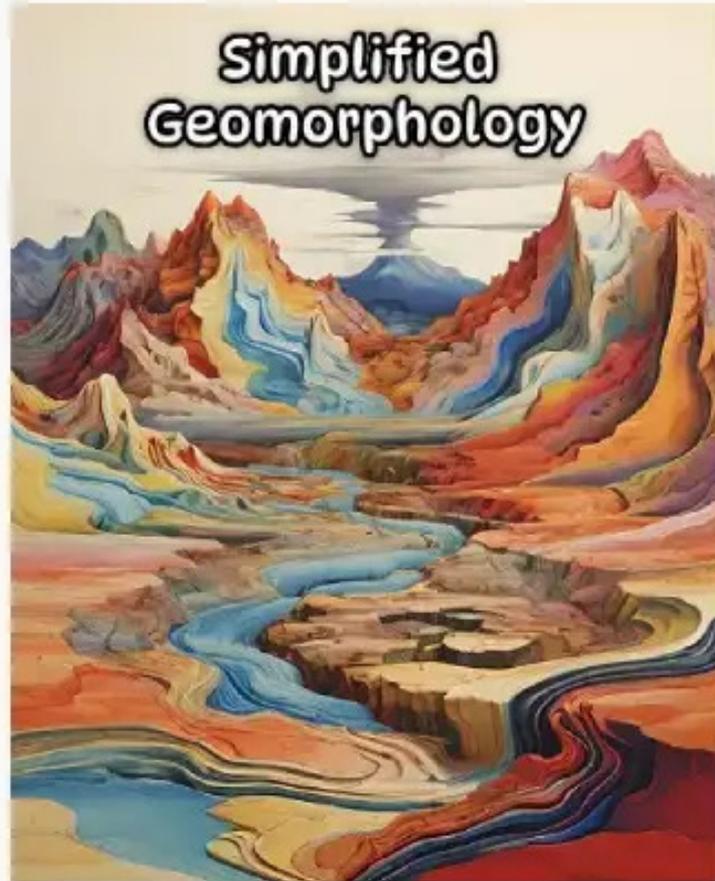


Simplified Geomorphology



SIMPLIFIED

GEOMORPHOLOGY

A COMPREHENSIVE WORK

FOR UPSC CSE

AND OTHER COMPETITIVE EXAMINATIONS

**REVISED
EDITION**

DR. KRISHNANAND

GEOGRAPHY OPTIONAL SPECIAL

ABOUT THE AUTHOR

Dr. Krishnanand is highly proficient scholar in the field of research and academics in Geography and environment. He graduated from Shaheed Bhagat Singh College, University of Delhi. He was awarded “**best student of the college across all disciplines**” in 2009 and “**Gold medal**” in 2010. He completed his Ph.D from Department of Geography, Delhi School of Economics, University of Delhi. He has a teaching experience of over a decade in the field of Geography for UPSC, State PCS , UGC NET and other competitive examinations.

He is an avid field researcher and photographer with two Geographical Documentaries on YouTube Channel- TheGeoecologist, to his credit - Exploring Ladakh- A Geoecological Perspective and Spiti Valley Project. His areas of interest include Geomorphology, Geoecology, Geotourism, Environmental Geography, Geodiversity, Geomorphosites, Fossil park, Geoparks, Field Work and Documentary Making in Geography, Remote Sensing and Geographic Information System (GIS) and GPS. He has published three books and six articles at National and International levels.



This E-book by Dr. Krishnanand is a Simplified Compilation on **GEOMORPHOLOGY along with detailed explanations available through his YouTube lectures of the same.**



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Geomorphology is one of the premiere sub-disciplines in Geography that acquires prime position amongst other branches of Physical geography. It is the study of Earth's landforms created by mostly physical processes, including physical or chemical changes and those changes influenced by biological processes, including land use in order to study how landforms have changed in the past, but increasingly such principals are important for modern applications. For example, over long geological timespans, plate tectonics have shaped continents; Earthquakes and volcanic activity represent active change that relate to plate tectonic movements; Fluvial, or those involving water, change is among the most significant physical factors that shape the Earth at generally small scales.

As a critical component of physical geography, it is needed to understand natural landform changes and potential hazards for populations. The importance of geomorphology for physical geographers is not only important in understanding Earth's physical changes but also in preparing for hazards. For instance, understanding issues of deforestation, soil properties, and seasonal precipitation can better assess frequencies of flooding events and their potential danger.

This E-book aims to facilitate the young and budding UPSC CSE aspirants as well as geographers and research scholars especially in the field of geographical studies to understand the conceptual framework of the subject matter of Geomorphology in a comprehensive manner.

Dr. Krishnanand

Chapter 1

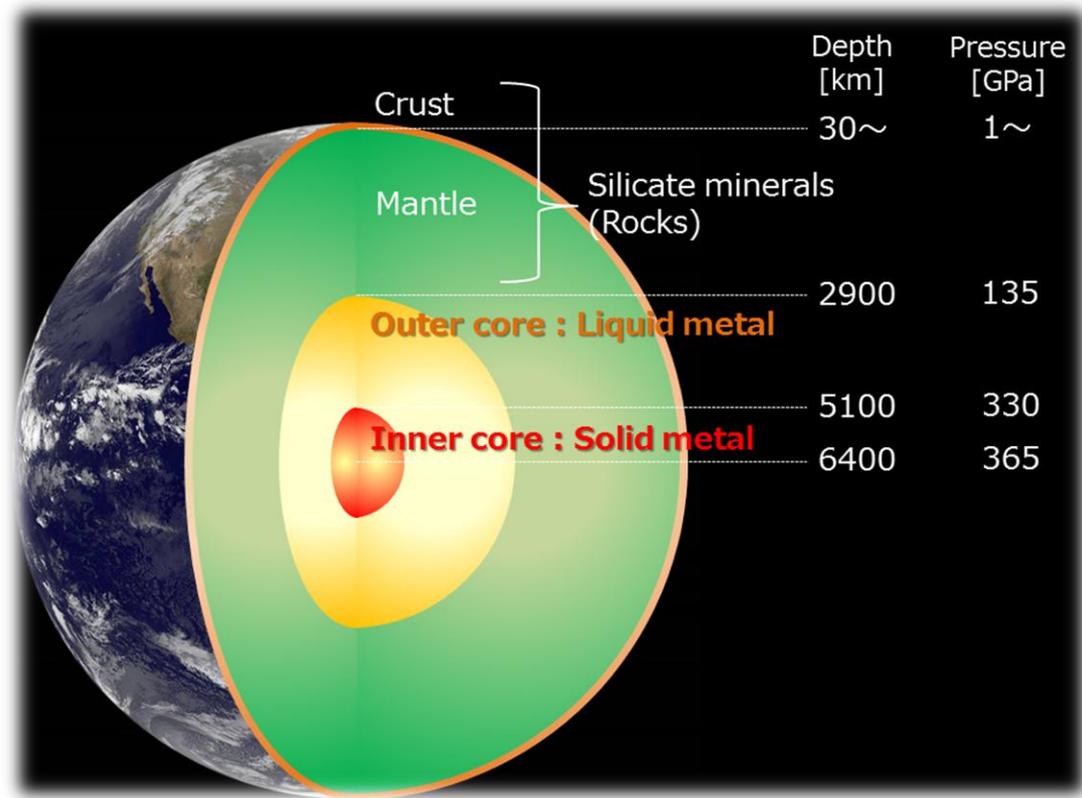
INTERNAL STRUCTURE OF THE EARTH

Internal Structure of the Earth

WHY DO WE NEED TO KNOW IT?

HOW DO WE KNOW ABOUT IT?

WHAT DO WE KNOW ABOUT IT?



SOURCES OF INFORMATION ABOUT THE INTERIOR OF THE EARTH

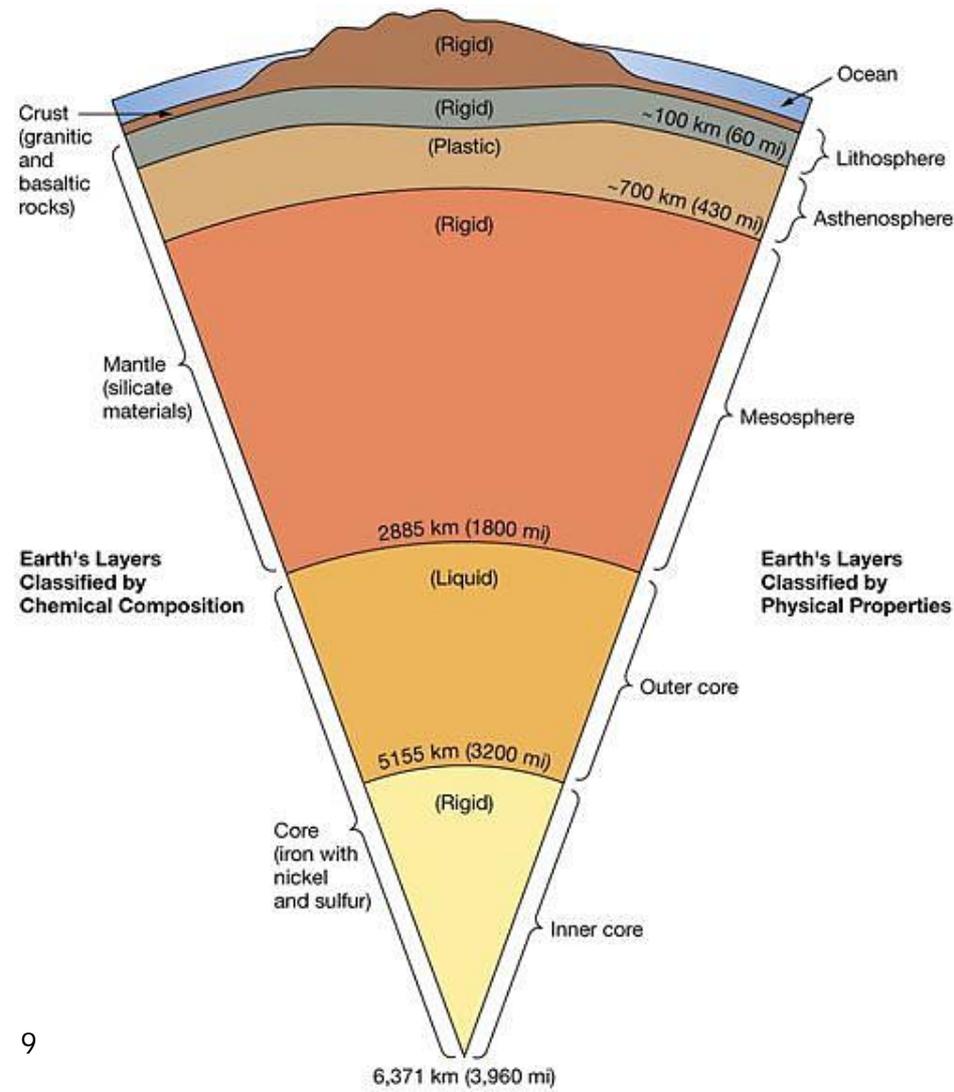
WHAT ARE DIRECT SOURCES AND INDIRECT SOURCES ?

DIRECT SOURCES INCLUDE

ROCKS FROM MINING AREA

VOLCANIC ERUPTIONS

INDIRECT SOURCES



1. **Rate of change of temperature and pressure** from the surface towards the interior
2. **Meteors**, as they belong to the same type of materials earth is made of
3. **Gravitation**, which is greater near poles and less at the equator
4. **Gravity Anomaly**, i.e. change in gravity value according to the mass of material
5. **Magnetic Survey** provide information about the distribution of magnetic materials
6. **Seismic Waves: Primary and Secondary Waves**