

# AUTOMATED WEATHER STATIONS - AKURANA



Foundation for Environment, Climate and Technology [FECT]  
Sponsors: US National Academy of Sciences, USAID



Installation of the Ambient weather station



Davis Vantage Vue Weather Station

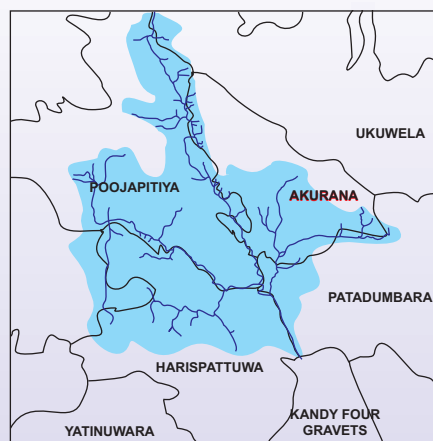
## Summary

This flyer describes the weather stations set up by FECT in Akurana in 2015, online real-time access to the data and the link between rain and flooding.

## Rainfall in Akurana

In the last two decades, there has been flooding in Akurana. Rainfall is a driver of flooding along with construction into the river, poor management of the margins of the river and urbanization of the catchment.

## Pinga Oya Catchment (Blue) and Divisional Secretariat Divisions



## Weather Stations

**Latitude 07° 22' 00" N Longitude 80° 37' 00" E Elevation 1784 ft**

Two fully automated weather stations have been set up at the FECT office in Akurana. Through this we are seeking to make the observations available online every half an hour robustly. Our Davis weather station system shall work as long as we have electricity and as a backup our Ambient system works when we upload it via a computer.

## Online Access:

**Davis Station:** [www.weatherlink.com/user/fectakurana](http://www.weatherlink.com/user/fectakurana)

**Ambient Station:** [www.tropicalclimate.org/akurana\\_weather/](http://www.tropicalclimate.org/akurana_weather/)

**Twitter:** [twitter.com/akuranaweather](https://twitter.com/akuranaweather) @akuranaweather / @climatelk

## Rainfall Thresholds for Flooding

Before 2000, in recent memory, only the Batticaloa cyclone of 23 November 1978 led to a cresting of the Pinga Oya as it passed Akurana but no flood damage due to the river. The daily rainfall at Katugastota was 263 mm but this still did not lead to inundation of buildings in Akurana as would become common since 2001. Rainfall of about 110 mm led to flooding then. Since then the amount of daily rainfall needed for flooding has kept dropping to about 60 mm as Akurana has flooded over a dozen times.

## Typical Online Report of Davis Weather Station

| FECT Weather Station Akurana                            |                                           |                  |              |              |             |
|---------------------------------------------------------|-------------------------------------------|------------------|--------------|--------------|-------------|
| Current Conditions as of 3:48 PM Thursday, May 25, 2017 |                                           |                  |              |              |             |
| Station Summary                                         | Current                                   | Today's Highs    |              | Today's Lows |             |
| Outside Temp                                            | 27.2 C                                    | 29.9 C           | 12:26 PM     | 21.7 C       | 12:00 AM    |
| Outside Humidity                                        | 81%                                       | 98%              | 12:00 AM     | 72%          | 12:27 PM    |
| Inside Temp                                             | 28.2 C                                    | 28.4 C           | 2:44 PM      | 26.3 C       | 6:43 AM     |
| Inside Humidity                                         | 72%                                       | 78%              | 9:02 AM      | 69%          | 12:00 AM    |
| Heat Index                                              | 30.6 C                                    | 36.1 C           | 12:25 PM     |              |             |
| Wind Chill                                              | 27.2 C                                    |                  |              | 21.7 C       | 12:00 AM    |
| Dew Point                                               | 23.9 C                                    | 25.0 C           | 9:05 AM      | 21.1 C       | 12:00 AM    |
| Barometer                                               | n/a                                       | n/a              | 12:00 AM     | n/a          | n/a         |
| Bar Trend                                               | n/a                                       |                  |              |              |             |
| Wind Speed                                              | Calm                                      | 32 km/h          | 1:47 PM      |              |             |
| Wind Direction                                          | ESE 108°                                  |                  |              |              |             |
| 12 Hour Forecast                                        | FORECAST REQUIRES 3 HOURS OF RECENT DATA. |                  |              |              |             |
| <b>Wind</b>                                             | <b>2 Minute</b>                           | <b>10 Minute</b> |              |              |             |
| Average Wind Speed                                      | 1.8 km/h                                  | 1.6 km/h         |              |              |             |
| Wind Gust Speed                                         |                                           | 8.0 km/h         |              |              |             |
| <b>Rain</b>                                             | <b>Rate</b>                               | <b>Day</b>       | <b>Storm</b> | <b>Month</b> | <b>Year</b> |
| Rain                                                    | 0.00"/Hour                                | 0.01"            | 0.71"        | 5.50"        | 26.29"      |
| Last Hour Rain                                          | 0.00"                                     |                  |              |              |             |

## Contact Information

Foundation for Environment  
Climate & Technology,  
No. 76/2 Matale Road, Akurana,  
Sri Lanka.  
Phone: +94-81-4922992  
Web: [www.climate.lk](http://www.climate.lk)  
E-mail: [info@tropicalclimate.org](mailto:info@tropicalclimate.org),  
[fectsl@gmail.com](mailto:fectsl@gmail.com)