

The Role of Climate-Smart Agriculture in the Contribution of Small-Scale Farming towards Ensuring Food Security in South Africa

Authors : Victor O. Abegunde, Melusi Sibanda

Abstract : There is need for a great deal of attention on small-scale agriculture for livelihood and food security because of the expanding global population. Small-scale agriculture has been identified as a major driving force of agricultural and rural development. However, the high dependence of the sector on natural and climatic resources has made small-scale farmers highly vulnerable to the adverse impact of climatic change thereby necessitating the need for embracing practices or concepts that will help absorb shocks from changes in climatic condition. This study examines the strategic position of small-scale farming in South African agriculture and in ensuring food security in the country, the vulnerability of small-scale agriculture to climate change and the potential of the concept of climate-smart agriculture to tackle the challenge of climate change. The study carried out a systematic review of peer-reviewed literature touching small-scale agriculture, climate change, food security and climate-smart agriculture, employing the realist review method. Findings revealed that increased productivity in the small-scale agricultural sector has a great potential of improving the food security of households in South Africa and reducing dependence on food purchase in a context of high food price inflation. Findings, however, also revealed that climate change affects small-scale subsistence farmers in terms of productivity, food security and family income, categorizing the impact on smallholder livelihoods into three major groups; biological processes, environmental and physical processes and impact on health. Analysis of the literature consistently showed that climate-smart agriculture integrates the benefits of adaptation and resilience to climate change, mitigation, and food security. As a result, farming households adopting climate-smart agriculture will be better off than their counterparts who do not. This study concludes that climate-smart agriculture could be a very good bridge linking small-scale agricultural sector and agricultural productivity and development which could bring about the much needed food security.

Keywords : climate change, climate-smart agriculture, food security, small-scale

Conference Title : ICASAA 2018 : International Conference on Climate-Smart Agriculture and Agroecology

Conference Location : Boston, United States

Conference Dates : April 23-24, 2018