Gram Panchayat-Level Weather Forecasting

Why in News?

Recently, Indian Government has launched the System of Weather Forecast at Gram Panchayat Level.

What is Gram Panchayat level weather forecasting?

- It is part of the Government's *100 Days Agenda* and reflects a *Whole of Government approach.*
- **Launch** – It was launched ***in 2024,*** a joint programme of
  - Panchayat Raj Ministry
  - India Meteorological Department (IMD)
  - Ministry of Earth Sciences
- **Aim** – It is aimed at *empowering rural communities* and enhancing *disaster preparedness* at the grassroots, and will benefit farmers and villagers across the country.
- **Localised forecasting** – It is based on gram panchayat boundaries data provided by the Panchayati Raj Ministry.
- **Target** – It will be available for *nearly all 2.6 lakh panchayats* across India
- **Dissemination of information** – It will be made through Panchayat Raj Ministry's digital platforms like
  - ***Mausamgram*** of IMD
  - ***e-GramSwaraj*** of Ministry of Panchayati Raj
  - ***Meri Panchayat app*** of Ministry of Panchayati Raj

What are the features of localised weather forecasting?

- **SMS alerts on weather warning** – It will also be sent to Panchayat representatives regarding extreme weather events like cyclones and heavy rainfall, ensuring immediate action to protect lives, crops, and property.
- **Hourly forecasts** – It can see data on the current temperature, wind speed, cloud cover (in percentage), rainfall, and relative humidity at the level of gram panchayats.
- **Five-day forecasts** – It will be of minimum and maximum temperatures, rainfall, cloud cover, wind direction, and wind speed, and an overall weather forecast.
- **Coverage** – It is available at the district and block levels.
- **Accuracy** – It currently has the ability to forecast weather events over a *12 km x 12 km area*
  - **Experimental forecasts** – For 3 km x 3 km grids
  - **Future objective** – To make hyper-local forecasts for 1 km x 1 km areas.

Mausamgram

• It is a noble initiative aiming at “HAR HAR MAUSAM HAR GHAR • MAUSAM” (weather information at each house hold at any time). • **Developed by** – Indian Meteorological Department (IMD) • **Aim** – To provide location specific forecast at Gram Panchayat level. • **Weather forecasts** - hourly up to 36 hours - 3-hourly from 36 hrs to next five days - Every 6-hourly from next 5 days to 10 days. • It will be further augmented with the implementation of Mission Mausam.
e-GramSwaraj
• **Launched by** – Ministry of Panchayat Raj • **Objectives** - It helps to prepare and execute Gram Panchayat Development Plan (GPDP). • It will ensure real time monitoring and accountability.
Meri Panchayat app
• **Launched by** – Ministry of Panchayat Raj • **Objectives** – It aims to create a unified mobile governance platform for rural areas, including residents, functionaries, and Panchayati Raj Institution System stakeholders. • It seeks to streamline and consolidate various functions and information scattered across different portals into one cohesive mobile platform, thus serving the varied needs of Gram Panchayats.

Mission Mausam is a two-year initiative by the Indian government to improve India's weather forecasting and climate resilience.

How does it help the public?

- **Efficient disaster management** – It will also reduce the loss of life and property from the meteorological disasters.
- **Promote sustainable agriculture** – It empowers the cultivators to make critical decisions in agriculture, such as planning sowing, irrigation, and harvesting activities
- **Enhance farmer’s livelihood** – It can ensure better returns and increase their profits.
- **Strengthen grassroots governance** – It improves administration and ensures tailor made approaches in information dissemination.
- **Enable climate-resilient rural population** – It enable rural communities to better plan agricultural activities and prepare for weather-related risks.

There are 2.55 lakh village panchayats across the country, with resident populations of a few thousands on average.

References

1. The Indian Express| Launch of Panchayat Level weather Forecasts
2. IMD| Mausamgram



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