



## India Warming: Trends

Recently, the India Meteorological Department (IMD) stated **“2018” as the sixth warmest year on record**, with the average temperature over India being “significantly above normal”.

- The IMD said that 11 of the 15 warmest years were during the recent past fifteen years (2004-18). This increase in temperatures will likely lead to more **extreme weather events**.

### India Meteorological Department (IMD)

- IMD was established **in 1875**.
- It is an agency of the **Ministry of Earth Sciences of the Government of India**.
- It is the principal agency responsible for **meteorological observations, weather forecasting and seismology**.

### Extreme Weather Events of 2018

- The IMD specifically underlined **two extreme weather events**:
  - The **Kerala floods in August** were due to unusually heavy rains which are very rare over Kerala.
  - The **thunderstorm activity over the northern states** in May-June of 2018 was also rare due to prolonged days of activity and severity.
- **Temperatures are increasing** during both day and night time.
- **Heat waves are increasing** in frequency as well as magnitude.
- **Extreme rainfall and rainstorms** which can cause floods are increasing.
- **Dry spell** duration is also increasing.
- Heat and cold waves, **snowfall, thunderstorms, dust storms, lightning** and floods are increasing.
- India witnessed **increased cyclonic storms** ([Titli](#), [Luban](#), [Gaja](#), [Daye](#), [Phethai](#)) that formed over the northern Indian Ocean.
- Flood and heavy rain related incidents reportedly **claimed over 800 lives** from different parts of the country (viz. northern/northeastern, central & peninsular parts) during pre-monsoon, monsoon & post-monsoon seasons in 2018.
- Although Southwest monsoon was normal, the northeast monsoon season rainfall was **substantially below normal (56% of Long Period Average (LPA)), the sixth lowest since 1901**.
  - LPA is the **average rainfall received by the country** as a whole during the south-west monsoon, **for a 50-year period**.
- The trends of recent years are part of the **“global warming” trend**, i.e. the rate of increase of temperatures over India is almost **similar to the global average**.

