

CLIMATIC FLUCTUATIONS AND HOMOGENIZATION OF NORTHEAST BRAZIL¹

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Before using the basic precipitation data in any agroclimatic study to assess the productivity it is important to check the data series for homogeneity. For this purpose data of 105 locations for the period 1912-1981 over northeast Brazil were used. The preliminary study indicate nonhomogeneity in the time series during 1940's and 1950's at few locations. The amplitude of variation of time series when taken as 10-year moving average show quite different for different regions. It appears that this amplitude is related to time of onset of effective rains in some extent. There is also great diversity in the fluctuations. They present a great regional diversity. Some diversity. Some of the data in the low latitudes indicate presence of four cycles namely 52, 26, 13 & 6.5 years. The 52-year cycle is also evident in the case of onset of southwest Monsoon over a low latitude zone (Kerala Coast) in India. In the case of

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south Africa the prominent cycles are 60, 30, 15 & 10. Similar situation appears to be present in the higher latitudes of northeast Brazil.

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