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Introduction

Climate change has become an internationally recognized problem. One of its impacts have been a decrease agricultural production in certain areas. The impacts of global warming are already being seen as temperature rising steadily in the World and likely to affect our coffee growing areas. In Ethiopia also Farmers observing a longer, more extreme dry season and more intense rain as a result yield reduced. It is also clear that climate change can significantly affect the genetic diversity of coffee gene pool. Finding out facts and generating information to mitigate climate change is critical.

Materials/Methods

Research results of different research disciplines reviewed and secondary data assessed

Conclusion/Perspectives

In general to mitigate the prevailing climate change effects on coffee initiated conservation efforts need to be scaled to capture all variability from future risks of climate change. Supporting innovation and implementation of climate-resilient technologies is necessary. Enhancing the awareness and capabilities of coffee-farmers to deal with climate change is still critical. Ethiopia have not only variable genetic diversity it has also geographic diversity where previously areas which are not known for their coffee production are now growing coffee considerably. This adaptation allows coffee producers to both reduce the negative impacts of climate change and benefit from new opportunities that might arise from it. Appropriately and fairly valuing climate-smart solutions for coffee production and sustainable land use needed as coffee is one of the crop useful for conservation agriculture. Generally if appropriate measures are taken to use coffee genetic resources and the environment, Ethiopia has best resilience to produce coffee because majority of our coffee is grown under shade tree.

References:

Davis, A.P., Gole, T.W., Baena, S. and Moat, J., 2012. The impact of climate change on indigenous arabica coffee (*Coffea arabica*): predicting future trends and identifying priorities. *PLoS one*, 7(11).
Belachew, K., Teferi, D. and Hagos, L., 2015. Coffee Thread Blight (*Corticium koleroga*): a Coming Threat for Ethiopian Coffee Production. *J Plant Pathol Microb*, 6(303), p.2.



Figure 1: Healthy coffee under shade



Figure 2: Frost injury in 2016 / poor shade tree

Results/Discussion

As Ethiopia is the center of origin and diversity for arabica coffee a loss of gene pool is a great loss not only for the country it is also mess for the whole world. Following the climate change the disease and insect pest effects on Ethiopian coffee production is showing visible problem. As a current emerging problem Bacterial Blight of Coffee (BBC) and Thread Blight of Coffee (TBC) prevalence considered in this review. In addition insect pest problems like coffee Thrips and Blotch Leaf Miner; which were not serious previously now becoming visible constraint. Abiotic factor like occurrence of frost is also facing a problem intermittently.