

Global Environmental Change Its Nature and Impact

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This book consists of three parts preceded by a preface and a separate chapter. The three parts consist of 19 chapters and followed by a glossary, an appendix and an index. The book contains many useful figures, maps and photographs that were carefully selected to aid understanding. Chapter one (*The Nature of Global Environmental Change*) deals with some topics as the persistent change, rhythmic change, cyclical oscillations, anthropogenic change and biological response to environmental change.

Title of part one is **Geological Record of Global Change** and it consists of seven chapters starting with Chapter 2. Chapter two (*Early geologic Time: The Precambrian Era*) discusses some topics as origin of the earth, plate tectonics, types of plate boundaries, the primitive atmosphere and the global climatic change. The main topics of the third chapter (*Late Geologic Time*) are the early cambrian life, mesozoic climate and age of reptiles. Chapter four (*The Pleistocene: The Age of Ice*) deals with some topics as advance and retreat of ice sheets, dating of the pleistocene, evidence of glaciation and causes of the ice ages. Chapter five lies under the title (*Early Growth and Spread of the Human Population*). It discusses many topics as hominoids as forest dwellers, development of tools, fire as a tool, human occupancy of North America and the pleistocene extinction. Chapter six (*The Holocene: Earth's Climate Since Deglaciation*) deals with some topics as the beginning of agriculture, domestication of animals, development of irrigation agriculture and the emergence of political systems and dendochronology and dating Holocene events. Chapter seven (*The Late Millennium*) discusses some topics as Greenland settlements and the little ice age, North American colonies in the little ice age, some cold times in the twentieth century and recent global warming, but the most important topics of the eighth chapter (*Drought, Famine, and Climatic Oscillation*) are the

drought impact in the developing countries, drought and famine in India, Asia and Africa.

Part two **Global Change: The Human Element in Global Change** consists of eight chapters. Chapter nine (*Industrial Revolution and World Population Growth*) discusses the factors contributing to world population growth, urbanization, demographic transition, population growth in the United States & the developing countries, and the poverty & hunger gap. Chapter ten (*Land Degradation: Accelerated Soil Erosion*) deals with some topics as mechanics of soil erosion, effects of human activity on soil erosion and movement of sediment. Chapter 11 (*Global Land Degradation*) studies the nomadic herding and soil erosion, global soil erosion today, fire and land degradation, wind erosion in the Saharan region, desertification and soil salinization. Chapter 12 (*Human Impact on the Hydrosphere*) deals with some topics as sources of soil and water pollution, depletion of fisheries and international politics and marine pollution; but the most important topics in chapter 13 (*Global Changes in Atmospheric Chemistry*) are the atmospheric pollutants, ozone surface and acidic precipitation. Chapter 14 (*Stratospheric Ozone and Ultraviolet Radiation*) deals with some topics as the decline in ozone, global response to ozone depletion and its future. Chapter 15 (*Habitat Destruction, Alien Species, and Biodiversity*) discusses some topics like the biological extinction, tropical forests and impact of deforestation. The last chapter of this part i.e. the 16th (*Effects of Pesticides, Hunting, and Other Human Activities on Biodiversity*) deals with some topics as the pesticides & the biosphere and illegal hunting.

Part three is intitled **Future Global Change** and it consists of four chapters and start's with chapter 17 (*Forecasts and Prediction*) that studies many topics as the great pyramid of Cheops, science and forecasting and recent developments in forecasting. Chapter 18 (*The Potential for Global Warming*) deals with some topics as the historical change in carbon dioxide and, the carbon cycle, thermal pollution and global warming and climatic change. Chapter 19 lies under the title (*Potential Impact of Global Warming*). It discusses some topics as the global warming and sea level change, economic impact of rising sea

level, effects of global warming, on biodiversity, hydrological cycle, air quality and human health. The most important topics in chapter 20 (*Future Global Environmental Change and the Human Species*) are future food supply and options of the future.

In general, this book can be considered as one of the important books which deal with this important environmental topic.

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