

## Effect of Climate Change on Food and Nutrition Security

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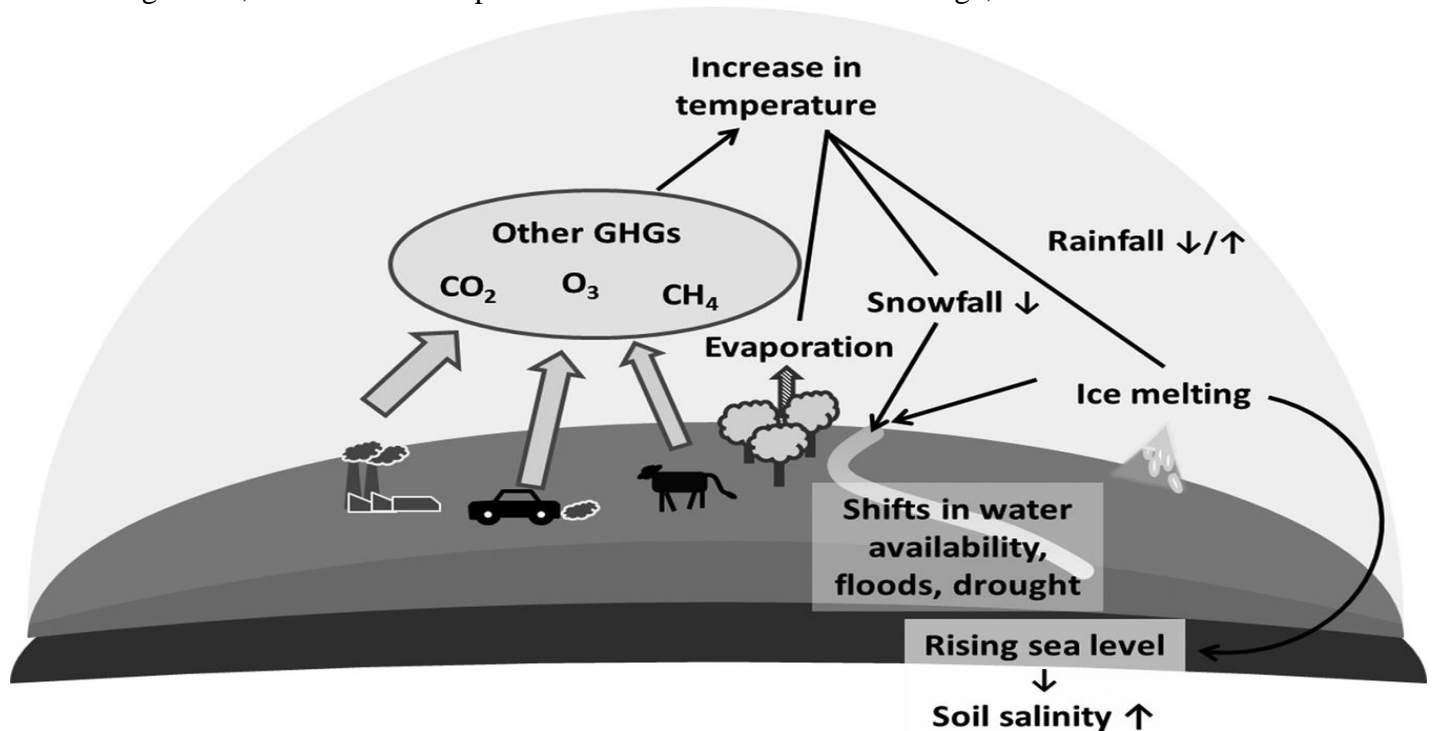
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### SUMMARY

This article is associated with the effect of climate change on food and nutrition security. As the saying goes ‘Nothing is permanent but change’ there are lot of changes that keep happening in the way we live, dress or eat due to urbanization, influence of western life etc but have we ever noticed the influence of climate change on our lifestyle or food choices? And how they impact our health? According to United Nations Framework Convention on Climate Change (UNFCCC) climate change refers to changes that are attributed directly or indirectly, to human activity, altering composition of the global atmosphere additionally to the natural climate variability observed over comparable periods. Prior to industrial revolution change in climate was explainable by natural causes but post-industrial period these changes could not be attributed alone to natural causes.

### INTRODUCTION

Natural causes for climate change include change in volcanic eruptions, solar energy, seawater, distribution of icecap etc. whereas artificial or manmade causes include emission of CO<sub>2</sub> from industries, agricultural activities, acid rain, global warming due to increased greenhouse gases, deforestation, ozone layer destruction etc. impacts of climate change are seen in various forms such as rise temperature and sea levels, decreased glaciers, rise in ocean temperature etc. Relation of climate change;



Pic Source: Elmadfa, I., and Meyer, A. (2018).

### Agriculture and Health:

There is an evident but complex relationship between climate change and agriculture and health. Climate change has a great impact on agriculture and allied sectors, while they also contribute to climate change. Many studies have reported adverse effect of climate change on crop production, but the uncertainty and alteration of projected impact still prevails based on local level conditions, strategies adopted for risk management etc. Rising temperature, high CO<sub>2</sub> levels changes in rainfall pattern, modified pests, weed etc. can lead to directly or indirectly affecting the crop yields and food production. The crop yields in low latitude regions considering all

these factors are negatively affected. Decrease in crop production leads to reduced food availability and if there is food scarcity problem of food insecurity arise. Food security is defined by FAO, when all people at all times have physical or economic access to sufficient safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. Four dimensions of food security are food availability, accessibility, utilization and stability. Effects of climate change on food availability can lead to major changes in diet, food consumption pattern affecting health of individuals. Reduced food availability may also lead to hunger and malnutrition. Inadequate access to household food may in turn lead to poor dietary intake, poor maternal and childcare for infants and mother, leading to maternal and child malnutrition etc. climate change also affects water availability and quality hygiene and sanitation leading to environmental health issue putting population at risk of waterborne , foodborne , vector-borne diseases.

### **Possible Solutions to for Food and Nutrition Security in Era of Climate Change**

Direct and indirect interventions both in unison will help to provide food and nutrition security in the era of climate change. Direct interventions include promotion of good nutrition care, food fortification, supplementation of micronutrients to young children and mothers, creating awareness regarding, hygiene practices and hand washing programmes, providing therapeutic feeding and fortified foods for the vulnerable groups etc. The indirect interventions could focus on making the policies nutrition- sensitive, focusing on nutrition agriculture leading to diversification of diet making it nutrient -rich, focusing on utilization of alternative foods sources, nutrition education etc.

### **CONCLUSION**

Climate change, agriculture and health are closely related and share complex relationship. In the era of climate change focus should be given on diversification of agriculture and diets to improve nutrition and health of individuals. Good mitigation practices should be promoted. Direct and indirect policies should be focus on strengthening four dimension of food security.

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