





## **IMD's Support to RIMES**

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भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT

#### **Presentation Layout**

- IMD' Support to RIMS on real time weather monitoring and forecasting
- IMD RIMES Unit
- Capacity Building Support to RIMES.





#### IMD SHARES THE OBSERVATIONAL AND MODELING PRODUCTS FOR A A SEAMLESS FORECASTING IN RIMES COUNTRIES AS MENTIONED BELOW





IMD shares the final forecast and warning products in the region which is prepared with Weather Analysis and Forecast Enabling System (WAFES): Decision Support System (DSS). It includes the products on daily weather and severe weather



IMD shares the impact based forecast advisories for severe weather in the region to the member countries





#### **APPLICATIONS**





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### **IMD-RIMES** Unit

#### Objective

- The Regional Integrated Multi-Hazard Early Warning System (RIMES), in collaboration with the India Meteorological Department (IMD), has established the IMD-RIMES Unit (IRU) at Mausam Bhawan, New Delhi.
- It would support IMD in the implementation and integration of tools and technologies.
- These tools would aim to enhance the utilization of IMD-generated products across multiple stakeholders.
- The IRU will focus on streamlining data extraction processes, improving the interoperability of systems, and upgrading existing tools with cutting-edge technologies.
- These efforts would gear towards more effective decision-making and communication.





#### **IMD-RIMES** Unit

The IMD-RIMES Unit (IRU) is actively engaged in the development and enhancement of decision-support tools in collaboration with IMD scientists. The tools currently under development are:

- 1. **AgroDSS** An agricultural decision support system intended to deliver customized weather-based advisories and climate-informed insights to stakeholders in the agricultural sector.
- **2. IRAINS** An integrated rainfall analysis and information system aimed at improving hydrological assessments and rainfall pattern monitoring.





### **IRAINS (IMD RAinfall INformation System)**

- IRAINS (IMD RAinfall INformation System) is a specialized platform developed for the Hydromet Division, by IRU (IMD RIMES UNIT) in collaboration with IMD scientists using cutting edge technologies by focusing on the efficient tracking and analysis of rainfall data across India.
- Serves as a central hub for rainfall data collection from multiple stations, statistical analysis and customizable data entry.
- Offers wide range of features to monitor daily rainfall, historical data, and generate graphical and tabular reports.
- It produces interactive maps with filtering options, intuitive interface and comprehensive data analysis features
- It has dissemination capabilities. It is scalable.





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#### WEATHER DSS

- The Weather DSS is a platform developed by the IMD development team to deliver real-time weather analytics and forecasting support for operational planning and disaster risk reduction.
- The IMD-RIMES Unit (IRU) is primarily contributing to the enhancement of the system's front-end interface, focusing on user experience and functionality improvements.
- Key responsibilities include upgrading UI components across existing modules and implementing automated dissemination of advisories through various communication channels such as Facebook, Twitter, email, and WhatsApp.
- The IRU team also plays a vital role in establishing feedback mechanisms to support iterative development and ensure continuous service improvement.





#### AGRO-DSS

- AgroDSS is an agricultural decision support system designed to assist in dynamic crop planning and management.
- As part of the recent infrastructure improvement, the system was migrated from a legacy CETOS environment to Ubuntu 24.04.
- Alongside this migration, major functional and structural improvements were implemented, including:
  - 1). Migration to a new VM running Ubuntu 24.04.
  - 2). Development of a Dynamic Crop Calendar
  - 3). Creation of a Crop Configuration Tool
  - 4). Complete revamp and recovery of AgroDSS after a system crash.





#### **Capacity Building Activities**

- RIMES supports organisation of SASCOF, Pre-COF and Users conference conducted by RCC, Pune.
- IMD provides support through resource persons for various training conducted by RIMES for different countries.
- IMD supports RIMES in providing required development of observational and modeling capability and early warning system of countries including implementation of IBF.
- IMD and RIMES together developed the Multi-hazard early warning dissemination system for TN and Odisha





# THANK YOU



