



Bharat Forecast System

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The [India Meteorological Department \(IMD\)](#) is set to adopt the indigenously developed **Bharat Forecast System (BFS)**, India's first high-resolution weather model capable of forecasting at a 6 km x 6 km spatial resolution.

- **Bharat Forecast System (BFS)** has been developed by the **Indian Institute of Tropical Meteorology (IITM), Pune**, and will be **operationalised by IMD**.
- BFS significantly **improves upon IMD's existing resolution of 12 km x 12 km**, allowing for **more accurate detection of localised extreme weather events**, such as [cloudbursts](#) and [flash floods](#).
 - The **current limitation of a 144 sq km unit of analysis** will be reduced to 36 sq km, enabling better micro-level weather predictions.
- The BFS model is expected to enhance **forecasting precision** for **cyclones, heavy rainfall, and monsoon variability**, especially at the district and sub-district levels.
- The BFS has been **tested in experimental mode since 2022** and is now being scaled for nationwide operational use with **high-performance computing support**.
- Currently, IMD uses the **Coupled Forecasting System (CFS)**, developed under the [Monsoon Mission](#) and adapted from a US-based model for Indian monsoon forecasting.
 - It also operates the **Global Forecasting System (GFS)**, a coupled ocean-atmosphere model, for forecasts ranging from hours to seasonal scales.

Read more: [India Developing Early Warning Systems in Partner Nations](#)

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