Research Proposal: Adoption of Technologies to Increase the Resilience of Smallholder Farmers in Zambia

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Research Question

How is the knowledge transfer, and to what extent have the Smart Agriculture technologies enhanced resilience, improved agricultural productivity and reduced food insecurities? Paying special attention to the soil and precipitation.

Introduction

- Agriculture is a pillar of Zambia's economic growth and rural development. It contributes about 19 per cent to GDP and employs three-quarters of the population. (MND&P, 2017)
- Climate change will affect human and natural systems in many ways, that will disrupt food and water supply, exposing them to deadly heat, destroying infrastructure, causing flooding in homes, changing infectious disease vectors, eroding livelihoods, and decreasing economic opportunities, especially in agriculture (World Bank Group. 2019).
- Zambia is not at all spared in these occurrences. According to Mulenga and Kabisa, (2021), one of the major shocks threatening Zambia's agricultural sector is climate change.
- To enhance mitigation and adaptation and build smallholder resilience, the Zambian government and other stakeholders are implementing programmes to scale up the uptake of Climate Smart Agricultural (CSA).

Objective

Main Objective:

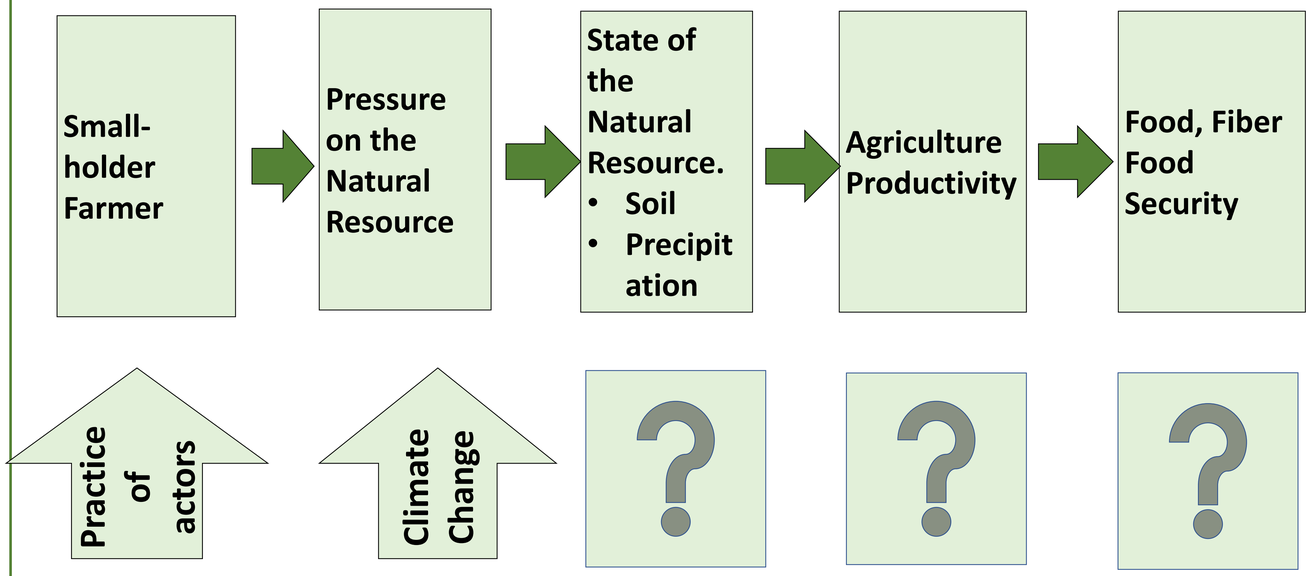
- Investigate the knowledge transfer process of technologies in dealing with climate change while assuring high and sufficient crop productivity, profit maximization and sustainability.

Specific objectives:

1. Identify available technologies and traditional practices that are climate-smart**.**
2. Investigate how farmers learn about climate-smart agriculture technologies(CSAT) and other incentives.
3. Investigate attitudes of farmers towards CSAT.
4. Draw policy lessons for the public, private sector and civil societies.

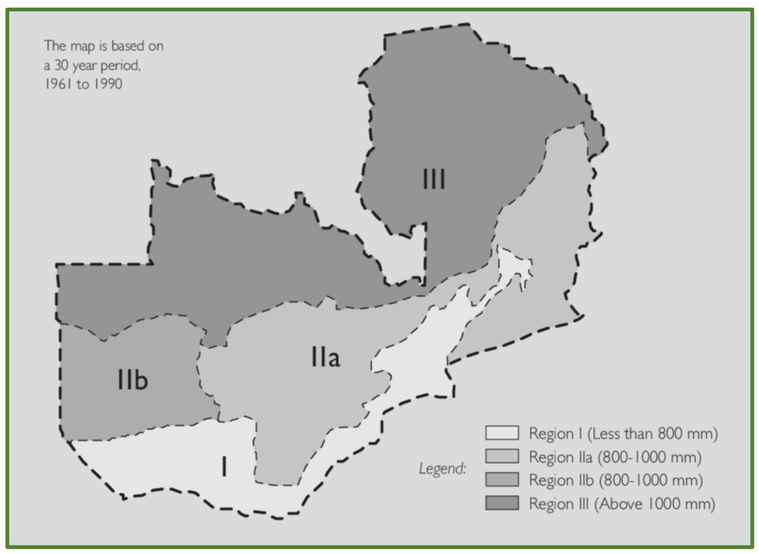
Methodology

- The conceptual framework will incorporate and link three components: agri-environmental problem (deterioration of natural production factors), farmers' capacity and response, and perception and action of the respective community.



Data Collection

- A questionnaire survey will be used to collect data in a representative community of selected Zambia regions.
- Two kinds of qualitative interviews and focus group discussions will be conducted, focusing on the local stakeholders at the community level and stakeholders promoting CSAT at the regional and national levels



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