Hydroclimate whiplash

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About Hydroclimate Whiplash:

- It is a rare meteorological condition wherein an **extremely wet season** is **succeeded by** an **extremely dry season.**
- **How does it occurs?**
    - It's kind of this paradox that as the **atmosphere gets warmer**, both the amount of water vapour in the atmosphere can increase, and the deficit of water vapour in the atmosphere can also increase exponentially.
    - Consequently, as the atmosphere warms, it is able to hold much more water – for a longer period – before it is eventually released as precipitation.
    - It is this relationship **between global warming** and the atmosphere which leads to the **extended periods of dry spells** and more **intense rainfall** when it eventually occurs.
- **Impacts**
    - Increases the number of **droughts and floods.**
    - Fires created by the dry condition exacerbate respiratory and cardiovascular diseases through their polluting smoke.

    - **Human health:** Flooding creates conditions for waterborne illnesses such as cholera, leptospirosis
- Such ‘hydroclimate whiplash’ conditions have increased by 31-66 per cent in three-month periods (sub-seasonal) and by 8-31 per cent in 12-month periods (inter-annual) across the world since the middle of the 20th century.

Q1:What is a hydroclimate?

Hydroclimate is the scientific field that brings together hydrology and climate, including the impacts that water and its processes have on Earth’s climate, and the impacts of climate patterns and change on the global hydrological (or water) cycle.

Source: DTE