

POLICY BRIEF 2018

ENGENDERING AGRICULTURAL PRODUCTIVITY IN ETHIOPIA: THE COST OF THE **GENDER GAP**

in Ethiopia



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and the Empowerment of Women

Introduction

Female and male farmers in Ethiopia do not face the same production conditions and do not always make the same production choices. At the same time, agricultural productivity in Ethiopia is challenged by its high dependency on rainfall, ongoing environmental hazards, and the effects of climate change, which cumulatively affect the productivity of both men and women farmers. However, gender gaps in agriculture differentially affect how women and men access, participate, adopt and benefit from climate-smart agriculture. Together, climate change and gender-differentiated adaptation to climate change are important for poverty reduction in Ethiopia because productivity-driven agricultural output growth has a strong causal impact on poverty reduction: for every 1 percent of growth in agricultural output, poverty has been reduced by 0.9 percent, which implies that agricultural growth caused reductions in poverty of 4 per cent per year on average after 2005.¹ In this light, it is important to evaluate the productivity of female farmers in relation to male farmers in Ethiopia. This Policy Brief summarizes the most recent attempt to estimate the cost of the gender gap in agricultural productivity in Ethiopia. It is based on a technical analysis supported by the Ministry of Agriculture and Natural Resources and UN Women Ethiopia, which uses the third wave of Ethiopia's 2015-2016 Socio-economic survey.²



The gender gap in agricultural productivity

The key findings of the analysis, which accounts for smaller plot sizes of female farm managers compared to male managers, and for differences in the country's agro-ecological zones, are the following:

1. The gender gap in farm crop productivity in Ethiopia in 2015-2016 was 9.8 percent.³ Even when accounting for gender-based differences in plot size and farm location, on average a female-managed farm plot was still 9.8 percent less productive than a male-managed farm plot in Ethiopia. This gap is not caused by women being poorer managers of their farms, but because women have fewer resources and earn less from their resources than men that manage plots;
2. Closing this gender gap in agricultural productivity between female and male-managed farm plots in Ethiopia could result in a one-off increase of US\$203.5 million in Gross Domestic Product (GDP) and lift 1.05 million people, out of poverty, which is 4 percent of those that are poor;
3. 66 percent of this gender gap is explained by gender-based differences in access to productive inputs. In other words, in many instances females had lower levels of the inputs needed to undertake farming on their plots;
4. Female-managed plots are one-third smaller than those managed by male plot managers;
5. Female plot managers use 52 percent less household male labour than male plot managers, mainly because female plot managers are far more likely to be divorced or widowed;
6. The main drivers of gender-based differences in access to productive inputs are:
 - the lower use of pesticides, herbicides, or fungicides, the lower use of household male labour, the higher use of exchange labour, and the higher use of organic fertilizer;
7. 34 percent of the gender gap is explained by gender-based differences in the returns that factors of production generate, females get less from farm inputs that they use;
8. The main drivers of gender-based differences in returns to factors of production are:
 - the lower use of non-labour inputs, and in particular fertilizer, the higher size of household, and the higher dependency ratio, which is the numbers of non-working and elderly as a ratio of the numbers of working-age adults in the household;

1. <http://documents.worldbank.org/curated/en/913611468185379056/pdf/100592-REVISED-P154064-PUBLIC-Ethiopia-SCD-March-30-2016-web.pdf> (accessed on 10 July 2017).

2. Ethiopia Socioeconomic Survey (ESS) Wave Three (2015/2016) Basic Information Document Central Statistical Agency & Living Standards Measurement Study (LSMS), World Bank February 2017.

3. The complete results, including methodology, are available from the Ministry of Agriculture and Natural Resources and UN Women Ethiopia.

9. There may be an unpaid care and domestic work dimension here: a higher dependency ratio requires more unpaid care and domestic work, reducing the amount of female labour available to work on female-managed plots, reducing the return to the factor of production. It does not imply more labour for the farm because of the dependent status of the members of larger households;
 10. The most important drivers of the gender gap in agricultural productivity in Ethiopia are:
 - Lack of household male labour to work on female-operated plots of farmland, which accounts for 43.7 percent of the gap and US\$89 million in 'lost' GDP;
 - The lower use of any pesticides, herbicides or fungicides, which accounts for 45.3 percent of the gap and US\$92.2 million in 'lost' GDP;
 - The higher use of organic fertilizer, which accounts for 25.1 percent of the gap and US\$51 million in 'lost' GDP.
- Policy interventions that improve ownership of, access to and size of land for female farmers;
 - A significant expansion of publicly-financed gender-responsive irrigation, as this is the most important driver of increases in agricultural productivity more generally;
 - The introduction of gender-responsive climate-smart technologies into farming, including not only access to improved seeds and pesticides, herbicides and fungicides but also small-scale appropriate mechanization;
 - The introduction of policies that facilitate diversification into higher-value crops that can be both used for household food security and sold on markets when surpluses are generated;
 - The introduction of policies that take advantage of female-specific farm knowledge to foster innovations that enhance food crop productivity more generally.

As the data analysis can only describe some of the possible reasons why there is a gender gap in agricultural productivity in Ethiopia, the results need further investigation.

Policy implications

- Tackling constraints that limit women's access to male labour from outside the household is critical. This entails designing policies to reshape social norms around the sensitivities associated with the hiring of men's labour by women plot operators;
- An expansion of government-funded rural social protection measures targeted at women plot operators, to provide the conditions that might increase their disposable income and create preconditions to increase their use of pesticides, herbicides and fungicides;
- Adoption of labour-saving technologies on farm and freeing up women's time within the household by the adoption of labour-saving technologies such as the use of energy-efficient and environmentally friendly improved cooking stoves;
- Reducing the unpaid care and domestic work required by households with more dependants by providing substitutes for some activities through public infrastructure provision.

Next Steps

The next steps need to be for the Ministry of Agriculture and Natural Resources in Ethiopia to find cost-effective solutions through combining the implementation of innovative pilot interventions with careful evaluation. Since the gender gap in agriculture operates within the broader context of the bigger gender gap in society, it is important that policy makers, donors, and development partners in Ethiopia carefully consider their understanding of which key problems women face, why particular policies would work, and what operational challenges they may face when trying to implement policies. Further, since the gender gap is deeply cultural and societal, it is imperative that policy makers use a combination of economic and behavioural shifts to narrow the gender gap in agriculture.

Policy implications beyond the analysis

Econometric analysis can produce results that have statistical significance but which lack economic plausibility. It is therefore necessary to go beyond analysis when considering policy options:



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