

Climate change to hit India's food bowl

These disruptions to crop production are expected to cause price spikes in India, threatening food affordability, food security, and economic growth

Published: 01st March 2022



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Express News Service

NEW DELHI: India is one of the countries to be most hurt economically by climate change and it is also the most vulnerable country in terms of crop production and in terms of the population that will be affected by sea-level rise in bigger coastal cities, according to the IPCC Working Group II report released Monday. The report says rice, wheat, pulses, coarse and cereal yields could fall almost 9 per cent by 2050 in India due to high temperatures and extreme weather events such as droughts, extreme rainfall, heatwaves and floods. In South India, maize production could decrease 17 per cent if emissions are high.

These disruptions to crop production are expected to cause price spikes in India, threatening food affordability, food security, and economic growth. Sea-level rise will threaten the population, land-use patterns and infrastructure in India and by the middle of the century, around 35 million people in India could face annual coastal flooding, with 45-50 million at risk by the end of the century if the emissions remain high. Far fewer people will be at risk if the emissions are lower, according to a study cited by the IPCC report.

The economic costs of sea-level rise and river flooding for India would also be among the highest in the world. Direct damage is estimated between USD 24 billion if emissions are cut only as rapidly as currently promised, and USD 36 billion, if emissions are high and ice sheets are unstable, according to another study cited by the report. It also found damage from sea-level rise in Mumbai alone could amount to up to USD 162 billion a year by 2050 if emissions continue to rise.

Dr Anjal Prakash, Research Director of Bharti Institute of Public Policy at ISB and lead author of the chapter on cities, settlement and key infrastructure and a cross-chapter paper on mountains said that urban India is at much greater risk with its increasing share in the country.

“Most of the coastal cities like Mumbai, Chennai, Kolkata, Visakhapatnam, Puri and Goa are all at greater risk of rapidly changing climatic conditions. Cities must be resilient to cater to some of these challenges which will become an order of the day impacting our economies and livelihoods,” he said.

By the mid-21st Century, the international transboundary river basins of Amu Darya, Indus and Ganges could face severe water scarcity challenges due to climatic variability and changes acting as stress multipliers. The report also shows globally glaciers are melting at an unprecedented rate.

POINT OF SAFE RETURN

If emissions continue to rise, wet-bulb temperatures — a measure that combines heat and humidity — will approach or exceed the unsurvivable limit of 35°C over much of India

Lucknow and Patna are among the cities predicted to reach wet-bulb temperatures of 35°C if emissions continue to rise.

The economic costs of sea-level rise and river flooding for India would be among the highest in the world.

Bhubaneswar, Chennai, Mumbai, Indore, and Ahmedabad are all identified as at risk of reaching wet-bulb temperatures of 32-34°C with continued emissions.

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40% Climate change and rising demand mean that about 40% of people in India will live with water scarcity by 2050 compared with about 33% now.

Global income reduction by 23%, in India 92% decline in 2100 than it would be sans climate change.

Overall, Assam, Meghalaya, Tripura, West Bengal, Bihar, Jharkhand, Odisha, Chattisghard, Uttar Pradesh, Haryana and Punjab will be the most severely affected.

Several major economies could see even larger economic declines because of climate change, GDP losses by the end of the century of up to 92% in India.

Rice, wheat, pulses & cereal yields could fall almost 9% by 2050.

In South India, maize production could decrease 17% if emissions are high.

Source: <https://www.newindianexpress.com/nation/2022/mar/01/climate-change-to-hit-indias-food-bowl-2424949.html>