

"One Planet, Many People: Atlas of Our Changing Environment clearly illustrates that our ozoneosphere has been threatened by human activities. It also shows that this problem has been practically solved due to the collaborative efforts of the different sectors of our society. We all need to work together to address the many other problems that affect the health of our planet. As illustrated in this atlas, we need integrated, interdisciplinary approaches to mitigate the adverse effects of human-induced activities on the environment."

— Mario J. Molina

*Co-winner of the 1995 Nobel Prize in Chemistry for his work in atmospheric chemistry, particularly concerning the formation and decomposition of ozone.
Institute Professor, Massachusetts Institute of Technology*

"One Planet, Many People: Atlas of Our Changing Environment demonstrates how our growing number of people and their consumption patterns are shrinking our natural resource base. The challenge is how do we satisfy human needs without compromising the health of ecosystems. One Planet, Many People is an additional wake-up call to this need."

— Ola Ullsten

*Co-Chair World Commission on Forests and Sustainable Development
Former Prime Minister of Sweden*

"One Planet, Many People: Atlas of Our Changing Environment shows us our home as it really is, not only where it is now but where it has been. It becomes quite evident that we have had a huge and largely negative effect on the rest of life of earth—the biodiversity with which our well-being is intricately tied both directly and indirectly. The atlas provides an indispensable guide for a better future for humanity through maintenance of the splendor and magnificence of biodiversity."

— Thomas E. Lovejoy

President of H. John Heinz III Center for Science

For further information:

Director, Division of Early Warning and Assessment
United Nations Environment Programme
National Center for EROS • 47914 252nd Street • Sioux Falls, SD 57198-0001
Tel: 1(605) 594-6117 Fax: 1(605) 594-6119
Email: info@na.unep.net Web: <http://na.unep.net>



In cooperation with NASA, USGS, and University of Maryland.



ONE PLANET MANY PEOPLE

Atlas of Our Changing Environment





One Planet, Many People: Atlas of Our Changing Environment provides a comprehensive, visual presentation of scientifically verifiable information, on changes in the global environment—both the good and the bad—acquired and assessed through state-of-the-art remote sensing technology.

Target Audience

One Planet, Many People is intended for environmental policy makers, non-governmental organizations, the private sector, academics, teachers and citizens. This colorful and approachable atlas contains photographs, satellite images, maps and narratives that provide insights into the many ways people around the world have changed, and continue to change, the environment.

Objectives

The main purpose of this hard-cover, 332-page, large-format atlas is to document visual evidence of global environmental changes resulting from natural processes and human-induced activities. Specific objectives of *One Planet, Many People* include:

- generating awareness of human interactions with the environment that alter the environment in demonstrable ways; and
- providing scientific measurement of over-exploitation of the environment and consequences of such action.

To meet these objectives, the atlas provides:

- a collection of spectacular “before and after” satellite-image pairs on various themes for 80 sites around the world;

- over 30 environmental case studies supported by narratives, images and ground photographs; and
- a compilation of recently released environmental maps.

Focus

The primary focus of *One Planet, Many People* is on environmental status and trends over the last several years, in terms of both physical and human geography. In support of this primary focus, the atlas highlights five major environmental issues:

- effects of urbanization ;
- environmental consequences of energy consumption;
- endangered species, habitat loss and biodiversity;
- state of global water resources and coastal areas; and
- land use practices and global land cover changes.

Contents

Introducing the Planet – A Story of Change

The introductory chapter briefly outlines the history of the planet and the prehistory of the one species, *Homo sapiens*, that has come to dominate the modern era.

People and Planet: Human Influences on the Planet

The second chapter demonstrates how maintaining human populations increases competition for natural resources and details how different cultures have different approaches

to utilizing these resources. The chapter introduces concepts of land use intensification, explains ecosystems and ecoregions, outlines the concept of biodiversity including habitat loss and fragmentation, and provides a general overview of energy sources—their consumption and extraction and the environmental implications of their use.

Human Impacts on the Planet – Visualizing Change over Time

Chapter three uses an abundance of images to show how human activities have made, and will continue to make, observable and measurable changes in the global environment. While on the whole people are healthier and live longer than at any other times in human history, much of the success of the human species has come at the expense of the environment and other species. Various sections in this chapter examine detailed changes in: the atmosphere, including global warming and air pollution; oceans and coastal zones; water, including wetlands and water pollution; forests, including forest fires; cropland; grassland; urban areas; and tundra, including polar regions. The chapter summarizes the human impacts, the driving forces behind environmental changes, and, in some cases, predicts trends. It also illustrates how various environmental changes and trends affect people, both negatively and positively, worldwide.

Natural and Human-induced Extreme Events

The final chapter illustrates changes that result from geo-hazards such as earthquakes, volcanic eruptions, and tsunamis, climatic

hazards including floods, droughts and hurricanes, as well as industrial hazards such as nuclear and industrial accidents and oil spills. Although advances in technology have led to improved forecasts of extreme events and produced faster responses to their occurrence, it is still impossible to prevent such disasters—only to mitigate the damage that they cause.

Epilogue

The concluding pages of the atlas offer suggestions for mitigating the effects of global environmental change and emphasize that the best way to save our global environment is to value it, whether as a resource for direct use on a sustainable basis, or for its indirect services and functions. Suggestions regarding preserving freshwater supplies, protecting croplands and rangelands and providing sinks for greenhouse gases support the atlas' goal of serving as an early warning of further environmental change and prompting policy decisions and individual actions aimed at sustaining the planet and promoting the well-being of its inhabitants. As stewards of the global environment, people worldwide must address environmental issues directly and urgently, become empowered as active agents of sustainable and equitable development, promote an understanding that healthy and vibrant communities are pivotal to promoting environmental protection, and advocate partnerships to ensure that all nations and cultures enjoy a safer and more prosperous future.