

### **IMD's Annual Summer Forecast**

## Why in news?

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India Meteorological Department (IMD) has recently released its annual summer forecast.

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## What are the key aspects?

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- **Summer** 'Normal' temperatures refer to the mean temperatures during a particular period (months) between 1981 and 2010.
- $\bullet$  IMD has forecasted a "warmer" than normal summer months from March-May.  $\ensuremath{\backslash n}$
- **Heat Waves** The IMD's climate summary in January said that 2017 was the "fourth warmest year on record since 1901".
- Several parts of India, from Palakkad in Kerala to Mumbai, reported heat wave conditions.

- They recorded day time temperatures greater than 35°C.
- Increasing trends in the frequency and duration of heat waves over the country is also indicated.
- $\bullet$  This is attributed to increasing trends in the greenhouse gases emission.  $\mbox{\sc h}$
- The warming of the sea surface temperatures over the equatorial Indian and Pacific oceans is also a reason.
- Regions A harsh summer is awaiting certain states, with mean seasonal

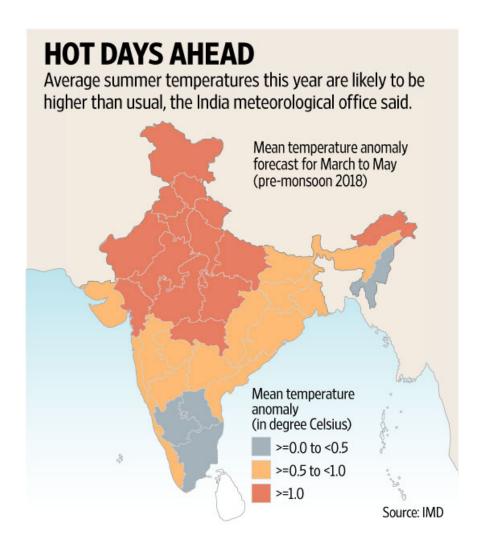
temperature-spikes likely to be greater than 1  $^{\circ}$ C.

- These are J&K, Punjab, HP, west and east Rajasthan, Uttarakhand, west and east UP, west and east MP, Vidarbha, Gujarat and Arunachal Pradesh.
- Certain parts would witness temperature rise between 0.5°C and 1°C from their historical normal.

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• These include Tamil Nadu, south interior Karnataka and Rayalaseema.

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• La Nina - La Nina is a weather condition that generally brings heavy rains to India.

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- $\bullet$  Currently, the sea surface temperature conditions over equatorial Pacific suggest moderate La Nina conditions.  $\mbox{\sc Nn}$
- The IMD forecast indicates that La Nina conditions are likely to be moderate

till spring (May-end).

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• They are likely to start weakening after spring.

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• But even if La Nina weakens, it is sure that El Nino (which negatively effects monsoon) will not immediately develop.

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- Given these, the prospects of a normal monsoon are more.
- However forecasts before spring are prone to error, with better accuracy after May.

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# Why is the forecast significant?

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• A scientific estimate of annual mortality attributable to heat waves between 2010 and 2015 ranges between 1,300 and 2,500.

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- For many States, the summer of 2018 may pose a public health challenge.
- Even a marginal rise above the normal may lead to enormous heat stress for millions of Indians, given the deprived conditions of life.
- A heat event can lead to fatal heat stroke in some, and exhaustion, cramps and fainting in many.

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• Moreover, there are distinct groups at particular risk for health-related problems during a heat wave.

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• These include senior citizens and people with pre-existing disease, mental illness or disability.

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#### What does it call for?

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• The IMD's forecast is a timely alert for State authorities to review their summer preparedness.

- **Interventions** States must facilitate for community-level interventions.
- This is to deal with heat stress and particularly to help the vulnerable groups.

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- All stakeholders, including the health-care system, should be prepared to deal with the phenomenon.
- **Alerts** The World Health Organisation recommends that countries adopt heat-health warning systems.
- This includes daily alerts on weather conditions.
- This could ensure that people are in a position to deal with adverse weather, starting with reduction of exposure.
- Water stress- Water stress is a common and often chronic feature in many States.

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• Arrangements should be made by the State authorities to meet possible water scarcity.

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- **GHG** The average temperature caused by climate change and the frequency and intensity of extreme weather events are perceivably linked.
- Thus, taking a long-term view, India has to pursue mitigation of greenhouse gases.

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Source: The Hindu

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**Quick Fact** 

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#### La Nina

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• La Nina is associated with the cooling of the eastern equatorial Pacific Ocean.

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• It favourably impacts the four-month long (June to September) south-west monsoon in India.

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 $\bullet$  This is particularly critical to the rain-fed farming season which begins in June.

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