

UNDERSTANDING SIGNS OF CLIMATE CHANGE THROUGH WEATHER DATA ANALYSIS: A CASE STUDY IN MALABE, SRI LANKA

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ABSTRACT

Climate variability is a natural phenomenon and is the way climate fluctuates above or below its long term average “*climatological normal*” in a place or a country. *Climate changes* are the long term continuous changes (increases or decreases) to weather conditions which can have very significant impacts on all human beings. Before planning for adaptation and mitigation measures for the adverse impacts of climate changes a country must clearly estimate its degree of vulnerability. This can only be determined based on rigorous scientific analysis of data obtained from large number of weather stations all over the country. It is important that such data should be made freely available to anyone, who is interested in studying about these areas.

In the absence of such reliable data for studies, a new weather monitoring station was recently established at SAITM University premises (6° 55' 08" N, 79° 57' 42" E and 16.210 m above MSL) in Malabe Sri Lanka. An accurate and powerful wireless weather station which is having a very fast data acquisition rate of 2.5 seconds is used for this purpose. The study presented here in this paper is based on a literature survey conducted, variety of data that can be obtained and types of analysis and predictions we can make with the use of this Vantage Vue® weather station.

In future, the researchers are planning to conduct detailed studies on data available on various weather parameters to find local signs of climate change. The outcomes of such researches at the end, can help make people aware that the climate change has already begun, and what we now need to do is finding ways to live with it.

Key words: Climate variability, Climatological normal, Climate change