

## **Sri Lanka Develops Cheap Rainfall Forecasting Device**

March 19, 2015

<http://www.asianscientist.com/2015/03/tech/sri-lanka-develops-cheap-rainfall-forecasting-device/>

*AsianScientist (Mar. 19, 2015)* - By Smriti Daniel - Scientists in Sri Lanka have developed mobile weather stations capable of capturing and transmitting near real-time rainfall data.

Equipped with atomic clocks for precise time and date readings the devices log on to global positioning satellites (GPS) automatically. The devices are based on open-source technology and rely on local materials. At US\$250, they are far cheaper than standard, WHO-certified versions that can cost upwards of US\$10,000.

Sri Lanka has high rainfall variability over short distances which make accurate predictions difficult, says Yann Chemin, designer of the device and scientist with the International Water Management Institute (IWMI), Colombo.

Each station is powered by a single solar panel and three of them are already active in the north of the country. IWMI will produce ten more in partnership with the Lanka Rain Water Harvesting Forum, says Tanuja Ariyananda, the forum's director.

The devices give farmers the reliable, up-to-date data they need to adapt to unpredictable weather, improve rainwater harvesting—a source of clean water in the country's dry zone—or alert the authorities to drain out reservoirs in anticipation of heavy rains.

Floods caused by excessive rain are a serious natural hazard in Sri Lanka. Between 2004 and 2014 over 500 lives were lost and nine million people affected by rising waters.

P.K.S Mahanama, professor of town and country planning at the faculty of architecture, University of Moratuwa, Sri Lanka, says that the devices could work to sensitize farmers to climate change and the need for adaptation.

Ariyananda and Mahanama call for the devices to be installed in schools to raise awareness among students as well as prepare the buildings to double up as emergency shelters.

Chemin hopes to connect the devices to Sri Lanka's mobile phone networks, allowing for mobile text alerts to be sent directly to farmers and government officials. "What is essential is to create a 'community of learning' through making the designs open-source," Chemin said.

-----

Source: [SciDev.Net](http://SciDev.Net).

Disclaimer: This article does not necessarily reflect the views of AsianScientist or its staff.