

# SCIENCE OF MONSOONS: THE HINDU EDITORIAL ON NEED FOR BETTER WEATHER FORECAST

Relevant for: Geography | Topic: Indian Climate including Monsoons

The southwest monsoon 2020 has officially drawn to an end with the India Meteorological Department (IMD) declaring a withdrawal of the associated winds and rainfall pattern from India on Wednesday. The [over 8% surplus this year](#) has surpassed the IMD's estimates. For the first time since 2010, India got more than 100% of its long period average (LPA) of 88 cm in consecutive years. Last year the country saw [record rainfall of 110% of the LPA](#), the highest in a quarter century. India has never got over 105% of the LPA in consecutive years in at least 30 years, according to records available since 1988 on the IMD website. Meteorologists often speak of two or three decade 'epochs' of rainfall variation. Since 2000, India was in a low patch with several drought years and had barely a handful of above normal or excess rainfall. In that light, the two years of a munificent monsoon could signal a possible return to a rainy epoch. While it could mean more rain, it also implies floods, overflowing dams, landslides and loss of lives. Moreover, surplus rains are not evenly distributed in time and space. Therefore, much like there are attempts to improve flood forecast warnings — especially the short-term ones — there ought to be commensurate efforts by authorities and infrastructure agencies to prepare for the environmental and ecological impact of excess rain. This year the IMD undertook a long-due revision of the onset and withdrawal dates of the monsoon in India. By this reckoning, the monsoon's normal withdrawal date was October 15. Historically, this has always been a statistical average and the actual withdrawal is usually within a few days of this. However, this year the withdrawal has been extremely delayed. Factoring in these changes must become a key part of a State and city's disaster management preparedness.

The southwest monsoon's withdrawal also heralds the advent of north-easterly winds that bring in the [northeast monsoon](#) to parts of peninsular Andhra Pradesh and Tamil Nadu. While significant to the agriculture there, the northeast monsoon contributes 10%-12% of India's annual rainfall, against the southwest monsoon's 75%-80%. That, and its limited geographic spread has meant that the northeast monsoon is not showered with as much research attention. However, studies show that northeast monsoon rainfall displays significant variation and climate models are fairly inaccurate in their forecasts of its unfolding over the subcontinent. There have been significant investments in super computing infrastructure to simulate weather as well as to tune forecasts to go beyond just giving rainfall estimates and factor in the potential damage of floods and cyclones. Building on these, scientists must also put in more effort and design research programmes that better analyse the vagaries of the northeast monsoon. Along with more understanding of how climate is changing locally, India needs better science to prepare more effective disaster management plans and improve resilience in a warming world.

You have reached your limit for free articles this month.

To get full access, please subscribe.

Already have an account ? [Sign in](#)

Start your 14 days free trial. [Sign Up](#)

Dear reader,

We have been keeping you up-to-date with information on the developments in India and the

world that have a bearing on our health and wellbeing, our lives and livelihoods, during these difficult times. To enable wide dissemination of news that is in public interest, we have increased the number of articles that can be read free, and extended free trial periods. However, we have a request for those who can afford to subscribe: please do. As we fight disinformation and misinformation, and keep apace with the happenings, we need to commit greater resources to news gathering operations. We promise to deliver quality journalism that stays away from vested interest and political propaganda.

Dear subscriber,

Thank you!

Your support for our journalism is invaluable. It's a support for truth and fairness in journalism. It has helped us keep apace with events and happenings.

The Hindu has always stood for journalism that is in the public interest. At this difficult time, it becomes even more important that we have access to information that has a bearing on our health and well-being, our lives, and livelihoods. As a subscriber, you are not only a beneficiary of our work but also its enabler.

We also reiterate here the promise that our team of reporters, copy editors, fact-checkers, designers, and photographers will deliver quality journalism that stays away from vested interest and political propaganda.

Suresh Nambath

Please enter a valid email address.

From the abrogation of the special status of Jammu and Kashmir, to the landmark Ayodhya verdict, 2019 proved to be an eventful year.

Subscribe to The Hindu now and get unlimited access.

Already have an account? [Sign In](#)

Start your 14 days free trial [Sign Up](#)

**END**

Downloaded from **crackIAS.com**

© **Zuccess App** by crackIAS.com