MULTI-HAZARD EARLY WARNING DECISION SUPPORT SYSTEM (MHEW-DSS)

Introduction and Background:

Developed by the **India Meteorological Department (IMD)**, this advanced digital platform was launched in January 2024 under '**Mission Mausam**'. It integrates and analyzes various weather hazards such as cyclones, floods, and heatwaves in one place to issue rapid warnings.

Important Statistics (For Competitive Exams):

- **Forecast Accuracy:** Accuracy of weather predictions has increased by **30%**.
- **Time Efficiency:** The time taken to prepare a forecast has been reduced from 6 hours to 3 hours (a **50% reduction**).
- **Lead Time:** The lead time for weather forecasting has been extended from **5 days to 7 days**.
- **Economic Savings:** Approximately **₹250 crore** saved due to automation and indigenous technology.
- **Evacuation Costs:** Due to precise predictions, disaster evacuation costs have dropped to **one-third** compared to 1999 levels.

Key Applications:

- **Mausamgram:** A portal providing hyper-local forecasts. It offers 10-day advance information for **6.2 lakh villages** and **1.5 lakh PIN codes** across the country.
- **WAFES:** A **GIS-based system** that simplifies weather analysis.
- **SACHET & Mausam App:** Digital tools used to deliver warnings directly to the public.

Technical Features:

- **Automation: 90%** of weather data collection and quality checks are now automated.
- **Impact-Based Forecasting:** This system does not just predict the weather; it also assesses its potential impact on sectors like **agriculture, health, and transport**.

Major Awards:

- **National Award for e-Governance 2025.**
- **UNDRR Sasakawa Award 2025:** Awarded to IMD Director General **Mrutyunjay Mohapatra** for excellence in disaster management.
- **Economic Times GovTech Award 2026.**

Benefits:

- **Agriculture:** Reports indicate that the income of farmers following **Agromet advisories** has increased by **52.5%**.
- **Environment:** The digital system saves **23.4 tons of paper** annually, reducing CO_2 emissions by **2.57 tons**.
- **International Cooperation:** India provides warnings through this system to **10 neighboring countries** in South Asia (including Oman, Thailand, Sri Lanka, etc.).

DHARTI ABA JANJATIYA GRAM UTKARSH ABHIYAN (DAJGUA)

Launch and Objective:

- **Launch Date:** October 2, 2024 (Launched by Prime Minister Narendra Modi).
- **Nodal Ministry:** Union Ministry of Tribal Affairs.
- **Objective:** To bridge infrastructure gaps in tribal villages and improve health, education, and livelihood opportunities.
- **Coverage:** The scheme applies to **63,843 villages** across 2,911 blocks in 549 districts within 30 States/Union Territories.

Important Statistics:

- **Total Budget: ₹79,156 crore** (For a five-year period: 2024-25 to 2028-29).
- **Funding Ratio:** Central share: ₹56,333 crore; State share: ₹22,823 crore.
- **Implementation:** 25 types of interventions will be implemented through **17 ministries**.

Primary Sectors and Ministerial Roles:

- **Rural Development:** Aim to construct 20 lakh houses under PMAY-G in tribal areas (7.6 lakh houses completed as of March 2026).
- **Jal Shakti:** Achieving drinking water saturation in all tribal villages through the Jal Jeevan Mission.
- **Education:** Construction of 1,000 hostels (under Samagra Shiksha Abhiyan).
- **Health:** 1,000 Mobile Medical Units (MMUs) for tribal regions.
- **Telecom:** Internet access for 5,252 villages (under USOF).
- **Skill Development:** Establishment of skilling centers in 30 tribal districts.

Special Initiatives by Ministry of Tribal Affairs:

- **Sickle Cell Disease (SCD):** Establishment of a 'Center of Competence' for SCD prevention and counseling across 15 states.
- **Marketing:** Setting up Tribal Multi-Purpose Marketing Centers (TMMC) for tribal products.
- **Forest Rights Act (FRA):** Establishment of 433 FRA cells in 20 states for the implementation of forest rights.
- **Ashram Schools:** Infrastructure improvement of tribal residential schools and hostels.

Institutional Framework (Implementation):

- **National Level:** The Ministry of Tribal Affairs acts as the coordinator. A dedicated **Project Management Unit (PMU)** has been established for this purpose.
- **State/District Level:** The district administration ensures service delivery by coordinating between various departments.

Current Progress (As of March 2026):

- **Electrification:** Electricity provided to 59,812 households and government institutions.
- **Anganwadis:** 875 Anganwadi centers sanctioned, with 657 currently operational.
- **Mobile Health:** 154 Mobile Medical Units (MMUs) have been made available.
- **Roads:** Sanctioning of 2,411.25 km of roads under PMGSY.

ARTEMIS II MISSION – KEY HIGHLIGHTS

- **Mission Type:** This is a **'Crewed Lunar Flyby'** mission. The astronauts will not land on the lunar surface; they will travel around the far side of the Moon and return to Earth.
- **Launch Date: April 1, 2026** (Wednesday evening, US Time).
- **Rocket: SLS (Space Launch System)** – It stands as tall as a 32-story building (approximately 322 feet).

- **Spacecraft: Orion** Capsule.
- **Fuel:** The rocket utilizes approximately **2.6 million liters** of liquid hydrogen and liquid oxygen.

CREW MEMBERS

Four astronauts are participating in this mission, each representing a historic milestone:

1. **Reid Wiseman:** Commander (USA).
2. **Victor Glover:** Pilot; the **first person of color** on a lunar mission.
3. **Christina Koch:** Mission Specialist; the **first woman** on a lunar mission.
4. **Jeremy Hansen:** Mission Specialist; the **first non-American** (from Canada) to go to the Moon.

MISSION SPECIALITIES & RECORDS

- **Distance:** The mission will travel approximately **6,400 km** beyond the far side of the Moon. Covering a total distance of over **400,000 km** from Earth, it is set to become the farthest human spaceflight mission in history, surpassing the record held by **Apollo 13**.
- **Duration:** It will take approximately **10 days** from launch until the spacecraft splashes down in the **Pacific Ocean**.
- **Objective:** To test the technology and life support systems required for **Artemis III** (the mission intended to land humans on the Moon), currently planned for 2028.
- **Historical Context:** This marks the first time humans have entered lunar orbit since **Apollo 17** in 1972, ending a hiatus of over **50 years**.

WORLD AUTISM AWARENESS DAY – 2026

Observed annually on **April 2**, World Autism Awareness Day aims to foster global understanding and acceptance of people with autism.

BACKGROUND AND SIGNIFICANCE

- **Commencement:** The **United Nations General Assembly** adopted a resolution on **December 18, 2007**, to designate this day.
- **First Observance:** It has been observed globally every year since **April 2, 2008**.
- **Objective:** To respect the rights of individuals with **Autism Spectrum Disorder (ASD)** and raise awareness to improve their quality of life.

WHAT IS AUTISM?

- It is a **neurodevelopmental disorder** that affects how a person perceives and socializes with others.
- It primarily impacts **social interaction**, **communication**, and behavioral patterns.
- It is not a "disease" but a **variation in brain function**. It is typically identified in early childhood, usually before the age of three.

WORLD AUTISM AWARENESS DAY – 2026 HIGHLIGHTS

- **2026 Theme:** The United Nations selects a specific theme each year. For 2026, the focus is on **"Empowering Autistic Voices,"** emphasizing the importance of providing a platform for autistic individuals to share their experiences and lead self-advocacy.
- **Official Color: Blue** is the primary color used for awareness. The global campaign is famously known as **"Light It Up Blue."**

- **Symbols:** The **Puzzle Piece** (representing the complexity of the spectrum) and the **Infinity Symbol (♾)** (representing neurodiversity and the infinite possibilities within the community) are commonly used as symbols for autism awareness.