

Cyclone Biparjoy: What is the 'landfall' of a cyclone?

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The landfall process of [Cyclone](#) Biparjoy started near Jakhau port in Kutch, Gujarat.



[Ref: NDTV]

What is the “landfall” of a cyclone?

- **Definition:** Landfall is the event of a tropical cyclone coming onto land after being over water.
- A tropical cyclone is said to have made landfall when the **centre of the storm** or its eye **moves over the coast**.
- Landfall should not be confused with a ‘**direct hit**’.
 - **Direct Hit:** It refers to a situation where the **core of high winds (or eyewall)** comes onshore but the **centre of the storm may stay remain offshore**.
- As per the US’s NOAA, because the strongest winds in a tropical cyclone are **not located precisely at the centre**, it is possible for a **cyclone’s strongest winds** to be experienced over land even if **landfall does not occur**.

What is the damage caused by a cyclone’s landfall?

- The damage of the landfall will depend on the **severity of the cyclone**.
 - Severity is marked by the **speed of its winds**.
- For Cyclone Biparjoy, classified by the IMD as a “**very severe cyclonic storm**”.
- The impact may include-
 - Extensive damage to kutchha houses,
 - Partial disruption of power and communication lines,
 - Minor disruption of rail and road traffic,
 - Potential threat from flying debris and
 - Flooding of escape routes.
- The factors behind this kind of damage include **extremely strong winds, heavy rainfall and storm surge**.

How long does a landfall last?

- It can last for a **few hours**, with their exact duration depending on the **speed of the winds and the size of the storm system**.
- Cyclone Biparjoy's land process is expected to last around **five to six hours**.

Why does Cyclone lose its intensity after landfall?

- Cyclones **lose their intensity** once they move over land because of a **sharp reduction of moisture supply and an increase in surface friction**.
- This means landfalls are the **most devastating moments of cyclones** but they also mark the **beginning of its end**.