

EDUTAINMENT, GENDER AND INTRA-HOUSEHOLD DECISION-MAKING IN AGRICULTURE: A FIELD EXPERIMENT IN KENYA

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Background

Oftentimes, a man's opinion is valued over a woman's, with women expected to take a back seat when decisions are made in their households and in society (Kawarazuka et al., 2019). Such social norms create unequal participation between female and male smallholder farmers in African agriculture. Additionally, it puts women in positions where they can be abused (and tolerate abuse), especially by their spouses. This is a threat to women's empowerment, increasing gender gaps in society and within families. It is therefore imperative to address societal norms that do not allow a level playing ground for both sexes in agriculture.

Edutainment – also known as entertainment-education (EE) – is a key instrument used to influence social norms and behaviours (Green et al., 2020; La Ferrara, 2016). Edutainment refers to educational messages that are communicated to the audience in the form of entertainment using mass media channels (for example television shows, drama, or newspapers). In the agricultural sector, edutainment has shown to be effective at changing the stereotypical behaviours of farmers towards social change, improved livelihoods, and adoption of recommended farming practices by attracting and retaining their interest – a change that may not happen when information is conveyed in a traditional extension setting (Clarkson et al., 2018; Grady et al., 2021; Westermann et al., 2015).

This project note describes a field experiment evaluating the use of gender edutainment to increase smallholder farmers' awareness of existing gender biases, the repercussions of intimate partner violence for creating an open space to share knowledge and insights within the household, and the importance of intrahousehold joint decision-making to help close gender (social) gaps.

Methods

The experiment was implemented in the context of an agricultural risk management program in Kenya that aims to increase smallholder households' resilience in the face of climate change. Implemented across seven counties in Kenya (Bungoma, Busia, Embu, Machakos, Meru, Makueni and Tharaka-Nithi, Fig. 1), the program engages so-called champion farmers or village extension service providers in target villages. These champion farmers are

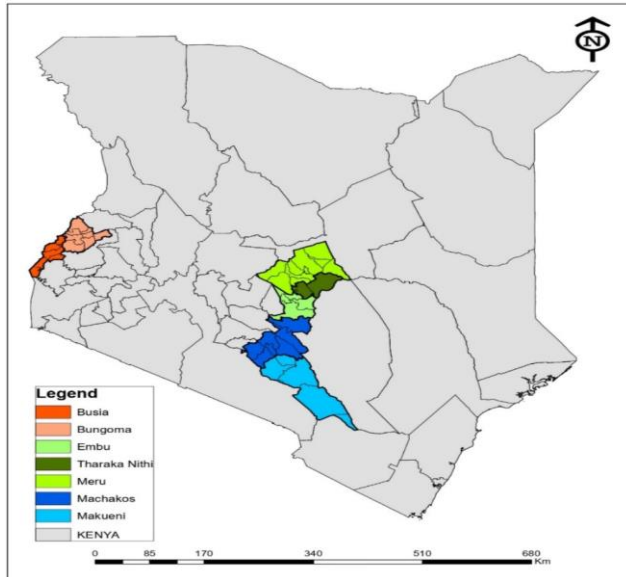
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incentivized to promote and sell seeds of improved drought-tolerant varieties, raise awareness around agricultural insurance and sell crop insurance policies, and provide agricultural advisories to other farmers in their communities.

Figure 1: Geographical location of study areas



Various gendered social issues in the agricultural sector can hinder achieving program objectives. For example, a farmer may prefer to communicate with male farmers only because he or she considers men to be more knowledgeable than women. This means that valuable information from female champions may get ignored, and also restricts women's input in agricultural decision-making within their households, despite important knowledge that they bring to the table. It is hence vital to assess what types of solutions can address these gender biases. We therefore assess the impact of gender edutainment on implicit gender biases and women's empowerment.

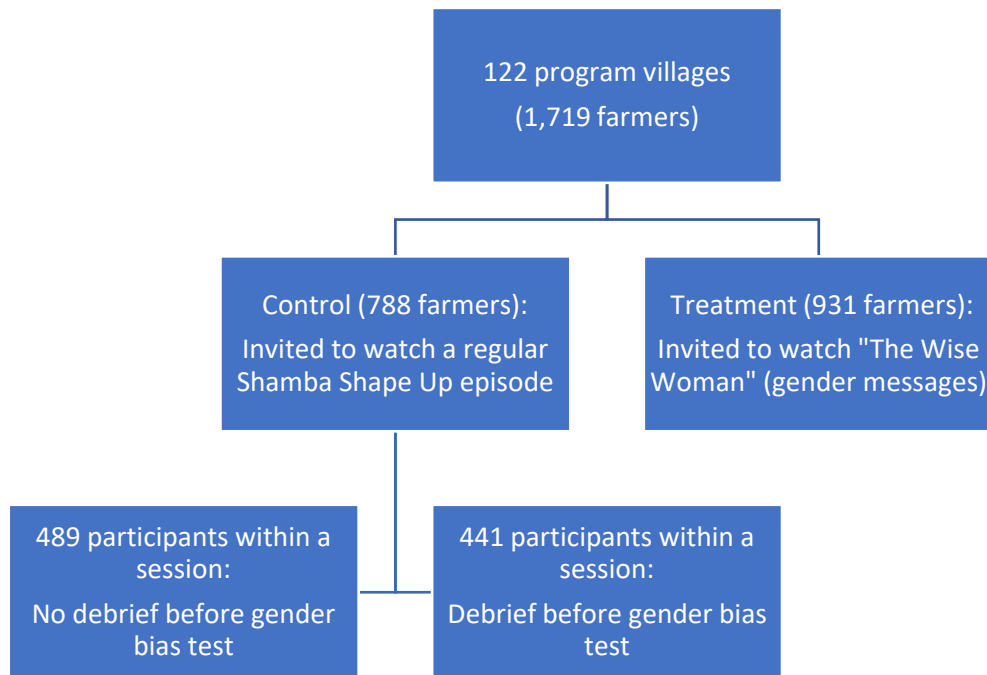
In 54 percent of program villages, randomly selected from the total pool of program villages, we invited farmers to screenings of a short movie or drama called "[The Wise Woman](#)" that contained the following gender-specific key messages: i) the importance of joint decision-making, ii) debunking gender stereotypes, and iii) addressing intimate partner violence. This gender edutainment was produced in partnership with The Mediae Company. Mediae is the producer of "Shamba Shape Up", a popular make over TV program on smallholder farms in Kenya that has been shown to impact their viewers' agricultural knowledge, practices, and technology adoption (Areal et al., 2020; Clarkson et al., 2018). In the remaining 46 percent of villages (the control group), farmers were invited to view a regular [Shamba Shape Up episode](#) without gender-related content (see Figure 2).

The experiment took place in May. In total, we invited 2,898 farmers to participate in this experiment (1,569 treatment farmers and 1,329 control farmers). Close to 60 percent of them, or 1,719 farmers, attended.⁴ This subset of farmers completed a gender perception survey, then watched a 24-minute video ("The Wise Woman" in the case of the treatment group, and a regular Shamba Shape Up episode in the case of the control group), and a test to measure participants' implicit gender bias. In the treatment, farmers also participated in a debrief, to reinforce the gender messages from the drama, given that farmers usually talk to one another and to their extension agents about the most recent Shamba Shape Up episode, which could amplify the effects of edutainment. To test whether such reinforcement strengthens the impact of gender edutainment, we randomly varied within sessions whether farmers completed this debrief before or after the implicit gender bias test.

The implicit gender bias test asked farmers to indicate, in eight scenarios, whose agrarian recommendation they would follow: those from a champion farmer identified by a female name, versus those from a champion farmer with a male name. In four of the eight scenarios,

⁴ Attendance did not differ by treatment, and attending farmers were similar in terms of baseline characteristics as farmers who did not attend.

the woman’s recommendation was the right one to follow, whilst in the other four scenarios, it would be better to follow the male’s recommendation. There was, however, a degree of ambiguity around which recommendation to follow. We were interested in whether farmers would be more likely to follow recommendations provided by male versus female champion farmers, and the extent to which farmers disproportionately choose to follow a male or female champion farmer’s recommendation is interpreted as an implicit gender bias.



Finally, in the weeks after the experiment, participants completed a follow-up survey, including questions around the uptake of champion farmers’ advice and empowerment in agriculture, measured through the project-level women’s empowerment in agriculture index (pro-WEAI). We were especially interested in measuring the impacts of gender edutainment on pro-WEAI indicators related to the content of the drama: *autonomy in income*; *attitudes towards domestic violence*; *input in productive decisions*, and *control over the use of income* (see Malapit et al., 2019, for a definition of these indicators).

Findings

Figure 2 presents the gender bias indicator in the control and treatment group. A negative score represents a bias towards women (respondents are more likely to follow a woman’s recommendations), and a positive score represents a bias towards men (respondent are more likely to follow a man’s recommendation). In the control group, female farmers were more likely to follow a woman’s recommendation, while male farmers were more likely to follow a man’s recommendation, and the difference between women and men is statistically significant. **Thus, both men and women were biased towards their own gender.** In the treatment group, this gender bias is significantly smaller. **Farmers exposed to gender edutainment are equally likely to follow recommendations from men and women.**

In Figure 3, we test to what extent this treatment effect is driven by the drama itself, versus the debrief following the drama, which may have reinforced the messages provided through the drama, and thereby have strengthened the effect of gender edutainment. We find strongest treatment effects among male farmers who participated in the debrief **before** taking

Figure 2: Gender bias and edutainment's impact on gender bias.
 Note: N.S means not significant and double stars (**) means significant at 5% level.

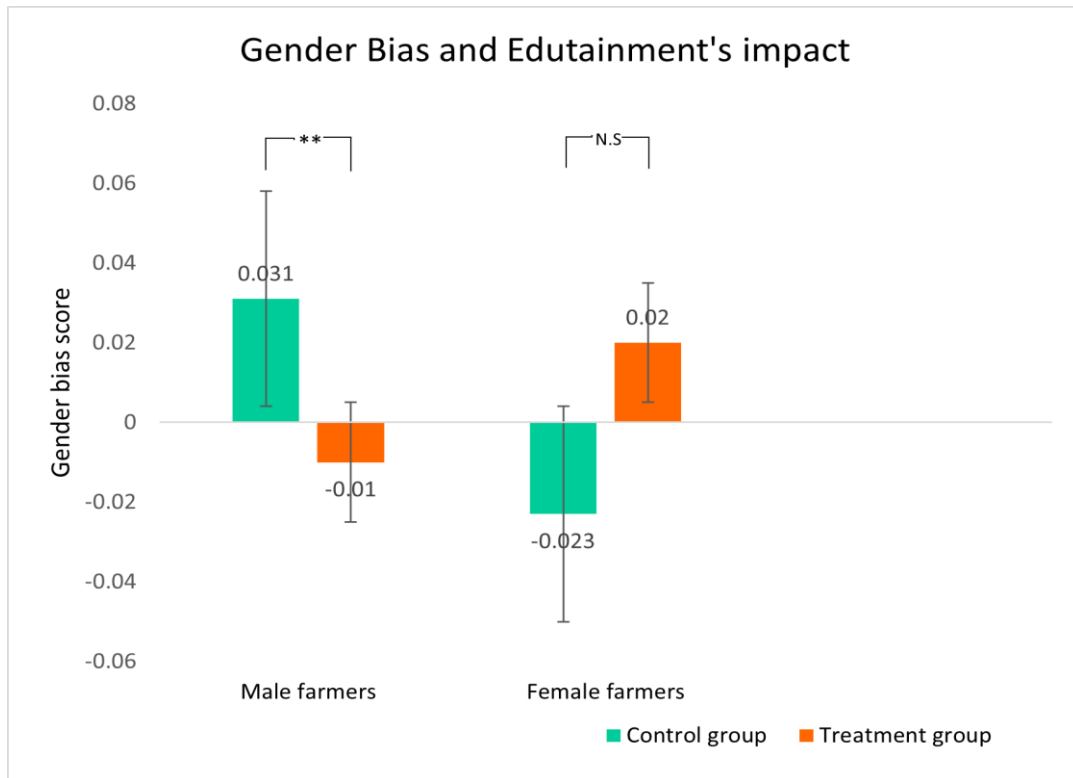
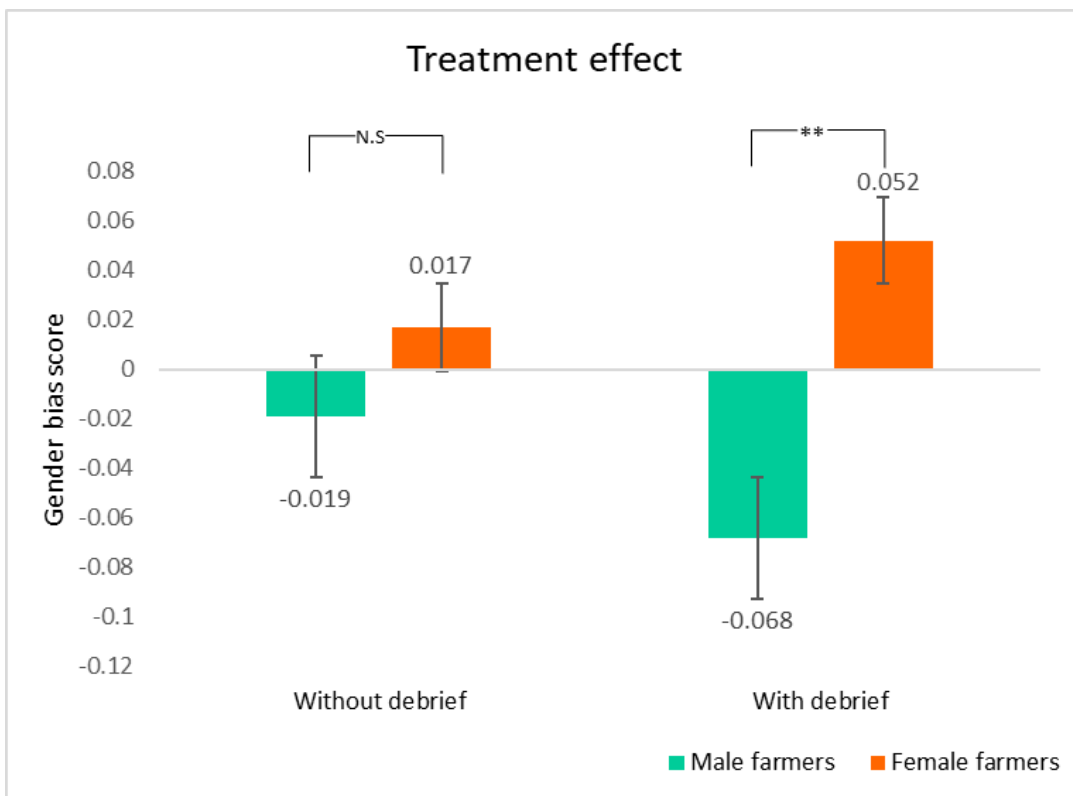


Figure 3: Treatment effect before and after the debrief.
 Note: N.S means not significant and double stars (**) means significant at 5% level.



the bias test, and the difference in treatment effects with women who were in the treatment and participated in the debrief **before** taking the bias test is statistically significant. This indicates that the debrief reinforced the key gender messages from the drama, but also for other groups, we are finding treatment effects, meaning that the debrief is not driving the full treatment effect on its own. So, what is important to note here is the extent by which the debrief drives the treatment effect. Particularly, we see that:

1. When estimated separately, the treatment effect for those without debrief and for those with debrief are both not significantly different from zero – except for when we focus on men who did the debrief before taking the bias test.
2. The difference in treatment effects for those with and without debrief before taking their bias test is not statistically significant regardless of whether we focus on women or men, or on the pooled sample (men + women).
3. Hence, we can pool the two treatments, and conclude that most likely, both treatment and debrief each explain a portion of the treatment effect; and especially for men, the debrief can be valuable.

Transcriptions from the debrief sessions show that “The Wise Woman” sparked a substantial amount of discussion amongst farmers about the gender issues that were central in the movie. Themes like the benefit of joint decision-making, the importance of respecting a woman’s opinion, and the costs of domestic violence (which is widely accepted in the study context) were prominent in the transcriptions. For instance, when farmers were asked about lessons learnt from the video, they had such comments as:

“What we have watched is exactly what happens in our homesteads”

“It happens even in my home. Husbands and mother-in-law like to be against everything that should be done in the family”

“It had some worrying sections like the husband was harassing the wife, the woman was so much worried and she could not speak herself even when she was doing right, but later the husband found out that his wife was doing the right thing. The mother-in-law was worsening the matter because she was taking sides of his son”, and

“The video has been nice and I have learned that it is important to consult as spouses before making any decision”.

We also evaluated the effects of watching the movie (instead of a regular Shamba Shape Up episode) on indicators of women’s empowerment measured a few weeks after participating in the experiment. For most indicators of women’s empowerment, we find no significant impact of gender edutainment (see Figure 4). This is to be expected, because watching a 24-minute movie is a relatively light-touch intervention, which may not have gender-transformative effects, and strong effects would realistically be expected only after repeated messaging and reinforcement. However, it is very promising that for input in productive decision-making, the indicator on which participants are least empowered, we do find a positive effect. **Gender edutainment increased input in productive decision-making** by a significant 5 percentage points. Input in productive decision-making is indeed a theme that stood out to participants, as shown from transcripts of the debrief sessions:

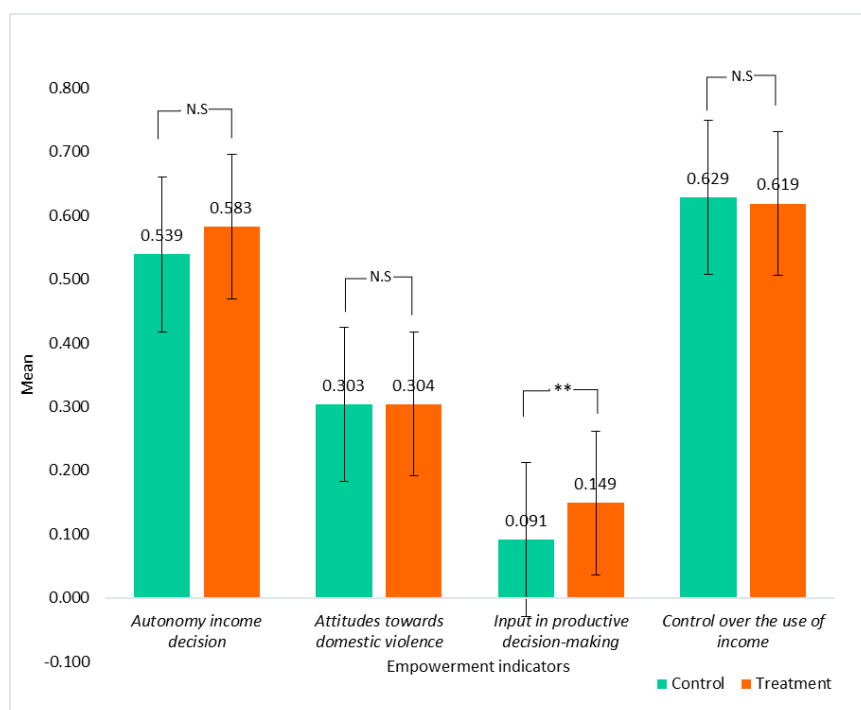
“I have learned that as a man, I should frequently communicate and consult with my wife to know what is going on”

“I have seen that I will make her my manager and also give her advice so that we can work together to get good and enough harvests”

“I have learned that as a family, you have to agree with your spouse when it comes to decision-making”.

Figure 4: Gender edutainment's impact on pro-WEAI.

Note: N.S means not significant and double stars (**) means significant at 5% level



Conclusion

Gender biases in agriculture shape farmers’ productive relationships both within society and within their households. For example, a male farmer’s ideas are often more respected than a female farmer’s ideas, because of assumed social stereotypes that men are better farmers than women. This increases the gender gap in agricultural participation. Addressing these biases is imperative because it can influence farmers’ ability to access and use agricultural extension and advice, and reduce inefficiencies in intra-household decision-making processes regarding agriculture. Our field experiment evaluated gender edutainment in the form of a short TV drama called “The Wise Woman” as a tool to orient smallholder farmers towards gender-specific issues with the aim of reducing gender biases in agriculture.

In a control group where farmers did not watch “The Wise Woman”, both men and women were biased towards their own gender: we found that female (male) farmers were more likely to follow recommendations from women (men). This gender bias was absent among farmers who did watch “The Wise Woman”, indicating that the treatment worked to help address gender biases. The treatment effect was largest among male farmers who, after watching the drama, participated in a debrief to discuss what they had learnt from the video. Although the effects of the debrief were not statistically significant, this suggests that such a dialogue can help strengthen the impacts. Hence, when screening the drama on national TV, the Mediae Company added a narration to highlight what farmers should have learnt.

We also find significant impacts of gender edutainment on farmers’ input in productive decision-making, one of the indicators of the project-level women’s empowerment in agriculture index (pro-WEAI), measured a few weeks after the screening. Given that this was

a relatively inexpensive intervention that can be easily scaled up through national media, this is a very promising result, suggesting that edutainment can be an effective tool in influencing farmers' intra-household decision-making dynamics.

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References

- Areal, F. J., Clarkson, G., Garforth, C., Barahona, C., Dove, M., & Dorward, P. (2020). Does TV edutainment lead to farmers changing their agricultural practices aiming at increasing productivity? *Journal of Rural Studies*, 76, 213-229.
- BenYishay, A., Jones, M., Kondylis, F., & Mobarak, A. M. (2020). Gender gaps in technology diffusion. *Journal of development economics*, 143, 102380.
- Clarkson, G., Garforth, C., Dorward, P., Mose, G., Barahona, C., Areal, F., & Dove, M. (2018). Can the TV makeover format of edutainment lead to widespread changes in farmer behaviour and influence innovation systems? *Shamba Shape Up in Kenya. Land Use Policy*, 76, 338-351.
- Grady, C., Iannantuoni, A., & Winters, M. S. (2021). Influencing the means but not the ends: The role of entertainment-education interventions in development. *World Development*, 138, 105200.
- Kawarazuka, N., Locke, C., & Seeley, J. (2019). Women bargaining with patriarchy in coastal Kenya: contradictions, creative agency and food provisioning. *Gender, place & culture*, 26(3), 384-404.
- La Ferrara, E. (2016). Mass media and social change: Can we use television to fight poverty? *Journal of the European Economic Association*, 14(4), 791-827.
- Malapit, H., Quisumbing, A., Meinzen-Dick, R., Seymour, G., Martinez, E. M., Heckert, J., Rubin, D., Vaz, A., Yount, K. M., & Phase, G. A. A. P. (2019). Development of the project-level Women's Empowerment in Agriculture Index (pro-WEAI). *World Development*, 122, 675-692. <https://doi.org/10.1016/j.worlddev.2019.06.018>

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