Guest editorial

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# Guest editorial: Introduction to the special issue on productive employment in rural farm and non-farm sectors in sub-Saharan Africa

#### 1. Introduction

Access to productive employment is essential for poverty reduction and the inclusion of the poor in wider society. Productive employment is characterized by (1) sufficient income to permit workers and their dependents a level of consumption above the poverty line; (2) stability of this income over time (absence of vulnerability) and (3) decent working conditions and working hours (Christiaensen and Maertens, 2022; Szirmai et al., 2013). Job creation is one of the drivers of poverty alleviation and food security. In rural areas of sub-Saharan Africa, the farm sector has long been the main job provider. Several theoretical and empirical studies that explored the possibilities of reducing unemployment in rural areas underlined the importance of the non-farm sector in poverty alleviation in rural areas. However, there is little evidence on the mechanisms and strategies governments in sub-Saharan Africa could use to increase productive employment creation in the farm and non-farm sectors in rural areas. This collection of papers aims to improve knowledge of effective job creation policies in rural areas. The papers in this series explore the ex-ante and ex-post impacts of different public policies that aim at reducing rural unemployment. The policies analyzed range from facilitating access to resources (land and financing) to public investment (e.g. rural electrification) and input subsidies. The studies were conducted by teams of local researchers in collaboration with international experts, thus focusing on the specificities of each country.

In this special issue, six articles collectively attempt to identify (1) what is the impact of public policies in sub-Saharan Africa on productive employment in rural areas? (2) Is the impact, if any, similar across the sector of activity and gender? (3) How do climate shocks affect labor supply in the agricultural sector? The selected papers addressed the relationship between access to land and productive employment in rural areas. In addition to land, access to adequate financial resources is another major development challenge in rural Africa. Selected papers also analyzed physical investments to improve rural public service delivery.

The next section provides an overview of the studies included in this special issue. Section 3 highlights the takeaways and discusses the policy implications.

#### 2. Overview of the studies in this special issue

The six studies of productive employment in rural farm and non-farm sectors in sub-Saharan Africa cover different aspects of the labor market and gender to investigate household income. Table 1 summarizes the basic information about the five studies as well as the other



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Country	Data	Sample areas	Sample size <sup>a</sup> (households)	Authors
sub-Saharan	Meta-data from 14 studies	Na <sup>b</sup>	Na <sup>b</sup>	Singbo and Lokossou (2024)
Côte d'Ivoire	Cros-section: 2015	National	12,900	Bago <i>et al.</i> (2024)
Democratic Republic of the Congo (DRC)	Cros-section: 2014	National	Nab	Joshi <i>et al.</i> (2024)
Ethiopia	Cros-section: 2019	North Shoa	178	Abawa (2024)
Ghana	Panel: 2012, 2013	National	16,772	Nkegbe <i>et al.</i> (2024)
Senegal	Cros-section: 2002	National	5,488	Diallo <i>et al.</i> (2024)

**Table 1.** List of studies in the present special issue

Note(s): <sup>a</sup>Initial sample sizes. The sample sizes in subsequent surveys vary because of attrition and splitting households

<sup>b</sup>Na: Not available

Source(s): Authors' own creation/work

on the meta-analysis of PEP-funded projects related to productive employment in rural areas in sub-Saharan African countries.

Singbo and Lokossou (2024) cross-analyze the effect sizes reported in 14 studies that assessed the impact of public policies on productive employment in rural farm and non-farm sectors. They conducted a meta-analysis exclusively on the results of the Partnership for Economic Policy (PEP)-funded studies under the Policy Analysis on Growth and Employment (PAGE II) initiative. Selected studies focused on the impact of public policies on productive employment in rural farm and non-farm sectors, encompassing a total of nine sub-Saharan Africa countries: Benin, Burkina Faso, Cote d'Ivoire, the Democratic Republic of the Congo, Ghana, Lesotho, Nigeria, Senegal and South Africa. The results indicate that public investments in rural areas and public policies facilitating access to productive resources will likely enhance productive employment. The overall effect size is positive and significant, ranging from 2% to 10% increases in productive employment. Sources of variation include the sector of activity and the policy instrument. In addition, the policy effects are gender-sensitive and seem more consistent in the non-farm sector. By consolidating data from 14 different experiences into a single study, the paper offers valuable insights into factors determining policy effectiveness and contributes to understanding what worked for whom and why.

Bago et al. (2024) investigate the impact of the National Program for Rural Electrification (PRONER) program on rural women's employment opportunities using data from the 2015 round of the household's living standard survey (HLSS) of Côte d'Ivoire. In 2013, to improve the rural population's living conditions, the Ivorian Government launched the PRONER to electrify all localities with more than 500 inhabitants. The results show that PRONER, while reducing the time allocated to performing household chores, increases women's employment through the reallocation of time to full-time paid work in the agricultural and non-agricultural sectors. The authors also find that this program does not affect the allocation of men's time. A possible mechanism that would explain such a pro-women effect is labor-saving technology. As a limitation, it is important to note that these results were specific to the PRONER context in Côte d'Ivoire and are not necessarily applicable to rural electrification programs in other contexts. This paper is the first to the authors' knowledge to apply a robust econometric method by combining an inverse probability weighted regression adjustment model with the Heckman sample selection method to access a robust causal effect of the PRONER in Côte d'Ivoire.

Joshi *et al.* (2024) use an adapted computable general equilibrium model to analyze how pro-gender public policies in the agricultural sectors can contribute to the reduction of gender

inequalities in the labor market and the diversification of the Congolese economy. The results reveal that policies of increasing women's land allocation and government cash transfers to rural female households reduce inequalities in the labor market. In addition, a policy that increases women's land allocation improves economic diversification. The implementation of the policy of government cash transfers to rural women's households comes at a cost to the government. Further research is needed to examine this policy's most efficient financing methods. To the best of the authors' knowledge, this is the first study of its kind for the DRC, which highlights the impact of pro-gender policies on women's employment, particularly in the agricultural sectors and in the diversification of the Congolese economy. This study contributes to policy orientation in DRC. The two policies (increasing land allocation to women and cash transfers to rural women) analyzed in this study were chosen in light of the DRC's National Strategic Plan, the first phase of which focuses on promoting employment for vulnerable groups and economic diversification through the development of agricultural sectors.

Abawa (2024) examines the role of entrepreneurial competency in agriculture and its potential to address welfare issues among farmers. Despite the majority of Ethiopians engaging in on-farm and off-farm work, the country still faces challenges in ensuring food security and maintaining satisfactory welfare levels for farmers. Enhancing farmers' entrepreneurial competency is a viable solution to improve their welfare. However, entrepreneurial competencies encompass various dimensions, and exploring the key dimensions specific to the agricultural sector is crucial. Hence, the study used survey data collected from 178 households in North Shoa, Amhara National Regional State, Ethiopia, and performed structural equation modeling (SEM). The findings reveal that out of the six entrepreneurial competencies examined, only two, namely strategic competency and relationship competency, demonstrate a significant association with farmers' welfare. Furthermore, the study indicates that the moderating effect of agricultural extension (when considering model and non-model farmers as separate groups) on the relationship between entrepreneurial competency and farmers' welfare is not significant. It is the first study to discuss the moderating effect of farmers' categorization (model and non-model) on the relationship between entrepreneurial competency and farmers' welfare, highlighting the novelty of this research area. Since the paper focuses solely on six specific entrepreneurial competencies, of which only two have been identified as significant factors influencing farmers' welfare, future research could expand the scope by considering additional variables.

Nkegbe et al. (2024) analyzes the effect of non-farm participation on households' level of commercialization of five crops. Ghana's economy is largely agrarian, and the agriculture business is dominated by smallholder farmers who are predominantly rural dwellers. As a result, efforts to lift rural farming households from poverty have been narrowed to the promotion of agricultural development to the neglect of the rural non-farm sector. However, this is fast changing in the advent of a burgeoning rural non-farm economy and must engage the attention of policy actors. This study thus assesses the effect of non-farm participation on households' level of commercialization of crops in Ghana. The study applies a generalized structural equation model (GSEM) to the Ghana Living Standards Survey round 6 dataset, a stratified and nationally representative random sample of 16,772 households in 1,200 enumeration areas. This study finds that non-farm participation increases the produce soldto-output ratio. It is concluded that non-farm engagement by farmers boosts commercialization in Ghana. Thus, for the Ghanaian and similar contexts, agricultural development interventions incorporating non-farm activities are more likely to improve livelihoods. The study uses only the ratio of sales value to output value definition for commercialization and acknowledges the use of multiple definitions could be superior. Various empirical studies have examined the link between the farm and non-farm sectors. This paper is original in its approach as it tackles an aspect of the subject that has been understudied, namely, an exploration of non-farm and farm linkages from the perspective of agricultural commercialization.

Diallo et al. (2024) provide novel insights into how involvement in non-farm diversification strategy differs by gender and the implications for well-being. As rural non-farm activities grow in developing countries, less attention is paid to the opportunities they may provide for women. This study aims to examine the gender-differentiated impact of non-farm diversification strategies in rural Senegal. This study uses data collected from the Senegalese poverty monitoring survey. It employs an instrumental variable (IV) approach and a multinomial endogenous treatment model to investigate how diversification strategies improve outcomes for rural women and their households. While non-farm diversification is a male-dominated livelihood strategy, rural women make the most of it, regardless of whether they diversify into low- or high-return non-farm activities. At the individual level, diversification improves rural women's well-being through large income-increasing effects and higher empowerment but does not affect rural men's well-being. At the household level, the authors find that when only women diversify, households have lower per capita income but are less likely to be food insecure than when only men or both genders diversify. This study is based on cross-sectional data, making it impossible to examine the dynamic effects of non-farm diversification strategies on well-being outcomes. This paper contributes to the current literature on rural livelihood diversification. While much attention has been paid to the feminization of agriculture, remarkably little is known about the expanding role of rural women in the non-farm sector.

### 3. Conclusions and policy implications

This special issue features six papers examining productive employment in sub-Saharan Africa's rural farm and non-farm sectors. The findings suggest that three main policy options could enhance rural employment. The first is facilitating access to production factors by addressing rural households' constraints. Access to land and financial inclusion are effective in increasing rural employment. The second option is to increase public investment and/or subsidies to expand access to production inputs such as fertilizers. The last option is to assist rural households in mitigating and attenuating the effects of climate change. Evidence from Cote d'Ivoire shows that rural electrification is positively associated with women's employment opportunities increasing as they reallocate their time from household chores to full-time paid work in the farm and non-farm sectors.

This demonstrates the potential of targeted programs, such as rural electrification, to empower women and enhance their economic participation. Likely, evidence from DRC illustrates that pro-gender public policies in the farm sector, such as increasing women's land allocation and providing government cash transfers to rural female households, can reduce gender inequalities in the labor market and contribute to economic diversification. However, the policy of cash transfers comes at a cost to the government, highlighting the need for efficient financing methods. In addition, evidence from Ethiopia shows that entrepreneurial competencies matter. Specifically, strategic and relationship competencies are associated with enhanced welfare among Ethiopian farmers.

However, the moderating effect of agricultural extension on the relationship between entrepreneurial competency and farmers' welfare is insignificant, suggesting the need for further investigation into effective extension services. Insights from Ghana emphasize the importance of non-farm employment in enhancing agricultural commercialization. Engaging in non-farm activities increases the ratio of product sold to output, indicating the potential of incorporating non-farm activities to improve livelihoods and alleviate poverty in agrarian economies. Overall, these studies highlight the significance of targeted policies and interventions, such as public investments, rural electrification, gender-responsive

approaches and non-farm participation, in enhancing employment, addressing poverty, Guest editorial empowering women and promoting agricultural development in rural areas.

#### Alphonse Singbo and Jourdain Chambord Lokossou

Department of Agricultural Economics and Consumer Science, Faculty of Agriculture Agri-Food, Laval University, Quebec, Canada, and

## Luca Tiberti

Department of Economics and Management, University of Florence, Florence, Italy and Partnership for Economic Policy (PEP) Network, Nairobi, Kenya

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