

A COMPARISON OF FROST PHENOMENA AND PROBLEMS IN SOUTH INDIA AND SRI LANKA

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Although not rising above the aerological frost limit, night frosts occur in the mountain areas of South India and Sri Lanka as low as 1070 m and 1350 m elevation, respectively. Evidence compiled from unpublished records and field observations (Domroes 1970, 1974; von Werner 1972; von Lengerke 1977, 1978, notes in 1979) reveals that above 1800m frost is an annually recurrent phenomenon and a problem for agriculture—wherever man's interference with nature (deforestation) and local topography (depressions) favour radiational cooling and cold air stagnation during clear and calm nights and dry periods in 'winter', with seasonal maxima of 37 (Nuwara Eliya) and 67 nights with frost (Nilgiris) on record.

Due to their more compact morphology, higher latitudinal position, longer droughts, the mountains of South India experience greater frost hazards than the Central Highlands of Ceylon—in terms of frequency, spatial extent, temporal occurrence, altitudinal range, intensity and crop damages. While sophisticated 'active' and 'passive' frost protection methods (WMO 1969) have been introduced in South India, particularly on tea plantations, only simple, if any, measures appear to be required and economically feasible in Sri Lanka.

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