

**ONE PLANET
MANY PEOPLE**

Atlas of Our Changing Environment

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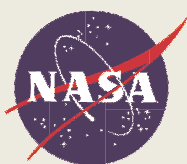
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Foreword

People affect the environment as they interact with it, using it for food, shelter, and recreation and making changes to better suit their needs, purposes, and inclinations. Through our ability to adapt natural resources to our use, we have altered the environment in ways that can now be objectively measured. Our presence on the Earth can be seen through changes on the landscape, as viewed from space. This publication presents images from space that portray the nature and extent of our impact on the planet.

Change is inevitable and an integral part of our planet, our environment, and even us. Our ability to adapt to diverse surroundings has allowed us to overcome many environmental constraints and tailor the planet to our benefit. We harnessed fire, cultivated plants and domesticated animals. We built homes, then villages, and then cities. We became “hewers of wood and drawers of water.” We built tools and discovered how to quarry rocks and later metals. Each advance allowed us to further adapt to and affect the environment that shaped us.

Our ability to act positively to safeguard our heritage and natural wealth may be

affected by the consequences of our success, however. As our numbers have increased, we have also evolved socially and culturally, applying different beliefs and practices to living in and using the environment. What we do affects those far away from us, even those separated from us by mountains, deserts, and oceans. Our activities change the planet in ways that affect our health as well as the health of the plants and animals upon which we depend. We harvest the seas, consume water and energy resources, and convert forests into pasture and cropland. We must be ever conscious of the potential to overuse the land and stress it in ways that it cannot bear.

Our growing populations and settlements make life easier in some ways, but also make us more vulnerable to massive earthquakes, volcanic eruptions, and other disasters. Imagine what would happen in Italy today if Vesuvius erupted on the same scale it did when it destroyed Pompeii. We have gravitated to the shores, making ourselves more vulnerable to storms and hurricanes. We have settled along rivers, making ourselves more vulnerable to floods. We have spread into marginal

climates, making ourselves more vulnerable to drought. Wildfires threaten some of our cities and settlements, just as they do our forests and croplands. Each of these events can affect hundreds of thousands of people, and the cost of protecting ourselves and reducing the risk of disaster continues to increase. Our own activities can also lead to disasters such as oil spills and nuclear and industrial accidents that can devastate as much as any natural event.

Our dilemma is to avoid the most problematic consequences without constraining our need and ability to provide the world’s inhabitants with the environment and resources that will enable every person to pursue an equitable life with all that such a life entails.

The images presented here show both the positive and negative impacts of human life on Earth. We hope also they will provide food for thought, as we seek ways to balance our use of the Earth’s resources with the need to sustain the environments that produce them and support the living systems that we value so highly.



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Preface

Our population is growing, yet our land base is currently fixed. With each new inhabitant comes a need to make more modifications to the Earth's environment. The impacts of these modifications may be both detrimental and beneficial. For example, we estimate that the Earth is losing 15 million hectares of tropical forest land per year, a loss that has a negative effect on biodiversity. At the same time, much of this deforested land is being converted to agricultural land to feed our growing population; this is a positive effect.

In the past 30 years—since the United Nations Conference on the Human Environment in Stockholm in 1972—we have made a concerted effort to understand the limits of the Earth's bountiful resources

and have taken actions to preserve and sustain them. This publication illustrates some of the changes we have made to the environment in the recent past. It serves both as an early warning for things that may come and as a basis for developing policy decisions that can help sustain the Earth's and our own well-being.

The first chapter of this atlas provides a short environmental history of the world, one that illustrates how we got to where we are. Chapter 2 looks at the people and the planet today, covering status and trends over the last 30 years. Chapter 3 examines common issues regarding the Earth's land cover and provides examples that illustrate environmental status, trends, causes and consequences of change in the atmosphere, oceans and coastal zones, fresh-

water ecosystems, forests, cropland, grasslands, urban areas, and tundra including polar regions. Chapter 4 illustrates changes that are the result of extreme events, both natural and human-induced.

These examples raise many questions. What is our likely environmental future? Are we better or less prepared for environmental change? What can people do to create a better future? The answers depend on the actions we choose to take.



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