



# Scaling-up Agricultural Technologies: Who Should Be Targeted?



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## Introduction

Adoption of agricultural technologies in sub-Saharan Africa (SSA) is very low. Several reasons including lack of access to credit, inconsistency use of fertilizers, etc. have been attributed to the low adoption rates. However, the type of marginal farm households entrants that need to be targeted are studied less.

## Objective

To identify marginal farm household entrants that need to be targeted during scaling-up of sustainable intensification of agricultural practices (SI practices).

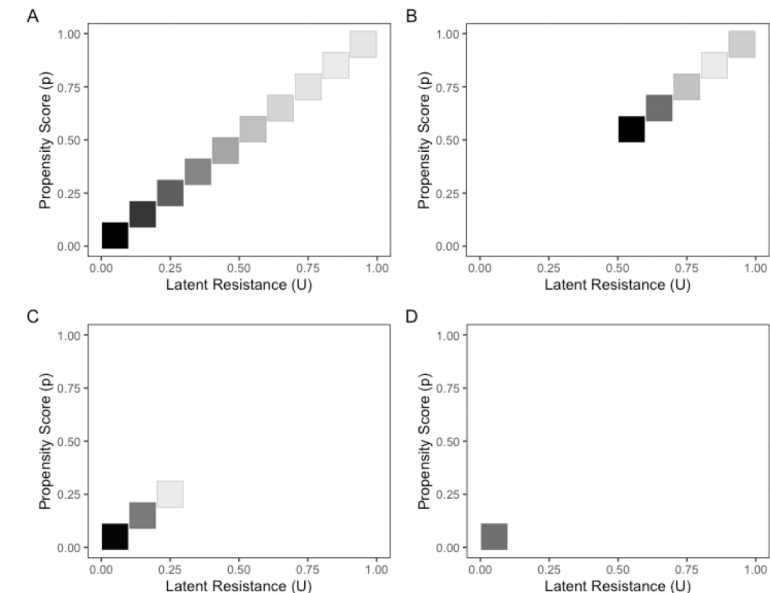
## Material and Method

Data was collected from 700 farm household of Africa Research in Sustainable Intensification for the Next Generation (AFRICA-RISING) program in northern Ghana in 2019. The redefined marginal treatment effect (MTE) model was used to predict the marginal farm household entrants that would benefit from scaling-up SI practices

## Reference

Zhou, X & Xie, Y. (2019). Marginal treatment effects from propensity score perspective. *Journal of Political Economy*, 127(6), 3070-3084

## Result



Scaling-up SI practices effect under four policy changes. Darker colour denotes higher marginal benefit. Policy A aims at scaling-up to cover every farm households. Policy B aims at targeting highly resource endowed farm households. Policy C aims at targeting low resources endowed household. Policy D aims at targeting household with 20% probability of adopting. Propensity denote resource endowment and Latent resistance denote the unobserved factors (managerial skill of farmers). Note lower the latent resistance, the higher the marginal benefits.

## Conclusion

Targeting low resource endowed farm households at the margin of adoption would generate the greatest benefits.