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## **The Use of Participatory Methodologies to Increase Women Farmers' Access to Productive Resources**

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### **Abstract**

The use of participatory methodologies, including participatory action-research (PAR), and the impact of such approaches on farmers, male and female, and their access to resources have been widely documented in research-for-development (R4D) interventions. From the early 1980s, with the legendary evolution of Participatory Rural Appraisal (PRA)<sup>2</sup> and later the Farmer Field Schools (FFS),<sup>3</sup> participatory methods and the assessment of their impact on farmers' lives

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\* The views expressed in this paper are those of the author and do not necessarily represent those of the United Nations.

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<sup>2</sup> Participatory Rural Appraisal (PRA) was championed by the seminal work inspired by Robert Chambers at the Institute for Development Studies (IDS) in the early 1980s. He developed the Rapid Rural Appraisal (RRA) method, which gave voice and decision-making power to the farmers as the *experts* in their fields in contrast to the mainstream development theory at the time that considered them passive *recipients* of technologies. RRA evolved into PRA and Participatory Learning and Action (PLA). It includes a variety of disciplines, but is characterized by the centrality of participation by the farming community.

<sup>3</sup> Farmer Field Schools (FFS), a learning technique, have been considered among the first systematized and documented steps to work in participation with farmers as experts in their own right. FFS can be characterized as a

increased to the point that a separate body of literature on R4D was created. Many of these studies have focused on ways in which women farmers, in particular, better their lives and that of their communities when a participatory approach is put in place and implemented with their consent and supervision. Today, there is a wealth of methods and overarching principles that highlight the importance of considering participation as an empowerment avenue; however, participatory approaches embraced by scholars and donors have not been institutionalized in many arenas and face criticism from researchers and policy-makers alike. This paper focuses on why it is important to recognize participatory methodologies as a central component to increase women farmers' access to productive resources. To do so, two case studies, supported by the Participatory Research and Gender Analysis Program (PRGA) of the CGIAR are presented, highlighting central issues that elicit participation with a gender focus in a larger research system. Finally, a set of concrete recommendations for further action is presented.

### **Participation by whom and with whom?**

*Participation is key in terms of involving rural people in the information collection and planning process. Participatory methods can be used to collect information on the activities and constraints of women and men farmers. This new information can then be shared with policy-makers and planners to allow the formulation of development plans that reflect the interest of the rural population and support a sustainable development.*

FAO (1995)

Since the turn of the millennium, efforts have been made to bring the situation of women farmers to the fore: the constraints they face in accessing productive resources in order for them to be able to benefit and be included in the local, regional and international mainstream economies. However, these efforts have not been enough. Their situation is reported and analyzed in recent studies and thorough reports produced by international bodies, prominently the Food and Agriculture Organization of the United Nations (FAO) in the *The State of Food and Agriculture (SOFA) 2010–11: Closing the Gender Gap in Agriculture* (FAO, 2011); the FAO, IFAD and ILO<sup>4</sup> report on *Gender Dimensions of Agricultural and Rural Employment: Different pathways out of poverty* (FAO et al., 2010); the IFPRI-led<sup>5</sup> study on *Engendering Agricultural Research* (Meinzen-Dick et al., 2010); and the earlier but pivotal World Resource Institute's (WRI) *World Resources Report 2005: The Wealth of the Poor* (WRI et al., 2005) with emphasis on participation, procedural rights and gender equality. These studies—and many others—voice issues directly related to the status of women farmers worldwide and the need to look for ways to narrow the gap in their access to productive resources and empowerment.

Participatory methods and perspectives can be central to close this gap. Nonetheless, participatory R&D in itself is not enough to overturn women farmers' situations—policy statements and timely interventions need to be considered to provide rural women with an avenue to enhance their agendas (Ashby and Sperling, 1995). An important element to consider

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group-based learning process that was initiated with the promotion of Integrated Pest Management (IPM) techniques. Indonesia was the first hub in the development of FFS and these groups were initially led, designed and managed by FAO in Indonesia and Southeast Asia before spreading quickly around the globe.

<sup>4</sup> International Fund for Agricultural Development (IFAD); International Labour Organization (ILO).

<sup>5</sup> International Food Policy Research Institute (IFPRI).

is the existence of “different levels” of participation, since there is a tendency to stratify participants by gender, race and status, which bring to the discussion table the fact that not all means of participation are homogeneous (FAO, 1995). The fact that women farmers are lagging behind in access to resources and the need to mainstream a participatory approach has also been demonstrated in a large number of studies carried out by the research community of the CGIAR and its Centers, particularly CIP, CIAT, IRRI, ICARDA and CIFOR.<sup>6</sup> However, women farmers are most often not consulted or invited to participate in decision-making processes, which might range from the adoption of a specific technique to the implementation of sound strategies that alleviate poverty and enlarge their pool of resources. Finally, the academic community has long focused on participatory perspectives, studying techniques and applying methodologies that have highlighted women farmers’ needs and their potential contributions. These hubs of participatory research, such as the Institute for Development Studies (IDS) in the UK, with Robert Chambers’ seminal work on participation and empowerment, along with other important research carried out by Northern and Southern universities alike,<sup>7</sup> helped to legitimize “participation” and considered those who conducted the work (no matter what their affiliation or educational stand is) as co-researchers.<sup>8</sup> There is no doubt that participatory methods are a vehicle to elicit innovation and to achieve results that are meaningful to those who would benefit directly (or the most) from the institutionalization of these techniques, namely men and women farmers. In that sense, the focus on the institutionalization of these methodologies and the results derived from the implementation of participatory approaches by policy-makers is to be carefully analyzed to reach informed decisions that would accelerate women farmers’ inclusion in the mainstream development process.

This paper presents a glimpse of the work supported by the Participatory Research and Gender Analysis Program (PRGA),<sup>9</sup> hosted by the International Center for Tropical Agriculture (CIAT), that ran for more than 14 years and supported participatory and gender analysis R4D work, while also developing a variety of frameworks, studies and supporting pivotal small grants to enhance the wellbeing of women farmers. The focus of this paper is on thematic areas (participatory research and gender) that the Program supported and not about the organization itself. The Program was created to put together resources and knowledge to accelerate the development of new methodological tools and institutional strategies for participatory research with a gender lens at its core—thereby supporting women farmers worldwide. The Program set a global benchmark for the quantity, quality and scope of participatory and gender-sensitive research. This work also enabled researchers to identify the main achievements of and obstacles to participatory research and gender analysis, bringing to light emerging challenges and issues for further research. One of the strategies undertaken was to offer “small grants” to provide researchers with the opportunity

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<sup>6</sup> International Potato Center (CIP); International Rice Research Institute (IRRI); International Center for Agricultural Research in the Dry Areas (ICARDA); Center for International Forestry Research (CIFOR).

<sup>7</sup> Examples of Northern universities that have embraced participatory research fields are the University of Wageningen, University of Guelph (Canada) and Cornell University (USA) besides others.

<sup>8</sup> Reason (1994) considers those who are affected by an intervention as co-researchers, giving them the same status as that of a researcher in any field.

<sup>9</sup> PRGA operated from 1997 to 2011, was hosted at CIAT, and supported CGIAR System-wide approaches to mainstream gender and participatory research across CGIAR Centers, national agricultural research systems (NARS) and other partners (NGOs) by supporting studies through small grants, and developing frameworks focused on participatory approaches and the empowerment of women farmers. For more information visit:

[www.ciat.cgiar.org/ourprograms/Climate\\_Capacity/prga/Pages/index.aspx](http://www.ciat.cgiar.org/ourprograms/Climate_Capacity/prga/Pages/index.aspx).

to channel funding (even very small amounts) to well-defined participatory research interventions that provided a direct avenue of hands-on work with (mainly women) farmers, pursuing (at the same time) the enhancement of those involved in this work. Two important and relatively recent examples are presented and lessons derived from the implementation of this participatory work that took place in two very different regions: West Asia (Syria) and Latin America (Colombia). The selection criteria for presenting these two case studies were as follows: the studies were truly participatory and involved the work of researchers and women farmers alike; and they emphasized women's empowerment at the grassroots level while bringing important lessons to the research community. At the macro level, these studies implied that "participation *per se*" needs to be supported (with even small grants) and interventions must be carried out with the involvement of people who are affected the most in the process.

The first case presented and discussed is the result of a small project contracted with the Barley Program at the International Center for Agriculture in the Dry Areas (ICARDA) in 2007, with specific focus on the development of participatory plant breeding (PPB)<sup>10</sup> strategies with women farmers in Syria. The second case resulted from a co-funded<sup>11</sup> study which was carried out by the Confederación Colombiana de Algodón (CONALGODON) and researchers at the International Food Policy Research Institute (IFPRI) with a focus on the adoption of improved (transgenic) cotton in the cotton-producing area of Colombia. Both cases had important outcomes in relation to women's empowerment, and generated lessons and implications for further action in relation to women farmers' access to resources through participatory approaches, and also for the research community and policy-makers.

### **Women farmers' empowerment through PPB in Syria**

During the period 2007–2009, with PRGA funding, scientists working in the Barley Program at ICARDA<sup>12</sup> carried out a groundbreaking piece of participatory research. More specifically, the scientists and women farmers developed a conceptual framework to focus on social impact assessment (SIA) determining the empowerment aspect of the practice of PPB with women from three villages of three districts (governorates) in Syria: Lahethah, Sweida Province (south); Souran, Hama Province (centre); and Ajaz, Aleppo Province (north) . The work was conducted through a network of women farmers that subsequently continued working and enhancing the initial modest work. The involvement of women in the determination of best varieties adapted to their unique environments was considered an important achievement in an agricultural practice that has been dominated by male farmers.<sup>13</sup> The researchers and women farmers held meetings and formed a network of women alone—due to cultural barriers—and they opened the door to the participation to young women farmers in the selection of varieties that were particularly suitable to their needs. The women's prevalent selection criteria included length and flexibility of plant stems, because they used straw to make handcrafts and sold them later at the market for

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<sup>10</sup> Participatory plant breeding (PPB) is the systematic and regular involvement of farmers as decision-makers in all stages of a plant-breeding program.

<sup>11</sup> The research was co-funded by OXFAM America and other EPTD-IFPRI donors. It is important to mention that CONALGODON invested some of its own resources to make this project possible.

<sup>12</sup> ICARDA has over 10 years' involvement in PPB work. For more information on women farmers and PPB developed varieties in this study, contact Alessandra Galie [a.galie@cgiar.org](mailto:a.galie@cgiar.org), Stefania Grando [s.grando@cgiar.org](mailto:s.grando@cgiar.org) or Salvatore Ceccarelli [s.ceccarelli@cgiar.org](mailto:s.ceccarelli@cgiar.org).

<sup>13</sup> Despite 10 years of PPB work in Syria, this was the first time that women farmers were involved.

needed income (this is in direct contrast to men's dominant consideration of yield). Another aspect of this work determined that the women selected varieties that possessed suitable culinary traits (cooking time, palatability, etc.) for them and their families. These qualities are not normally taken into account in relation to commercial varieties. The research also included the study of important changes in the world view of the women farmers and a change of attitude about their self-confidence/self-esteem. They possessed the knowledge and a unique understanding when selecting better crop varieties that are suitable to their environment and needs. The research opened the possibility for women to present their work at a women farmers' conference (Galie' *et al.*, 2009) and share results with peers from other countries in the region. At the institutional level, there was an acknowledgement that farmers hold important indigenous knowledge and that their world view and selection criteria must be considered by researchers if varieties are going to be adopted and improved.

*Participatory plant breeding and varietal selection speeds varietal development and dissemination to 5–7 years, half of the 10–15 years of a conventional plant-breeding program. In the very poor, rainfed rice-growing areas of South Asia that the Green Revolution passed by, participatory plant breeding is now paying off with strong early adoption of farmer-selected varieties that provide 40 percent higher yields in farmers' fields. The approach needs to be more widely tested in the heterogeneous rainfed environments of Africa, where involving farmers, especially women farmers, in selecting varieties has shown early successes for beans, maize, and rice.*

World Bank (2007, pp. 160–161)

### **Gender dimensions of Bt cotton<sup>14</sup> adoption in Colombia<sup>15</sup>**

In late 2009, PRGA provided a small grant to co-fund a research project headed by CONALGODON and researchers from IFPRI. This unique research explored gender differences in cotton production and cultivation, focusing on the perceptions and, most importantly, the experiences that women and men farmers had with the cultivation of transgenic cotton varieties. One distinctive aspect of this work was that it provided researchers with an opportunity to pursue impact evaluation of crop biotechnology through participatory approaches, including gender considerations, at its core—something that has not been mainstreamed in studies of this kind.<sup>16</sup> Furthermore, the objective of this pilot study incorporated a gender perspective in quantitative evaluation. The study used a participatory and descriptive approach to obtain women and men farmers' perceptions and insights.

The fieldwork was conducted in the villages of Cereté and El Espinal, two of the main cotton producing villages in Colombia, where a few transgenic varieties had been on the market since 2004. The participatory exercises<sup>17</sup> developed by the team of researchers and women farmers showed that there were key gender differences, laying the groundwork for further research in this

<sup>14</sup> *Bacillus thuringiensis* (Bt) cotton—a genetically modified, insect-resistant variety of cotton.

<sup>15</sup> Zambrano *et al.* (2011) and adapted from Biermayr-Jenzano *et al.* (2011)

<sup>16</sup> For more information on this groundbreaking participatory research work, contact Patricia Zambrano [p.zambrano@cgiar.org](mailto:p.zambrano@cgiar.org), EPTD Division, IFPRI.

<sup>17</sup> Participatory methods used included: interviews with women stakeholders and key informants (male and female farmers); and some more descriptive methods, such as pictorial mapping and symbols, matrices (ranking and scoring), focus groups (female only; male only), plus role-play and situational analysis.

relatively new field. One important issue was that through participatory evaluation, a confirmation that women farmers are actively involved in cotton production was evident (this was reported in an earlier 2007 study). Women farmers not only participate in crop management, but often share responsibilities with male family members. One unexpected finding showed that women farmers appear to prefer insect-resistant varieties (over conventional varieties) because the improved (transgenic) and resistant varieties reduced the number of pesticide applications, which in Colombia are performed by men.

One of the most interesting results in this case study relates to women farmers being directly or indirectly active cotton actors. In this unique way, they were able to adapt and adopt a new technology (in this case, a new improved variety, transgenic cotton), as they shared unique experience of why and how they enhanced their access to resources (capital, markets and information) in comparison with the adoption of conventional varieties that are available on the market.

### **Lessons learned on participation and recommendations**

This brief reflection by no means attempts to present an extensive recollection of participatory methods. The presentation of two well-documented case studies by a longstanding system-wide program of a larger research system (the CGIAR<sup>18</sup>) aims to show that the research community can demonstrate the benefits of participatory research with a gender lens in relation to women farmers' access to resources. The core issue is that oftentimes interventions are needed (small grants or reward systems), but are insufficiently supported (follow-up strategies or impact studies to follow up), which leads to the abandonment of efforts. Nonetheless, when documented and embraced by those directly involved, studies such as these cases and interventions take on a life of their own as part of the fabric of the community, bringing (in most cases) positive results for those involved (empowerment, knowledge sharing, etc.) in the process.

The small-grants research projects discussed above and many others conducted along the life of this program demonstrated that participation is *central* to the empowerment of women and facilitates the development of the innovation process and the adoption of new technologies (Bantilan *et al.*, 2006). In all cases, when women farmers were consulted and given the opportunity to discuss their needs, evaluate their opportunities and select the most appropriate options for themselves, they embraced the process with an open mind and a unique perspective, providing important insights about how to adapt these new participatory techniques, to benefit not only themselves but also their households and communities. In one case, they “developed” new varieties of barley (through systematic selection processes) adapted to their specific craftsmanship needs and environment while emphasizing traits they perceived as most appropriate. In the second case, women cotton farmers, through a consensual participatory process, opted for the adoption of transgenic varieties that facilitated and reduced the need of

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<sup>18</sup> It is important to mention that CGIAR Centers like CIP (through the Papa Andina and Urban Harvest Programs) and IRRI have conducted grounded and sound participatory research: selection of potato variety in the Andes and selection of rice varieties with women farmers in the Philippines and Southeast Asia. CIAT has also been the host center for another well-known large participatory program, the Participatory Research in Agriculture (IPRA) project that bases its work on real cases and formed part of the experience of the Local Agricultural Research Committees (CIALs) and the Andean Change Alliance (Cambio Andino, [www.cambioandino.org/](http://www.cambioandino.org/)). The case studies analyzed here were supported by PRGA funding.

labor (pesticide application) throughout the growing season. This case is particularly remarkable as transgenic crops still face criticism from the sectors of the farming and market community.

The documentation of participatory research shows that in general terms, there are four common elements central to enhance women farmers' participation while making a contribution to capacity development for extension agents, researchers and policy-makers:

- Emphasis on methodology development
- Investment in and carrying out of capacity-building/training activities
- Development of a variety of partnerships and networks
- Institutionalization of participatory methods with a gender lens at their core.

There are important lessons that PRGA brought to the forefront while embracing participatory techniques and gender analysis; some of them are translated into the following recommendations<sup>19</sup>, showing that in order to support women farmers through participation there is a need to:

- Emphasize channels for development, testing, application and dissemination of frameworks and tools designed to assess the impact of participatory approaches;
- Strive and pursue simple but rigorous methods that are scientifically grounded and that validate the results produced;
- Document broad impacts by producing technologies and supporting options that are well suited to end-users', particularly women farmers' needs—paying attention to end-user needs highly reduces the likelihood of farmers rejecting the technologies or varieties developed;
- Benefit poor and marginalized groups (women farmers, youth and the elderly), all of whom are frequently overlooked by conventional quantitative research;
- Look for pathways (tools and methods) that are cost-efficient, primarily to increase human capital, adoption and farmers' profits;
- Reach out to scientists and policy-makers who have unmet demand for training in participatory methods at different levels and in different disciplines.

There is a need to further systematize participatory approaches and techniques in order to be cognizant and alert about the extended menu of existing tools, especially in relation to their impact (impact assessment, social impact assessment, social analysis systems, etc.) on women farmers' lives. Not every technique or tool is good for everyone: participation is not a one-size-fits-all strategy. Furthermore, participation is not static, rather it is a process: participatory perspectives, when adopted, can portray women farmers (in our particular case) as the “experts” and researchers as the “facilitators” of the process. This changing paradigm has been perhaps the first barrier to further participatory work in R4D situations. Researchers and policy-makers need to understand that the use of participatory approaches (which have “matured” in the last decade<sup>20</sup>) affects both the farmers who undertake the work and share knowledge *and* those researchers who analyze the interventions. In June 2001, an expert group meeting (EGM) was

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<sup>19</sup> Adapted from Biermayr-Jenzano et al. (2011, p. 12).

<sup>20</sup> There is a growing literature on the accuracy of participatory methods. They have evolved to include new disciplines and give room for more complex qualitative and quantitative analysis. Some notable frameworks for participatory research are Outcome Mapping (OM); Social Analysis Systems 2 (SAS2), and Adaptive Collaborative Management (ACM) among others.

convened in Ulaanbaatar, Mongolia when the then United Nations Division for the Advancement of Women (DAW) and the United Nations Development Fund for Women (UNIFEM) discussed the “situation of rural women within the context of globalization.” Ten years later, the time is ripe to emphasize participatory avenues that increase human capital and women farmers’ profits. UN Women bears an important role in the institutionalization of participatory efforts and approaches, making sure that women farmers’ voices are taken into account when designing policy at regional and international levels in order for them to be able to freely access productive resources.

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