

The Fog Episode in Southern Terai Plains of Nepal: Some Observations and Concepts

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ABSTRACT:

Thick fog enveloping a very large extent of north Indian Gangetic plains, southern Terai plains of Nepal and over Bangladesh, and ensuing prolonged cold-wave spell during winter season have become prominent lately, in particular, during past one decade or so. The cases of 1997-98 and 2002-03 winter months of December and January are of much significance as the episodes sustained through to a month with only short openings in every couple of days or to just over a week. Surface visibility and temperature pattern during the episode suggest that morning fog rise slightly above the ground to become low-level stratus cloud during day time inducing the afternoon maximum temperature to remain too low and close to the minimum temperature contributing to very cold wave situation in the vast expanse of the plains. Correlation between the passages of western disturbances over the Himalayas and its adjoining northern reaches of south Asian plains and fog episodes are noted. Some significant features of the episodes are looked into, and synoptic as well as meso-scale reasoning are explained with emphasis upon the episode of 1997-98.

Keywords: Inversion, Subsidence, Convection, Synoptic and Ridge
