Long-term fluctuations in weather patterns could have extreme impacts on agricultural production, slashing crop yields and forcing farmers to adopt new agricultural practices in response to altered conditions.

Some effects of global warming on agriculture:

- Loss of fertile coastal lands caused by rising sea levels
- Increased frequency of weather extremes (storms/floods/droughts)
- Loss of biodiversity in fragile environments/tropical forests
- Longer growing seasons in cool areas
- Dramatic changes in distribution and quantities of fish and sea foods
- More unpredictable farming conditions in tropical areas
- Increase in incidence of pests and vector-borne diseases
- More unpredictable farming conditions in tropical areas