Tropentag, September 15-17, 2021, hybrid conference

"Towards shifting paradigms in agriculture
for a healthy and sustainable future"

Adoption of Climate Smart Agriculture among Smallholder Farmers in the Techiman Municipality, Ghana

Dorcas Gyan

University of Cape Coast, Department of Geography and Regional Planning, Ghana

Abstract

Globally, agriculture is one of the major sources of livelihood for most rural communities. However, climate change over the years has been a problem to farmers in most rural communities. Due to the vulnerability of smallholder farmers to climate change, an adaptive and mitigating initiative known as Climate Smart Agriculture was introduced to help reduce the adverse effect of climate change and variability on agriculture.

Climate Smart Agriculture (CSA) has been proposed as one of the best ways forward to mitigate the impact of climate change on agriculture. The benefits of Climate Smart Agriculture are hinged on three main pillars thus, to sustainably increase the income of farmers, reduce the emission of Green House Gases (GHG), and to strengthen resilience against Climate Change and Variability. Despite the benefits of Climate Smart Agriculture to farmers, literature has it that its adoption rate is low especially in the Techiman Municipality. Employing the Innovation Diffusion Model, this study will be conducted to assess the adoption of CSA among farmers. The study will achieve this by assessing the perspectives of farmers on CSA practices, examining factors that determines their adoption rate and examine whether or not if CSA has influenced their socio-economic status. Other stakeholder institutions would also be interviewed as well.

The study will employ a pragmatic research design guided by both the interpretivist and positivist philosophies. 337 farmers will be selected to represent 2,695 farmers that were trained by GIZ on CSA innovations. Quantitative data would be gathered by employing Simple Random sampling method whiles purposive and convenient sampling technique would be tools to gather qualitative data. The quantitative data would be analysed using T-test, regression and ANOVA. The qualitative data on the other hand would be analysed using the thematic analysis.

It is expected at the end of this study that, the level of knowledge and concept of CSA will be determined. Recommendation from the study will inform policy and decision makers on the necessary policies that will influence positively the adoption of CSA.

Keywords: Climate change and variability, Climate Smart Agriculture, Innovation Diffusion Model

Contact Address: Dorcas Gyan, University of Cape Coast, Department of Geography and Regional Planning, Department of Geography and Regional Planning- University of Cape Coast, 0233 Cape Coast, Ghana, e-mail: dorcas.gyan@stu.ucc.edu.gh