

## **Income Diversification and Household Welfare – Empirical Evidence for Ghana**

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Since about 65% of the population in Sub-Saharan Africa lives in rural areas, poverty remains primarily a rural burden. Due to the strong dependency on agricultural production mainly the rural population is affected by income shortfalls because of harvest failures, illness or death of livestock or a family member, and economic shocks causing food price variability. To cope with this situation, households are deriving several strategies to spread these risks and smooth their income. One of these strategies is the participation in nonfarm employment due to its independency on agricultural risks, but researchers have already indicated that households may face various entry barriers to the nonfarm sector.

The main objective of the study is therefore to assess whether nonfarm employment is a viable strategy to reduce poverty. Additionally, it is investigated first, whether nonfarm activities can serve as a risk-coping strategy and what entry barriers households willing to engage in the nonfarm sector are confronted with. For this purpose, hypotheses concerning nonfarm employment in general and the households' perception of a risky environment are derived from the literature and investigated by a quantile regression implementing the CLAD estimator. The study indicates that households perceiving their environment as risky expand their extent of nonfarm employment, whereas the endowment with valuable physical capital seems to serve as a risk-coping strategy on its own. The most important entry barriers revealed by the Heckman two-stage method are the educational level of the household head as well as the household's amount of savings. Starting a small business often requires start-up capital and therefore, households without sufficient financial capital are excluded from these nonfarm income sources. Additionally, due to the poor availability of nonfarm activities in rural areas, households living in rural areas are less likely to participate in the nonfarm sector, but with increasing remoteness, the participation probability enhances.

In the last stage of the study, the causal effects of participation in nonfarm employment on the household's wealth as well as poverty status are examined utilising the Propensity Score Matching (PSM) method. This method allows the comparison of households participating in the nonfarm sector with non-participants to investigate the average treatment effect on the treated. To better understand different efficiency levels the PSM is implemented for several subsamples. The empirical results show that especially female headed households and households living in rural areas are the main beneficiaries from nonfarm employment. The participation in nonfarm activities not only increases the household's per-head expenditures, but also has the potential to reduce and even eliminate poverty.

To conclude, the engagement of rural households in Ghana in nonfarm employment is a viable strategy to spread income risk and significantly improve their economic situation. Policy makers are recommended to remove entry barriers to the nonfarm sector mainly by improving the quality of schooling and the enrolment ratio as well as the access to microcredits. Moreover, females and the rural population should be the main target group.