

cies. Anderson's choice is to use alternative indicators to measure the performance of the economy.

He defines eleven social indicators which focus on school enrollment, illiteracy, unemployment, caloric supply, access to safe drinking water, telephones, income inequality, and infant mortality. He also defines five environmental indicators focusing on deforestation, carbon dioxide emissions, increase in population, nuclear reactors, and energy consumption. By using these indicators Anderson makes a comparison between the G-7 countries and the group of countries which have the largest populations (China, India, USSR, Indonesia, Brazil, Nigeria, and Bangladesh) for the years 1970, 1980 and 1985. The main finding is that social conditions are generally improving but environmental deterioration threatens these improvements (p. 91).

In my opinion, Anderson's set of indicators overestimates the gap between developing countries and G-7 countries simply because he does not use any indicator concerning "civilization ills" such as crime, drug use, anomy, etc. Furthermore, his indicators are not sensitive enough. For example, the difference between Hungary and California is much higher than Anderson's indicators would show.

Victor Anderson knows very well that the aggregation problem should be solved somehow. However, he did not find a good method to do this. Without constructing social and environmental macro-indices, alternative indicators cannot be powerful tools. Anderson shares the view of Hazel Henderson that the total economy consists of three parts; the monetary economy, the human economy, and nature's economy. Maybe the triple of a corrected GNP figure, a well-constructed social macro-index, and an ecologically sound environmental macro-index would give us a more accurate picture of how well the economy is doing.

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INTERNATIONAL BANKS AND THE ENVIRONMENT

International Banks and the Environment: From Growth to Sustainability, an Unfinished Agenda. Raymond F. Mikesell and Larry Williams. Sierra Club Books, San Francisco, CA, 1992. \$30. ISBN 0-87156-640-0.

This book is an excellent and much needed analysis of the role of multilateral development banks (MDBs) in changing the linked ecological and economic systems of "developing" countries. That the ecologies and economies of these countries *are* in fact very intimately linked was completely ignored by the banks up until very recently, and led them to policies that were ecologically damaging, unsustainable, and ultimately did not produce "development" in any real sense of the word. But Mikesell and Williams do not engage in the easy, entertaining, but ultimately counter-productive sport of "bank bashing". Rather, they trace the history of MBD involvement in environmental problems and their progress toward improved environmental performance as an evolutionary process. They argue that this process is still progressing far too slowly, however, and hopefully their book will serve as a means to help speed things up.

Mikesell and Williams first lay out the history of MDBs and the meaning of sustainable development, emphasizing the need to measure and maintain stocks of natural capital. They then document the MDBs' historical environmental missteps in a very readable narrative covering: dam and irrigation projects, forestry and resettlement projects, agriculture and

land-use, and extractive industries. But they go well beyond this litany of past mistakes to provide a new synthesis. They suggest a pragmatic, pluralistic approach to the problem of sustainable development based on a critical assessment of both the successes and failures of the past. They also explore the mechanism of “structural adjustment loans” as a way for the MDBs to encourage sustainable development. These are loans not tied to specific projects but aimed at directly inducing improved environmental performance in the target governments.

“*International Banks and the Environment*” is essential reading for anyone interested in sustainable development. MDBs have had a huge effect on the environment and development. If sustainable development is ever going to become a reality, it will have to be based on a new paradigm of the proper goals and roles of the MDBs. Mikesell and Williams’ book makes these linkages and imperatives crystal clear, and will hopefully provide the catalyst for the implementation of the new paradigm, one that makes ecologically sustainable development the primary goal rather than short-term, narrowly defined economic growth. The well-being of the planet is at stake.

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BEYOND OIL

Beyond Oil: The Threat to Food and Fuel in the Coming Decades. John Gever, Robert Kaufmann, David Skole and Charles Vorosmarty. University Press of Colorado, Niwot, CO, 1991 (3rd edition).

For years, when geologists claimed that the world would “run out” of petroleum or another energy resource, economists would patiently explain that the rising price of a diminishing resource would reduce demand and encourage substitutes, so that the concept of “running out” had no meaning. Technically, the economic analysis was correct, but it failed to respond to the underlying question: could economic prosperity based on an exhaustible resource be maintained indefinitely?

Beyond-Oil provides a means to cut through the old debate. It offers a new framework for evaluating the future availability of an energy resource. Instead of using monetary prices (which are subject to the distorting practice of discounting expected future earnings), Gever and associates analyze changes in the “energy profit ratio” of a resource — the energy available for use divided by the energy required to extract and process the resource. Declining energy profit ratios mean that we are truly “running out” even if there are still resource deposits in the ground and prices are stable.

Using this type of analysis, the authors examine the limits of various strategies to increase energy efficiency in the U.S. economy. They show that most of the widely publicized gain in the GNP/energy ratio in recent years has been due to reduction in household energy use and changes in the fuel mix used. Improved efficiency and industrial conservation played only a small role.

Unlike most energy analyses, which focus exclusively on urban/industrial uses of energy, *Beyond Oil* devotes a third of its text to the problems that agriculture is likely to face as the energy profit ratio of resources in the U.S. decline. At the extreme, the authors find that the U.S. could fall below self-sufficiency in food production shortly after the year 2007 if the