

# VARIABILITY OF EXTREME EVENTS AND THEIR EFFECTS TO SRI LANKA RAINFALL ESPECIALLY DURING SOUTHWEST MONSOON AND SECOND INTER MONSOON

## Abstract

Tropical cyclones are the one of the most hazardous weather events in the world .The most affected areas of these systems are China, Bangladesh and Eastern coast of India. In case of Sri Lanka only 17 cyclones have crossed the country during last 100 years(1901-2000). Fifteen cyclones have crossed over the eastern part of the country and 2 over the western side of the country. Although 17 cyclones have crossed the country so far, many of them were formed in the Bay of Bengal and lot of depressions, Deep depressions and both low and upper air disturbances formed in the vicinity of the country have affected the rainfalls and the weather conditions of the country. In this study only the influence of Tropical cyclones which crossed Sri Lanka have been considered and their tracks, movements and rainfall distribution and the contribution to the annual rainfall of the country when the cyclone approaching, crossing and moving away from the country were studied. Three days cumulative rainfall of all rainfall stations including Meteorological stations for the construction of Maps and only Meteorological station were considered for analyzing of daily rainfall variation to minimize errors.

Rainfall contribution from the cyclones crossed Sri Lanka over the western side is greater than the cyclones, which crossed over the Eastern side. In comparison to the other areas the amount of rainfall received in the Southeastern and Northwestern regions are lower than the other regions. Peak rainfall pattern can be observed 7-10 days prior to date of crossing. Some of the characteristics of these cyclones have also been found.