

Topical Synthesis Paper

What works to increase women's access to quality seed



ISSD Africa Topical Synthesis Paper

Title: Gender dynamics in seed systems: What works to increase women's access to quality seed

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This report synthesises learning from the action research and dialogue activities conducted under the Integrated Seed Sector Development in Africa (ISSD Africa) programme, 2019-2023.

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Under the ISSD Africa topic "Gender dynamics in seed systems" the IFPRI and partners conducted activities in Ethiopia, Ghana, Kenya and Tanzania.

Cover photo:

Champion farmer, Kenya
Credit: ACRE Africa

1. Background

All agricultural production starts with seeds: seed quality determines the yield potential and thus profitability of any farming effort. Access to high-quality seed, both in terms of genetic and physical quality, is therefore a major concern for smallholder farmers. So, making the seed system more effective is an essential starting point to improve smallholder farmers' productivity and livelihoods.

A large body of research shows, however, that many seed systems have blind spots, and implicitly assume that all farmers have the same seed needs and preferences, and the same access to seeds. This is not necessarily the case. Diagnostic research on gender and seed systems shows that needs, preferences, and access can vary across different types of seed users, including men and women of different age, ethnicity, and socio-economic standing.

How to cater to differences in needs, preferences and access among men and women farmers? Formal seed businesses may prefer focusing on serving relatively larger, often male, commercially oriented farmers, whose needs and preferences they will have better understood and documented. As a result, programs and policies aimed at strengthening the formal seed system may miss out on creating an impact for important marginalized groups, including women farmers.

At the same time, there has been a range of interventions in recent years targeting to develop more inclusive business models that strengthen linkages between the formal and informal seed system, for instance by empowering local entrepreneurs to sell formal sector seed through their informal social networks, or by introducing accreditation systems through which informal sector seed can be declared to be of high quality, along with policies that allow for such seed to be formally sold.

Whether these types of interventions are indeed more inclusive, whilst still economically viable, is an empirical question. Most quantitative studies on the cost-effectiveness of new models for seed marketing and distribution do not provide gender-disaggregated data and rarely show impacts separately for women and men. Studies that do highlight gender gaps are of a more descriptive, diagnostic nature, and often based on qualitative case studies that do not document economic viability.

2. Approach and ambition of the topic

The Gender and Seed Systems topic, led by the International Food Policy Research Institute (IFPRI), therefore aimed to analyze what business models for seed distribution could reach, benefit, and empower the diversity of farmers engaging in smallholder production, including both women and men of different social categories. The topic investigated the economic viability and inclusivity of alternative business models for seed marketing, as well as opportunities for developing new business models that promote female entrepreneurship and thereby increase access to seeds among marginalized groups. Answering these questions will help African seed sector stakeholders make their marketing activities more inclusive.

To address these questions, IFPRI researchers first conducted a literature review of existing interventions to strengthen seed systems, documenting impacts of these activities on men's and women's access to and use of seeds. This review focused on any research related to seed systems in Africa. Second, IFPRI brought together a team of researchers from the Netherlands-CGIAR research program on Seed Systems Development to synthesize findings from Kenya, Ethiopia, Tanzania and Ghana on the barriers and opportunities faced by women and men seed entrepreneurs in operating their informal seed business. Findings from both activities were disseminated through webinars and published as a discussion paper. These discussion papers are currently being submitted for publication in peer-reviewed journals.

Third, ISSD Africa funded an IFPRI-led case study around a new business model for inclusive seed marketing in Kenya, implemented in partnership with ACRE Africa, Kenya's Agriculture and Livestock Research Organization (KALRO), and Wageningen University. The case study focused on the effects of promoting the adoption of drought-tolerant varieties for commonly grown crops through village extension service providers also called "Champion Farmers". Many of these champion farmers were female, and the hypothesis was that providing relevant tools and marketing materials to support their work could be a more inclusive approach than working through existing retail channels, especially given champion farmers' proximity to other farmers and marginalized groups within their communities. The lessons learned and findings from this research have been disseminated via webinars, conferences, blogs, and project notes.

3. Outcomes and lessons learned

The literature review finds mixed evidence of existing models for seed marketing and distribution to reach, benefit, and empower women. Evidence on traditional extension services suggests that in general such services do not reach and benefit women, in part due to cultural stigmas associated with female farmers communicating with male extension agents. A notable exception is “farmer field school” extension programs, which have been shown to reach, benefit, and empower women in some cases by providing a forum for female farmers to communicate about shared issues related to agriculture and gender. Studies on quality certification provide mixed results on differential intervention effectiveness by gender. Contextual factors may matter greatly for this sort of intervention; gender differences in literacy likely contribute to their effectiveness. Interventions that aim to increase demand for quality seeds, for instance the provision of subsidies and financial services, are sometimes more effective at reaching women and can improve women’s livelihoods. However, these interventions are often rendered ineffective or even detrimental when women are not sufficiently empowered, as resources intended for women’s use are usurped by other male household members. Bundled interventions can be more effective for female farmers, as they are more likely to need to overcome multiple barriers to seed adoption. Gender-intentional program features such as the explicit targeting of and resource provision to women (or joint targeting to husband and wife), a focus on domains where it is more culturally acceptable for women to make decisions, and provision of information by female experts or through other modalities, may help increase the effectiveness of these interventions for women. Overall, however, there is very limited evidence on the cost-effectiveness and inclusivity of alternative seed distribution models.

The second activity, which synthesized findings from three seed systems development programs, focused on case studies of women’s and men’s entrepreneurship across varying seed-related value chains and country contexts in Africa south of the Sahara. The cases included chicken seed dissemination in Ethiopia and Tanzania, tilapia seed production in Ghana, and marketing and trading of improved maize and sorghum seeds in Kenya. Applying a gender lens, this study used qualitative methods to analyze women’s and men’s motivations to engage in seed businesses, the challenges they confront to start and succeed, and prospects for sustainability and continued success. We also linked these qualitative data to quantitative metrics of the Women’s Empowerment in Agriculture Index (WEAI). Overall, the study found that time flexibility and business profitability were important considerations for women’s engagement in seed entrepreneurship. The social normative context of the sector was also critical in the decision to start a seed business. The Kenya case showed that outside support can be a key factor influencing women’s seed entrepreneurship. At the same time, there were important differences across case studies. For instance, gender-related barriers to starting a seed business were less pronounced in the Kenya case than in the Ghana, Ethiopia, and Tanzania studies; even though according to WEAI data Ghanaian female entrepreneurs were more empowered than their Kenyan counterparts. This shows that in assessing the potential to promote female entrepreneurship in a specific seed system, it is important not to resort to generic assumptions regarding gender gaps and empowerment. Instead, one needs empirical and context-specific assessments of alternative business models.

The third activity therefore documented, empirically, lessons learned around implementing a novel champion farmer model for inclusive seed marketing. This study found that a champion farmer model can be more inclusive than working through existing male-dominated retail channels: female village champions approach relatively more female farmers to sell authentic seeds than their male peers. Village champions also provide information on good agricultural practices (GAP). Combined, this could support improved productivity and an improved farming experience. Indeed, when linked with a village champion, farmers perceived themselves as more progressive, having gained new knowledge and skills from their peer farmers. This made them want to try work in new value chains, like sorghum, instead of focusing on only maize. And once village champions were empowered to sell seed of drought-resistant maize varieties and improved sorghum varieties, uptake among farmers nearly doubled, albeit from very low levels of uptake to begin with. This shows that the village champion farmers bring benefits to farmers in their communities; and ACRE Africa would argue that supporting female village champions is key for truly inclusive seed sector development.

However, gender-related barriers also affect female village champions and their ability to run a successful seed business. They often need to seek permission to speak in a group, to inform group members of the seeds on offer. And in their own households, many women must seek their partner’s approval on decisions as simple as which seed varieties to plant, or whether to invest in insuring their seeds. Moreover, they face some key barriers in the marketing and distribution of seeds. Farmers continue to require knowledge support about new varieties. And while there is enthusiasm to plant these new varieties at scale, seed availability remains a challenge, since seed companies cannot predict demand in champion farmers’ communities well in advance. This problem is made worse by climate change, as it is impacting the predictability of seasons and planting times, and production of both formal and informal sector seed.

Finally, champion farmers face stiff competition from retailers and other programs that offer seeds on credit, or with high subsidies, as ACRE Africa – as an insurance broker – cannot give champion farmers the ability to provide seeds on credit to farmers in their network. This is raising questions around the economic viability of the champion farmer model for marketing and distributing seeds.

Something needs to be done, though, since our WEAI data showed that women face a real threat of domestic violence, and have little input in productive decisions, for instance around which seeds to use. In this type of setting, where women farmers have access to high-quality seeds but are disempowered in the decision what seeds to get and how to use these seeds, more gender-transformative approaches are needed that directly challenge existing restrictive gender norms. The case study team therefore tested “edutainment” – also known as entertainment-education – to highlight the repercussions from a threat of violence and create a dialogue within smallholder farming communities around the importance of joint decision-making between spouses. Together with Mediae, the producers of the popular TV show Shamba Shape Up, the team produced a movie, “The Wise Woman”. This drama was screened to farmers in randomly selected villages, to test whether this form of edutainment can help shift gender biases, attitudes towards domestic violence, or increase women’s empowerment. Indeed, after watching the movie, farmers were less gender-biased than farmers in a control group; and more likely to engage in joint decision-making regarding productive inputs. The movie was screened during a Shamba Shape Up episode on September 17th-18th on Kenya’s Citizen TV and reached millions of farmers.

4. Conclusion and next steps

All in all, the action research in this topic shows how important it is to empirically test our assumptions when intervening to make the seed system more gender inclusive. The literature review found that there was a very thin evidence base of inclusive economically viable business models for seed marketing and distribution, or other cost-effective strategies to market and distribute seeds in an inclusive way. Our synthesis across various seed systems projects in Ethiopia, Ghana, Kenya, and Tanzania, highlighted the different findings regarding the opportunities and barriers for promoting female entrepreneurship across the four different countries and sectors, thus emphasizing the need for context-specific evidence. The champion farmer model tested in Kenya illustrated that a new business model can appear inclusive and attractive on paper, and the private sector may even proceed rolling it out, as was the case with ACRE Africa, but this partner organization will not be able to sustain the champion farmers without large amounts of donor support; and there are no strong quantitative impacts on women’s access to seeds specifically to justify these large donor investments. Using gender edutainment appeared a more cost-effective strategy to increase women’s input in productive decision-making, given that it is easy to scale edutainment over TV and reach millions of viewers at the same time, but also that needs to be tested empirically across different settings.

Conducting diagnostic research on the constraints that women face in accessing high-quality seed is one thing. Once this diagnostic research produces a better understanding of these constraints, it is relatively straightforward to come up with a set of recommendations for seed companies, policymakers, extension service providers and other seed sector stakeholder actors to make seed systems more inclusive. But social science is not an exact science, and prescribed recommendations or business models might not work as envisioned. For instance, they might not be effective at addressing the constraints they were designed to address, or other constraints not revealed through diagnostic research might prevent these recommended interventions from having their intended effects. In some cases, recommended interventions could have unintended negative side effects for women’s empowerment, for instance if resources intended for women’s use are usurped by other male household members. Recommended innovations therefore need to be carefully tested and evaluated, and given the context-specificity, such testing needs to occur under varying conditions, in different settings. Much in the spirit of ISSD Africa, there is a clear need for more action research instead of mainly theorizing on what works to make seed systems more gender inclusive.

5. Acknowledgements

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6. Links to topic resources

Championing gender in agricultural services in Kenya: <https://issdafrica.org/2023/01/12/championing-gender-in-agricultural-services-in-kenya/>

“The Wise Woman” drama, part of Shamba Shape Up TV show: <https://issdafrica.org/2022/09/29/the-wise-woman-drama-captures-domestic-challenges-in-effort-to-shift-gender-biases/>

Reflection on use of edutainment (Wise Woman): <https://www.ifpri.org/publication/edutainment-gender-and-intra-household-decision-making-agriculture-field-experiment>

Webinar on overcoming gender-related barriers to boost seed entrepreneurship: <https://issdafrica.org/2022/06/15/webinar-may-18-overcoming-gender-related-barriers-to-boost-seed-entrepreneurship/>

Paper: Gender and seed entrepreneurship: <https://issdafrica.org/2022/03/16/gender-and-seed-entrepreneurism/>

Session: Inclusive seed delivery & extension: Supporting seed champions to reach the last mile: <https://issdafrica.org/2021/06/11/inclusive-seed-delivery-extension-supporting-seed-champions-to-reach-the-last-mile/>

Literature review: Gender and promoting quality seeds in Africa: <https://issdafrica.org/2020/12/08/literature-review-gender-and-promoting-quality-seeds-in-africa/>

Webinar October 15 – Inclusive seed delivery: moving from gender diagnoses to testing solutions: <https://issdafrica.org/2020/10/08/webinar-october-15-inclusive-seed-delivery-moving-from-gender-diagnoses-to-testing-solutions/>

