



A REVIEW

Effect of climate change on agriculture and sustainability

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Abstract : Global climate change is a change in the long-term weather patterns that characterize the regions of the world. The term “weather” refers to the short-term (daily) changes in temperature, wind and precipitation of a region. Climate change is more than global warming. The rise in average temperature is only one indicator of broader changes also translating into extreme temperatures, drought, flooding, storms, rising sea levels, impacts on food production and infectious diseases. Although the scientific community has been aware of the link between greenhouse gases (GHGs) and climate change for many years, world leaders have been slow to react and implement measures to mitigate the risks. In the long run, the climatic change could affect agriculture in several ways such as quantity and quality of crops in terms of productivity, growth rates, photosynthesis and transpiration rates, moisture availability etc. It is directly impact food production across the globe. Increase in the mean seasonal temperature can reduce the duration of many crops and hence reduce the yield. Drivers of climate change through alterations in atmospheric composition can also influence food production directly by its impacts on plant physiology. The consequences of agriculture’s contribution to climate change, and of climate change’s negative impact on agriculture, are severe which is projected to have a great impact on food production and may threaten the food security and hence, require special agricultural measures to combat with.

Key Words : Climate change, Greenhouse effect, Greenhouse gases, Global warming potential, Mitigation

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