



GOVERNMENT OF KERALA

Abstract

Disaster Management Department- Permission granted to Amrita Visha Vidyapeetham for the commencement of fieldwork at the shortlisted sites for installing an AI-Enabled IoT System for Real-Time Landslide Early Warning- Sanction accorded-Orders issued.

DISASTER MANAGEMENT (A)DEPARTMENT

G.O.(Rt)No.208/2025/DMD Dated,Thiruvananthapuram, 03-04-2025

Read:- Letter no.AWNA/OC/10/2024/88 dated 14/10/2024 from Dr. Maneesha Vinodini Rames, Amrita Visha Vidyapeetham

ORDER

Amrita Visha Vidyapeetham has submitted a proposal of disaster relief package for Wayanad. The package includes aid of ₹15 crores to support the survivors of recent landslides and to enhance landslide resilience in the region. A major portion of the relief has been earmarked for installing an AI-Enabled IoT System for Real-Time Landslide Early Warning for Wayanad through Amrita Vishwa Vidyapeetham to increase disaster preparedness capacity.

Amrita Visha Vidyapeetham has recommended the following products:

- Product A: Amrita Dynamic Regional Multi-Hazard Risk Management Platform. This platform leverages remote sensing data, sparse in-situ sensor data, and advanced AI models to provide regional-level risk assessments. Duration of Implementation is 12 months.
- Product B: Amrita's IoT Systems for Landslide Monitoring, Detection & Early Warning. This site-specific system utilizes a dense network of Intelligent Wireless Probes(IWPs) and many in-situ sensors for real-time monitoring of triggering parameters and early warning issuance. Duration of implementation is 36 months.

Based on the landslide susceptibility of each location (based on DEM, slope, LULC, etc), Density and quantity of elements at risk (based on population, building counts, etc) and Potential run-out zones of landslides,

the following sites are grouped and short-listed: -

Selected	Site Name
Site group 1	1. Elambalerimala (Meppadi lsgd) 2. Vellarimala (Meppadi lsgd) 3. Attamala (Meppadi lsgd) 4. Aranamala (Meppadi lsgd) 5. Kalladi (Meppadi lsgd)Report 6. Erumakolly (Meppadi lsgd)
Site group 2	1. Chembramala (Meppadi lsgd) 2. Melmuri (Pozuthana Lsgd) 3. Kuricharmala (Pozuthana Lsgd) 4. Sugathagiri (Vythiri Lsgd) 5. Valaramkunnu (Thondernadu lsgd)
Site group 3	1. Kallumala (Meppadi lsgd) 2. Mannikunnumala (Meppadi lsgd) 3. Muttilmala (Muttil Lsgd)

Government have examined the matter in detail and are pleased to give sanction to Amrita Visha Vidyapeetham for the commencement of fieldwork at the shortlisted sites for installing an AI-Enabled IoT System for Real-Time Landslide Early Warning subject to the following conditions.

1. Coordination with KSDMA and DDMA Wayanad - Regular updates on field activities, sensor deployment, and data sharing mechanisms should be provided to KSDMA for effective integration with existing disaster management frameworks.
2. Community Awareness & Training - The involvement of local communities in understanding and interpreting early warning signals are crucial. A structured training and awareness program should be developed in consultation with KSDMA and DDMA Wayanad.
3. Data Sharing & Integration - The data collected through LEWS should be made accessible to KSDMA and DDMA for real-time decision-making via API, Dash Board and further research.
4. Periodic Review & Performance Assessment - The landslide advisory committee of KSDMA will periodically review the effectiveness of the deployed systems and recommendations will be given to the project implementing agency for necessary course corrections. Apart from the above points, a plan for the long-term sustainability and maintenance of the deployed systems should be developed to ensure

continued functionality beyond the project period and the feasibility of scaling up the initiative to other landslide-prone areas should be explored based on the outcomes of the pilot deployment.

(By order of the Governor)
ANURADHA K C
ADDITIONAL SECRETARY

To:

The Accountant General (Audit)(A&E) Kerala, Thiruvananthapuram

The Commissioner, Land Revenue, Thiruvananthapuram.

The Commissioner, Disaster Management

The Special Officer, Wayanad Township Project

The District Collector, Wayanad

The Member Secretary, Kerala State Disaster Management Authority

Dr. Maneesha Vinodini Ramesh, Provost-Strategic Initiatives, International,
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