

**ASSESSMENT OF CLIMATIC VARIATIONS IN
LAHORE**



By

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ABSTRACT

Global warming is a major problem now-a-days all over the world. World is facing a change in temperature and due to this change, other environmental parameters are also getting changed. Glacial melting, changing patterns of monsoon and hence rainfall, are some major problems being faced by Pakistan in this changing environment. This change is affecting urban areas more than the rural areas. Changing rainfall patterns have also affected rural areas and their crop yield. Research was conducted in order to see the change in average monthly rainfall, humidity, maximum and minimum temperature of Lahore city. Lahore city is facing temperature change and due this, average monthly rainfall and humidity is also changing. Lahore city's data of 30 years from 1983 to 2012 is analyzed in order to measure the change in these four parameters. Lahore airport meteorology station was also visited and available data of 29 years for rainfall, maximum and minimum temperature and 15 years data of humidity was taken for analysis. A change of 0.5°C to 3°C is observed, either in positive or negative direction for average maximum and minimum temperature in months. Similarly, a change of 0.5mm to 2mm is observed in average monthly rainfall in 30 years and average humidity has changed from 1% to 10% in respective months in last 30 years. Same trend is observed at Lahore airport meteorology data. Comparison of data shows that, in most of the years, Lahore city experienced more average temperature, humidity and rainfall than Lahore airport. As Lahore airport is an open area, so it is considered as a rural area by Pakistan Meteorology Department (PMD) for data collection.

ABBREVIATIONS

ABCs	Asian Brown Clouds
AMiT	Average Minimum Temperature
AMxT	Average Maximum Temperature
CH ₄	Methane
CO ₂	Carbon Di Oxide
Cox	Carbon Oxides
EPA	Environmental Protection Agency
FDM	Frequent Multiple Disasters
GDP	Gross Domestic Production
GHG	Green House Gases
GWP	Global Warming Potential
IPCC	Intergovernmental Panel for Climate Change
LAP	Lahore Airport
LC	Lahore City
Met	Meteorological Department
NOx	Nitrogen Oxides
PMD	Pakistan Meteorological Department
SUPARCO	Space and Upper Atmosphere Research Commission
UNDP	United Nations Development Program
VOCs	Volatile Organic Carbons

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