IMD Monsoon Forecast, April 2019

Why in news?

The India Meteorological Department (IMD) recently released the monsoon forecast for 2019, and expects a "normal" monsoon rains.

What are the highlights?

- Monsoon rains in India is forecast to be 96% of the Long Period Average (LPA) and thus likely to be “normal” this year.
- This is a more optimistic assessment from the one by private weather forecasting agency, Skymet, that warned of ‘below normal’ rains in June-September.
- However, uncertainty prevails as last year the IMD's April forecast indicated normal monsoon rains but India saw below normal rainfall (91% of LPA).
- The IMD issues its first monsoon forecast in April and then updates it in June.

What is the rationale?

- The IMD’s optimism is based on global climate models projecting a ‘weakening El Nino.’
- The El Nino, a cyclic warming of the Central and Eastern Pacific region, has historically been linked to a weakening of monsoon rain.
- A temperature rise greater than 1°C for 3 months is considered a ‘strong’ El Nino and a threat to the monsoon.
- A 0.5°C-1°C rise is called weak El Nino conditions; currently the El Nino is 0.9 C.
- The IMD’s models in March, expect the El Nino to peak around May and then recede for the rest of the monsoon months.
- Globally too, other models expect El Nino to recede after June or July.
- All these suggest the possibilities of a normal as opposed to below normal monsoon rains in India this year.
- Another factor, called a positive Indian Ocean Dipole (IOD) (warming in the western Arabian ocean) could neutralise the potential negative impact from the El Nino.

How does IMD calculate monsoon level?

- The India Meteorological Department (IMD) expresses the projected rainfall in terms of Long Period Average (LPA).
- The LPA is the average rainfall recorded during the months from June to September, calculated during the 50-year period from 1951 to 2000.
- LPA is kept as a benchmark while forecasting the quantitative rainfall for the monsoon season every year.
- The LPA of the monsoon season over the entire country is 89 cm.
- Like the countrywide figure, IMD maintains an independent LPA for every homogeneous region of the country.
- E.g. 143.83 cm, 97.55 cm, 71.61 cm, and 61.5 cm for East and Northeast India, Central India, South Peninsular India, and Northwest India respectively.
- Going by this, IMD maintains five rainfall distribution categories on an all-India scale. These are:

1. **Normal or Near Normal** - when there is +/-10% departure of actual rainfall i.e. between 96-104% of LPA
2. **Below normal** - when departure of actual rainfall is less than 10% of LPA i.e. 90-96% of LPA
3. **Above normal** - when actual rainfall is 104-110% of LPA
4. **Deficient** - when departure of actual rainfall is less than 90% of LPA
5. **Excess** - when departure of actual rainfall is more than 110% of LPA

Source: The Hindu, Indian Express

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