

2018 S-W Monsoon - Northeast Deficit and Overall Rainfall

What is the issue?

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Severe rainfall deficiency in the Northeast has caused an overall deficiency in the country at the end of the current south west monsoon season.

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How was rainfall this monsoon?

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• **Northeast** - Northeast region witnessed a severe rainfall deficiency of 24% this southwest (S-W) monsoon season.

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• India Meteorological Department said that it was "very rare" for such a large deficiency in the Northeast.

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• In the 116-year period from 1901 to 2017, only in 4 years (1992, 2005, 2009 and 2013) has the deficiency in the Northeast exceeded 20%. \n

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• Northeast deficiency has caused an overall 9% rainfall deficiency in the country at the end of the season.

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- Others Regions The distribution of rainfall across Northwest, Central India and Southern Peninsula was "satisfactory".
- The deficiency in these areas was marginal with 2% each in Northwest and Southern Peninsula, and 7% in Central India.

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 So if the Northeast had received normal rainfall, the all-India rainfall would have been 96% of the Long Period Average.

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• Long Period Average (LPA) is the average annual rainfall for the period 1951-2000.

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What is the cause for deficiency?

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• Starting from the extreme south-western tip of the peninsula, the Southwest monsoon progresses inland.

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• But the monsoon trough that usually moves towards the Northeast did not happen this year.

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• Sea surface conditions over the Equatorial Pacific (El Niño conditions) did not have any adverse effect on the rainfall.

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• The IMD has thus planned a detailed scientific analysis on the causes by the end of December 2018.

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Why is 2018 S-W monsoon unique?

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• **Rainfall** - The 2018 monsoon has been characterised by "large day-to-day variability" within the season.

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• Many cities in the country received almost their entire rainfall of the season within a short time.

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• This added up to just a few days to a few weeks within the four-month season (June 1 to September 30).

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• E.g. in 22 cities with sizeable populations, 95% of the monsoon precipitation

occurred over 3 days to 27 days on average.

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• Many intense rainfall events during the season have led to flooding like the Kerala floods.

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• The season also witnessed formation of a large number of low pressure systems over Bay of Bengal and their westward movement across central India.

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- \bullet $Water\ in\ dams$ The spatial distribution of this year's rainfall is also reflected in the storage capacity of the country's reservoirs.
- Country's major reservoirs at present have 117% of the live storage of the corresponding period last year.
- \bullet This is 105% of the average water storage over the last 10 years, as said by the Central Water Commission (CWC). $\$
- Of the five regions, storage in reservoirs in Northern, Eastern, Central and Southern regions is higher than last year.
- Storage in the Western region is less than the storage of last year and also less than the 19-year average storage.
- **Agriculture** The overall crop acreage during the kharif season is higher by 2.6%.

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• This is in comparison to the country's highest ever acreage/record food production during 2017.

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• The resultant acreage is largely the result of a good soil moisture distribution across the country.

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• Adequate soil moisture available over northern parts of India may help the rabi crop during 2018-19.

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Source: Indian Express

