



Mains Practice Question

Q. Discuss the consequence of Climate change on the food security in tropical countries. (150 Words, UPSC Mains 2023)

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Approach

- Introduce briefly by writing impacts of climate change.
- Discuss the consequences of climate change on the food security in tropical countries.
- Conclude by mentioning measures to boost food security in the wake of climate change.

Introduction

Climate change impacts crop yields, water resources, biodiversity, food costs, and public health.

Body

Some of the consequences are:

- **Reduced crop yields:** Higher temperatures, changing rainfall patterns, and more frequent and intense droughts and floods can reduce crop yields and quality.
 - In Sub-Saharan Africa, maize yields have declined by 5.8%.
- **Altered growing seasons:** Climate change can alter farming seasons, harming agriculture's productivity.
 - In India, climate change is leading to erratic rainfall patterns and shorter growing seasons for crops like rice.
- **Food price volatility:** Climate change can disrupt food supply and demand, causing price instability and harming food access.
 - The 2007-2008 food crisis was partly triggered by climatic factors such as droughts and floods.
- **Increased vulnerability:** Tropical countries face increased vulnerability to cyclones, and storms, leading to damage to crops, and food systems.
 - In 2021, Cyclone Amphan caused widespread damage to agriculture and fisheries in India.

Conclusion

To boost food security in tropical countries, we require adaptation and mitigation measures such as:

- Enhancing land management to reduce emissions and increase carbon sequestration.
- Developing resilient crop varieties.
- Diversifying food production systems and diets.
- Promoting healthy and sustainable eating habits.
- Reducing food waste throughout the supply chain.

