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Climate Change and Agriculture

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Abstract

Weather represents day-to-day atmospheric condition (e.g. air temperature, pressure, humidity, precipitation, sunshine hours, cloud cover, wind direction and speed, etc.) over a short term at a given place and time. Climate is defined as the long-term (usually >30years) average weather at a specific location (latitude and longitude) and characterized by fluctuations (mean and extreme values) in climatic variables. Climate systems are governed by atmospheric processes driven by temperature difference between the equator and the poles that generate convective movements of global atmospheric circulation. Besides atmospheric processes, climate systems are affected by the interactions with terrestrial surface, snow and ice, oceans and other bodies of water, and human activities. Statistically verified trends of changes in weather and climate over time, typically decades or longer, are termed climate change.