

HOW DOES CLIMATE CHANGE AFFECT FARMING IN SOUTH AFRICA?

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INTRODUCTION

During one of our Public Participation Processes (PPP) in August 2019, I observed that farming in South Africa, particularly rural areas, forms part of a major component within the economic sector of our country. Given the extreme weather conditions experienced in the past few months, coupled with discrepancies in seasonal differences, it forced me to ask the question, “ How does Climate change affect Farming in South Africa?”

CLIMATE CHANGE

The climate is constantly changing and mitigation efforts to reduce the effects will take time. Adaptation is therefore critical and of concern in developing countries, particularly in Africa as vulnerability is high and the ability to adapt is low. Climate change is expected to affect food and water resources that are critical for livelihoods in Africa where much of the population, especially the poor, rely on local supply systems that are sensitive to climate variation. (De Wit & Stankiewicz, 2006; IISD, 2007). Although African farmers have a low capacity to adapt to such changes, they have, however, survived and coped in various ways over time. Better understanding of how they have done this is essential for designing incentives to enhance private adaptation.

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FARMING IN SOUTH AFRICA

Farming in South Africa is evolving to combat the radical climatic changes. In a paper written by Hassan and Nhemachena, 2008, various changes adopted by farmers were discussed. Farmers in South Africa have a perception as to how they should overcome climate change. Some of the perceived changes include: crop diversification; using different crop varieties; varying the planting and harvesting dates; increasing the use of irrigation; increasing the use of water and soil conservation techniques, shading and shelter; shortening the length of the growing season; and diversifying from farming to non-farming activities. Irregularities in temperature/ weather, have forced farmers to implement such changes, however, what are the implications associated with these temperal variances?



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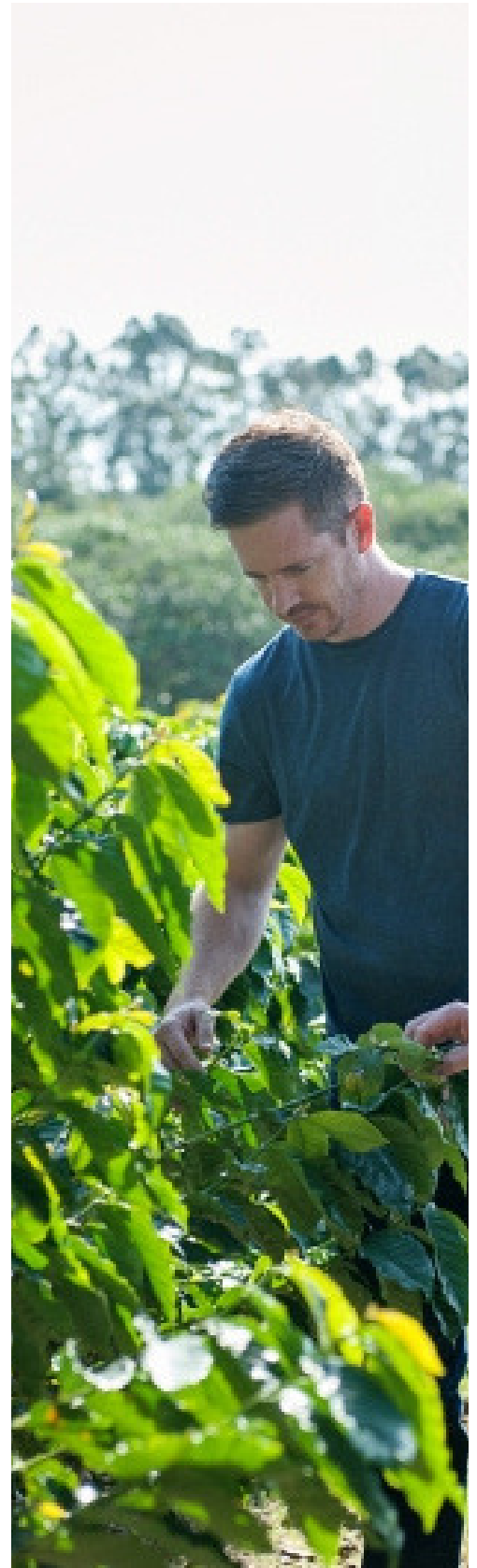
THE EFFECTS OF CLIMATE CHANGE ON SA FARMING

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The agricultural sector is vulnerable to climate change physically and economically. Due to climate change, agricultural supply will be affected, especially relative prices of agricultural commodities and consequently reallocation of resources within the agricultural sector, altering the structure of the economies of numerous countries and the international trade pattern (Deke et al., 2001). Specifically, in South Africa, climate impact studies on agriculture are limited and focused mainly on the maize crop. Evidence from Global Models developed so far suggests that the agricultural sector in the Southern Africa region is highly sensitive to future climate shifts and increased climate variability.



CONCLUSION

Given the sensitivity of South African field crops to climate change, there is a need to identify effective risk-pooling mechanisms. Adaptation can be addressed in a variety of ways. First and foremost is the greatest challenge of educating farmers about the happenings of climate change and its impacts. Hence more effective extension programs are needed to increase farmers' awareness of climate change. Certainly, prevention of losses can occur through more effective farm planning. Crop-insurance, diversified economic bases of regions dependent on farming, and improved monitoring/forecasts of weather will also increase resilience to cope with future changes. As South Africans, we need to be actively involved in trying to overcome the farming issues associated with climate change.

"We are the first generation to be able to end poverty and the last generation that can take steps to avoid the worst impacts of climate change. Future generations will judge us harshly if we fail to uphold our moral and historical responsibilities" – Ban Ki-moon, United Nations Secretary General.



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