Environment & Ecology · GS - III

How do El Niño-induced climatic variations affect global agricultural production and food security? Examine the implications of international food price volatility for developing countries, including India.

EXAM YEAR	PAPER	SUBJECT
DAILY PRACTICE 05/11/2026	GS - III	Environment & Ecology

MARKS	WORD LIMIT
10	~150 words

Answer Hint

El Niño, ENSO, rainfall variability, agricultural productivity, rice production, food supply chains, food inflation, import dependence, vulnerable households, climate-resilient agriculture

Model Answer

Introduction

El Niño is a climatic phenomenon involving abnormal warming of surface waters in the central and eastern equatorial Pacific. It influences atmospheric circulation and can alter rainfall patterns across the world.

Impact on Agriculture and Food Security

Changes in rainfall and temperature can cause droughts, floods and heat stress in agricultural regions. Reduced crop output in major producing countries can tighten global supplies and increase international food prices. Rice price volatility particularly affects countries where rice is a staple food.

Implications for Developing Countries

Higher food prices increase household expenditure, worsen nutritional insecurity and contribute to inflation. Import-dependent economies face additional pressure on foreign exchange reserves and fiscal resources. In India, climate variability can affect agricultural productivity, food prices and rural livelihoods.

Way Forward

Countries should strengthen climate-resilient agriculture, irrigation efficiency, crop diversification and weather forecasting. Strategic food reserves, diversified import sources and regional cooperation can reduce supply disruptions.

Conclusion

Climate-related food insecurity requires coordinated action combining agricultural adaptation, stable trade policies and effective social protection.

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