



भारत सरकार

**Government of India**

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**Ministry of Earth Sciences (MoES)**

भारत मौसम विज्ञानविभाग

**INDIA METEOROLOGICAL DEPARTMENT**

**Outlook for the 2018 Northeast Monsoon Season (October–December)**  
**Rainfall over South Peninsula**

**Background**

The south Peninsula consisting of five subdivisions (Tamil Nadu, Coastal Andhra Pradesh, Rayalaseema, Kerala and south interior Karnataka) receives about 30% of its annual rainfall during the Northeast monsoon season (October to December). Tamil Nadu in particular receives about 48 % of its annual rainfall during this season. Due to this important fact, IMD has been preparing experimental forecasts for Northeast monsoon season rainfall over south Peninsula since 1998 using statistical models. IMD also continuously works to improve the skill of the forecasting models. For preparing the quantitative and probabilistic forecasts for Northeast monsoon seasonal rainfall over the south Peninsula, a 5-parameter Principle Component Regression (PCR) model is used. Similarly a 4- Parameter PCR model is used for forecasting seasonal rainfall over Tamil Nadu.

The forecast for the 2018 Northeast monsoon seasonal rainfall has been prepared.

**El Nino and Southern Oscillation (ENSO) Conditions**

Currently, ENSO neutral conditions are prevailing over Pacific with normal to slightly above normal sea surface temperatures. Atmospheric conditions over the Pacific also indicate ENSO neutral conditions. The latest Monsoon Mission Climate Forecast System (MMCFS) forecast indicates 70% probability of development of weak El Nino during October to December season and these conditions are likely to continue in the first quarter of next year. Forecasts from other global coupled models are also indicating nearly similar conditions.

**Summary of the operational forecast for 2018 Northeast monsoon seasonal Rainfall over South Peninsula**

IMD's operational forecast for the 2018 Northeast monsoon season (October-December) rainfall over south Peninsula (Tamil Nadu, Coastal Andhra Pradesh, Rayalaseema, Kerala and South Interior Karnataka) is most likely to be normal (89% -111% of long period average (LPA)) with a tendency to be in the positive side of the normal. The LPA of the North-east monsoon seasonal rainfall over the south Peninsula for the base period, 1951-2000 is 332.1 mm.

The 2018 Northeast monsoon seasonal rainfall over Tamil Nadu is most likely to be above normal ( $\geq 112\%$  of LPA). The long period average (LPA) of the Northeast monsoon seasonal rainfall over Tamil Nadu for the base period, 1951-2000 is 438.2 mm.

**Note:** *In addition to seasonal forecast, IMD also prepares extended range forecast for weekly rainfall for next two weeks updated every Thursday. The same is available in IMD, New Delhi website ([http://www.imd.gov.in/pages/press\\_release.php](http://www.imd.gov.in/pages/press_release.php))*