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South Asian Flash Flood Guidance System

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Why in News

Recently, the **India Meteorological Department** (IMD) has launched the **South Asian Flash Flood Guidance System** (FFGS), which is **aimed at helping disaster management teams and governments make timely evacuation plans** ahead of the actual event of flooding.

A dedicated FFGS centre will be established in New Delhi, where weather modelling and analysis of rainfall data observations from member countries will be done.

Key Points

- **Flash Floods:**
 - These are **sudden surges in water levels** during or following an intense spell of rain.
 - These are **highly localised events of short duration** with a very high peak and usually have less than six hours between the occurrence of the rainfall and peak flood.
 - The flood **situation worsens in the presence of choked drainage lines or encroachments** obstructing the natural flow of water.
- **Concerns:**
 - **Forecasting** flash floods is very difficult as an **event can occur within three to six hours** and the **water run-off quantity is very high**.
 - **Frequency of extreme rainfall events has increased** due to **climate change** and **south Asia is highly prone** to flash floods.
 - Data suggest that across the world, **about 5,000 people die annually** due to flash floods.
 - Despite such **high mortality**, there was **no robust forecasting or warning system** for flash floods.

- **South Asian Flash Flood Guidance System:**

It has been developed by **US-based Hydrologic Research Centre** after the **World Meteorological Organisation** (WMO) and few South Asian countries put forth their views and the urgent need for such a warning system.

- **Warning Mechanism:**

- Based on the **rainfall and potential flooding scenario**, flash flood **warnings will be issued** to respective nations.
- **Flash flood threat warning** will be issued **six hours** in advance, whereas **flood risk warning** will be issued **24 hours** in advance. **Warnings about watershed level** will be issued **12 hours** in advance.

- **India's Role:**

- **India is leading the delegation** of nations, including **Bhutan, Sri Lanka, Bangladesh** and **Nepal**, in **sharing hydrological and meteorological data** towards preparing flash flood forecasts.
- India's **National Disaster Management Authority** (NDMA) and the **Central Water Commission** (CWC) partnered in developing the system.

Source: PIB