

Local Cotton Farmers' Perceptions of Climate Change Events and Adaptation Strategies in the Cotton Basin of Cote d'Ivoire

Abstract

Climate change represents a major potential threat to the viability of rural households' livelihoods in sub-Saharan Africa. This study focused on the perceptions of climate change and adaptation strategies of local cotton farmers in Côte d'Ivoire, identified as particularly vulnerable to climate change. A survey was conducted among 355 smallholder farmers distributed in four departments of the cotton basin of Côte d'Ivoire (Korhogo, Boundiali, Ferkessédougou, and Mankono). Using changes in the weather pattern as indicators of climate change, the results showed that the majority of respondents believe climate change is evident in the study area and has negative effects on their livelihoods. Respondents reported an increase in temperature and a decrease in rainfall amounts in Korhogo and Boundiali departments, which were consistent with the climate data. The main coping strategies adopted by the farmers were shifting planting dates and timing of cultural activities, adopting new crop varieties, ploughing before planting, diversifying crops, and making specific sacrifices to divine powers depending on the type of belief of the farmer. The farmers' adoption of adaptation strategy depended on their perception of climate change and the available coping strategy. Lack of sufficient knowledge and government support were the major constraints that hindered cotton farmers to adapt effectively, leading to low cotton productivity in the study area. Therefore, policy implications will be crucial to help farmers make better adaptation choices in the face of climate change.

Keywords: climate change, farmers' perceptions, adaptation strategies, cotton crop, Côte d'Ivoire