Maharashtra plans to deploy landslide warning system

Saturday, 3 December 2011 - 7:53am IST | Place: Mumbai | Agency: DNA

Kanchan Srivastava

The state disaster management cell is planning to deploy real-time landslide monitoring and detection system in landslide prone areas of Konkan and Western Ghats.

The state disaster management cell is planning to deploy real-time landslide monitoring and detection system in landslide prone areas of Konkan and Western Ghats. The system, which is developed by Amrita University of Kerala, uses wireless sensor technology and will provide a day-prior warning of an impending landslide, facilitating evacuation and better disaster management.

One such system deployed and working at Munnar (Dist Idukki) of Kerala was able to assess a probable landslide in July 2009, thus allowing the government to issued a public warning in time.

Apart from being funded by the department of science and technology, the varsity was supported by the European Union, Indian Space Research Organisation (ISRO) and the Kerala government in developing the warning system. Stating that the system cost Rs5 crore, Amrita University Vice-Chancellor Dr Venkat Rangan said, “We started the project in 2006, soon after a major landslide in the area, and completed it within two years.”

The system, which can scan a radius of seven acres, is being installed in state on a pilot basis, following a letter by the state revenue and forest department to Amrita university asking for the same. The varsity faculty will visit the landslide

prone areas in state in December-end to understand the soil and rock behaviour at probable sites. Uttarakhand and Assam are also planning to install the system on pilot basis.

Dr Maneesha Sudheer, the director of the Amrita centre for wireless networks and applications in Kollam who will lead the varsity team to Mumbai, said, “The system consists of 20 columns, each having 4-8 Italian-made sensors of different types, that go 23 metre underground to touch the rock base. The over 100 wireless sensors, running on solar power, record events under the rocks like vibration, pore pressure, stress, tilt meter, rain gauge, soil weakness etc.”

All readings are constantly fed to a computer based monitoring system that calculates the landslide risk. “Maharashtra may need a few different centres as it experiences rockslide routinely,” said Dr Sudheer. The team has also started working on earthquake, flood and drought prediction system.