

## Sri Lankan phone to forecast rain

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Scientists in Sri Lanka have developed mobile weather stations to capture and transmit 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.

The stations are powered by a single solar panel and there are already three of them active in the North. IWMI will produce 10 more in partnership with the Lanka Rain Water Harvesting Forum, says Tanuja Ariyananda, the forum's director.

The devices will 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.

*Pic source: cnet*

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 sensitise 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 and 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. SciDevNet