



© Kamla-Raj 2009

PRINT: ISSN 0970-9274 ONLINE: 2456-6608

J Hum Ecol, 26(1): 47-63 (2009)

DOI: 10.31901/24566608.2009/26.01.07

Study and Analysis of Surface Weather Parameters over Haryana Using ERA-15 Data (1979-93)

V.M.Murthy

*Institute of Instrumentation Engineering (U.S.I.C.), Kurukshetra University,
Kurukshetra 136 119 Haryana, India
E-mail: veerubhotla_ym@yahoo.co. in*

KEYWORDS Re-Analyses. Assimilated Weather Data. Cloud Cover. Precipitation.

ASBTRACT Total atmospheric moisture content present in the atmosphere is less than 1% of total atmospheric composition. The atmospheric moisture variability accounts for nearly 10% variation in global hydrological cycle. The atmospheric moisture variability occurs in the form of cloud cover and hence in to the precipitation. A prior knowledge of cloud cover and the resulting precipitation will be significant for global hydrological cycle protection and planning. ECMWF Re-Analyses (ERA), ERA-15 assimilated the data sets of surface and upper air daily weather data of temperature (maximum, minimum), wind, cloud cover, precipitation, and evaporation. In the present study analysis of surface weather parameters, correlation of simulated cloud cover and precipitation, comparison of the precipitation during monsoon season over Haryana is considered. Also the simulated precipitation is compared with IMD observations. In addition the performance of the ERA-15 data sets of precipitation over Haryana 12-months of the year is evaluated. Temperature and dew point temperature patterns show 3-year cycle.