

Chapter 20

Impact of Rapid Urbanization and Climate Change on Agricultural Productivity in Africa: Climate Change Policies in the Agricultural Sector

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ABSTRACT

Africa continues to experience serious signs of multiple crises in the context of sustainability. These crises include vulnerability to climate change, rapid urbanization, food insecurity, and many others. One crisis, that defines Africa today, is the unprecedented rapid urbanization which continues to pose a big challenge to the diminishing available resources, environmental quality and human well-being. Cities in Africa continue to experience a fast horizontal growth of settlements due to influx of people from rural areas who often settle in the economically lowest segments in urban areas. This horizontal rapid growth has eaten up land set for agriculture around cities and promoted the rapid growth of informal settlements exacerbating the impacts of climate change leading to a negative impact on agricultural production. Policies linking rapid urbanization and climate change with agricultural productivity are need. This paper explores and documents the impact of rapid urbanization on climate change policies and subsequent impact on agriculture in Africa.

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1. INTRODUCTION

Today, Africa continues to receive more and more attention because of the increasingly enormous deep-rooted and complex sustainability challenges the continent faces. The region has experienced serious signs of multiple crises in the context of sustainability. These crises include vulnerability to climate change, depletion of natural resources, food insecurity, governance problems, conflicts, poverty, and many others (Mutisya & Nagao, 2014; Mutisya & Yarime, 2011). These crises emanate from Africa's unsustainable development and growth, and have threatened the current human systems. One unsustainable growth path, that defines Africa today and that will continue to receive a lot of attention, is the unprecedented rapid urbanization. Africa's urban population is rapidly increasing posing a big challenge to the diminishing available resources, environmental quality and human well-being (Mutisya & Yarime, 2013). This increase is not accompanied by concomitant socio-economic growth and environmental development.

Discourse on rapid urbanization indicates that, although cities in Africa occupy a small percentage (4%) of land, a bigger population in the continent live in cities (Potts 2012; Seto et al. 2011, Shuaib et al, 2012). As START (2011) documents, Africa is characterized by the historical mix of urban development pathways, and the region's cities are described as having grown in pseudo manner with ruralization of urban lifestyles, particularly with respect to agriculture in cities (Maxwell 1999; Binns & Lynch 1998; UN-Habitat 2009). How urbanization evolves in Africa in the coming years will determine where agricultural and food baskets in each country will be situated, areas that have traditionally been left to rural regions.

Cities in Africa continue to experience a fast horizontal growth of settlements due to influx of people from rural areas who often settle in the

economically lowest segments in urban areas. This horizontal rapid growth has eaten up land set for agriculture around cities and promoted the rapid growth of informal settlements/slums exacerbating the impacts of climate change leading to a negative impact on agricultural production. Particularly because of their role as centers of economic growth, cities house industrial sectors, as well as infrastructures that support mobility of people and locomotives, activities that are major sources of greenhouse gas emissions.

Agriculture and food security as well as the distribution of populations and settlements in cities are some of the major areas likely to feel the greatest impacts of climate change. Due to its capacity to address these challenges and the lack of policies on climate change and agriculture, Africa is considered to be particularly vulnerable to climate change-induced effects (Eriksen et al 2008, IPCC 2007). This requires the formulation of well-thought and articulated climate change policies at regional and national level linking rapid urbanization and climate change with agricultural productivity. However, to formulate these policies, a clear assessment of the impact of rapid urbanization and climate change on agricultural productivity is needed. Previous discourse has focused on the impact of climate change on agriculture as well as the impact of rapid urbanization on agriculture (Binns & Lynch, 1998; Atkinson, 2000; Ayindea, 2011; UNEP, 2011; Shuaib et al, 2012; Calzadilla, 2013). The nexus between rapid urbanization, climate change and agriculture in Africa has not been studied. This paper explores, examines and documents the impact of rapid urbanization on climate change policies and subsequent impact on agriculture in Africa. This will involve the exploration and understanding of the link between rapid urbanization and climate change and its impact on agriculture based on existing policies and strategies.

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