

GFFA 2025 Science Slam

What AR4D actors need to know about Integrated Soil Fertility Management for Northern Ghana

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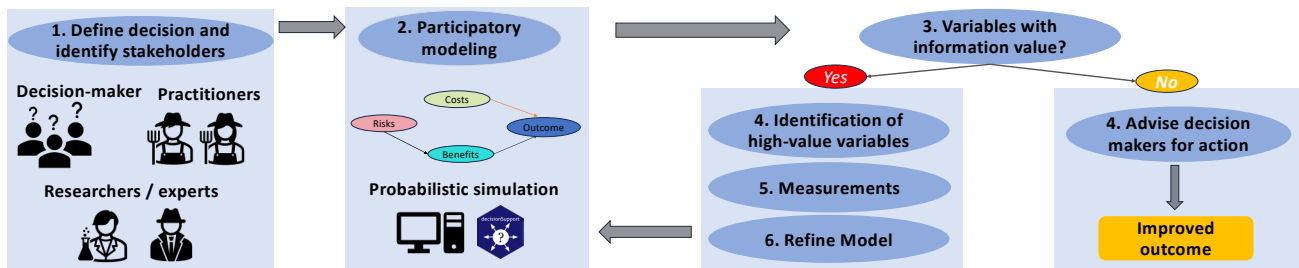
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Introduction

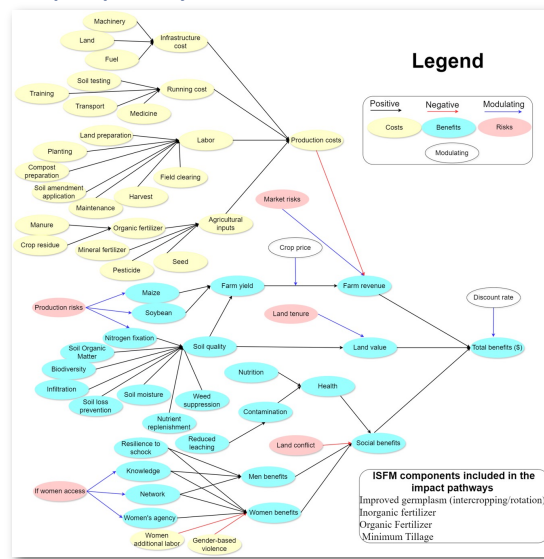
- Integrated Soil Fertility Management (ISFM) is widely promoted by agricultural research for development (AR4D) actors as a practice that increases agricultural productivity without requiring additional land.
- To what extent farmers benefit from an ISFM-mediated increase in agricultural productivity may be affected by gender norms.
- How different farmers are impacted by ISFM considering gender norms is unclear.
- To address this knowledge gap, we are using a probabilistic modeling approach to inform AR4D actors of the impact of ISFM on different groups of farmers in Northern Ghana.

Methodology: Probabilistic modeling approach using Monte Carlo simulation (Luedeling et al., 2023)

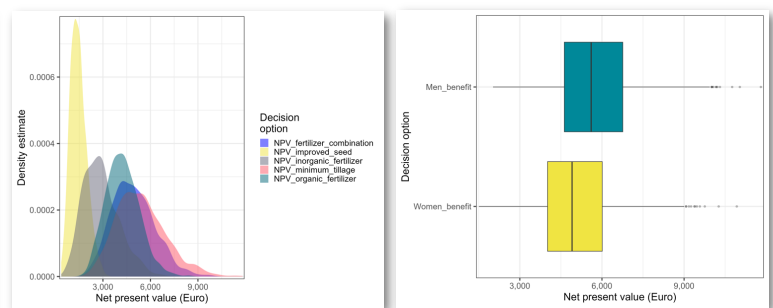


Results

1. Impact pathways of the farm-level benefits of ISFM



2. Net present value distribution



Take home message

- Full ISFM has the highest farm-level Net Present Value
- ISFM benefit men and women differently
- Complementary innovations are needed for women when scaling ISFM

Reference: Luedeling, E., Goehring, L., Schiffers, K., Whitney, C., & Fernandez, E. (2023). *decisionSupport: Quantitative Support of Decision Making under Uncertainty* (1.113) [Computer software]. <https://cran.r-project.org/web/packages/decisionSupport/index.html>