INTER MONSOON RAINFALL WET ZONE OCCURENCES AND CHANGES

LEKAMLAGE SAMAN LIYANAGE

Dissertation submitted in partial fulfillment of the requirements for the MASTER OF SCIENCE DEGREE
IN ATMOSPHERIC PHYSICS AND DYNAMIC METEOROLOGY of The UNIVERSITY OF COLOMBO, SRI LANKA.

2004

<u>ABSTRACT</u>

Trends of Climatic changes are major area of research interest among scientists today, because changing climatic conditions could bring about far reaching consequences to life in general. Due to droughts there could be shortages of drinking water, Failures in crops, malnutrition, typhus and hardships to wild life. The equatorial belts have been regarded as an area of climatic stability for millions of years (Hays, 1977; Hunts, 1979) mainly because its latitudinal location precludes the possibility of extreme changes in climate, even through drastic changes may be experienced in higher latitudes.

Annual and monthly rainfall pattern and amounts seem to change significantly during the last few decades. Fluctuations in precipitations of the Wet Zone are observed for the period 1900 to 2000. Monthly precipitation data for 16 stations have been taken for the analysis.

Based on the statistical data rainfall in the wet zone for the second inter monsoon indicated a repeated cycle of precipitation over a period of 5.3 years. As per our observations it is noted that the highest contribution of the total rainfall in wet zone is mainly from second inter monsoon. Further, when the period of one hundred year is divided into four quarters, it is evident that there is a spatial change over the period towards south-west plane.