

Working Document

CGIAR Systemwide Program on Participatory Research and Gender Analysis

No. 12

**Assessing Impacts of Participation:
Stakeholders, Gender, and Difference**



FUTURE
HARVEST

No. 12
**Assessing Impacts of Participation:
Stakeholders, Gender, and Difference**

María E. Fernández



**FUTURE
HARVEST**

Fernández, María E.

Assessing impacts of participation : stakeholders, gender, and difference / María E. Fernández.
Cali, Colombia : Participatory Research and Gender Analysis, Consultative Group on International
Agricultural Research, Future Harvest.

11 p. (Working document. CGIAR Systemwide Program on Participatory Research and Gender
Analysis ; no. 12)

I. Tít. II. Participatory Research and Gender Analysis. III. Consultative Group on International
Agricultural Research. IV. Ser.

Copyright © 2001. CGIAR Systemwide Program on Participatory Research and Gender Analysis for
Technology Development and Institutional Innovation (PRGA Program). All Rights Reserved.

ASSESSING IMPACTS OF PARTICIPATION: STAKEHOLDERS, GENDER, AND DIFFERENCE

*María E Fernández**

Introduction

At the First International Seminar on Participatory Research and Gender Analysis (Sep 9-11, 1996, Cali, Colombia), the Gender Working Group focused on methodological issues that affect our capacity to distinguish among technology users. Emphasis was placed on the need to involve potential technology users with different roles, priorities, and stakes in participatory research contracts (Feldstein 1996). At that time, gender analysis was perceived as a field of methodological expertise, important to participatory research, but not by nature a part of it.

Participatory Approaches

The discussions and exchange of experiences that have taken place in both the Participatory Plant Breeding (PPB) and Natural Resource Management (NRM) working groups over the past year demonstrate that gender analysis is an integral part of good participatory research (PR) practice. An approach presupposes a perspective. As an approach, participation is a way of looking at the world: an attitude, a way of thinking, acting, and reacting (IPGRI 1997). When “participatory research” approaches are used, the way we do things begins to change. The PR perspectives propose that different groups of people have different stakes in, and uses for, technology and that these people should be involved in its development.

Participatory research approaches, applied to agro-ecology, are based on the notion of an interactive learning process where knowledge generated by formal science and that generated by local users build upon each other. As a result, the strategies used to “do” PR evolve differently than those used exclusively for formal research.

Participatory research can be used to:

- (1) Generate awareness of the state of a resource,
- (2) Mobilize people for community action,
- (3) Assess needs and develop micro-plans,
- (4) Add value to local preferences,
- (5) Incorporate local preferences and perspectives,
- (6) Monitor initiatives taken, and
- (7) Assess impacts of actions and innovations.

The processes of PR involve technology users, men and women who have diverse interests, different stakes, and specific needs. If PR does not account for these differences, it is

* Centro Internacional de Agricultura Tropical (CIAT), outposted Lima, Peru.

handicapped from the onset. Participatory research that focuses on difference has a better chance of reaching the goals of increased equity, leverage, and capacity to innovate. Further, PR approaches that make use of gender and stakeholder analysis provide researchers with a better opportunity to identify critical partners and develop with them mechanisms for timely feedback on technology and/or institutional innovations (Magrath et al. 1997).

Assessing the impact of participatory research and gender analysis (PRGA) requires innovation in the procedures used. It requires new methods, indicators, and processes tailored to the task. It will require tools that are “aids to understanding ... processes that are normally hidden or that take place on spatial or temporal scales not accessible to unaided human experience” (Loevinsohn 1988). Tools developed to assess PRGA initiatives in technology development need to be as transparent to technology users and local innovators as they are to researchers.

Elements of participatory approaches

Figure 1 shows the main elements of participatory approaches. Plant domestication, management of ecosystems for agriculture, and the construction of large-scale irrigation systems all attest to the fact that innovation to, and impact on, natural processes is inherent to human activity. People continuously create and recreate, construct and reconstruct tools and management practices both through formal and informal channels. Historically, formal science has tended to distance itself from the knowledge and experience gained by local groups through empirical experimentation (Shiva 1998).

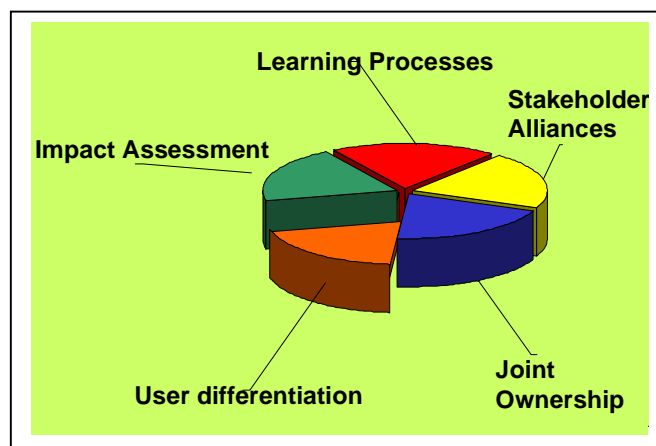


Figure 1. Elements of participatory approaches.

In fact, not too many years ago, western formal science considered the worldviews of farmers, their forms of social organizations, their knowledge, and practical experience as either irrelevant or as a hindrance to the development and transfer of agricultural technologies. Over the past few years, recognition has grown of the danger of this self-sufficient attitude to the advance of science, food security, and the welfare of rural populations. Renewed value has been

placed on ancestral and local knowledge, accumulated and generated by diverse kinds of social actors (especially *campesinos* and indigenous peoples). To take advantage of this new understanding, methods were developed to respond to the requirements of scientific enquiry, the need to influence technological change, and the desire to increase the participation of social actors in rural development projects and programs (Rhodes 1988).

Consensus is growing that participatory methods facilitate spaces for socialization and exchanging knowledge and experience among groups of social actors (Hagmann et al. 1998). But, concern remains that some participatory methods developed and used by research and development (R&D) agents tend to foster unequal partnerships. As time passes and as R&D agents gain experience in participatory processes, more effective methods and instruments to motivate and facilitate participation and interactive learning should be more readily available (SWP-PRGA 1997). Figure 2 shows the needed courses for action. These methods need to be cost effective, appropriate to specific situations and cultures, and adapted to the needs of differentiated gender, generation, ethnic, and wealth groups (men and women, old and young, Asantes, Quechuas, Tibetans, small- and large-scale farmers). Figure 3 gives an idea of divisions.

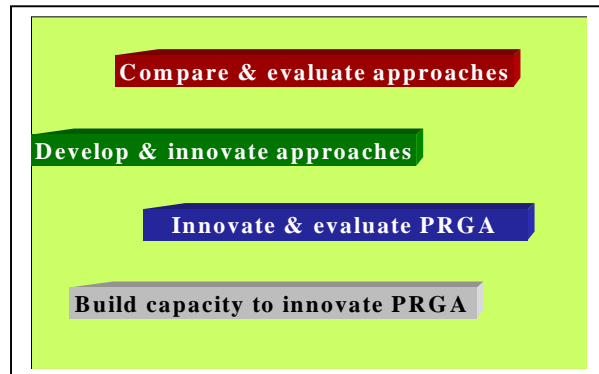


Figure 2. Courses for action in participatory research and gender analysis (PRGA).

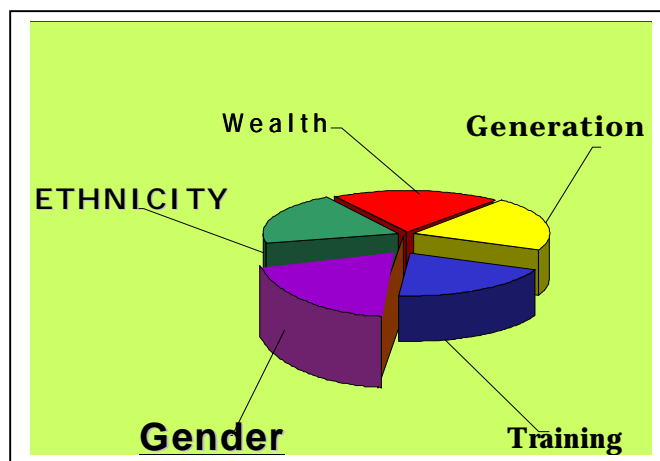


Figure 3. Social differentiations to be taken into consideration in participatory research and gender analysis.

Participatory research and NRM

The use of PR approaches in NRM research is a new frontier. The changes that a natural habitat or environment undergoes result from both the dynamics of nature and constant human intervention. The alterations modify the way the system functions, resulting in a new dynamic. The alterations stimulated by human intervention largely respond to the perceptions (or their lack) that a given society has fashioned of its own surroundings, both social and natural. The social perceptions of a desirable habitat or environment respond to ideology, knowledge, and experience, which diverse social actors translate into public and private policy and interventions. The social construction of environment reflects not only the roles and functions of gender, but also the broader worldview of specific ethnic groups and of different generations responsible for environmental management decisions. Further, the presence of diverse social actors in a particular ecosystem has an impact on the resulting environment (Paulson 1995; Rodríguez 1997). Participatory research opens avenues for integrating these complex factors into the design and implementation of NRM. Moreover, as this field of research focuses on the actors who manage natural resources as much as on the resources themselves, participation of users and stakeholder groups in innovation development becomes critical.

Gender lenses

A gender perspective proposes that the idea of social actors with socially established roles and functions should be taken into consideration in R&D processes. It particularly emphasizes the fact that dividing management responsibilities between men and women is not natural, but rather a social construct. As a result, the spaces people and social groups can occupy in the public and private spheres of society are culturally molded along gender lines (Fernández 1988). Women and men thus do different things, and the things they do are valued differentially by society and by each other (Stamp 1989; Lamas 1995). In most of today’s societies, the tasks and responsibilities considered as “male” have a higher social value than those considered as “female”. As a result, those spheres occupied by women together with their related tasks and responsibilities are both undervalued and frequently rendered invisible (Moffat et al. 1994) (Figure 4). This situation persists despite ample empirical evidence that the contributions of both

| | <u>Gender</u> | Wealth | Generation | Ethnicity |
|------------|---------------|--------|------------|-----------|
| Individual | ++++ | +++ | + | + |
| Family | ++++ | +++ | +++ | + |
| Community | ++++ | ++++ | +++ | + |
| Region | ++ | ++ | +++ | +++ |
| Nation | + | + | ++++ | ++++ |

men and women are essential to the productivity of the family, community, region, and nation. Further, when attempts have been made to improve the social welfare and food security of rural people, the roles that women play are essential to the socioeconomic dynamics, including processes of technological and institutional innovation. Excluding women from these processes becomes a barrier to development (Rodríguez 1997).

Figure 4. Where gender counts most.

A second principle of the gender perspective is based on evidence that the effects of R&D interventions have differential impacts on men and women. The impacts differ both because the social roles of men and women vary, and because men and women:

- (1) Are offered different opportunities by R&D agents,
- (2) Perceive and value opportunities differently,
- (3) Participate in a different way,
- (4) Choose differently because of their gender specific views on welfare and food security, and
- (5) Select information with different criteria.

Some impacts of technology and institutional innovation on small-scale farmers are more visible than are others. Some affect different gender groups more than do others. Gender differentiated impacts are most visible on the value and use of time, types of acquirable knowledge related to present knowledge, control of physical space, and access to natural and genetic resources.

Impact Analysis

Strategies in NRM involve the economic, sociocultural, political, environmental, and technical impacts (foreseen or not) of actions that contribute to local, regional, or national development. The focus of NRM research reflects the perspectives of R&D agents and planners, even when not explicitly involved in a specific project or research proposal. Today, a tacit and extensive consensus is that whatever the development perspective, three elements are crucial to R&D efforts that intend to contribute to sustainable rural development: a gender perspective, an environmental dimension, and a participatory approach.

These three elements have come to the forefront because past development models—those that failed to recognize the roles of actors, both women and men, at all levels of institutional and technology innovation—have resulted in deteriorated ecosystems. Further, the diversity and richness of local knowledge systems together with the limited adoption of technologies designed, has led to the recognition that the collaborative efforts among farmers and researchers can enhance technology development.

As a result, today, impact analysis focuses increasingly on social actors and the extent to which development interventions, technological and institutional, contribute to enhancing the capacity of actors to innovate and participate. “Capacity reflects the liberty of a person to choose among different ways of life”(Sen 1989). For this reason, impact analysis should be geared to measuring increases in the ability to choose from among diverse alternatives that can improve the quality of life. If the alternatives are appropriate, with equitable access, and if people are empowered in the process, the impact will enhance the capacity of the individual, family, and community to negotiate and innovate (Figure 5).

This perspective on development does not underestimate the value of production and the productivity of goods and services (Igiñez 1996). But, it does differ from other perspectives in that it considers productivity to be a means by which to achieve welfare through the enhancement of human capacity, rather than an end in itself. Because of the nature of this development focus, specific aspects of interventions and the methods used to implement them

should be analyzed both quantitatively and qualitatively. Further, the aspects under scrutiny need to be measurable (Harrington 1992).

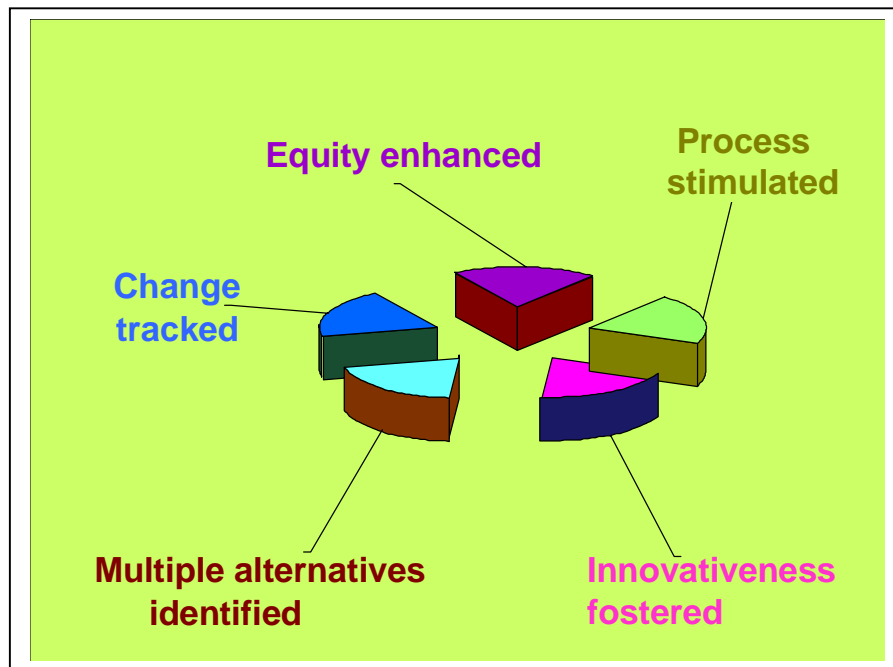


Figure 5. Measures of research and development success.

Tools used in impact assessment

Tools for accessing methods should, for example:

- (1) Work with process and continua,
- (2) Characterize different kinds of participation,
- (3) Define limits of the situation where impact is to be assessed,
- (4) Develop appropriate impact criteria with technology users, and
- (5) Organize information gathered for feedback to the community.

The tools used to support PRGA processes and to measure their impact need to be coherent with the elements of participation in practice. In cases where participatory approaches are already in use, the tools for impact analysis need to be transparent to provide innovation opportunities (Buenavista and Flora, Lightfoot et al., and Feldstein and Poats in Feldstein and Jiggins 1994). Tools for users and researchers include, for example:

- (1) Resource maps and flow diagrams,
- (2) Focus, interest, and gender groups,
- (3) Enterprise, labor use, and seasonal calendars,
- (4) Chronologies, and
- (5) Stakeholder linkage diagrams.

Measuring the Impact of PRGA

The choice of relevant indicators for measuring the impact of PR is related to two factors: the goals of the participatory approaches used, and the differences among groups of technology users and innovators. These factors are modified by time and the degree of ownership that potential users gain over the innovation process.

The process of identifying and selecting qualitative and quantitative indicators for measuring impact under specific situations needs to reflect the participatory approach being assessed. Different social groups and stakeholders, and farmer technology users and innovators (male and female) must play an active part in identifying the indicators to be used.

Potential indicators for PRGA in NRM

The most relevant variables in assessing the impact of PRGA on the development of technologies for NRM have to do with a combination of physical access and the capacity of actors to envision alternatives for present and future use:

- (1) Access to and control over resources,
- (2) Technical skills and knowledge,
- (3) Space for responsibility and decision making,
- (4) Information and influence, and
- (5) Income and capacity to invest.

This combination provides the basis for responsible decision making and the innovation of technology and management practices (Fernández and Salvatierra 1989).

Indicators that focus on the impacts on equity help sort out to what extent an approach to participation, or its absence, affects the power relations between men and women. However, increasing equity in gender relations is not sufficient if the broader social context does not provide conditions for acceptance of change (Figure 6). Further, to be sustainable, opportunities for increasing equity need to be brought to potential through mechanisms and relationships within the community that leverage new resources and influence. Organizational indicators make it possible to measure the potential of a stakeholder group to negotiate with the larger society (Figure 7).

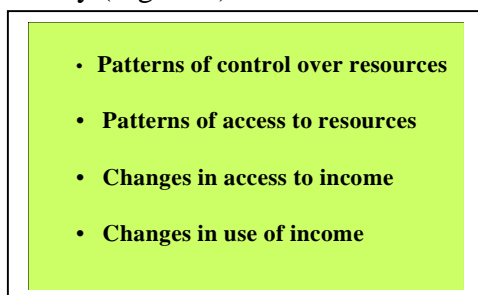


Figure 6. Gender distribution of management responsibilities modified.

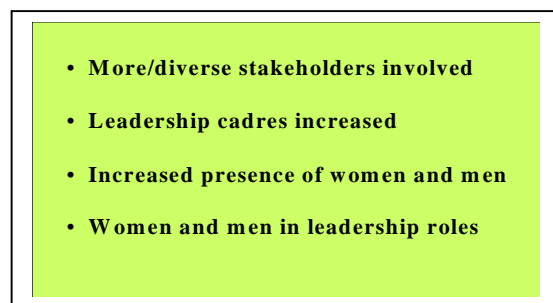


Figure 7. Organizational capacity enhanced.

The capacity to innovate is indirectly related to an understanding of physical and organizational processes underpinning technological development and the ability to translate concepts into action. This (incomplete) group of indicators (Figure 8) can lead to measuring a participatory approach's impact on the capacity-gendered users and stakeholders ability to innovate. This group of indicators should also help measure the degree to which knowledge and skills are applied to develop creative management strategies (Ortíz 1999).

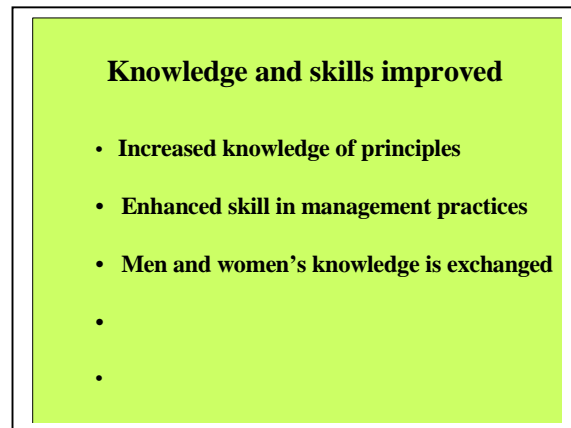


Figure 8. Incomplete group of indicators for improving knowledge and skills.

Conclusions and Future Challenges

This chapter has attempted to pull together some of the concerns relating to the evaluation of the impact of PRGA approaches and methods on technology development and institutional innovation. The first issue explored is the relationship between approaches and methods as a first step in understanding the relationship among gender and stakeholder analysis and participatory research.

We attempted to set out the goals of participatory approaches and found that if these are increased in equity, leverage, and capacity for innovation, a gender perspective is essential to their achievement. However, the “gender lens” brings us face to face with other types of differences (e.g., age, wealth, and ethnicity) and the consequent need to weigh their importance in different contexts. A second conclusion is that different processes and results are obtained when different approaches underpin the use of participatory methods.

When reviewing methods appropriate for the impact of participation on NRM research, the task of weighing “types” of tools and indicators was challenging. Tools and indicators for measuring the impact of **technologies and innovations** can differ greatly from those needed to measure the impact of **processes** of technology development and institutional innovation. Only some of the tools and indicators identified would seem to suit both purposes. When planning impact analysis activities, this multiple-use potential could mean opportunities for confusion as well as for increased understanding. Finally, the intention has been to stimulate discussion and to provide a base on which to build.

Acknowledgement

This paper was prepared with the collaboration of Lic. Martha Rodriguez-Achung, lecturer, Gender and Environment, Department of Social Sciences, Pontificia Universidad Católica del Peru (PUC) Lima.

References

- Feldstein HS. 1996. Methodology issues in differentiating users of new technologies. New frontiers in participatory research and gender analysis. In: Proc. international seminar on participatory research and gender analysis for technology development. Cali, Colombia. Centro Internacional de Agricultura Tropical (CIAT), Cali, Colombia. p 75-86.
- Feldstein HS, Jiggins J, eds. 1994. Tools for the field. Methodologies handbook for gender analysis in agriculture. Intermediate Technology Publ. 270 p.
- Fernández M. 1988. Technological domains of women in mixed farming systems of Andean peasant communities. In: Poats S; Schmink M; Spring A, eds. Gender issues in farming systems research and extension. Westview Press, Boulder. p. 213-221.
- Fernández M, Salvatierra H. 1989. Participatory technology validation in highland communities of Peru. In: Chambers R, Pacey A, Thrupp L, eds. Farmer first: farmer innovation and agricultural research. Interm Technol Publ, London. p 146-150.
- Hagmann J, Chuma E, Murwira K. 1998. Kuturaya (let's try); reviving farmers' knowledge and confidence through experimentation. In: van Veldhuizen L, Waters-Bayer A, Ramirez R, Johnson J, eds. Farmers' research in practice: Lessons from the field. Interm Technol Publ, London. p 153-173.
- Harrington LW. 1992. Interpreting and measuring sustainability: Issues and options. J Farming Syst Res Extens 3:1-20.
- Igñez J. 1996. Definiciones de desarrollo y experiencia de género. Apuntes desde la perspectiva de Sen. In: Henríquez N, ed. Encrucijadas del saber. Los estudios de género en las ciencias sociales. Pontificia Universidad Católica del Perú, Lima, Perú. p 135-157.
- IPGRI (International Plant Genetic Resources Institute). 1997. Ethics and equity in conservation and use of genetic resources for sustainable food security. Proc. workshop to develop guidelines for the Consultative Group on International Agricultural Research (CGIAR). 195 p.
- Lamas M. 1995. Usos, dificultades y posibilidades de la categoría "género". In: La Ventana. Revista de Estudios de Género, no. 1. Universidad de Guadalajara, México. p 9-61.

- Loevinsohn M. 1998. Finding common ground: expanding the conceptual basis of natural resource management. Unpublished mss. Obtainable from M.Loevinsohn@CGIAR.org.
- Magrath P, Compton J, Oforu A, Motte F. 1997. Cost-benefit analysis of client participation in agricultural research: A case study from Ghana. Overseas Development Institute (ODI) Agricultural Administration (Research and Extension) Network Paper no. 74. p. 19-36.
- Moffat L, Geadah Y, Stuart R. 1994. Dos mitades forman una unidad: el equilibrio de las relaciones de género en los procesos de desarrollo. Consejo Canadiense de Cooperación Internacional (CCIC), MACHT, Asociación de Québec de Organismos de Cooperación Internacional (AQOCI) y Unión Internacional para la Conservación de la Naturaleza (UICN). San José de Costa Rica. 139 p.
- Ortíz O. 1999. Criterios para evaluar la implementación del MIP. Centro Internacional de la Papa (CIP). Internal document.
- Paulson S. 1995. Desigualdad social y degradación ambiental en América Latina. Recurso para la reflexión y enseñanza con análisis de género y forestería comunal. Food and Agriculture Organization (FAO)-Forest Trees and People Program (FTPP), Cochabamba, Bolivia. 190 p.
- Rhodes R. 1998. CIP's philosophy on farmer participatory research. The social sciences at CIP. Report of the third social science planning conference. Centro Internacional de la Papa (CIP), Lima, Peru. 159 p.
- Rodríguez AM. 1997. Género, medio ambiente y desarrollo rural. Informe de Investigación. Inédito. Consorcio de Investigaciones Económicas, Lima, Perú. 98 p.
- Sen A. 1989. Development as capability expansion. J Dev Plan. no. 19.
- Shiva V. 1988. Staying alive: Women, ecology and survival in India. Edit. Kali for Women, New Delhi, India. In Spanish, 1991. Instituto del Tercer Mundo, Montevideo, Uruguay. 252 p.
- Stamp P. 1989. Technology, gender, and power in Africa. International Development Research Centre (IDRC), Ontario, Canada. 185 p.
- SWP-PRGA (Systemwide Programme on Participatory Research and Gender Analysis). 1997. A global programme on participatory research and gender analysis for technology development and organisational innovation. 1997. Overseas Development Institute (ODI) Agricultural Administration (Research and Extension) Network Paper no. 72. 11 p.

FUTURE HARVEST

Future Harvest is a non-profit organization that builds awareness and support for food and environmental research for a world with less poverty, a healthier human family, well-nourished children, and a better environment. Future Harvest supports research, promotes partnerships, and sponsors projects that bring the results of research to rural communities, farmers, and families in Africa, Latin America, and Asia. It is an initiative of the 16 food and environmental research centers that are primarily funded through the Consultative Group on International Agricultural Research.

Future Harvest, PMB 238, 2020 Pennsylvania Avenue, NW, Washington, DC 20006, USA

Tel: (1-202) 473-4734

email: info@futureharvest.org

web: <http://www.futureharvest.org>



The Consultative Group on International Agricultural Research (CGIAR) works to promote food security, poverty eradication, and sound management of natural resources throughout the developing world.

CGIAR, The World Bank, 1818 H Street, N.W., Washington, DC 20433, USA

Tel: (1-202) 473-4502

email: cgiar@cgiar.org

web: <http://www.cgiar.org>

In recent years the CGIAR has embarked on a series of Systemwide Programs, each of which channels the energies of international centers and national agencies (including research institutes, non-government organizations, universities, and the private sector) into a global research endeavor on a particular theme that is central to sustainable agriculture, fisheries, and forestry.



The purpose of the CGIAR Program on Participatory Research and Gender Analysis for Technology Development and Institutional Innovation (PRGA Program) is to assess and develop methodologies and organizational innovations for gender-sensitive participatory research and to apply these in plant breeding, and crop and natural resource management.

The PRGA Program is cosponsored by 4 of the 16 centers that make up the CGIAR: the International Center for Tropical Agriculture (CIAT), which serves as the convening center; the International Maize and Wheat Improvement Center (CIMMYT); the International Center for Agricultural Research in the Dry Areas (ICARDA); and the International Rice Research Institute (IRRI).

PRGA Program activities are funded by Canada's International Development Research Centre (IDRC), the Ford Foundation, the Rockefeller Foundation, and the governments of Germany, Italy, the Netherlands, New Zealand, Norway, and Switzerland.



CIAT's mission is to reduce hunger and poverty in the tropics through collaborative research that improves agricultural productivity and natural resource management. Headquarters in Cali, Colombia.



CIMMYT is a nonprofit scientific research and training organization engaged in a worldwide research program for sustainable maize and wheat systems, with emphasis on helping the poor while protecting natural resources in developing countries. Headquarters in Mexico City, Mexico.



ICARDA's mission is to improve the welfare of people through agricultural research and training in the dry areas in poorer regions of the developing world. The Center meets this challenge by increasing the production, productivity and nutritional quality of food to higher sustainable levels, while preserving or improving the resource base. Headquarters in Aleppo, Syria.



IRRI is a nonprofit agricultural research and training center established to improve the well-being of present and future generations of rice farmers and consumers, particularly those with low incomes. It is dedicated to helping farmers in developing countries produce more food on limited land using less water, less labor, and fewer chemical inputs, without harming the environment. Headquarters in Los Baños, The Philippines.

For more information contact:
PRGA Program Coordination Office
c/o International Center for Tropical Agriculture (CIAT)
A.A. 6713
Cali, Colombia

Phone: (57-2) 445-0000 (direct) or (1-650) 833-6625 (via USA)
Fax: (57-2) 445-0073 (direct) or (1-650) 833-6626 (via USA)
E-mail: prga@cgiar.org
Web: <http://www.prgaprogram.org/prga/>