

Managing Natural Wealth

Environment and Development
in **MALAYSIA**

Jeffrey R.
Vincent

and

Rozali
Mohamed Ali



THIS BOOK IS DAMAGED
AND IS THEREFORE
SOLD AT A SPECIAL PRICE.

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*Environment and Development
in Malaysia*

Jeffrey R. Vincent
and Rozali Mohamed Ali

Resources for the Future
Washington, DC, USA

Institute of Southeast Asian Studies (ISEAS)
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To Liz and Ben,
for sharing wonderful times in Kuala Lumpur

To Kim and Hafiz,
always sources of joy, for their unfailing support

Preface

The original version of this book, published in 1997 by Harvard University Press under the title *Environment and Development in a Resource-Rich Economy: Malaysia under the New Economic Policy*, came out just a few months before the East Asian financial crisis struck Malaysia and other “miracle economies” in the region. The book was envisioned as one in a set of three volumes dealing with economic development in Malaysia since the early 1970s, when the Malaysian federal government introduced its controversial New Economic Policy. The series was to examine three features of Malaysia’s development experience that in other developing countries have often been associated with poor economic performance: a large public sector, an ethnically diverse population, and an abundance of natural resources. For a variety of reasons, some related to the financial crisis and some not, the volumes on the first two topics were never completed, and this book on the third topic, natural resources, was never distributed in Asia.

We are delighted that Resources for the Future Press is publishing this new version of the book and is at last making it available in the country it concerns. The book is one of the few country studies on natural resource and environmental policy told from an economic perspective. Having it come out under the RFF banner is more than appropriate, given that RFF research is the original source for many of the economic concepts discussed in these pages. We are grateful to RFF Press for adding the book to its impressive list of titles, and we extend particular thanks to its director, Don Reisman.

The text remains the same as in the original publication, with one important exception: a specially commissioned epilogue by S. Robert Aiken and Colin H. Leigh. The epilogue reviews and assesses key developments since 1992–93, when we and our collaborators conducted the fieldwork for the book. It is a substantial new contribution, not a mere update. Like the original 11 chapters, it pays particular attention to institutional details, and it provides a geographer’s perspective, which complements the economic analysis in

those chapters. We are grateful to Drs. Aiken and Leigh for accepting our invitation to write the epilogue and are pleased to include their valuable contribution.

The original book was the product of a project jointly implemented by the Harvard Institute for International Development (HIID) and the Institute of Strategic and International Studies (ISIS) Malaysia. That project was made possible by Tun Daim Zainuddin, a former minister of finance of Malaysia, who identified funding sources, opened doors for the researchers, and challenged us to prepare an account that would be both credible to scholars and useful to policymakers in Malaysia and other developing countries. It gives us great satisfaction to have a second opportunity to thank Tun Daim and the funders of the project: Magnum Foundation, Pan Malaysia Pools, Petronas, Resorts World Bhd., and Sports Toto Malaysia.

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Preface to Environment and Development in a Resource-Rich Economy

Economists conducting research on natural resource and environmental policy issues in developing countries typically face three obstacles. First, pertinent literature is difficult to identify and obtain. Studies by local researchers are often not published in widely circulated journals, especially not international ones, and access to government reports and memos is often restricted under confidentiality rules. Lack of knowledge of the local language often complicates these difficulties for foreign researchers.

The second obstacle is the difficulty of obtaining data for empirical analysis. Data on natural resources and environmental quality are usually excluded from developing countries' general statistical bulletins. Hence, they are excluded as well from standard international publications used by economists, such as those of the World Bank and International Monetary Fund. When they are included, typically they cover just a few, recent points in time. Compiling time-series data requires the tedious piecing together of information from individual departmental reports. The data often exist only in raw form, as the budgets of natural resource and environmental departments are usually among the slimmest within the government.

Third, because there has been little research on natural resource and environmental policies in developing countries, complete and accurate descriptions of key policy reforms generally do not exist. What happened, and when, are questions whose answers are either not formally recorded or are scattered among internal memos, annual departmental reports, and newspaper articles. The absence of policy histories makes it difficult to identify the most critical natural resource and environmental issues, to place them in the context of a country's overall development experience, and to understand how institu-

tional factors have shaped the responses of economic agents to new or modified policies.

General accounts by economists of the development experience of individual countries, and surveys of development economics, have neglected natural resource and environmental issues until very recently. Dasgupta and Mäler (1991) cited two survey articles from the late 1980s, each nearly one hundred pages in length, that contained exactly one sentence each on natural resources and the environment. They also pointed out that the initial two volumes of the *Handbook of Development Economics* (Chenery and Srinivasan 1988) did not contain a chapter on natural resources and the environment.¹ It was not until 1992 that the World Bank devoted a *World Development Report* to the interface between development and environment.

A principal reason for writing this book was to create a reference volume that would help other researchers overcome these obstacles and facilitate further research on Malaysian natural resource and environmental policy issues, for there are useful lessons to be drawn from the Malaysian experience. In conducting research for the book, the authors made a special effort to identify all relevant material, whether published or unpublished, in English or Bahasa Malaysia, available inside and outside Malaysia. The Malaysian complexion of the research team, a fifteen-month residency in Kuala Lumpur by the principal non-Malaysian researcher, the generous cooperation of Malaysian authorities, and the willingness of policy makers and other individuals to be interviewed facilitated this effort. These factors have made it possible, for the first time, to bring between two covers an economics-oriented discussion of major natural resource and environmental policy developments in Malaysia during what is arguably the most important period in the country's development, the New Economic Policy period of the 1970s and 1980s. This was a period of profound socioeconomic changes, heavy utilization of natural resources, and the emergence of serious air and water pollution problems.

Despite the inclusion of historical information on policy developments, the book is not intended to be a history book. Instead, it attempts to place the economic analysis of natural resource and environmental policy issues in a historical context. It is concerned with the process of development, and how that process affects the economics of managing natural resources and the environment. It attempts to determine how public policies have influenced the contribution of natural resources and the environment to economic development, and the impacts of development on natural resources and the environment.

The book has three specific objectives. The first is to convey, to as broad an audience as possible, an economic approach to analyzing natural resource and environmental policy issues in a particular, and particularly interesting, devel-

oping country. The book is not written for academic theoreticians. In light of the limited attention that economists have paid to natural resource and environmental issues in developing countries, most chapters in the book include short pedagogic sections explaining the relevance of economic concepts to the issues discussed therein. To further increase the book's readability, concepts are presented solely in words and diagrams. All equations and all but the most essential technical terms are relegated to notes and appendices. If Stephen Hawking's *A Brief History of Time* was able to present cosmology without the crutch of higher mathematics, it seemed that a book on natural resource and environmental economics ought to be able to do so too. Notes and citations direct the academically minded reader to more advanced concepts and analyses.

The authors hope that the level of discourse in the book will increase its usefulness for undergraduate and graduate courses in universities in developing countries. No Malaysia-specific textbook on natural resource and environmental economics exists. Although this book is not a textbook, it can perhaps serve as a link between foreign textbooks and the local research literature until one becomes available.

The second objective is to capitalize on the unprecedented access to data that the researchers enjoyed by extending existing empirical analyses of Malaysian natural resource and environmental policy issues. Quantitative economic analysis of these issues is relatively rare—in fact, nonexistent for several of the issues covered in the book. Some of the existing analysis is also so divorced from an institutional context that the simple crunching of numbers has led researchers to incorrect or incomplete inferences. All chapters, aside from the first and last, therefore contain new empirical analyses of key policy issues. The purpose is not to extend economic theory, but to extend its application in the Malaysian context.

Although the purview of the book is the 1970s and 1980s, the analysis in it is intended to provide useful lessons for current and future policy makers. This is the book's third objective. The book is not purely retrospective. It contains forward-looking recommendations for both specific sectors and overall economic management.

These three objectives shape the structure of the book and the chapters in it. In the interest of making the book more accessible to individuals who are not familiar with Malaysia, Chapter 1 provides an overview of essential aspects of the country's development experience, highlighting those relevant to natural resources and the environment. This overview also frames the broad research questions addressed in subsequent chapters. Those chapters are divided into two groups, with Chapters 2 through 7 focusing on natural resources and Chapters 8 through 10 on environmental quality (in particular, air and water quality). The initial chapter in each group provides, by way of

introduction, a macro perspective. Subsequent chapters present issues at a sectoral level and have a similar format. An initial section presents the main issue addressed in the chapter, describing its general features and explaining its policy relevance in the Malaysian context. The second, third, and fourth sections present key concepts, policy history, and new empirical analysis. The fifth and final section draws out sector-specific policy implications from the analyses in the third and fourth sections. The final chapter, Chapter 11, distills policy lessons at an aggregate level.

This is by no means the first book to address natural resource and environmental issues in Malaysia. The most comprehensive single work to date is probably *Development and Environment in Peninsular Malaysia*, by Aiken et al. (1982), which offers a geographer's perspective. It reviews policy developments and is a useful source of quantitative information up to the end of the 1970s. A similar perspective has been provided more recently for Sabah and Sarawak by Cleary and Eaton (1992) in *Borneo: Change and Development*. Sham Sani's (1993) *Environment and Development in Malaysia* updates much of the information in Aiken et al., with particular emphasis on air pollution, and it also reviews Malaysia's role in international environmental activities. Papers by Goh (1982), Ong et al. (1987), Abdul Rahman (1993), and several chapters in Brookfield (1994) provide similar, though more concise, reviews of the sort of information in Aiken et al. and Sham Sani. *Key Environments: Malaysia*, edited by the Earl of Cranbrook (1988), is an excellent source of information on physical aspects of the natural environment in Malaysia.

What is new about this book is its emphasis on economics as a source of concepts and methods for analyzing the country's natural resource and environmental policies. Two recent policy-oriented documents contain some of the first information available on the economics of natural resource and environmental management in the country at a macro level. These are *Economic Policies for Sustainable Development* by the Asian Development Bank (1990), which contains a chapter on Malaysia prepared by the Malaysian Institute of Economic Research,² and the country's *National Conservation Strategy* (Economic Planning Unit 1993; prepared by World Wildlife Fund Malaysia under contract with the government's Economic Planning Unit, the agency responsible for preparing the five-year Malaysia Plans and evaluating economic development projects). Their scope and the depth of their analysis, however, are necessarily much more limited than this book's.

The emphasis on economics does not imply that the authors believe that economics provides the only useful perspective for analyzing natural resource and environmental issues. The book simply attempts to demonstrate that economics can provide helpful information for understanding environmental problems and formulating policy responses. Work by researchers in other

disciplines is essential for generating the information that economists need for their analyses and policy makers need for their decisions.

As an initial effort on issues that have received scant attention from economists in Malaysia, and as the product of a research process that was limited in time and funds, the book is necessarily selective. It covers issues that satisfied three basic criteria: they were important from a policy standpoint; they were ones for which existing information, in particular quantitative information, was adequate for relatively in-depth analysis; and they provided an opportunity to involve local economists with relevant research experience. The book omits several important issues. Tin, for example, had a major impact on the economic, spatial, and social development of Malaya, but it is no longer an economically important commodity. For an economic history of tin in the Peninsula, see Yip (1969). Plantation tree crops remain economically important, but researchers have written extensively about them already. For information on environmental aspects of rubber and oil-palm plantations, see Vincent and Yusuf (1991, 1993) and the references therein. Other obvious omissions include population growth (although Chapter 8 presents some information on its aggregate environmental impacts), energy,³ protected areas,⁴ urban environmental issues related to congestion, household sewage, and solid and hazardous wastes,⁵ and Malaysia's role in global environmental issues related to climate change, ozone depletion, and loss of biodiversity. This list, and the table of contents, indicates that the book's coverage of environmental quality issues (just three chapters) is much less complete than its coverage of natural resource issues (six chapters). This is due to the smaller amount of information that was available on the former.

In conclusion, the book attempts to make a constructive contribution to a complex area that is receiving increased attention from policy makers. It is intended as a starting point for the economic analysis of natural resource and environmental issues in Malaysia, not the final word. The authors hope that the book will stimulate further serious research in the field, and that the information contained in it will assist other researchers in plugging the numerous gaps that remain. Above all, the authors hope that it will help to lay the foundations for effective policies to address critical natural resource, environment, and development issues in coming years.

NOTES

1. This omission was rectified in volume 3A (Behrman and Srinivasan 1995).
2. See also the full report by the Malaysian Institute of Economic Research (1990).
3. Chapter 3 contains some pertinent information on the supply side of the energy sector.
4. We initiated research on the recreational value of Taman Negara, the country's oldest

national park, with Wan Abri Wan Mansor and Ahmad Shuib of Universiti Pertanian Malaysia, but unfortunately we had to discontinue it due to time constraints.

5. The report of a World Bank mission conducted while the research for this book was in progress is the best source of economics information on these issues. See World Bank (1993).

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