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Socio-economic analysis of smallholder farmers in Ethiopia, Kenya, Malawi, Rwanda, South Africa & Tanzania

Deliverable No: 1.2 Report on socioeconomic analysis
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Objective: To understand the socio-economic profile of smallholder farmers, assess access to production inputs and markets, and evaluate the role of youth and women in farming

Introduction

Socio-economic profiles of households (HHs) are critical determinants for the adoption of improved agricultural technologies and innovations (Mupenzi *et al.*, 2018). It was important to understand the socio-economic similarities and differences between the farm HHs in the case countries to align with the proposed **InnovAfrica** technology innovations.

Methods and approach

The study was based on literature review, household questionnaire survey (n=3814) and focus group discussions in six case countries (Figure 1). Selection of HHs for interview was carried out using random sampling function in Microsoft Excel where list of HH heads in each administrative unit was entered.

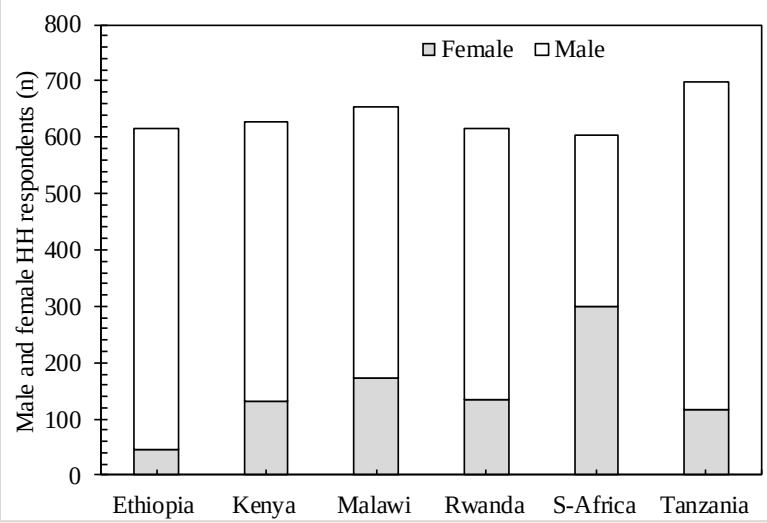

Fig. 1: Sample of HH head in the survey (n=3814).

Box 1: Steps taken in the HHs survey and data analysis

Step 1: Preparation of questions with codified answers
Step 2: Pretesting of the questionnaire
Step 3: Selection and training of enumerators
Step 4: Selection of respondents (n=3814)
Step 5: Conduct interviews
Step 6: Data entry into KIPUS
Step 7: Data cleaning
Step 8: Data synchronization
Step 9: Country wise and cross-country data analysis (both descriptive & analytical statistics) &

The steps followed in the HHs survey and data processing are mentioned in Box 1. KIPUS is an innovative tool that helps in data collection directly into the tablet/smart phone which is subsequently synchronized.

The socio-economic variables studied include demographic characteristics, education, occupation, income sources, land size, asset ownership, access to credit and markets and HH expenditures. Information was also gathered on gender issues and role of women and youth in agriculture.

Key findings and discussion

- *Age:* Majority of farmers in the case countries were between 39-56 years. The youth do not fully take part in farming activities. There is a need to incentivize youth participation in farming through capacity building training specific innovations and improving value chains of targeted agro-products.
- *Education:* Majority of the HH heads have low level of education i.e. 6 years of formal schooling. The highest level of education was reported among Kenyan farmers, on average 11 years of education.
- *Occupation:* The main occupation of the majority of HH head (about 88%) is farming. Farming was main sources of income except in South Africa.
- *Income:* Income levels are generally low except in Kenya, Tanzania and South Africa (Table 1). The average daily income was less than US$ 2 in Malawi, Ethiopia and Rwanda. There is a need to improve the opportunities for on-farm as well as off-farm income. Future agricultural policies should provide support to improve value chains and increase income opportunities for youth and women farmers.

Table 1: Mean monthly HH income (on farm + off farm) in the case countries (in USD)

Country	Female-headed	Male-headed	Mean	t-statistic (P-value)
Ethiopia	44	49	48	-0.626 ^{ns}
Kenya	220	310	290	-1.494 ^{ns}
Malawi	19	35	30	-3.903 **
Rwanda	31	51	47	-3.873 **
South Africa	113	154	134	-2.178 *
Tanzania	87	149	140	-2.351 *

Note: ^{ns} = Non-significant, * Significant at p <0.05 level, and ** Significant at p <0.01 level

- *Land size:* Land parcel sizes are on average 1 ha in all case countries except in South Africa. With declining land sizes, the option for increasing agricultural productivity (on sustainable basis) is through intensification and organizing farmers in collectives.
- *Ownership:* About 60% of HHs interviewed owned a radio & about 76% owned mobile phones. Given the versatility of mobile telephone, its potential should be maximised for dissemination.
- *Access to credit:* Rwanda has the highest proportion (39%) of farmers accessing credit followed by Kenya (36%) and Ethiopia (35%). South Africa recorded the lowest level of access (1%) due to exclusion of farmers from financial markets.
- *Market access:* Average distance to the nearest trading market and paved road was not different between female-headed and male-headed HHs in most of the six case countries.
- *Household expenditure:* Highest monthly cash expenditure was on living expenses followed by education. The least amount of expenditure was on health in all the countries.

Conclusions

- This study has shown that socioeconomic factors such as age, education, sex, land size and access to credit influence farmers in taking up sustainable agricultural innovations.
- Necessary innovative institutional, policy, and extension and advisory services should be in place to address the socio-economic constraints and ensure food and nutrition security in all six case countries.
- Future policy and investments need to target youth and encourage them to engage in farming.

References & Links

Mupenzi Mutimura, *et al*. (2018) Socio-economic status affecting smallholder farming and food security with a focus on rural youth in Africa, Deliverable 1.2

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