E1-02 : RELATIONSHIP BETWEEN THE SOUTHERN OSCILLATION INDEX AND THE RAINFALL OF SRI LANKA

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The relationship between the Southern Oscillation Index, which is defined in terms of surface pressure anomalies at Tahiti and Darwin, and the rainfall during the second intermonsoon season (October - November) in Sri Lanka was studied using correlation methods. Rainfall recorded during the period 1941 - 1990 at 19 meteorological stations of which eleven in the Dry zone (Jaffna, Anuradhapura, Maha Illuppallama, Trincomalee, Batticaloa, Hambantota, Puttalam, Vavuniya, Akathimurippu, Ampara, Angamedilla), six in the Wet zone (Kandy, Colombo, Nuwara Eliya, Galle, Ratnapura, Anningkande), and two in the Intermediate Zone (Badulla and Kurunegala), scattered throughout the island were used together with the SOI data.

The Correlation Coefficient (CC) between the second intermonsoon season rainfall and the three month mean SOI for the periods May- June-July, June-July-August, July-August - September, August - September - October and September - October - November were negative and significant surpassing the 90% level of significance at 18 of the 19 stations. Percentage offset of second intermonsoon rainfall for the whole of the island, constructed by averaging the percentage offsets of the 19 stations, when correlated with the three month mean SOI of the above mentioned periods yield strong negative correlations, with CCs significant at above 99% level of significance.