

Statement 2 is incorrect. The intense activity of southwest monsoon season in the region is behind the **floods in Assam**.

According to the India Meteorological Department (IMD), there are **two reasons for the intense monsoon activity**. **First, the northward shift of monsoon trough** that runs from north Punjab to northwest Bay of Bengal. Monsoon rains are generally clustered around such troughs.

Second, the coming together of strong winds from the south and southwest directions carrying moisture from the Bay of Bengal.

Statement 3 is correct. The **Bay of Bengal branch of the south-west monsoon**, which brings in all the rainfall to the region, **has been weakening over time**. Depression in Bay of Bengal cut off moisture to the entire north-eastern region, reducing the rainfall and increasing temperatures.

Source: <https://www.thehindu.com/sci-tech/science/why-is-northeast-india-drying-up-rapidly/article27033907.ece>

<https://www.downtoearth.org.in/news/climate-change/north-eastern-states-live-in-fear-of-drought-61273>

Q.17) Consider the following statements:

1. The laterite soils are rich in organic matter but have poor amount of iron oxide.
2. Peaty Soils have high humus and organic content.
3. Forest Soils are loamy in the upper slopes and coarse-grained on valley sides.

Which of the following statements given above is/are correct?

- a) 1 and 2 only
- b) 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

Ans) b

Exp) Option b is correct.

Statement 1 is incorrect. The **laterite soils develop in areas with high temperature and high rainfall**. These are the result of intense leaching due to tropical rains. These soils are **poor in organic matter, nitrogen, phosphate and calcium, while iron oxide and potash are in excess**. Hence, laterites are not suitable for cultivation; however, application of manures and fertilisers are required for making the soils fertile for cultivation.

Statement 2 is correct. **Peaty Soils** are found in the **areas of heavy rainfall and high humidity**, where there is a good growth of vegetation. Thus, large quantity of dead organic matter accumulates in these areas, and this **gives a rich humus and organic content to the soil**. Organic matter in these soils may go even up to 40-50 per cent. These soils