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Considering gender in pest and disease management: FAQs for gender-responsive data collection and extension work

This brief explores the potentials and gains to be made by applying a gender perspective in agronomic research and extension work. While many people would readily acknowledge the importance of gender in any kind of agronomic research, the methods and techniques for applying the perspective are not as obvious nor easy to implement. What follows is a helpful Q&A by the interdisciplinary team who work on gender and pest and disease management in the CGIAR Research Program on Roots, Tubers and Bananas (RTB). Some additional references are available at the end of the article.

A woman collecting cassava stakes in Tboung Khmum, Cambodia. Using infected cuttings as planting material can spread cassava diseases • Credit, N. Minato.

Frequently asked questions

Q1: Who within the household should be a respondent for the household survey aimed at understanding challenges in pest and disease management? Usually we interview the main decision-maker about agricultural production or whoever is available at home and record their gender. Is this correct?

In many contexts, both men and women participate in different parts of crop production, storage, and processing. It is important to interview sufficient numbers of women and men farmers so that men's and women's gender-based knowledge and perceived constraints are all captured. Interviewing whoever is available is never a good option because responses from family members who are not knowledgeable about household agricultural practices will be inaccurate. Moreover, most existing agricultural surveys collect limited sex-disaggregated information about decision-making in agriculture and particularly pest and disease management. Questions on gender roles and decision-making in relationship to pest and disease management should be as concrete as possible Table 1 provides a sample list of gender-responsive questions.

Table 1: Examples of gender-responsive questions

Frequent questions	Gender-responsive questions
Respondent's gender ☐ Male ☐ Female	Respondent's gender and type of household: ☐ Male in a male-headed household ☐ Male in a female-headed household ☐ Female in a male-headed household ☐ Female in a female-headed household ☐ Others ( )
Who is the household decision-maker in agricultural production? ☐ Husband ☐ Wife ☐ Both	Who decides how much to invest in pesticide application? ☐ Mostly husband ☐ More husband than wife ☐ More wife than husband ☐ Mostly wife ☐ Other family members ( )
Who is in charge of pest and disease control? ☐ Husband ☐ Wife ☐ Both	Who purchases the pesticide? Who sprays the pesticide? Who is in charge of weeding? Who washes the clothes? ☐ Mostly husband ☐ More husband than wife ☐ More wife than husband ☐ Mostly wife ☐ Other family members

Q2: In the community where I work, pesticide application is mostly done by men. In this context, I think gender is not important. Can we target men only?

No. You should target both women and men unless there are restrictive cultural norms that do not allow women to participate. Although women may not be directly responsible for spraying, they should know about pest and disease management, including safety and health risks (Christie et al., 2015) and cost-benefit analysis. Women can be decision-makers for purchasing pesticides, they may be responsible for pest and disease scouting, they may have their own plot, or they may be inadvertently exposed to risks from agro-chemicals through washing clothes and equipment (see stories in Kawarazuka et al., 2020). Inviting exclusively men not only reduces adoption rates (Lambrecht et al., 2016) but also reinforces existing patriarchal gender norms and removes opportunities for women.

Q3: We invite both women and men farmers to the training, but women rarely participate. What can we do?

Women have gender-based constraints in participating in training, such as time limitations due to heavy domestic workloads (especially in the morning and late afternoon), limited physical mobility, obtaining their husband's permission, and a lack of confidence in public (GENNOVATE RTB-HT Team, 2017). You have to identify times and venues suitable for women. In some contexts, it may also be important to ensure that husbands are supportive of wives' participation in agricultural training. The literature shows that joint participation (husband and wife) has the highest adoption rate, and that men's participation is very important for the adoption of capital-intensive technologies since they tend to be the financial decision-makers (Lambrecht et al., 2016). In some contexts, women prefer to learn in women-only groups, and we should respect their preference.

Women learning seed treatment in Assam, India • Credit, M. Begum.

Women apply pesticides in a field of potatoes with personal protective equipment in Hai Phong, Vietnam • Credit, N.D. Thoai.

Q4: We found that women farmers from certain ethnic groups do not read and write our national language. How can we deliver information to them?

Training by written documents is not appropriate in this case. Please have a female translator available and provide verbal, visual, and interactive training, ideally in the field instead of a classroom so that women can feel comfortable.

Q5: Extension workers are mostly men, but we need to deliver information to female farmers. What can we do?

Working on this topic with only male crop scientists and male extension workers will be very inefficient. The project should form an interdisciplinary team that includes social scientists and that team should be, ideally, gender balanced. Social scientists need to work with the team throughout the project cycle – from planning to evaluation. It is also important that all team members apply considerations of gender in their own work responsibilities. Women may prefer female extension workers not simply because of gender but also because of the way they provide information and interact with farmers (Lamontagne-Godwin et al., 2017). In the case where you cannot have female extension workers, you can first invite very active female farmers to train as trainers (ToT), and then they can train other female farmers. This work also encourages women to take leadership/facilitation roles and gain confidence. At the same time, they can create comfortable and safe spaces for women farmers to learn in. The literature documents that women farmers learning from female instructors increases the adoption rate (Kondylis et al., 2016).

Q6: We do not want to increase women's burdens by introducing new practices. What can we do?

This is a very good point. It is often women who have to bear the additional labor and time burdens created by new practices. Also, if proposed practices are labor intensive, the adoption rate may remain low. For example, mulching, re-hilling, and field sanitation are effective methods to prevent damage caused by the sweetpotato weevil, but it requires additional labor, time, and costs. The release of natural enemies such as parasitoids against leaf miner flies in potato, the introduction of pheromone traps, and the introduction of electric spraying with smaller containers can reduce labor and time requirements. Providing support for the

A mother and her son in their banana plantation in Isingiro, Uganda • Credit, A. Rietveld.

A CIP specialist explains how to produce to apical cuttings to field staff in Kvemo Kartli, Georgia • Credit, I. Mdzeluri.

A man applies pesticides in a field of eggplants without using any personal protective equipment in Ubale, Uganda • Credit, J. Okonya.

mechanization of spraying, plowing, and harvesting can be an incentive for women and men to spend more time and labor on pest and disease management.

Q7: Do we need to consider gender in the evaluation of training on pest and disease management?

Yes, you have to evaluate how women and men benefit from the training and how they adopt it on their own farms. The benefits for women may include subjective notions such as increased confidence and better management of their own farms for household food security. Women also tend to share information with other women such as sisters, sisters-in-law, and friends (GENNOVATE RTB-HT Team., 2017). Therefore, there are indirect beneficiaries outside the targeted community. Gender-responsive evaluation allows researchers to critically review the degree of gender consideration in their project design and implementation, contributing to the provision of better approaches for users in the future.

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For further reading

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