#### **Purpose & Goals**

* The platform will embody a proactive and integrated approach to disaster management, using technology to shift from a relief-centric to a holistic strategy. (Source:<https://www.ndma.gov.in/>)
* To support the vision of a disaster-resilient India, the platform will be a technology-driven, multi-hazard tool that integrates risk reduction into its core workflows. (Source:<https://www.ndma.gov.in/>)
* The platform will serve as a dynamic version of the National Database for Emergency Management (NDEM), providing near real-time information to support decision-making. (Source:<https://www.ndma.gov.in/>)
* The platform aims to empower stakeholders at all levels, from national authorities to local bodies, by providing them with a unified tool for preparedness and response. (Source:<https://www.ndma.gov.in/>)

#### **Stakeholders & Roles**

* **National Executive Committee (NEC):** This stakeholder group will use the platform to monitor the implementation of the National Plan, ensuring that the activities coordinated through the platform align with national strategy. (Source:<https://www.ndma.gov.in/>)
* **State Disaster Management Authority (SDMA):** Headed by the Chief Minister, the SDMA will use the platform for state-level coordination, resource management, and implementation of the national policy. (Source:<https://www.ndma.gov.in/>)
* **Technical Agencies (IMD, INCOIS, CWC):** These agencies will be integrated data providers, feeding real-time early warning data for cyclones, tsunamis, and floods directly into the platform for automated processing and dissemination. (Source:<https://www.ndma.gov.in/>)
* **Panchayati Raj Institutions & Urban Local Bodies:** These local stakeholders can be granted limited access to the platform to report localized incidents and receive community-specific alerts, empowering them to respond effectively. (Source:<https://www.ndma.gov.in/>)

#### **Processes & Workflows**

* **Common Alerting Protocol (CAP) Integration:** The platform will have a workflow to automatically ingest and disseminate alerts using the CAP standard, integrating with systems like the SACHET portal for wider public outreach. (Source:<https://www.ndma.gov.in/>)
* **Digital Incident Response System (IRS):** The platform will digitize the IRS workflow, providing a standardized, on-scene management tool for all-hazard incidents that is accessible to all responding agencies. (Source:<https://www.ndma.gov.in/>)
* **Dynamic Resource Mobilization:** The platform will integrate with the India Disaster Resource Network (IDRN), allowing commanders to view and mobilize equipment and skilled human resources directly from the platform's interface. (Source:<https://www.ndma.gov.in/>)
* **Automated Damage Assessment:** The platform will use drone and satellite imagery, processed by GenAI, to conduct rapid, preliminary damage assessments, accelerating the post-disaster workflow. (Source:<https://www.ndma.gov.in/>)

#### **Data Requirements**

* **Geospatial Data Fusion:** The platform must be capable of ingesting and fusing multiple geospatial data types, including high-resolution satellite imagery, topographic maps, and digital elevation models for comprehensive analysis. (Source:<https://www.ndma.gov.in/>)
* **Real-time Meteorological & Hydrological Data:** The platform requires real-time data feeds from weather stations, rain gauges, and river flow gauges to power its predictive analytics and early warning modules. (Source:<https://www.ndma.gov.in/>)
* **Crowdsourced Data Ingestion:** A key data requirement is the ability to ingest, process, and verify unstructured crowdsourced data from social media and citizen reporting apps to gain real-time situational awareness. (Source:<https://www.ndma.gov.in/>)
* **Critical Infrastructure Database:** The platform must maintain a database of critical infrastructure, including the location and status of hospitals, power plants, and communication networks, to prioritize protection and response efforts. (Source:<https://www.ndma.gov.in/>)

#### **Constraints & Rules**

* **Overcoming Data Sharing Barriers:** The platform will implement standardized data sharing protocols and APIs to overcome the constraint of data being siloed within different government agencies, creating an integrated data infrastructure. (Source:<https://www.ndma.gov.in/>)
* **Ensuring Last-Mile Connectivity:** The platform will be designed with a "low-connectivity" mode and SMS integration to overcome the technical limitation of poor internet access in remote areas, ensuring warnings reach the last mile. (Source:<https://www.ndma.gov.in/>)
* **Legal Framework Adherence:** All platform operations, data handling, and user actions will be governed by the provisions of the Disaster Management Act, 2005. (Source:<https://www.ndma.gov.in/>)

#### **Non-Functional Needs**

* **High Availability & Reliability:** The platform must be designed with full redundancy to ensure it is available 24/7 and reliable, especially during disasters when it is needed most. (Source:<https://www.ndma.gov.in/>)
* **Low Latency:** The platform must disseminate early warnings and display operational data with minimal delay to provide sufficient lead time for responders and the public to take action. (Source:<https://www.ndma.gov.in/>)
* **Accessibility:** The platform's public-facing interfaces and alerts must be accessible to people with disabilities and available in multiple languages to ensure wide reach and inclusivity. (Source:<https://www.ndma.gov.in/>)

#### **Pain Points / Gaps**

* **Bridging Implementation Gaps:** The platform will bridge the gap between policy and implementation by providing a concrete tool that guides users through standardized, compliant workflows. (Source:<https://www.ndma.gov.in/>)
* **Enabling a Proactive Approach:** By providing tools for continuous monitoring and risk assessment, the platform will directly address the gap of a reactive focus, enabling a more proactive approach to mitigation and preparedness. (Source:<https://www.ndma.gov.in/>)
* **Creating an Integrated Data Infrastructure:** The platform's core design as a data fusion hub directly addresses the pain point of siloed data, creating the integrated infrastructure needed for comprehensive risk assessment. (Source:<https://www.ndma.gov.in/>)

#### **Outputs & Deliverables**

* **Multi-Hazard Early Warning Alerts:** The platform will output alerts via multiple channels (SMS, mobile apps) for various hazards, integrating warnings from all relevant technical agencies. (Source:<https://www.ndma.gov.in/>)
* **Public Dashboards:** The platform will generate real-time public-facing dashboards showing weather, incident locations, and relief center status, providing a single source of truth for citizens. (Source:<https://www.ndma.gov.in/>)
* **Dynamic Resource Maps:** A key deliverable will be live maps showing the location and status of all critical resources from the IDRN, allowing for efficient dispatch and management. (Source:<https://www.ndma.gov.in/>)

#### **Compliance & Accountability**

* **DM Act, 2005 Compliance:** The platform will have a built-in compliance module that logs all actions against the provisions of the DM Act, 2005, providing a clear audit trail. (Source:<https://www.ndma.gov.in/>)
* **Supporting Parliamentary Oversight:** The platform's automated reporting and analytics will provide transparent data that can be used for parliamentary scrutiny of disaster management activities and fund utilization. (Source:<https://www.ndma.gov.in/>)
* **Grievance Redressal Mechanism:** The platform will include a digital grievance redressal mechanism for the public to report issues related to relief and response, ensuring accountability to the affected population. (Source:<https://www.ndma.gov.in/>)