

A resource for agricultural research and development professionals

Integrating “gender” in research for development: How you interpret the term can shape project achievements

Three CIMMYT case studies

If you are a scientist or project manager seeking to integrate gender approaches effectively in your projects, this resource can help you.

We summarize below analyses of how gender approaches were applied in three different CIMMYT projects in Africa and Asia. In particular, we examine the differing interpretations of “gender” by scientists, staff and participants and how each interpretation affected interventions, strategies and project outcomes. We also show what happened as the understanding of gender and related concepts evolved over each project, why, and to what effect. And finally, we present lessons to inform future gender-responsive, gender-transformative research-for-development.

The projects studied were:

- The *Drought Tolerant Maize for Africa (DTMA)* project in Zimbabwe, which aimed to reduce hunger and increase the food and income security of resource-poor farm families through the development and dissemination of drought-tolerant maize varieties.
- The *Cereal Systems Initiative for South Asia (CSISA)* in Bangladesh, which aimed to increase household income, food security and livelihood alternatives for impoverished and agriculturally dependent communities.
- The *Hill Maize Research Project (HMRP)* in Nepal, whose overall aim was to improve the food security and income of poor and disadvantaged farmers in the hill regions of Nepal.

We collected information and data from each in 2013, as part of a gender audit by the CGIAR Research Program on Maize (MAIZE), and again in 2015/16 as part of visits to the projects. In all, we conducted 89 interviews and 20 focus group discussions.

Drought Tolerant Maize for Africa

The DTMA Zimbabwe case study brought to the fore an overall understanding of gender as a social difference, based on the discrete roles women and men play in agriculture. The purpose of gender integration in the project can be best described as providing equal opportunity.

As part of the project, Participatory Variety Selection (PVS) was applied in regional on-farm trials. The PVS had the dual purpose of providing breeders with data to understand differences in maize trait preferences – including between women and men – and to help farmers make informed choices about which variety to sow. To facilitate information about new maize germplasm, and participation in the PVS, DTMA purposely selected participants by





sex with each PVS event involving 10 men and 10 women, but without considering other social markers. At each PVS event, women and men farmers were separated. These practices – sex-specific farmer selection and the separation of women and men – illustrate an interpretation of gender as a binary in DTMA’s PVS.

There was limited acknowledgement of the social markers that by default inform the selection process, such as being a “successful” farmer (hence of interest to extension officers) or family ties and education (as in needing to be literate). Without taking these social dimensions – in this case class, kinship and education levels – into account, women and men were treated as different homogenous groups. Only differences between women and men were recognized, while differences among them were not.

Still, the separation of women and men participants pointed to an acknowledgement of gender power relations, whereby women were constrained from voicing their interests or trait preferences. Because one aim was to gain feedback from farmers to identify traits “in demand,” the practice of separating women and men was considered important.

The understanding of women and men’s seed preferences was based, however, on assumed distinct gender roles associating men with agricultural production and women with reproduction. As a result, men were assumed by project staff to be interested in high yields and women to be interested in traits related to their reproductive role, particularly food production. In interviews with farmers, however, both women and men spoke of yield as the most important trait. Where the responses often differed was in the aspects considered yield “indicators.” Women interviewees tended to mention cob size, kernel size and the number of kernel rows, whereas men tended to emphasize plant vigor and height.

“I learned the differences of the cob sizes that were planted using no tillage and they were big. And so before harvest I got to see the differences in the cob sizes.”

Participating farmers, and particularly women, apparently benefitted from PVS events. One female farmer said the exercise of comparing and contrasting varieties helped her to hone her observation skills: “I was the one in charge of moving around and choosing the variety. I liked it, it made me open my eyes to some of the traits that I didn’t look at before” (2015). And because farmers used a variety or saw its performance under ‘normal’ conditions, it gave them confidence that they could benefit from adopting the variety in their own fields. As a female farmer said about the evaluation, “I learned the differences of the cob sizes that were planted using no tillage and they were big. And so before harvest I got to see the differences in the cob sizes.” (2015)

Despite the sampling of women and men PVS participants as two homogenous groups, if DTMA had not made an effort to include women it would likely have been only men who would have attended PVS sessions. In this way, the sex-disaggregation in the PVS came to serve other important purposes, particularly facilitating women’s access to knowledge and technology and their increased recognition as farmers.

Cereal Systems Initiative for South Asia

The CSISA Bangladesh case study revealed a project with varied interpretations of gender across project locations and staff, with one dominating understanding called into question only by staff in one project area.

The prevailing and dominant understanding in CSISA was that of the man as the farmer and the knowledge holder, so that men in general were considered project clients. This was based on men’s visible role in on-field operations and perceptions of women’s roles being limited to household work. It was reinforced by the idea that reaching

women is restricted by socio-cultural and religious norms and practices such as purdah, the seclusion of women from contact with unrelated men (Ismail 2013; Aregu et al 2019). Consequently, the roles of women in agriculture and the changes taking place in these roles were unseen, as explained by a senior researcher:

People give importance to something, which is visible. When a male farmer works in the rain in the field, everyone observes it. On the other hand, when women give their labor for drying wheat or paddy, for threshing them and finally storing them... people can hardly see all these post production activities...this contribution is not given importance (2013).

CSISA staff in one project area, however, practiced an innovative approach to gender integration based on an interpretation of gender as a relational concept. These staff understood that women's and men's roles are governed by social rules that determine who will do what in agriculture but also how this will be done and with what resources. For these staff, there was no doubt that women are farmers too. They saw agriculture work not as separate and discrete operations but as a continuum of activities performed on a daily and seasonal basis, albeit by different genders. Above all, they recognized that, in addition to on-



field activities, agricultural operations require work by women connected with both crop maintenance and post-harvest management, the latter in the household rather than on-field or in public. Moreover, they understood that both categories of responsibilities – crop maintenance and household work – contribute to the productivity of the farming units and are critical in the adoption of new technologies and management practices. At the same time, these staff were aware of the many constraints women face regarding access to and control over resources and benefits. Notably, they knew that women do not own land in Bangladesh and they were cognizant of the associated limitations.

These staff thus took to the initiative of explicitly investing in women's knowledge as a way to introduce new technologies and management practices. Why? Because women may not own the land but they can own knowledge and become leaders of a technology. In communities where these staff worked, women learned conservation agriculture and the scientific method of controlling, measuring, testing and recording management operations for wheat, maize, vegetables and rice. In

addition, women were encouraged and supported to take up non-conventional roles in agricultural, including work as mechanized tiller operators or service providers.

How did women farmers in these communities describe the changes in their lives? They acknowledged the debt to CIMMYT and generally felt that they had achieved what before was seen to be impossible. They now grew three crops instead of one and reclaimed saline soils and made them productive, among other achievements. They gained technical knowledge that made them better farmers and became confident leaders with the desire to support other women farmers:

[before CSISA] we didn't understand what self-confidence was. And now that we have more work and more knowledge of how the technology works we are mentally much stronger because we are confident that we can do this. And the more we gain in confidence that we are able to do this work our sense of responsibility increases that we must not only do this work successfully, but that we have to pass on what we know to others. (2015)

Hill Maize Research Project

The HMRP case study illustrates how interpretations of gender can change over the life of a project. At the outset of HRMP, gender was mainly understood as social differences between women and men and the need to address these to achieve project goals. Two variations of this interpretation dominated: one concerned differing gender roles, the other the relative social positioning of women and men.

Based on the first, the dominant role women played in maize cultivation in Nepal and the perceived problems of women farmers – many of them from disadvantaged castes (Dalits) or ethnic groups (Janajatis) and living in poverty – became a major focus of the project and the basis for introducing special project interventions, for example, to reduce women’s drudgery. In this view of gender, women were often approached as functioning separately from men and with different motivations in farming based on their reproductive roles. They were seen as having other qualities, such as being responsible and organized, not common in men and which were beneficial to project performance.

Based on the second interpretation of gender as a social difference, HMRP realized that women farmers were being constrained in their access to and control over resources and benefits due to unequal gender relations, and that this was holding back the project. In response, project practice focused on organizing women into groups to provide the project with a mechanism to reach women and support them in overcoming resource constraints through training, infrastructure investment, saving schemes and establishing market linkages.

As project staff and participants gained experience and confidence, their view of gender and the purpose of gender integration in the project started to change, gradually altering from

being a means for meeting HMRP’s performance indicators to addressing unequal social power relations and promoting women’s empowerment as ends in themselves. While HMRP did not formally adopt an approach to promote the agency and leadership of women, a set of interventions came to illustrate HMRP practices for this purpose.

One set of interventions focused on promoting individual women – many of them Dalit or Janajati – as lead farmers. This helped to make women’s role as farmers and their contributions to seed production and

marketing visible, and so constituted an important first step in improving women’s participation in decision-making and in leadership positions in HMRP. A second set of interventions focused on organizing women in community-based seed production (CBSP) groups, with special efforts to include Dalit and Janajati women, as a platform to strengthen women’s agency and voice, among other aims.

Both sets of interventions were carried out in parallel, with attention to addressing women’s limited access to resources (agricultural technologies, extension, knowledge, credit and



market linkages) and recognizing that these constraints were often exacerbated in the case of the Dalit or Janajati. HMRP technical and social interventions were the basis for the project advocacy of women for formal collective leadership positions in CBSP committees and beyond, such as in district level governance (Box 1). It did not happen overnight but developed in an organic and iterative way based on the dual realization in HMRP that women's leadership improved CBSP group efficiency and transparency and that the project could empower different women when gender and multiple aspects of their identity and social status – including ethnicity, caste, class – were considered.

The combined interventions also challenged gender and social norms in HMRP and partner institutions, as well as among participating individuals and communities, that limited leadership opportunities for women, in particular Dalit and Janajati. The interrelated processes of social inclusion (manifested through changes in the behavior of HMRP staff and partners vis-à-vis women and disadvantaged groups) and empowerment (manifested

through changes in the internal self-perception and sense of agency of women participants) together contributed to promoting women's leadership in the project.

The translation of resources and opportunities provided by the HMRP into different forms of women's leadership was closely influenced by how different project actors, not least women farmers themselves, perceived the possibilities for social transformation in terms of improved status, dignity, voice and access to decision-making processes. HMRP interventions created livelihood alternatives and challenged gender and social norms, which allowed for participating women with different social identities to realize the possibility of making their own choices and imagine the possibilities of change.

Probably the most significant achievement, expressed by Dalit and Janajati women CBSP members, was their feeling of being recognized as individuals with names and as persons in their own right, in contrast to being defined only in relation to someone else, often a man. As one woman said:

Within our house, we don't know our mother or grandmother's name. Every woman in our community has her own name and should not be called someone's mother, someone's sister, someone's wife. In the future, we will be remembered by our own names [due to our CBSP achievements] (2016).

Conclusions and lessons

Across all three case study projects, gender was initially interpreted as a form of difference and more explicitly in terms of the differences between women's and men's roles, which needed to be addressed to achieve project objectives. Based on the understanding of gender as difference, the projects made women farmers visible and addressed some of their practical needs but not their strategic gender interests, which are more related to the relative social positioning of women to men. However, in one location in CSISA and towards the end of HMRP, gender was interpreted as social relations, which provided the opening for addressing women's strategic interests and promoting women's empowerment as an end in itself of project interventions.

All three case-studies demonstrate the power of farmer participation in research for development in general and for women and disadvantaged groups in particular. In addition, they provide concrete lessons on workable

Box 1: Elements of HMRP practice to promote women's leadership

- Making women's role as farmers and contributions to seed production and marketing visible, including a focus on individual women as lead farmers
- Mobilizing and organizing women in CBSP groups to create a platform for strengthening women's agency and voice with a focus on Dalit and Janajati women
- Attending to women's limited access to and control of resources including agricultural technologies, extension, knowledge, credit and market linkages
- Advocating for women to take up formal collective leadership positions in CBSP committees and beyond such as in district level governance structures

approaches and strategies for gender responsive research-for-development projects. They show how women changed their perception of their role as farmers and knowledge holders, not only in agriculture but also in other spheres of their lives – a change that furthered through the opportunities provided as part of CIMMYT's projects.

What these cases also show is that, while participation can yield gender outcomes, the *quality* of participation matters (Biggs 1989). The involvement of women and men in DTMA PVS could be considered consultation. Efforts to include women ensured that both genders could take part in PVS and that women thereby accessed knowledge and technology and gained recognition as farmers. For some CSISA supported communities, participation concerned, to some degree, partnership as a conscious strategy for investing in women's knowledge and to introduce new technologies and management practices, which positively impacted

gender relations in agriculture. It made women own the knowledge and become technology leaders. In HMRP, partnership was about delegated power where a combination of social and technical interventions contributed to promoting different forms of women's leadership and allowed women farmers to simultaneously create a community of support and suppress restricting gender norms in the household and within the community.

The three CIMMYT case studies illustrate that recognizing how we think about gender affects project intervention strategies. A first step towards gender transformative outcomes is to challenge the prevailing interpretation of gender solely as differences between women and men, and to address the very real needs of smallholder farmers based on an appreciation of the relative social positions between and among women and men farmers.

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