

Review: Energy: Science, Policy, and the Pursuit of Sustainability

By Robert Bent, Lloyd Orr and Randall Baker (Eds.)

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Robert Bent, Lloyd Orr, and Randall Baker (Eds.). *Energy: Science, Policy and the Pursuit of Sustainability*. Washington, DC: Island Press, 2002. 257 pp. ISBN 1-55963-911-3 (paperback). US\$27.50. Alkaline paper.

Energy is the lifeline of human societies. We need energy to run our cars, heat or cool our homes, cook our food. Availability of plentiful and cheap energy is a must for economic growth. Energy has been used rather lavishly in the United States. With less than a 5% share of the world's population, the United States consumes 25% of the total energy consumed in the world. So far the United States has not been able to devise a comprehensive, sustainable, and environment friendly energy policy. *Energy: Science, Policy and the Pursuit of Sustainability* is a primer that highlights these facts and ties up energy use with key environmental issues like population, pollution, and sustainability. The three distinguished professors who edited this book also authored/coauthored its various chapters. Robert Bent is a professor emeritus of physics, Lloyd Orr is a professor emeritus of economics, and Randall Baker is a professor of public and environmental affairs at Indiana University.

The book has been divided into seven chapters, preceded by an introduction and followed by a conclusion. The first part introduces the reader to the energy-environment problem and the concept of sustainability. Chapter 1 presents the basics of energy, its conservation and degradation, entropy and exponential growth. The grasp of these ideas is a prerequisite for understanding the material given in the rest of the book. The demand for energy is increasing continuously. This is due to both an increase in the world's population and at the same time an increase in per capita energy consumption. Per capita energy consumption is directly related to the standard of living of the people and still there exists a great disparity in this respect among the people living in industrialized areas and those living in developing countries. There is a historical trend that a better standard of living results in a decrease in population growth rate. Therefore an increase in per capita energy use can be linked with ultimate stabilization of the population size. Accordingly, we can have an idea about the energy requirements to achieve our goal of sustainability. Chapter 2 examines all this along with current energy resources and future needs.

Environmental impacts of energy use are discussed in Chapter 3, while the

following chapter covers the cultural dimension of energy consumption. The problem of public perception in developing a sustainable energy policy has been dealt with in Chapter 6. The last chapter tells us that sustainability is fundamentally a moral issue and explains how people can be motivated to do what morality requires regarding the rights of future generations. There are four useful appendices: a description of possible energy sources on earth, an explanation of energy units, a formula to relate population growth to per capita energy use, and a list of acronyms. A brief introduction to the contributors follows and a helpful index marks the end of the book.

This is not a technical book; very simple language has been used throughout. The key ideas and concluding parts at the end of every chapter make it different from other similar texts. The book can be a recommended text for undergraduate students taking energy and environment related courses in public policy, business, and engineering. Apart from that, policy makers, politicians, environmental activists, and concerned government officials can benefit from this book.

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