

Flow Characteristics of Different Regions of Nepal

Regional scale spatial and temporal distribution of meteorological flows over different regions of Nepal have been studied with the application of Weather Research and Forecast Model (WRF) incorporating field observations to identify major routes of air mass transport towards Himalayas from the Ganges Plain. The calculation domain consists of triply nested two-way interacting mesh with 9km, 3km and 1km grid resolution for coarse, fine and finest domains. The study includes selected areas located in the Eastern, Central, Western, Mid-Western and Far-Western Development Regions of Nepal. The study has identified three major routes of air mass transport from Ganges Plain to the Tibetan Plateau from Western, Central and Eastern regions of Nepal. The air mass transport route from Western Region of Nepal appears to be highly important for aerosols/suspected particulates transport from Ganges Plain to Nepal and then to the Tibetan Plateau.

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