



PRESS RELEASE
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INDIA METEOROLOGICAL DEPARTMENT
Ministry of Earth Sciences (MoES)
Earth System Science Organization (ESSO)

Forecast of the Onset Date of Southwest Monsoon - 2017 over Kerala

1. Background

The onset of southwest monsoon over Kerala signals the arrival of monsoon over the Indian subcontinent and represents beginning of rainy season over the region. The normal monsoon onset over Kerala is 01 June. India Meteorological Department (IMD) started to issue operational forecasts for the date of monsoon onset over Kerala from 2005. For this an indigenously developed statistical model with a model error of ± 4 days is used. The model uses the following six predictors:

- i) Minimum Temperatures over North-west India, ii) Pre-monsoon rainfall peak over south Peninsula, iii) Outgoing Long wave Radiation (OLR) over south China Sea, (iv) Lower tropospheric zonal wind over southeast Indian ocean, (v) upper tropospheric zonal wind over the east equatorial Indian Ocean, and (vi) Outgoing Long wave Radiation (OLR) over the south-west Pacific region.

The forecasts of the monsoon onset issued during the past 12 years (2005-2016) except 2015 were proved to be correct. The verification of the forecast for the last 5 years is given below.

Year	Actual Onset Date	Forecast Onset Date
2012	5 th June	1 st June
2013	1 st June	3 rd June
2014	6 th June	5 th June
2015	5 th June	30 th May
2016	8 th June	7 th June

2. Advance of monsoon over the Andaman Sea

The southwest monsoon advances over the Andaman Sea normally around 20th May with a standard deviation of about one week. Formation of a cyclonic circulation over the Andaman Sea has resulted into Strengthening and deepening of cross equatorial southwesterlies and persistent convective activity and rainfall over the region during the last few days. As a result, the southwest monsoon has advanced into some parts of southeast Bay of Bengal, Nicobar Islands, entire south Andaman Sea and parts of north Andaman Sea on 14th May. As on 15th May, Northern Limit of Monsoon (NLM) passed through Lat.5°N/Long.86°E, Lat.9°N/Long.90°E, Hut Bay and Lat.14°N/Long.98°E. Conditions are now becoming favourable for the further advance of southwest monsoon into some parts of southwest Bay of Bengal, some more parts of southeast Bay of Bengal and remaining parts of Andaman Sea, Andaman & Nicobar Islands and some parts of east central Bay of Bengal during the next 48 hours. Past data suggest that there is no association of the date of monsoon advance over the Andaman Sea either with the date of monsoon onset over Kerala or with the seasonal monsoon rainfall over the country.

3. Forecast for the 2017 Monsoon Onset over Kerala

The statistical model forecast suggests that the monsoon onset over Kerala in this year is likely to be close to the normal date. The southwest monsoon is likely to set over Kerala on 30th May with a model error of ± 4 days.