



ESSAYS ON THE SUSTAINABLE DEVELOPMENT OF SMALLHOLDER FARMERS' WELFARE OF RURAL BANGLADESH.

A Dissertation

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by

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Abstract

This dissertation examines the different strategies to increase the welfare of small farm households in the rural areas of Bangladesh. It aims to examine (i) the sustainable strategy to promote crop diversification and informal input credit of smallholder farmers which are considered as the important tools to achieve SDG1 and SDG2 by 2030; and (ii) the strategies to decrease the child malnutrition among rural farm households which is pre-requisite to achieve SDG2.

In the first main chapter (chapter 2), I examine the impact of multifaceted interventions on the crop diversification and use of informal input credit of smallholder farmers in rural Bangladesh. I conduct the study using the data from a cluster randomized control trial (RCT) to facilitate jute value chains among smallholder farmers. Taking the facility of an RCT, I apply intention-to-treat estimates with OLS and Tobit for crop diversification and OLS and Probit for informal input credit. The estimation results indicate that the multifaceted interventions enhance the crop diversification in the relatively long-term (two years after interventions) and informal input credit use in both the very short-term (one year after interventions) and relatively longer-term. The results are consistent between the OLS and Tobit for crop diversification and OLS and Probit for informal input credit. Moreover, positive results of the extended analysis on the modern technology adoption represented by the intensity of fertilizer use suggest that the impact of multifaceted interventions on crop diversification and informal input credit are not just a coincidence.

In the second main chapter (chapter 3), I investigate the association of maternal autonomy in workforce participation decision on child nutrition indicators. I utilize the pooled cross-sectional data from Bangladesh integrated household survey (BIHS) collected by IFPRI to conduct econometric analysis. The study sample consists of working mothers having children under age 5 years. I identify the causality in the analysis applying an instrumental variable approach. I test the

robustness of the results using alternative variables such as maternal autonomy in household food decisions and composite maternal autonomy score. I also check the generalizability of the main results including non-working mothers into the sample. The estimation results indicate that maternal autonomy in workforce participation decisions decreases the child malnutrition (stunting, wasting, and underweight). These effects are robust under two alternative variables such as maternal autonomy in food decisions, and composite maternal autonomy score. Moreover, the generalizability test is also consistent with the main results. However, heterogeneity test showed that mothers who work at home have children with better nutrition indicators.

The findings of this dissertation contribute to the growing literature on the crop diversification and access to credit among smallholder farmers of rural areas of developing countries as well as promotion of child nutrition among rural farm household of low and-lower-middle income countries. It indicates that multifaceted interventions addressing constraints of smallholder farmers in crop diversification can be a strategy to increase crop diversification and informal input credit among smallholder farmers. Besides, maternal autonomy in workforce participation decisions (a new dimension of female autonomy) can be a considerable tool that can contribute to the child nutrition.