

Chapter 8

Review of Climate Change Adaptation and Social Protection Policies of Ghana: The Extent of Reducing Impacts of Climate Change and Heat Stress Vulnerability of Smallholder Farmers

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ABSTRACT

Smallholder farming has become a significant livelihood coping strategy of the population in Ghana. However, in the last decade the upsurge of climate change and the effect of heat stress vulnerability on smallholder farmers in Northern Ghana are alarming. This article investigates the chances of using social protection and climate change adaptation policies towards the management of risks associated with heat stress emanating from climate change. It reviews salient literature on heat stress, social protection, and climate change policies and develops a model upon which both domestic and international interest in climate and social protection policies of Ghana and Sub-Sahara Africa can reduce or aggravate heat stress impacts on smallholder farmers both at their working environment and at household level. It exemplifies the efficacy of the strength of social protection and climate change adaptation policies in Ghana and its impacts on vulnerable rural smallholder farmers and how such situation is replicated in many parts of Africa. It outlines further measures that can be undertaken by governments and international donor agencies to revamp the destitution of smallholder farmers to climate change and heat stress in African region.

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1. INTRODUCTION

The development agenda and target of the world as encapsulated in the Millennium Development Goals (MDGs) and the Sustainable Development Goals (SDGs) is to ensure environmental sustainability and eradication of extreme poverty and hunger by 2015 and beyond. However, these goals may prove unattainable where exposure to vulnerabilities of climate change and heat stress which exacerbate poverty are not contained and well managed. Available information indicates that climate change is increasingly affecting socioeconomic and cultural lives of people within and beyond this century. It is recognised that the greatest impact of climate change will occur in tropical developing countries because of their geographic disposition, predominantly living on climate sensitive sectors, with marginal income and low adaptive capacity (IPCC, 2007; Stern, 2007). Adaptation is identified as a major way to reduce vulnerability of climate change impact on poor people (Adger et al., 2003). As adaptation is examined, it is necessary to identify the degree of risk of climate change that vulnerable communities are faced, the level of impacts on farmers both at household level and on the field of cultivation, and how to significantly reduce the level of vulnerability on the affected people such as smallholder farmers. Social protection and climate change adaptation have been identified as the key mechanism to offset the impact of climate change on vulnerable communities. As adaptation interventions, these policies have been identified as cardinal in protecting vulnerable communities and building resilience against climate change (Davies et al., 2008). While climate change adaptation seeks to reduce underlying vulnerabilities and manage risks and impacts of climate change, social protection seeks to transform, prevent, promote and protect vulnerability to risks, shocks and impacts of climate change (Matin et al., 2008; Sabates et al., 2004; Slater & McCord, 2009). These measures have much in common the potential to create resilience and reduce vulnerability against environmental risk.

This article investigates the prospects of employing social protection and climate change adaptation policies to reduce the impact of heat stress and other predictors of climate change on smallholder farmers in African region. In cognisance of the robust threat that climate change create, the authors construct a model to depict the role of social protection and climate change adaptation policies to improve resilience and reduce the vulnerability of heat stress and other predictors of climate change on smallholder farmers. In this regard, the article purposes to inform the ongoing social protection and climate change policy debates in African countries, particularly, on external funding interest and its impacts on domestic policies with the goal of reducing vulnerability to heat stress as a result of climate change.

The paper is organised into five sections as follows. Section one consists of the introduction to the paper. It highlights the current trend of development goals, vulnerability to climate change, climate change adaptation and social protection, as well as the objective and organisation of the paper. Section two presents vulnerability to heat stress and climate change and accentuate how heat stress is an issue for domestic and international attention. Section three illustrates a model depicting the conceptual linkages between social protections, heat stress and climate change adaptation for smallholder farmers. Section four outlines current focus of climate change adaptation and social protection policies exemplifying the situation in Ghana. The last section highlights the implication of the current policies and the need to adjust programmes and policies by government and external organisation in Africa to ensure food security and sustainable development.

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