

BOOK REVIEW: "CLIMATOLOGY"

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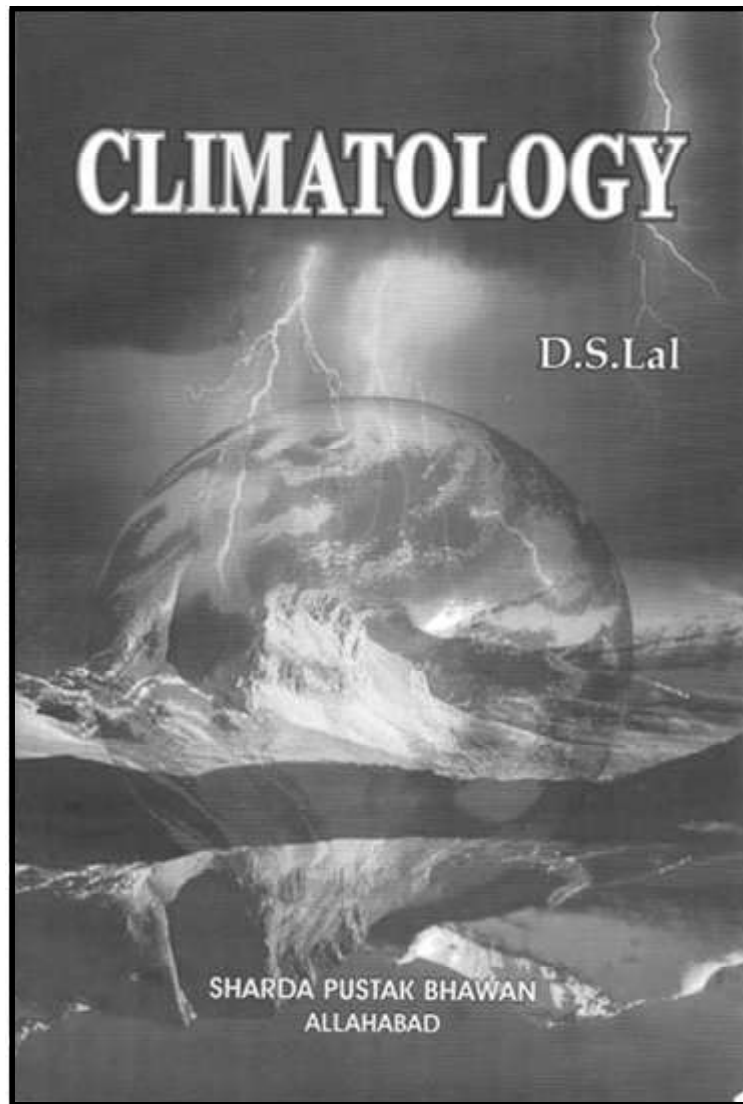
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The book "CLIMATOLOGY" is written to clear the understanding about climate and related aspects. What is "climate change, what everyone needs to know"? This book is essential for those who want to become climate literate and join the growing conversation about the greatest threat of humanity facing today. The book 'Climatology' describes climate science which is the study of climate, scientifically defined as weather conditions averaged over a period of time. This book tells that how this modern field of study is considered as a branch of the atmospheric sciences and a subfield of physical geography. The Climatology, therefore now includes aspects of both the oceanography and biogeochemistry.

The book entitled 'CLIMATOLOGY' is published by Sharda Pustak Bhawan, University Road, Allahabad-211002 (U.P.), India and its revised edition came before us in 2015. The revised edition of this book comprises 8+638= 646 pages. It contains 24 chapters of text matters supported by suitable diagrams and examples. This is followed by sufficient number of multiple choice type questions with answer of the same and suggested readings. Its author Dr. D.S. Lal has compiled his several years of experience in this book.

Different chapters including key points of this book are as following:

1. Introduction: the first chapter describes the climate as key agent of regional differentiation, definition, aims, objectives, divisions etc. of climatology.
2. The Atmosphere: Origin, Composition and structure: This chapter well describes the origin, composition, structure and modern views about atmosphere.
3. Insolation and Heat Budget: This chapter describes the insolation, its distribution, atmospheric depletion and latitudinal heat balance.
4. Temperature and Atmosphere: This chapter illustrates the heat and temperature, processes of energy transfer and heating and cooling of atmosphere.
5. Distribution of Temperature: This chapter nicely tells about different types of temperature distribution and daily cycles of air temperature.
6. Air Pressure and Winds: This chapter describes different aspects of air pressure and winds including measurement and wind shift.
7. General Circulation of the Atmosphere: This chapter well describes the categories of atmospheric motion, air flow patterns and different types of circulation patterns.
8. The Monsoon: This chapter appropriately describes the different meanings, economic importance, concepts of origin of monsoon and Indian monsoon.
9. Local Winds: This chapter includes a concise description of land, sea, mountain and valley breezes, hot and cold local winds.
10. Humidity: This chapter contains a concise description of different state of water, sources of atmospheric moisture, hydrological cycle, condensation etc.
11. Fog and Clouds: This chapter nicely describes the different types of classification of fog and clouds, clouds as an aid to weather forecasting.
12. Precipitation: This chapter well describes the processes, theories, forms, types, distribution and factors affecting the precipitation.



13. Atmospheric Equilibrium: Stability and Instability: This chapter enumerates the concepts of equilibrium, atmospheric stability, stability and daily weather.
14. Air Masses: This chapter gives an account on definition, characteristics, source regions, modifications and classifications of air masses and different types of air masses of the globe.
15. Fronts: Frontogenesis and Frontolysis: This chapter explains the frontal characteristics, frontogenesis, frontolysis and classification of fronts.
16. Atmospheric Disturbances: Cyclones and Anticyclones: This chapter explains the climatic significance of atmospheric disturbances, cyclones, anticyclones and their various other aspects.
17. Tropical Disturbances: This chapter tells us about types of tropical disturbances, origin, movement and track of hurricanes.
18. Thunderstorms, Tornadoes and Waterspouts: This chapter nicely describes the different types, origin, structure, stages of development,

precipitation, cause of origin of thunderstorms along with tornadoes and waterspouts.

19. Classification of Climate: This chapter describes the different types of classification of climate and salient features of classification.
20. Climatic Types and Their Distribution: This chapter explains different types of climates and their global distribution.
21. Climate Change: This is most burning topic, which is nicely explained and represented by author. It incorporates theories of climate change, climate changes through geological time *etc.*
22. Weather Forecasting and Analysis: This chapter incorporates historical background, methods and use of satellites weather forecasting.
23. Applied Climatology: This chapter describes the applied part of climatology *i.e.* influences on plant and animals including pollution, health and diseases and urban planning.

24. Global Warming: This is again a burning topic at global level that is well explained by author. This chapter describes the GHG, CFC and potential effects of global warming.

The book 'Climatology' reviewed here is therefore up-to-date and ultimate on the subject. Anyone can understand the 'Climatology' with the help of this book, as it is nicely represented in simple language.

Book Review

1. Name of book: CLIMATOLOGY
2. Year : 2015
3. ISBN: 81-8620-4-26-1
4. Pages: 16+448=464
5. Author: Dr. D. S. Lal
6. Price: Rs. 350/-
7. Publisher: Sharda Pustak Bhawan, Allahabad-211002 (U.P.), India