Food security as a gender issue: Why are female-headed households worse off compared to similar male-headed counterparts?

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Background

The centrality of gender equity for inclusive development is a concept that is not contestable. The manifestations of inequality predicated on gender are myriad. These range from unequal access to educational opportunities, gender-based discrimination and social norms that constrain the participation of women and other groups that are unfairly marginalized from the development process. In this brief, we focus on the results from research projects that examined how the differential food security situation is predicated on gender.

We examine why given similar opportunities and demographic profiles, female-headed households (FHHs) tend to perform worse than their counterparts, male-headed households (MHHs). In particular, we find that two households that are similar in every respect (except that one is headed by a woman and the other by a man) have different food security outcomes. What explains this? What does this mean for gender-sensitive inclusive and equitable agriculture? This brief discusses these issues based on recently published research from Kenya.

Introduction

Several factors have in recent times contributed to the rise in the number of FHHs. These include migration of male spouses for work, widowhood and changing social norms that have led to reduced marriage rates among women. All these factors have made women *de jure* (no spouse due to widowhood, divorce, separation or non-marriage) or *de facto* (spouse physically absent for many reasons) household heads.

Causes of gender inequities

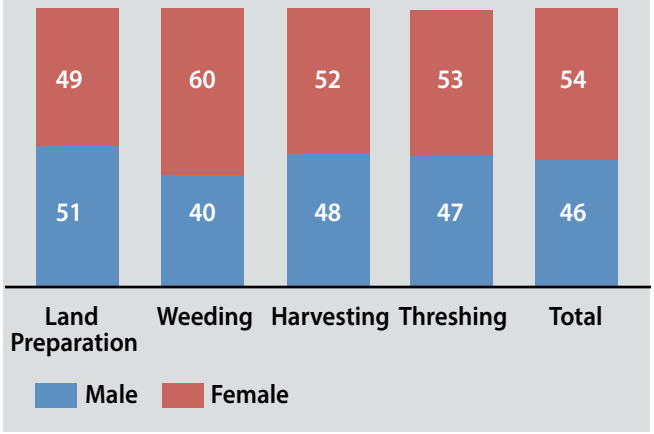
Evidence indicates that FHHs are disadvantaged when it comes to access to land, livestock and other assets, health care, markets and extension services. These inequalities are caused by *inter alia*, limited access to information, cultural practices that disenfranchise female heads of households or minimize the status of girls and women. The other precursor is less educational opportunities for females. Traditional norms about asset division marginalize women and girls. The cumulative effect of all this is less security in asset ownership, low human capital formation and diminished earning opportunities. Vulnerability becomes part of life for many FHHs. There are many visible and invisible factors that emphasize women's vulnerability in the field of agriculture thus contributing to food insecurity in their households. These factors have to do with local social norms and traditions that cannot be captured in a statistical survey.

In this brief, we implement an innovative analytical tool which helps us to capture these unobservable factors. These latent factors determine the "returns" to the characteristics of FHHs and MHHs. For example, if the problem is one of subtle and seldom talked about discrimination (e.g., differential advice from extension officers and credit services, managerial skill, family background), then even given the same access to land and other assets, FHHs may still perform worse than their male counterparts. Identifying these kinds of sources of gender bias is essential from a gender perspective.

The Kenyan Case

In Kenya, the bulk of agricultural labor is provided by women (See Figure 1). Here, a common example of gender bias is that land titling has always favored men owing to many traditions in many Kenyan societies. Even now, when the legal

Figure 1. Agricultural labor contribution by gender in Kenya (Man-days/acre)



regime has changed, many women shy away from claiming their legal rights because social norms sometimes lag behind legal guarantees. In the area of agricultural extension, agents, who are predominantly male, have been known to bypass female farmers. Other related research has shown that things have begun to improve with respect to extension. Formation of women's groups and other women based self-help groups have proved to be crucial in addressing some of the challenges women farmers face. These have assisted FHHs and women in general to access credit and increase market participation.

Data Sources and Analysis

The study on which this brief is based used primary household and plot data from 605 farm households and 2,831 plots (defined on the basis of land use) in 88 villages in five districts in Kenya where maize–legume systems predominate. The five districts from two regions of Kenya were selected based on their maize production potential and agro-ecology, namely Bungoma and Siaya districts from the western region, and Embu, Meru South, and Imenti South Districts from eastern region. The sampling process used was multistage sampling to select lower-level sampling clusters (these were based on administrative units (divisions, locations, sub-locations, and villages). A total of 30 divisions were selected—17 from western Kenya and 13 from eastern Kenya. Sample representativeness was attained by picking the number of households in proportion to the sampling units. The data collected covered detailed household, plot, and village information. Demographic and infrastructure information for each household and village were also collected. Self-reported plot level soil attributes on the soil fertility status of the plots were also recorded as well as the tenure status of plots (e.g. participation in land rental markets by either renting or renting out land), crop production estimates, and inputs associated with each type of agricultural activity. Important demographic information was also part of the data collection. These included age, gender, and education level of heads of households, family size, household wealth indicators, social networks, including membership of farmers' organizations. Infrastructure indicators such as distance to the nearest output market, extension office, and water source were included.

The analysis used advanced and most recent econometric methods that are based on counterfactual analysis. To illustrate the counterfactual analysis: Taking the observed characteristics of MHHs and FHHs, the analysis determines what the food security situation would be if FHHs had MHHs observed characteristics and resources (in terms of land, livestock, other assets, education, age, family size, land quality, access and use of agricultural services, etc.,) and vice versa. This counterfactual approach is what enabled the study to unearth subtle factors (after controlling for the observed factors as outlined above) which are crucial (and sometimes more crucial than the observed factors) in explaining differential gender outcomes from a food security perspective.

Main Results

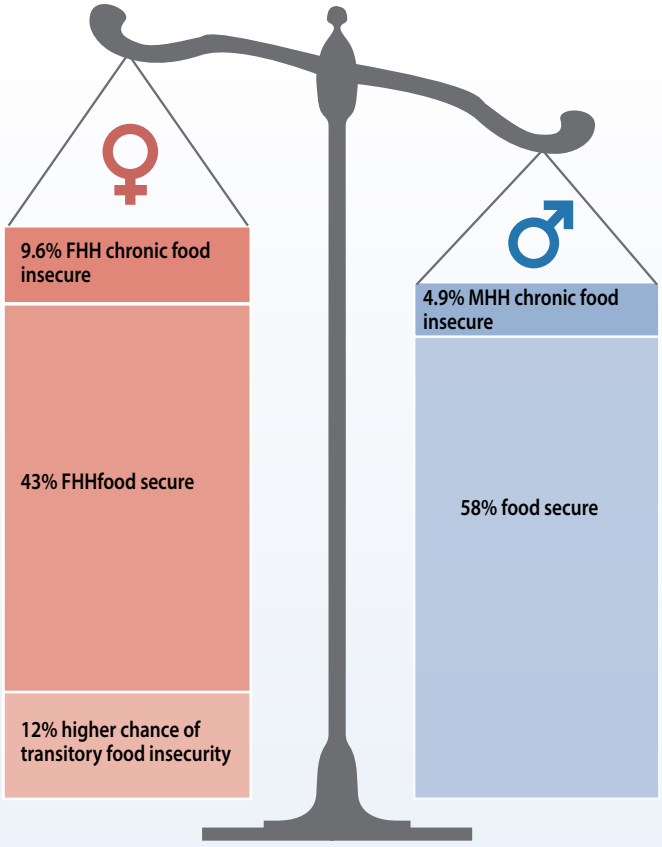
The study found that twice as many (9.6%) of FHHs suffered chronic food insecurity compared to 4.9% for MHHs. Nearly 58% of MHHs were food secure but only 43% for FHHs (both de jure and de facto), a 15-point difference in percentage terms. The chance that a FHH would be chronically food insecure was 6% higher than that for MHHs and 12% higher for transitory food insecurity (See Figure 2). The results indicated that if FHHs had same characteristics as MHHs, the chronic food insecurity gap difference went down from 6% to 2.5% and transitory food insecurity gap was reduced from 12% to 5.5%, effectively halving the food security gap between the two groups by simply switching observed characteristicd s and resources. The mirror image of this result is that if we make the observed characteristics and

Switching resources and characteristics

Using counterfactual simulation, the study found out that if we make the profile of male-headed households the same as that of female-headed households, the model predicted that these households would have their food situation worsen.

resources of MHHs to be the same as that of FHHs, the model predicted that these households would have their food situation worsen. In summary, we find that if the FHHs remained the same but had a male head (de facto women), that fact alone would be enough to reduce their food insecurity by an average of 3% (2.7% for de jure FHHs and 3% for de facto FHHs). In fact, FHHs would balance their food security situation (or even attain a surplus) by 4% to 6% in both cases. Their food security status would thus be enhanced by simply having a male head.

Figure 2. Study results by the numbers



Policy Lessons

To summarize, the results have given evidence that under all scenarios considered, FHHs were less food secure. This is confirmed by the 15-point advantage in food security for MHHs (58%) compared to FHHs (43%). Even under counterfactual analysis, where MHHs are made similar to FHHs in terms of observed characteristics and resources, and running the model to predict their food security, we find that this lowers their food security. This suggests that hidden factors (differential advice from extension officers and credit services, managerial skill, family background) not studied pose serious obstacles to the food security challenge of FHHs.

Scoring points

There was a 15-point advantage in food security for male headed households compared to their female counterparts.

The take home message is that we have revealed the effects of factors which household surveys seldom capture unless we implement the type of analysis done for this study. Hidden factors beyond observable profiles are important. Policy efforts can help bridge the gap between male-headed households and female-headed households by:

- strengthening social groups that uplift female-headed households (because belonging to certain social networks were found to be associated with better food security outcomes for these households.
- focusing on enhancing productivity of smallholder farmers because exploiting the agricultural frontier for more agricultural land (bigger farms) is no longer feasible, giving due recognition to factors that may negatively affect the welfare of female-headed households even if these are difficult to directly observe or quantify, yet their effects are critical, and because of this:
- we encourage those in policy positions to work closely with academia and other research institutions to bring to bear cutting edge social science research to unearth these issues and inform appropriate policy response. This brief is an illustration of this approach.

Women groups should be encouraged by providing financial support and training as they can support smallholder female-headed households by providing information to ease their access to inputs, market outlets, credit and transaction costs that women face.

Call to Action

Cutting edge social science research can help unearth subtle but critical issues that affect gender equity and social welfare and thereby requiring corrective policy response.

This brief is based on Kassie, M., Ndiritu, S. W., and Stage, J. (2014). What Determines Gender Inequality in Household Food Security in Kenya? Application of Exogenous Switching Treatment Regression, World Development, 56: 153-171.

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