

land and marine resources:

A family which squanders its inheritance is destined for impoverishment and extinction. As poor as the Philippines is now, continued depletion and degradation of its natural resources will leave future generations with little basis for livelihood. It is the eleventh hour and a serious action program is necessary to preserve the common national heritage of the Philippine people.

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Economic, Natural-Resource Scarcity and Development: Conventional and Alternative Views.

By Edward B. Barbier. London: Earthscan, 1990. Pp. 223.

Edward Barbier has produced a wealth of theory and practical ideas on various aspects of environmental economics, and has painstakingly and productively cultivated this field into a formal discipline of its own rights. The main aim of this work is to explore new avenues with an alternative approach to natural resource-scarcity problems, which are cumulative products of irreversible environmental degradation.

Dr Barbier's comment on the rising costs in the economic system associated with environmental degradation serves as an *aide-mémoire* especially to the natural resource base economies of Asian and Pacific regions. Some of these nations are rather reluctant to accept the fact that their natural resources may not, in the long run, be environmentally sustainable. This book gives insight for reappraisal of absolute and relative natural resource-scarcity problems that are facing countries in these regions.

The expressed purpose of this book is to

have an understanding of the ways in which increasing exploitation of the environment would result in the deterioration of the quality of environment, which is directly related to relative scarcity of essential environmental services and ecological functions. Over a period of time this process may pose an absolute constraint on economic-environment systems. Furthermore, the alternative view of natural-resource scarcity is applicable to deforestation, desertification, watershed degradation, climatic change from global warming and acid rain problems, and provides insight into the type of economic strategies required to solve these problems. The concept of sustainable economic development has different implications for advanced industrialized economies and developing economies. Thus, if the sustainability of these ecological processes underlying economic activity is recognized to have value, sustainability should be explicitly included as one of the objectives to be pursued by economic policymakers and planners.

This book is organized under nine chapters from "Historical Approaches to Natural-Resource Scarcity" to "An Economic of Sustainable Development" plus detailed notes, references and appendices. The author has generally grouped the chapter into four parts. The first part gives an overview of the historical perspectives and fundamental ideas on environmental and resource economics, and further analyses the impact of environmentalism, ecology and thermodynamics on conventional economic approaches. The second part highlights the more recent development and extensions of conventional approaches in environmental and resource economics, and the third part leads to the development of an "alternative" approach to the economic analysis of environmental degradation. The final part discusses the implications of taking a new direction in the analysis of environmental and resource problems — the development of an emerging economics of sustainable development.

The author further explores a new class of

environmental problems confronting the world today such as deforestation, desertification, watershed degradation, climatic change from global warming, and acid rain. These problems are natural-resource scarcity related, and are concerned with economics of sustainable development. Many of the Third World countries in Asia and the Pacific are already faced with this new class of environmental problems as can be judged from the empirical data of their environmental and resource trends.

Deforestation is probably the most serious environmental debility which has taken place in the Asian and Pacific region. The region's forests are now being depleted at the rate of between 0.6 and 2.0 per cent per year with the result that forests account for less than 20 per cent of the land area today.¹ Between 1960 and 1980 the area of closed forests decreased by 7 per cent.²

Fuel wood collection by rural people for domestic needs is also an important cause of forest degradation. FAO estimated that half of all the wood cut in the world ends up as fuel wood, and that 84 per cent of this is consumed in developing countries.³ In the developing countries of the region in 1982, percentage of fuel wood as the total roundwood removal comes to 77 in Afghanistan, 96 in Bangladesh, 91 in Bhutan, 70 in China, 89 in Kampuchea, 91 in India, 84 in Myanmar, 88 in Nepal, 97 in Pakistan, 80 in Papua New Guinea, 77 in the Philippines, 92 in Sri Lanka, 89 in Thailand and 96 in Vietnam.⁴ The demand for fuel wood, however, far exceeds the availability. Another cause for deforestation is the commercial logging. Of the various subregions in Asia and the Pacific, insular Southeast Asia has the highest rate of forest degradation from logging. Another contributing factor for the extensive deforestation is shifting cultivation which has become a problem in almost all the subregions of Asia and the Pacific. A total area of 75 million hectares is affected by shifting cultivation, which is widespread in countries from Bangladesh to Solomon Islands, and from Sri Lanka to Vietnam. There has been an

almost two-fold increase in shifting cultivators from 15 million in 1960 to 29 million in 1980. About 75 per cent of this population exists in East Asia.

Globally, desertification is a growing concern in most of the arid and semi-arid regions. Of the 78 million people in the world currently living on lands which are already seriously affected, 28 million are found in Asia and the Pacific, which is 36 per cent of the total. These are some of the new types of environmental degradation problems primarily facing the development processes in the Asian and the Pacific regions. Quite recently, the United Nations Economic and Social Commission for Asia and the Pacific organized an environmental ministerial meeting, in Bangkok (October, 1990)⁵ which had recommended a programme of environmentally sound and sustainable development for the management of the Asian environment, and to assist in ensuring sustained development with economic development. To put it in another way, "We simply have to learn to live with and use the environment for our own purpose in non-destructive, environmentally benign ways".

Generally, national governments in the region have realized that they have to develop their economies to meet the needs of a population already living in poverty and expected to grow substantially, and at the same time protect the natural resource base on which this economic growth and physical health depend. Dr Edward Barbier is to be highly congratulated on the most timely contribution he has made in writing *Economics, Natural Resource-Scarcity and Development*, which will be a working guide and a source book to environmental economic planners and policy-makers of not only in the ESCAP region, but also in both developed and developing countries in other regions.

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NOTES

1. M. K. Tolba, *Development without Destruction: Evolving Environmental Perceptions* (Dublin: Tycooly International Publishing Ltd., 1982).
2. ESCAP, "Development/Environment Trends in Asia and Pacific: A Regional Overview" (E/ESCAP/IHT 7/4).
3. FAO, "The State of Food and Agriculture". (Rome: FAO, 1981).
4. ESCAP, "Statistical Yearbook for Asia and the Pacific, 1982", (Bangkok: ESCAP, 1982).
5. *Bangkok Post*, p. 2, 10 October 1990.

Structural Adjustment in the World Economy and East-West-South Economic Cooperation. Edited by Karl Wohlmuth. Institute for World Economics and International Management, University of Bremen, 1989.

Just how precarious is the world economic order? Karl Wohlmuth and his fifteen colleagues from Germany, Poland, Hungary, Austria and South Korea provide a comprehensive and sombre analysis whose observations and conclusions appear remarkably robust despite the fact that recent events in Eastern Europe have overtaken some of this work.

This edited volume is the result of an international seminar held in Dubrovnik in 1985 convened to address the critical issue of improving "the conditions for global structural adjustments by East-West-South economic cooperation" and "the conditions for international economic cooperation by policy reforms in the East, the West and the South." This is a remarkably ambitious work, reflecting in part the diversity of issues raised in the original conference by participants from academe, research institutes, government and international organizations.

Possibly the most enlightening contribution to this volume is the extensive overview of the issues provided by the editor, Karl Wohlmuth,

a professor of comparative economic systems at the University of Bremen. Wohlmuth proceeds from the assumption that a fundamental prerequisite to an in-depth analysis of issues of structural adjustment is a clear and concise definition of the process itself. As the editor remarks, even the phrase "structural adjustment" has been subject to multiple interpretations. Belassa's definition quoted by the author is particularly compelling: structural adjustment policies are "policy responses to external shocks [e.g., oil price changes, world recessions, or interest rate increases], carried out with the objective of regaining the pre-shock growth path of the national economy." In this sense, adjustment cannot be confined to short-term changes in the balance of payments, but must also address a longer term "reordering of priorities and a reconsideration of policy instruments."

A number of very strong themes emerge from this volume. First, many of the dire economic problems which afflict developing nations cannot be resolved by structural adjustment within these countries alone. A symmetrical adjustment process is required where the developed nations facilitate rather than resist the necessary mechanisms for Third World recovery. Foremost among these requirements is a reversal in the continuing trend in the First World towards protectionist barriers which severely diminish the capability of developing nations to alleviate their problems through export-led growth.

Second, "getting the prices right" is a necessary but not sufficient condition for successful structural adjustment in the Third World. While the economic capabilities and performance of many Third World governments has been grossly deficient, if not counterproductive, this fact does not in itself suggest that sole or principal reliance on private sector initiatives and market forces can work in this highly constrained environment. Indeed, innovative and "battle-tested" economists such as Peter Timmer of Harvard have argued convincingly that only a co-operative nexus between the