Chapter

Food and Nutritional Security Under the Changing Climate: Understanding the Established and Indeterminate Factors

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Abstract

Global climate change is an issue of concern that may have irreversible long-term impacts on agriculture and allied activities. The constantly increasing atmospheric concentration of Green House Gases (GHG) has led to rise in global mean surface and ocean temperature, erratic and unpredictable rainfall pattern, and increased incidents of extreme weather events. Agriculture is a climate-sensitive sector and is adversely impacted by climate change, both in quantitative as well as qualitative terms. If appropriate mitigation and adaptation measures are not adopted, then the food and nutritional security of the world will be at stake. Climate change impact on agriculture has been well understood, but there are several factors whose impact of agriculture is not fully known till now. The present chapter summarizes the impact of different aspects of climate change on food and nutritional security of major crops of the world. It also dwells into understanding the impact of indeterminate factors and suggests adaptive measures to devise mechanisms for futuristic climate-smart agriculture.