory Plant Breeding"

### Background

This workshop stems from a recommendation made by the panel of the Systemwide Review of Plant Breeding Methodologies to the CGIAR Technical Advisory Committee in October 2000. The panel suggested that participatory plant breeding (PPB) be considered as among the core breeding strategies within the CGIAR and that a debate and consolidation of PPB approaches take place within the CGIAR and among its key partners.

### Broad themes identified by the Organizing Committee as key to moving PPB forward

The workshop's Organizing Committee identified six themes by which to realize the recommendation made to CGIAR-TAC:

I. How to conduct rigorous and predictive diagnoses and priority setting with farmers in PPB (at various scales)

II. How to construct research design and analyze results in PPB so that researchers' needs are balanced with farmers' needs (i.e., how to carry out the research, and what it means)

III. How to compare the impact of classic versus participatory PB, as well as compare the differing impact of various types of PPB

IV. How to shape PPB-conducive R&D policy (what can be done, what cannot be done, institutionalization)

V. Putting PPB in a more holistic and integrative context to promote increased production and systems sustainability

VI. Considering future horizons as focusing on biotechnology and PPB

***Priority setting***

- Joint priority setting was judged as a continuing weak point in PPB methodology, and emphasis was placed on the need to start the process in which the "goals" (e.g., higher production, production and diversity enhancement, skill building) are jointly set, and to negotiate carefully between biological and social goals.

- Participatory methods working at multiple scales need to be explored more systematically. Also debated was whether local methods can be scaled up or if very different ones must be used for priority setting at larger scales.

***On-farm testing and evaluation***

- In PPB, the workshop participants deemed as essential that trial design be agreed upon by all partners and that it is interpretable by all partners. Trial designs take very different forms and structures according to breeding goal, agroecological system, and socioeconomic conditions. Numerous choices are available and flexibility is wide.

- For evaluation at all stages, it is essential to use primarily farmers' criteria for evaluation, and add other criteria in consultation with them. Initial research may be needed to determine these key criteria. Determining the possibly differing needs of different stakeholders (ethnic groups, women, poor farmers) may be essential for success.

***Scaling up***

- A prime issue was raised of whether scaling up PPB should be primarily supply-driven (policy or project-led) or demand driven (stakeholder-led). In terms of the latter, the following conditions would be favorable to demand-driven scaling up: systematic work with Farmer Research Committees, channeling part of the research funds through FRCs, or facilitating ways for PPB products to better reach the market.

- Many approaches are being tested or implemented for scaling up PPB, including through capacity building of NARS, setting up regional agricultural network alliances, developing partnerships with Farmer Field Schools, and contacting farmer-led breeding clubs.

- In terms of having wider impact, the workshop participants stressed the critical need to document more clearly the complementarities between conventional and participatory plant breeding.

***Impact***

- Two of the first comprehensive analyses of the impact of PPB programs were presented: for rice and maize in India (DFID, Plant Science-led) and for barley in Syria (ICARDA).

- To enhance impact, the workshop participants agreed that much more work must be done, and attention should be given to developing seed systems that are compatible with specific PPB program strategies, and are able to maintain production and distribute widely and rapidly.

***Shaping development policy: IPRs***

- Given the vagueness of international and many national laws on what might constitute "joint products" in the absence of formal contracts (breeding products, written products, as well as innovations), the workshop participants supported the development of a Code of Conduct to (a) recognize the contributions of various partners, (b) promote "fair practice", and (c) ensure broad access to products and processes emerging from PPB collaboration.

- The workshop participants were recommended to not only improve their own practice (e.g., immediately consider joint authorship more broadly), but also to work at the legislative level to influence law development from discriminating against, or not recognizing, products emerging from various stakeholder collaborative efforts.

***PPB and diversity approaches***

- More than 10 different methods were identified as already in use to link PPB and diversity concerns

- More systematic linking of ex situ and on-farm work was stressed, and several test cases were sketched. These included ideas to link up networks of plant genetic resources and PPB/crop improvement in (1) West Africa/Sahel, to look at diversity and support local seed systems for millets and sorghums; (2) Uganda, to address concerns of cassava varietal narrowing (and lack of CMV resistance); (3) western Kenya, to counteract the decline in bean production due to the prevalence of root rots; and (4) Rajastahn, India, to recreate the varietal needs the very poor farmers have of their local crops.

***PPB and biotechnology***

- The few practical examples presented focused on linking molecular markers to farmer-preferred traits, and tissue culture for more rapid micropropagation at the community level.

**Action plans**

Finally, the workshop participants outlined an explicit agenda for action on "Priority Areas in PPB". Interestingly, this agenda is very different from the one outlined by the core of this workshop 5 years ago (in the base document for the PRGA Programsee the PBG page on the PRGA Program's Web site). Moving beyond precise technical and social breeding concerns, the workshop this time expressed the need to maintain and strengthen a critical mass of PPB researchers to ensure scientific credibility. In this vein, three concerns for action were emphasized:

- Broader development of training materials (e.g., university courses and, equally, enhancing the skills of farmers and farming communities in breeding and seed management).

- Influencing policies and policy change, with work particularly directed toward seed policy and regulatory reform to ensure that PPB products actually reach the intended end users.

- Strategies for capturing (new) finances and building new partnerships. Substantial efforts are to be made to expand the use of PPB across time and space per se (e.g., through alliances with regional agricultural networks and educational institutions), and particularly to expand its breadth of inquiry to include new crops, to extend beyond breeding to an inclusive seed system and marketing focus, and to embed the work in a more holistic context of farming systems, genetic diversity, and NRM.

The very high quality of formal presentations, the working group recommendations on precisely how to move the science forward, and the strategic action plans on the "crucial next steps" go beyond the analyses of technical and social aspects of PPB per se. These elements themselves attest to how fast and far the scope of PPB has been expanding in the last 5-10 years. The issues no longer focus simply on "how to" or "does it work", but also on how we can design and implement PPB to ensure that the process and its benefits can be expanded more widely for a still greater, positive effect.

The full workshop proceedings is available on the PRGA Program and SGRP Web sites <www.prgaprogram.org> and <www.sgrp.cgiar.org>

**Organizing Committee**

The workshop's Organizing Committee selected the most compelling "key themes", screened abstracts, and finalized the workshop's program. Committee members were:

ASHBY, Jacqueline, CIAT/PRGA Program
ATLIN, Gary, IRRI
CECCARELLI, Salvatore, ICARDA
GONçALVEZ, Wania Fukuda Maria, EMBRAPA
GURUNG, Barun, CIAT/PRGA Program
HARRINGTON, Larry, CIMMYT
JIGGINS, Janice, independent
LANCON, Jacques, CIRAD
ORTIZ, Rodomiro, IITA
SPERLING, Louise, CIAT/PRGA Program
STHAPIT, Bhuwon, IPGRI
TOLL, Jane, IPGRI/SGRP
VERNOOY, Ronnie, IDRC (advisor)
WELTZIEN-RATTUNDE, Eva, ICRISAT

A vital product of this workshop was the joint work that was accomplished during the meeting itself. The productive interchange was greatly enhanced by the skills of two facilitators, Ronnie Vernooy (IDRC) and Janice Jiggins (independent), who led the workshop participants through a reflection of what might be better accomplished collectively or in subgroups, why, for whom, and how.

Finally, we would like to mention Joachim Voss, Director General of CIAT, Acting Chair of the PRGA Program, and a former PPB practitioner himself. He continues to push for PPB work to take a more "holistic" perspectivenot just to fully embrace the notion of diversity, but also to unfold consciously within a more integrated NRM perspective. Similarly, Geoffrey Hawtin, former Director of General of IPGRI, maintains that crop and variety diversity remain vital, and relevant only through their active, creative, and evolving use. Both have promoted vigorous user perspectives in research and for research to anticipate dynamic and holistic development needs.

# Appendix 7

## Results of Consultations by Members of the Participatory Plant Breeding Working Group

In August 2002, the PRGA Program's Coordination initiated a consultation process with the PBG about future directions.

**Eastern Africa**
P. M. Kimani

I sent five questions to 17 scientists in seven countries in eastern, central, and southern Africa who have active PPB programs. Here is a synthesis of their comments. The questions were slightly modified to reflect the regional situation and are reproduced below, together with the summarized responses from our collaborators:

**Question 1.**
***What are your initial reactions to the 2003-2007 log frame for the PRGA Program (attached)? Are there areas where you have questions or need further clarification? Are there particular items for which you wish to express support or raise concerns? How well does the proposed program respond to the needs of our region?***

(a) Some felt the draft log frame was commendable and well articulated, especially outputs 1, 2, and 3. For output 4, respondents wondered why women were targeted exclusively, when our clientsthe resource-poor farmersare both male and female.

(b) Some were not sure what PRGA was. Many knew about PPB but could not link it with PRGA. The implication is that more needs to be done in this region to create awareness of this issue.

**Question 2.**
***How do you think the PRGA working group should move forward? Do you feel that the interests of this region have been adequately addressed? Which specific areas do you think require more attention?***

The general view was that NARS should be more involved in developing and implementing the programs. That is, a "bottoms-up" approach would be preferred, from regional to global. No suggestion was made on whether the PNRM-wg and PBG should remain apart or work more closely. Perhaps, few in this region can tell them apart.

**Question 3.**
***What do you consider as the top three issues the PPB working group should focus on over the next three years? Why? What working group initiatives might best address these issues? What suggestions do you have to acquire the necessary funding to support them?***

For this region, three issues were raised:

(a) How should PPB be organized so that it is decentralized to stimulate innovation on a large scale? (The comment was made that existing partners and/or small-scale innovation units have to be stimulated by new partners.)

(b) How should we work on crops through PPB when these are not the major foci of NARS? Farmers have a much wider repertoire of crops than can be addressed through the formal-sector mandates. Can NARS play a key role in farmerled efforts?

(c) How to devise seed systems that can (i) handle the diversity of PPB products, and (ii) move them widely and specifically to the poor.

**Question 4.**
***What ideas and suggestions do you have about how the PBG and listserv should be facilitated in the future?***

The listserv has worked well so far. In this region, however, there is a need to broaden its "reach". In some cases, hard copies of documents have to be made for practitioners who do not have access to the Web.

**Question 5.**
***Any other suggestions on how PPB work should be conducted in our region and how it should be linked to the global program?***

Several issues were raised by participants in a recent (May 2003) PPB training workshop in Kakamega (Kenya):

(a) Most participants felt a need for training in PPB procedures, including terminology and principles.

(b) Participants felt that they were not sure of methods for analyzing data collected from their trials. Regional training and follow up would be very helpful.

(c) The PRGA Program should stimulate the development of collaborative research projects for this region

**Results of previous consultations**

Didier Bazile

***Question 1.***

**What are your initial reactions to the 2003-2007 log frame for the PRGA Program (attached)? Are there areas where you have questions or need further clarification? Are there particular items for which you wish to express support or raise concerns? How well does the proposed program respond to the needs of our region?**

Methodologies and concepts should be developed to link plant breeding (PB), and crop and natural resource management (NRM). PBG members should be given access to CGIAR publications and an opportunity contribute to specific workshop proceedings with NGOs. Although the gender approach does not need to have specifications everywhere, clarifying why gender must be considered in participatory studies is essential.

***Question 2.***

**Referring to the summary of the PRGA Program's Working Group Consultations held last year: (a) What do you see as being the major implications of the responses received for how the group should move forward? (b) Do they imply any changes for how the group is organized, managed, or functioning? If so, how?**

The PNRM-wg must be within the PBG to better diffuse our concepts.

***Question 3.***

**What do you see as being the top three issues that the PBG should focus on for the next three years? Why? What WG activities might best address these issues? What suggestions do you have for acquiring the necessary funding to support them?**

(a) More publications with CGIAR centers for an adequate diffusion of research results

(b) Follow a specific way of organizing workshops with NGOs and publish the proceedings to demonstrate linkage between research and development with PPB and PNRM.

(c) PBG members should receive opportunities to write new projects.

***Question 4.***

**What ideas and suggestions you have on how the PBG and listserv should be facilitated in the future?**

The PNRM-wg must be within the PBG to better diffuse our concepts.

# Appendix 8

## Book Summary

Copies of the following book have been distributed to all members of the PNRM-wg.

**Book's title:**

**Managing Natural Resources for Sustainable Livelihoods: Uniting Science and Participation**

**Chapters:**

**4.** Uniting science and participation in the process of innovation: research for development
**5.**Navigating complexity, diversity and dynamism: reflections on research for natural resource management
**6.**Whose research, whose agenda? Scaling up and out
**7.**Transforming institutions to achieve innovation in research and development
**8.**Principles for good practice in participatory research: reflecting on lessons from the field.
**9.**Participatory research, natural resource management and rural transformation: more lessons from the field
**10.**Participation in context: what's past, what's present, and what's next

**Case study appendices:**

**1.**Participatory Agro-ecosystem Management An Approach Used by Benchmark Location Research Teams in the African Highlands Initiative Eco-regional Programme
**2.**Participatory Action Research on Adaptive Collaborative Management of Community Forests: A Multi-country Model
**3.**The Farmer-driven Landcare Movement: An Institutional Innovation with Implications for Extension and Research
**4.**The Farmer Research Group (CIAL) as a Community-Based Natural Resource Management Organisation
**5.**Long-term Natural Resource Management Research in Intensive Production Systems: ICARDA's Experience in Egypt
**6.***Management of Plant Genetic* Resources in agro-ecosystems: In Situ Conservation On-farm
**7.**Eastern Himalayan Initiative on Gender, Ethnicity and Agrobiodiversity Management

8. Participatory Selection and Strategic Use of Multipurpose Forages in Hillsides of Central America
9. Focus on Integrating Methods and Approaches to Increase Gender/Stakeholder Involvement, Collaborative Management of Natural Resource Management, and Decision-making Support
10. Farmer Participatory Experiments in Pest Management
11. Farmers' Ability to Manage a Devastating Plant Disease Potato Late Blight
12. Developing and Implementing an Innovative Community Approach to the Control of Bacterial Wilt (Pseudomonas solanacearum) of Potatoes (Solanum tuberosum)
13. Participatory Management of Kapuwai's Wetland (Pallisa District, Uganda): A Clear Need and Some Steps Towards Fulfilling It
14. Participatory Research at the Landscape Level: The Kumbhan Water Trough Case
15. Participatory research at landscape level: flood-prone ecosystems in Bangladesh and Vietnam
16. Water Management, Agricultural Development and Poverty Eradication in the Former Homelands of South Africa
17. Innovation in Irrigation Working in a "Participation Complex"
18. Methods Used to Address Resource Issues in Integrated Watershed Management in Nepalese Watersheds
19. A Comparison of Farmer Participatory Research Methods
20. Soil and Water Conservation Historical and Geographical Perspectives on Participation
21. Improving Farmers' Risk Management Strategies for Resource-poor and Drought-prone Farming Systems in Southern Africa
22. Participatory Mapping, Analysis and Monitoring of the Natural Resource Base in Small Watersheds: Insights from Nicaragua
23. Observations on the Use of Information Tools in Participatory Contexts: Access to Information and Empowerment

**Authors and editors (*):**

ASHBY, Jacqueline
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SNAPP, Sieglinde*
STROUD, Ann
SUTHERLAND, Alistair
VERNOOY, Ronnie
VINCENT, Linden

# Appendix 9

## Forum for Agricultural Research in Africa (FARA): Workshop Evaluation and Closure

The workshop was closed with two speeches: one from Joseph Mukiibi and the other from Francis Idachaba.

The table groups were also given the task to evaluate the workshop in their groups, with each table responding to 5 questions, listed below, with one or more statements:

Question 1:
**If back at home someone asks me to explain in 1 sentence what this program is all about, I would say ...**

- Use of INRM in partnership to do things differently
- Integration
- CP is about R&D in INRM in SSA
- Food security and alleviation of poverty in Africa

Question 2:
**In my opinion, the biggest threat to this SSA-CP is ...**

- In effective management of partners because of the size of the program
- Self interest of groups may derail the CP
- Complexity of the CP
- Lack of ownership
- Change on how R&D is done in Africa
- High transaction cost
- Politics, size, complexity
- Lost in complexity

Question 3:
**In my opinion, the biggest opportunity is ...**

- Smart partnership
- Offers to lift people out of poverty in conceived
- Bring multiple stakeholders
- *Good policy and funding*
- Ownership by those involved
- Renewed interest in SSA by donor community
- New way of doing things
- Donors are receptive to Africa-owned projects

Question 4:
**What I liked about this workshop is ...**

- Good facilitation process
- Active brain storming
- Networking at continental level
- Discussion

- Active participation and interaction
- Table discussions
- Enough fun
- Organization of the workshop
- Positive attitude of participants

Question 5:

**What I did not like about this workshop is ...**

- Project planning too much research driven
- Not enough farmer participation
- Pre-empted focus
- In not careful, we can derail the whole project
- Many hidden agendas
- Some break-out groups were too large
- Poor representation of stakeholders

# Appendix 10

## Member List of the Gender Analysis Working Group

| Name | Institution | E-mail address |
|---|---|---|
| DI GREGORIO, Monica | IFPRI | m.digregorio@cgiar.org |
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| STROUD, Ann | ICRAF | A.Stroud@cgiar.org |
| VAN KOPPEN, Barbara | IWMI | b.vankoppen@cgiar.org |

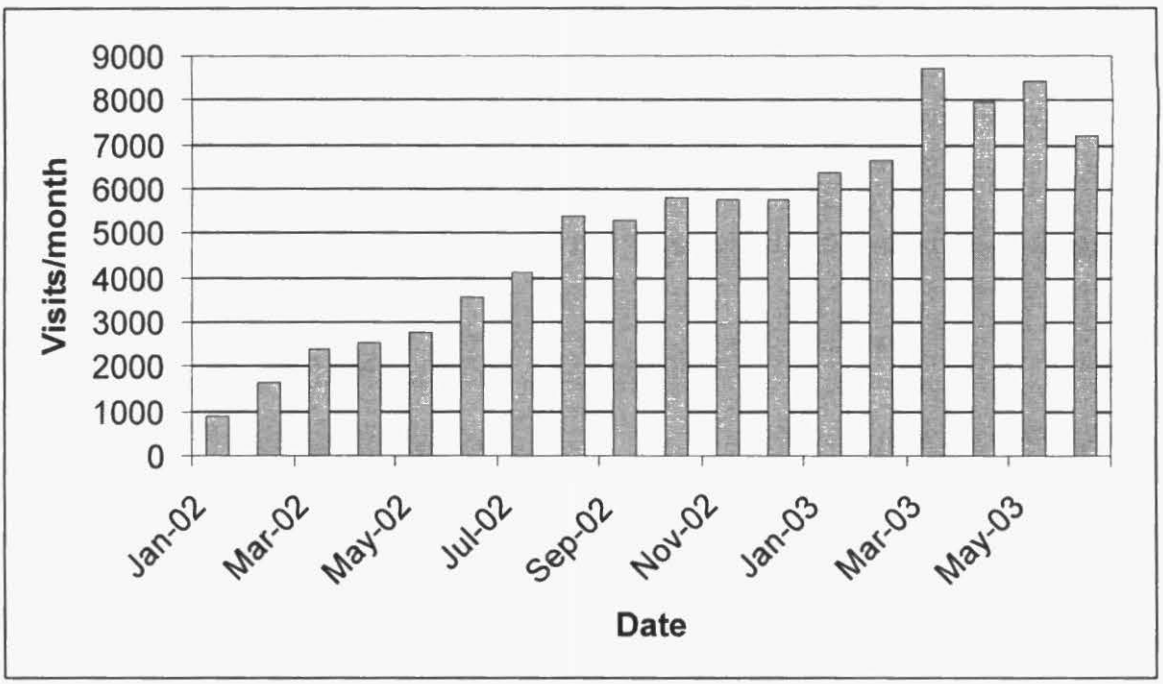
# Appendix 11

## Traffic on the PRGA Program's Web Site

### Figure elements

Visits per month

Year 2002-2003



# ppendix 12

## *Spotlight on Africa*

**Africa's vision of agriculture in 2020**

Agriculture is the engine for improved rural livelihoods and economic development in sub-Saharan Africa (SSA). Recognizing this, African political leaders have positioned agriculture at the center of their new vision for the continent's future. In full support of this vision, the SSA agricultural R&D community has called for regional agricultural production to grow at an annual rate of 6% through 2020. The African vision for agricultural R&D envisages that by 2020, the region should:

- Have dynamic agricultural markets among nations and between regions
- Be a net exporter of agricultural products
- Have food availability and affordability, with equitable distribution of wealth
- Be a strategic player in agricultural science and technology development
- Have a culture of sustainable use of the natural resource base.

The targeted level of agricultural growth cannot be achieved without a focused and market-driven system of technology development and transfer, an enabling policy environment, and effective institutions. The following initiatives are part of this new vision for sub-Saharan Africa.

**The New Partnership for Africa's Development (NEPAD)**

NEPAD is a pledge by African leaders, based on a common vision. It expresses a firm and shared conviction that they have a pressing duty to eradicate poverty and to place their countries, both individually and collectively, on a path of sustainable growth and development while participating actively in the world economy and body politic.

The program is anchored on the Africans' determination to extricate themselves and the continent from the malaise of underdevelopment and exclusion in a globalizing world.

**Subregional organizations**

The agricultural R&D community of sub-Saharan Africa recognizes that effective and broadened partnerships, with the NARS playing a central role, are essential. African countries have made considerable efforts over the past decades to develop a solid baseline in research infrastructure. To harness these resources, the NARS have taken the initiative toward reforming themselves for greater accountability, fiscal stability, and impact. They have also strengthened regional collaboration through the formation and development of three subregional organizations (SROs).

***The Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA)*** is a non-political organization of the national agricultural research institutes (NARIs) of 10 countries: Burundi, D. R. Congo, Eritrea, Ethiopia, Kenya, Madagascar, Rwanda, Sudan, Tanzania, and Uganda. It aims at increasing the efficiency of agricultural research in the region to facilitate economic growth, food security, and export competitiveness through productive and sustainable agriculture.

***Le Conseil Ouest et Centre Africain pour la Recherche et le Développement Agricoles (CORAF)*** was created in 1987 by the national agricultural research systems (NARS) of West and Central Africa, Madagascar, and the French ARIs (CIRAD, IRD, and INRA). CORAF's objective is to reinforce regional scientific cooperation of its member countries without substituting for national agricultural research capabilities. The following countries constitute its membership: Benin, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, D. R. Congo, Rep. of Congo, Côte d'Ivoire, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Madagascar, Mali, Mauritania, Niger, Rwanda, Senegal, Sierra Leone, and Togo.

***The Southern African Centre for Co-operation in Agricultural and Natural Resources Research and Training (SACCAR).*** Established in 1984, SACCAR has the objective of strengthening the NARS in member countries so they may generate, disseminate, and promote new technology through inter-country liaison and regional collaborative projects. Other objectives relate to promoting the dissemination of scientific information, and to promote, through training, human resources development, thus strengthening the capacity of research and training institutions. Member countries are Angola, Botswana, Lesotho, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe.

***The Forum for Agricultural Research in Africa (FARA)***, an apex body recently created by the SROs, is spearheading the development of a pre-proposal for a CGIAR Challenge Program on Improving Livelihoods and Natural Resource Management in sub-Saharan Africa. This Challenge Program will be concerned with the way people use natural resources to support livelihoods and will address the most fundamental constraint to African agriculturepoor soil fertilityby applying a new paradigm for integrated natural resource management (INRM), and by applying it with all partners committed to jointly identifying and resolving problems with the full participation of the beneficiaries. It will employ a new mode of competitive funding that will enable the formation of new partnerships of NARES, the CGIAR centers, ARIs, NGOs, farmer organizations, and private enterprise, to address problems by means of targeted and time-bound research projects with clear objectives and deliverables.

**The CGIAR and Africa's new vision for agricultural research and development**

***Multi-country Agricultural Productivity Program for Africa (MAPP).*** A pillar of the NEPAD framework is the systematic application of agricultural science and technology to enhance African agricultural productivity and competitiveness. A comprehensive program to achieve this goal was developed by FARA and endorsed by NEPAD. To contribute toward implementing the FARA program, the World Bank has formulated a Multi-Country Agricultural Productivity Program (MAPP) for Africa. This proposal has important implications for CGIAR, which is seen as contributing further to the enhancement of technology generation and transfer in Africa.

***African Highland Initiative (AHI).*** AHI's research focuses on key NRM and agricultural productivity issues in the intensively cultivated highlands of eastern and central Africa. Concerned NARIs, IARCs, and various NGOs are collaborating to improve R&D approaches and set up partnerships to develop and institutionalize effective and efficient approaches for sustainable INRM and enhanced productivity. The AHI was started by ASARECA in 1995 and is now hosted by ICRAF. The Initiative is promoting integrated, interinstitutional, R&D efforts with strong community participation to solve critical issues of soil productivity, water, and land use. AHI's mandate and role in the ASARECA portfolio is to develop, promote, and use an INRM approach for improving development strategies, practices, and policies.

***The CGIAR Systemwide Initiative on Malaria and Agriculture (SIMA)*** brings together malaria research, agricultural research, and targeted communities to find solutions to the malaria problem. Five specific outputs have been formulated for SIMA. These are providing a knowledge base, building capacity, developing interventions, increasing awareness, and building an international malaria network.

Funding is now available for SIMA projects that are based on ecosystem approaches to human health. These funds were made available by IDRC and IWMI to support research, capacity building, and knowledge sharing, using ecosystem approaches, to reduce malaria and improve health and well-being in countries of eastern and southern Africa.

***The Africa 2020 Vision Network*** seeks to reduce poverty and improve food security in East Africa by generating policy-relevant information through collaborative research activities, improving the dissemination and use of such information, and strengthening local capacity to undertake and communicate policy research. The Network encompasses Ethiopia, Kenya, Malawi, Mozambique, Tanzania, and Uganda.

***The Desert Margin Program (DMP).*** The Program aims to arrest land degradation in Africa's desert margins by demonstration and capacity-building activities. Funds received from the Global Environment Facility (GEF) will help DMP address issues of global and national environmental and economic importance, such as loss of biological diversity, reduced carbon sequestration, and increased soil erosion and sedimentation. Key sites carrying globally significant ecosystems and threatened biodiversity have been selected in each of the nine member countries to serve as field laboratories for demonstration activities related to monitoring and evaluating biodiversity status, testing the most promising natural resources options, developing sustainable alternative livelihoods and policy guidelines, and replicating successful models.

The DMP will significantly contribute to reducing land degradation in marginal areas and conserving biodiversity. Guidelines and recommendations domains, and supportive national policies that address biodiversity concerns will be implemented in the member countries. DMP's executing agencies are ICRISAT and the NARS of Botswana, Burkina Faso, Kenya, Mali, Namibia, Niger, Senegal, Rep. of South Africa, and Zimbabwe.

# Appendix 13

## "The Web Site of the Week"

Many of the following Web sites were recommended by members of the PNRM-wg. Listed in alphabetical order, they are as follows:

**The Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA)**
A non-political organization of the NARIs of 10 countries: Burundi, D. R. Congo, Eritrea, Ethiopia, Kenya, Madagascar, Rwanda, Sudan, Tanzania, and Uganda. It aims to increase the efficiency of agricultural research in the region to facilitate economic growth, food security, and export competitiveness through productive and sustainable agriculture.

**The Caribbean Natural Resources Institute (CANARI)**
Promoting participatory NRM in the Caribbean, CANARI seeks to create avenues for the equitable participation and effective collaboration of Caribbean communities and institutions in managing the use of natural resources critical to development.

**Choike**
A portal (English and Spanish) dedicated to improving the visibility of work done by NGOs from the South. It serves as a platform where NGOs can disseminate their work and, at the same time, enrich it with information from diverse sources, organized in line with the perspective of South's civil society.

**Community Based Natural Resource Management in Southern Africa (CBNRM)**
The Centre for Applied Social Sciences (CASS) at the University of Zimbabwe and the Programme for Land and Agrarian Studies (PLAAS) at the School of Government, University of the Western Cape have launched a 3-year program of analysis and communication to build their existing, mostly national, activities into an integrated regional commitment to community based NRM, the indigenous framework for rural production in southern Africa.

**The Earth Negotiations Bulletin**
A balanced, timely, and independent reporting service that provides daily information in print and electronic formats from multilateral negotiations on environment and development. Published by the International Institute for Sustainable Development (IISD), the Bulletin is a one-page, two-sided "desktop" publication that is distributed daily to participants of UN negotiations related to environment and development. The Bulletin is also available in electronic format on IISD's "Linkages" Web site on the Internet and by electronic mail. At the conclusion of each meeting, the Bulletin's team writes and edits a 10,000-18,000-word summary and analysis of the meeting. In electronic format, it can reach a wide range of people interested in environment and development negotiations. It also acts as an important source of information on updates of the Convention on Biological Diversity.

**European Forum on Rural Development Cooperation**
Tackles policies and approaches for reducing rural poverty. The meeting on "What works in practice?", held in Agropolis, Montpellier, France, 4-6 September 2002, was an event for policymakers and practitioners from the European Development Cooperation Agencies who work to reduce poverty in developing countries.

**FAO Participation Web Site**
A place for studying and discussing participation in development. The site is offered by the Informal Working Group on Participatory Approaches and Methods to Support Sustainable Livelihoods & Food Security (IWG-PA) of the Food and Agriculture Organization of the United Nations (FAO).

**Forum for Qualitative Social Research (FQS)**
A peer-reviewed, multilingual, online journal for qualitative research. Established in 1999, the journal is currently broadening information and communication resources for qualitative researchers.

**Fusion of Horizons**
An electronic exhibition by Mohan Dhamotharan and Thomas Becker of the University of Hohenheim. They offer a downloadable collection of posters about communication skills for participatory research.

**Gender and Water Alliance**
A network of 133 organizations and individuals from around the world. It has an independent steering committee, and is an associated program of the Global Water Partnership (GWP), funded by the governments of the Netherlands and UK. Because of the pooled experience and skills contained in this network, the GWP offers a mix of information and knowledge sharing activities such as electronic conferencing, a Web site, advocacy leaflets and video, annual reports, capacity building, and pilot programs.

**Global Forum on Agricultural Research (GFAR)**
A multi-stakeholder initiative that contributes to eradicating poverty, achieving food security, and conserving and managing natural resources. It enhances national capacities to generate, adapt, and transfer knowledge (recommended by Helen Hambly, NRM Document Repository, GFAR).

**id21 Insights**

Issue 34 is a special issue on social capital. Articles include:

- It's not what you know- it's who you know! Economic analysis of social capital
- Friends in high places? An overview of social capital
- Pathways of influence - social capital and household welfare in South Africa

- Preferential credit? Ethnic and indigenous firms vie for equal access
- Choosing better technology: does social capital help?
- Networking for success and survival in Ghana: does size matter?
- Unequal access to social capital? Evidence from Tanzania
- Sites for Sore Eyes: Online Sources on Social Capital

**infed.org**
Established in 1995, this home page of "Informal Education" provides a space for people to explore the theory and practice of informal education and to develop ways of working and being that foster association, conversation, and relationship. The site features an encyclopedia of informal education with over 300 articles that explore key ideas, thinkers, and practices within informal education and lifelong learning.

**Institute of Development Studies (IDS) Info Services**
A portal to:

- BLDS: online catalog of Europe's largest library on international development
- BRIDGE: information and analysis service on development and gender
- ELDIS: the gateway to development information
- GDN: the Global Development Network links local development research and policy development organizations

**Keysheets for Sustainable Livelihoods**
Keysheets provides decision makers with a short, easy, and up-to-date reference on issues relating to sustainable livelihoods and infrastructure development for the poor. The Overseas Development Institute (ODI) produces Keysheets for DFID and the Netherlands Ministry of Foreign Affairs.

**Landcare Research/Manaaki Whenua New Zealand**
Also known as "Collaborative Learning for Environmental Management", this Web site records social research on improving the quality of environmental management decision making.

**LIFE: Local Livestock For Empowerment of Rural People**
This movement supports rural communities through the conservation and development of their indigenous livestock breeds and species.

**Makerere Institute of Social Research (MISR)**
Previously known as the East African Institute of Social Research, MISR was established in 1948 and mandated to carry out anthropological and other forms of social research. MISR is now an autonomous institute of Makerere University. It conducts and coordinates basic and applied research; provides consultancy services to private, public, and NGO sectors; undertakes global networking with related institutions; develops and maintains a regional data bank and disseminates information. Over the years, MISR has built a reputation for attracting local and international scholars, and for its interdisciplinary work, both conducted and published under its auspices.

**MekongInfo**
An interactive system for sharing information and knowledge about participatory NRM in the Lower Mekong Basin. The services offered include a library holding over 2600 documents, both full texts and abstracts; a "contacts" database of individuals, projects, and organizations; news and announcements of events; relevant Web links; a gallery of useful resource materials; a forum for online discussions; and a free Web hosting service.

**National Strategies for Sustainable Development**
Provides tools to assist in promoting dialogue on national strategies for sustainable development and providing necessary background information and reference material to support these dialogues. Its overall objectives are to:

- Improve international understanding of the key challenges and modalities for developing and implementing effective national strategies for sustainable development (NSSDs)
- Elaborate "best practices" for donors assisting developing countries with the formulation and implementation of NSSDs
- Inform of bilateral donor responses to developing country requests for support in NSSD processes

**Participatory Avenues**
Aims to share significant progress in visualizing people's spatial knowledge (cognitive maps) and in providing communities additional stakes in tailoring and owning conservation and development initiatives. Participatory 3-Dimensional Modeling is promoted as the "best practice".

**Partnership in Statistics for Development in the 21st Century (PARIS21)**
A new international process set up by a global consortium of policy makers, statisticians, and users of statistical information in support of development. PARIS21 aims to build statistical capacity as the foundation for effective development policies by helping to develop well-managed statistical systems that are appropriately resourced. In the longer term, PARIS21 aims to help promote a culture of evidence-based policy making and monitoring in all countries, but especially in poor developing countries.

**People, Land and Water: an Initiative for Managing Natural Resources in Africa and the Middle East**
The mission of the People, Land and Water (PLaW) Program Initiative is to contribute toward improving the quality of life of people living in stressed ecoregions of Africa and the Middle East (AME) through activities that improve access to, and encourage proper use, of land and water resources, and, hence, ensure food and water security. Visit the Web site to learn about the specific objectives and projects of PLaW.

**Population-Environment Research Network (PERN)**
Seeks to advance academic research on population and the environment by promoting online scientific exchange among researchers from social and natural science disciplines worldwide. The Network's main activities include:

- A resource database of gray literature, publications, projects, conferences, datasets, software, course syllabi, and other resources for research on population-environment dynamics
- Regular cyber-seminars to discuss articles, methods, and issues in population and environment research
- A biweekly What's New?, a newsletter that announces events, opportunities, jobs, publications, and new titles added to the resource database

**Power Tools Series**
Used for working on policies and institutions, and to help provide practical help for those working to improve the policies and institutions that affect the lives of poor people. The series is being developed by the International Institute for Environment and Development (IIED) from experience in working on policies and institutions in various fields of environment and development.

**Promoting Local Innovation (PROLINNOVA)**
NGOs in Africa, Asia, Latin America, and Europe conceived PROLINNOVA as a global program for learning through action and analysis. The focus is on ways to promote local people's innovation in ecologically oriented agriculture and NRM. Activities include:

- Documenting local innovations and innovative processes by resource-poor farmers and communities
- Strengthening farmer-advisor-scientist partnerships to further develop and scale up promising local innovations
- Creating wider awareness of and skills in PROLINNOVA processes through a variety of learning mechanisms
- Integrating PROLINNOVA approaches into mainstream institutions of agricultural research, development, and education

**The Royal Tropical Institute (KIT) Specials**
The Web site of this Netherlands institution has a section entitled "Specials", with each Special dealing with a different issue. The Special for Gender & Natural Resources Management was published in conjunction with the book Natural Resources Management and Gender, the sixth of the series on Gender, Society & Development. The Special covers:

- Guest contributions, which are case studies by development practitioners and experts Bibliography, containing selected, recent references of full-text publications found in print in the KIT Library and online on the Internet
- Tools & methods: documents on practical instruments, manuals, and guides for working with GA and NRM
- Links to relevant organizations and Web sitesNews & events, covering news items and announcements of conferences, courses, and other events

**Smallholder Irrigation Market Initiative (SIMI)**
The many efforts to disseminate promising irrigation technologies have been limited, not so much by technology and its use, but by the need for complementary interventions from a range of players with different competencies, and for competence and experience in facilitating market creation and development of supply chains. Development initiatives aiming to enable their partners and clients to make use of the potentials of low-cost, smallholder, irrigation technologies may not have all the skills, know-how, and resources to engage in such long-term processes. Thus, they need to link up with people and organizations who do have the relevant know-how and experience so they may take up complementary roles in the development of supply chains. SIMI was set up in response to these challenges. The Initiative's objectives are to foster the spread of:

- Smallholder irrigation technologies to the many people to whom they offer an opportunity of a better livelihood
- Technologies that allow a more efficient use of irrigation water

**Soil Biodiversity Portal**
*This Web site offers general concepts on the meaning and significance of soil biodiversity, stressing the need for integrated biological soil management. It provides a framework for assessing, managing, and conserving soil biodiversity, giving examples of successful and unsuccessful practices from various regions of the world. Areas for further work, research, capacity building, and policy and program development are indicated.*

**Soil Productivity Improvement through Farmer Field Schools (SPI-FFS)**
This Web site provides information on FAO's pilot program of the same name. Specifically, the site aims to promote the exchange of information and experiences on the development and implementation of FFS to enhance and sustain soil productivity. *It targets those involved in developing participatory or FFS land management and conservation programs, resource persons, senior extension officers, and agricultural development specialists. The Web site covers the SPI-FFS Program's:*

- Objectives, including concepts and approaches
- Training activities, which focus mainly on developing materials and curriculums, and capacity building
- Activities for developing national and regional support programs, projects, and other focal points of research in eastern and southern Africa
- Dissemination of documents, including background information, guidelines, and training materials that can be downloaded

**Sustainable Development Issues Network for 2002**
A collaborative effort among civil society networks and nongovernmental issue caucuses that aim to improve communications and access to information on sustainable development issues. In particular, the initiative aims to improve communications among NGOs engaging in the World Summit on Sustainable Development.

**Sustainable Rural Development Information System (SRDIS)**
A specialized online library of Internet-based resources. The objective is to identify and organize those information resources most useful to resolving rural issues of global, national, and local importance. Relevant Internet sites, case studies, databases, maps, newsletters, and reports are cataloged for precision search and retrieval. Current SRDIS foci include decentralization, local development, and NRM. Topical areas to be developed over time include NRM, institutions, empowerment and governance, food security, and information access and communications.

**Technical Centre for Agricultural and Rural Cooperation**
Better known by its Dutch acronym, the CTA advances agricultural and rural development in African, Caribbean, and Pacific (ACP) countries by promoting the transfer, exchange, and use of information. CTA's tasks are to develop and provide services that improve access to information for agricultural and rural development and to strengthen the capacity of ACP countries to produce, acquire, exchange, and use information in these areas (recommended by Helen Hambly, NRM Document Repository, GFAR).

**UK Agricultural Biodiversity Coalition (UKabc)**
An activity of the UK Food Group to bring together public-interest UK organizations concerned with the equitable use of agricultural biodiversity for local food and livelihood security. Issues of interest include sustainable use, conservation, benefit sharing, trade, patents, intellectual property, biopiracy, biotechnology, genetic engineering, and biosafety.

**Users' Perspectives With Agricultural Research and Development (UPWARD)**
This network of scientists and development specialists works to increase participation by farmers and other users of agricultural technology in research and development (R&D). Launched in 1989, under the sponsorship of the International Potato Center (CIP), UPWARD seeks to address three important challenges facing agricultural R&D today: linking users and R&D professionals for more effective agricultural innovation; bringing sustained benefits to less-favored farming areas and marginalized groups, especially women; and working with households and local communities as key actors in problem diagnosis and research activities.

**What Works in Youth Participation**
Case Studies from Around the World is the most recent publication to be released as part of the "What Works in Youth Development" series published by the International Youth Foundation. The document examines the challenges and benefits of engaging young people in meaningful ways in society.

# Appendix 14

## Terms of Reference for the PRGA Program's Liaison Contacts

### Minimum terms

The minimum terms of reference for the PRGA Program's liaison contacts in the CGIAR centers are:

- Disseminate information on PRGA to social scientists in the CGIAR center and partner NARS
- Forward e-mails from the PRGA Program in a targeted fashion
- Inform people, particularly NARS partners and center colleagues, of the existence of the PRGA Program's listserv and Web site, and that they may join the listserv
- Issue the simple project inventory form. The liaison officer's role is to request project leaders to provide information on their projects. Such a request may need support from the center's Management. Indicate the added value
- Ensure the selection and participation of appropriate people from the center in PRGA Program events.
- Participate as the center's liaison representative to the PRGA Program's Advisory Board
- Conduct e-mail exchange with other center liaison representatives on the Advisory Board and attend the annual face-to-face and other meetings.

### Optional terms

Optional terms of reference for the center liaison contacts are:

- Form an internal interest group for information exchange or informal face-to-face meetings
- Organize an internal working group to promote and critically assess PRGA in the center (PRGA Program should assist)
- Where formal groups acting as change agents do not operate in the center, then other methods may be more appropriate
- Organize capacity-building matching funds from the PRGA Program (which must be matched by funds from the center's core budget) and involve other centers as partners
- Facilitate joint publications with PRGA Program staff
- Conduct mentoring and additional activities
- Balance liaison responsibilities with commitments and accountability activities from the PRGA Program

**Funding (PRGA Program's contributions)**

- Choose the center's point person or appointee for liaising for funds from the PRGA Program
- Follow up the nominations with interviews to receive their comments on the selection process
- A need exists to build up those stipulations in the terms of reference (TORs) referring to the PRGA Program's responsibilities (i.e., develop joint TORs)
- Liaison officers (and also extension workers) to have broader participation in contributing to working documents, reviewed publications, and organizing special journal issues. Such activities should be viewed as opportunities for peer review.
- The PRGA Program should work with liaison officers to form groups of change agents to institutionalize PRGA and, if need be, to influence the center's Management.
- The PRGA Program should be accountable for information on what funds are available and the criteria for their allocation.
- Goals of PGM and TORs of liaison contacts should go to the centers' directors general first, not only for them to consider the selection of the liaison officers, but also to ensure that (1) the TORs are integrated into the officers' own TORs, and (2) resources are available.
- Competitive capacity-building fund, low transaction costs (short concept note).

# Appendix 15

## Acronyms and Abbreviations

### Organizations

| | |
|---|---|
| ACIAR | Australian Centre for International Agricultural Research |
| AFOCO | Apoyo a la Forestaría Comunitaria, Honduras |
| AHI | African Highland Initiative (of ICRAF) |
| AREA | Agricultural Research and Extension Authority, Yemen |
| ASARECA | Association for Strengthening Agricultural Research in Eastern and Central Africa |
| BMZ | Bundesministerium für Wirtschafliche Zusammenarbeit (Federal Ministry of Economic Co-operation and Development), Germany |
| CANARI | Caribbean Natural Resources Institute, Trinidad |
| CARE | Cooperative for Assistance and Relief Everywhere, Inc., GA, USA |
| CASS | Centre for Applied Social Sciences (of the University of Zimbabwe) |
| CAZS | Centre for Arid Zone Studies, Wales, UK |
| CBN | Cassava Biotechnology Network |
| CBNRM Net | Community-Based Natural Resource Management Network |
| CGIAR | Consultative Group on International Agricultural Research |
| CIAT | Centro Internacional de Agricultura Tropical, based in Colombia |
| CIAL | Comité de Investigación Agrícola Local [Committee for Local Agricultural Research] |
| CIDA | Canadian International Development Agency |
| CIFOR | Centre for International Forestry Research, based in Indonesia |
| CIMMYT | Centro Internacional para Mejoramiento de Maíz y Trigo, based in Mexico |
| CIP | Centro Internacional de la Papa, based in Peru |
| CIRAD | Centre de coopération internationale en recherche agronomique pour le développement, France |
| CORAF | Conseil Ouest et Centre Africain pour la Recherche et le Développement Agricoles (also WECARD) |
| CORPOICA | Corporación Colombiana de Investigación Agropecuaria |
| Corporación PBA | Corporación para el Desarrollo Participativo y Sostenible de los Pequeños Agricultores, Colombia |
| CTA | Technical Centre for Agricultural and Rural Cooperation, based in the Netherlands |

| | |
|---|---|
| DED | Deutscher Entwicklungsdienst [German Development Service] |
| DFID | Department for International Development, UK |
| DGIS | Directorate-General for International Co-operation, Netherlands |
| DMP | Desert Margins Program, based at ICRISAT |
| EAP-Zamorano | Escuela Agrícola PanamericanaZamorano, Honduras |
| EMBRAPA | Empresa Brasileira de Pesquisa Agropecuária, Brazil |
| FAO | Food and Agriculture Organization of the United Nations, Italy |
| FARA | Forum for Agricultural Research in Africa |
| FIDAR | Fundación para la Investigación y el Desarrollo Agrícola, Colombia |
| FPR-IPM | Farmer Participatory Research for Integrated Pest Management Project (of the SP-IPM and PRGA Program) |
| FQS | Forum for Qualitative Social Research (electronic journal) |
| GA-wg | Gender Analysis Working Group (of the PRGA Program) |
| G&D Committee | Gender and Diversity Committee (of CIAT) |
| GDN | Global Development Network |
| GEF | Global Environment Facility |
| GFAR | Global Forum on Agricultural Research, based in Italy |
| GTZ | Deutsche Gesellschaft für Technische Zusammennarbeit (German Agency for Technical Cooperation) |
| GWP | Global Water Partnership |
| ICARDA | International Center for Agricultural Research in the Dry Areas, based in Syria |
| ICLARM | International Center for Living Aquatic Resources Management, based in the Philippines |
| ICRAF | International Centre for Research in Agroforestry, based in Kenya |
| ICRISAT | International Crops Research Institute for the Semi-Arid Tropics, based in India |
| IDRC | International Development Research Centre, Canada |
| IDS | Institute of Development Studies (of the University of Sussex) |
| IES | Institute of Environmental Studies, Zimbabwe |
| IFPRI | International Food Policy Research Institute, based in USA |
| IICA | Instituto Interamericano de Cooperación para la Agricultura, based in Costa Rica |
| IIED | International Institute for Environment and Development |
| IIM-A | Indian Institute of ManagementAhmedabad |
| IIRR | International Institute of Rural Reconstruction, based in the Philippines |
| IISD | International Institute for Sustainable Development |
| IITA | International Institute of Tropical Agriculture, based in Nigeria |
| ILRI | International Livestock Research Institute, based in Kenya |

| | |
|---|---|
| INIAP | Instituto Nacional Autónomo de Investigaciones Agropecuarias, Ecuador |
| INRA | Institut National de la Recherche Agronomique, France |
| IPCA | Proyecto de Investigación Participativa en Centroamérica, based in Honduras |
| IPGRI | International Plant Genetic Resources Institute, based in Italy |
| IPRA Project | Investigación Participativa en Agricultura/Participatory Research in Agriculture (of CIAT) |
| IRD | Institut de Recherche pour le Développement, France |
| IRRI | International Rice Research Institute, based in the Philippines |
| ISNAR | International Service for National Agricultural Research, based in the Netherlands |
| IWG-PA | Informal Working Group on Participatory Approaches and Methods to Support Sustainable Livelihoods & Food Security (of FAO) |
| IWMI | International Water Management Institute, based in Sri Lanka |
| JIRCAS | Japan International Research Center for Agricultural Sciences |
| KIT | Royal Tropical Institute, Netherlands |
| LI-BIRD | Local Initiatives for Biodiversity, Research and Development, Nepal |
| MAPP | Multi-country Agricultural Productivity Program for Africa (of the World Bank) |
| MFAT | Ministry of Foreign Affairs and Trade, New Zealand |
| MISR | Makerere Institute of Social Research |
| NARC | Nepal Agricultural Research Council |
| NARO | National Agricultural Research Organization, Uganda |
| NEPAD | New Partnership for Africa's Development |
| NRI | Natural Resources Institute, UK |
| PARIS21 | Partnership in Statistics for Development in the 21st Century |
| PBG | Participatory Plant Breeding Working Group (of the PRGA Program) |
| PERN | Population-Environment Research Network |
| PLAAS | Programme for Land and Agrarian Studies (of University of the Western Cape) |
| PlaW | People, Land and Water Program Initiative (of IDRC) |
| PNRM-wg | Participatory Natural Resource Management Working Group of the PRGA |
| PRGA Program | Participatory Research and Gender Analysis Program |
| PROINPA | Fundación PROINPA "Promoción e Investigación de Productos Andinos", Bolivia |
| PROLINNOVA | Promoting Local Innovation |

| | |
|---|---|
| SACCAR | Southern African Centre for Co-operation in Agricultural and Natural Resources Research and Training |
| SDC | Swiss Agency for Development and Cooperation |
| SEARICE | Southeast Asia Regional Institute for Community Education, based in the Philippines |
| SGRP | The CGIAR System-wide Genetic Resources Programme |
| SIMA | Systemwide Initiative on Malaria and Agriculture (of the CGIAR) |
| SIMI | Smallholder Irrigation Market Initiative |
| SIUPA | Strategic Initiative on Urban and Peri-Urban Agriculture (of the CGIAR) |
| SP-IPM | Systemwide Program on Integrated Pest Management Program (of the CGIAR) |
| SPI-FFS | Soil Productivity Improvement through Farmer Field Schools (of FAO) |
| SPIA | Standing Panel on Impact Assessment (of the CGIAR) |
| SRBLI | Socially Responsible Business Leadership Initiatives (of University of California-Berkeley) |
| SRDIS | Sustainable Rural Development Information System |
| SRISTI | Society for Research and Initiatives for Sustainable Technologies and Institutions, India |
| SSA-CP | Sub-Saharan Africa Challenge Program (of the CGIAR) |
| SWNM | The CGIAR Systemwide Program on Soil, Water & Nutrient Management |
| TAC | Technical Advisory Committee (of the CGIAR) |
| TLAP | Ecoregional Program for Tropical Latin America (of the CGIAR) |
| UBINIG | Unnayan Bikalper Nitinirdharoni Gobeshona [Policy Research for Development Alternatives], Bangladesh |
| UKabc | UK Agricultural Biodiversity Coalition (of the UK Food Group) |
| UPWARD | Users' Perspectives with Agricultural Research and Development (of CIP) |
| WARDA | West Africa Rice Development Association, Côte d'Ivoire |
| WECARD | West and Central African Council for Agricultural Research and Development (also CORAF) |
| WWW | World Wide Web |

**Other acronyms and abbreviations**

| | |
|---|---|
| ACP | African, Caribbean, and Pacific countries |
| AGM | annual general meeting |
| AME | Africa and the Middle East |
| ARIs | advanced research institutions |
| CBOs | community-based organizations |
| CP | challenge programs (of the CGIAR) |

| | |
|---|---|
| FFS | farmer field schools (of FAO) |
| FRCs | farmer research committees |
| GA | gender analysis |
| GO | government organization |
| GRO | government regional office |
| HIV/AIDS | human immunodeficiency virus/acquired immunodeficiency syndrome |
| IA | impact analysis |
| IARCs | international agricultural research centers |
| ICER | internally commissioned external review |
| ICM | integrated crop management |
| ILAC | institutional learning and change |
| INRM | integrated natural resources management |
| IPM | integrated pest management |
| IPR | intellectual property rights |
| LOA | letter of agreement |
| M&E | monitoring and evaluation |
| NARES | national agricultural research and extension systems |
| NARIs | national agricultural research institutes |
| NARS | national agricultural research system |
| NGOs | nongovernmental organizations |
| NRM | natural resource management |
| NSSDs | national strategies for sustainable development |
| PB | plant breeding |
| PGR | plant genetic resources |
| PM&E | participatory monitoring and evaluation |
| PPB | participatory plant breeding |
| PNRM | participatory natural resource management |
| PR | participatory research |
| PRGA | participatory research and gender analysis |
| PR/L | participatory research and learning |
| PVS | participatory variety selection |
| R&D | research and development |
| S/GA | social and gender analysis |
| SP | systemwide program of the CGIAR |
| SROs | subregional organizations |
| SSA | sub-Saharan Africa |
| TORs | terms of reference |
| wg | working group |