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# Natural Resources, Economic Development and the State

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The Philippine Experience

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ISEAS Environment and Development Series

# Natural Resources, Economic Development and the State

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The Philippine Experience

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Social Issues in Southeast Asia

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# Contents

List of Tables and Figure	vii
Preface	ix
<i>ONE</i> Defining the Environmental Problem	1
<i>TWO</i> Nature and the Economy in Economic History and Theory	7
<i>THREE</i> Nature, the Economy, and the State	16
<i>FOUR</i> General Policy Directions, Requirements, and Specific Actions	42
Notes	52
About the Author	58



## List of Tables and Figure

1	Estimates of Different Forest Land Types and Non-Forest Lands, Coverage of the Public Domain, and Extent of Loss or Expansion	3
2	Specific Uses of Classified Forest Lands, 1985, 1990	24
3	Implicit Forest Charge, by Specie Group, 1939-91	27
4	Ratio of Implicit Forest Charges Plus Export Taxes to Excess Profits	28
5	Ratio of Implicit Forest Charges Plus Export Taxes to Excess Profits in Plywood and Veneer Exports	29
6	Government Share of Excess Profits Under a Hypothetical Price-Based System and a Committee-Determined, Cost-Based System	32
7	Proportion of Productive Forest Lands Lost Due to Logging at Various Rates of Under-reporting and Stocking Rate Per Hectare	34
8	Percentage Distribution of Forestry Revenue Components in Selected Years	40-41
Figure 1	A Schematic Representation of the Linkages Between Nature, the Economy, and the State	17





# Preface

From the turn of the century up to the decades immediately following World War II, only the lower parts of the so-called typhoon belt provinces in the Philippines were naturally subjected to temporary floodings during the monsoon season. In recent years, however, floods within and outside these provinces have become more frequent, extensive, and destructive.

If floods are the bane of the rainy months, prolonged droughts leading to the shortage of water for farm irrigation and human consumption have plagued people in more areas. Since the 1970s, droughts and severe floods have become forms of natural disasters requiring the declaration of a state of emergency when they occur. Together, they represent one aspect of the country's environmental problems.

The increasing frequency and severity of these forms of natural disasters reflect the country's normal weather patterns, its topography and the cumulative effects of past economic activities, such as upland road construction, large-scale timber felling, transporting wood with the use of heavy equipment, and the conversion of forest lands into agricultural, mineral and pasture areas.

The destructive effects of these activities on the environment, however, were not immediately felt at the time they were occurring. In conjunction with natural processes, their consequences built up through time until resource and environmental degradation reached critical proportions. The negative impact of intensive large-scale logging and road-building on soil instability in watersheds, for instance, became visible only when heavy rains induced soil erosion, land slippages, flash-floods, and sedimentation in lowland areas, which were hardly exposed to these problems in the past.

Because environmental problems manifest themselves at a later time, the effect of current economic activities must be anticipated. Thus far, it has not figured in economic analysis. In the 1960s and 1970s, market signals were not able to register externalities and to predict the destruction of Philippine forests.

Since the imperatives of economic growth will continue to impinge on the country's natural resources and environment, it is necessary to develop ecological signals to warn of forthcoming crises or disasters. In a few years' time, for instance, water shortage will become an environmental crisis. By that time, the same explanations for resource depletion will be given. Just as the level of deforestation has been blamed primarily on the growth of the upland population, their conversion of forest lands to agricultural uses, and the undervaluation of timber, the increasing demand of the urban population, the invariant dependence of farmers on the resource and their failure to anticipate the shortage and to shift to crops requiring less water, as well as the almost free access to water by farmers and urban residents, and the government's inefficient water management system, will be held culpable for the impending water shortage.

While these factors contribute significantly to the problem, the specific resource orientation and market-oriented focus of industry and government officials have resulted in the failure to consider the complementary relationship of forest conservation and watershed management and the effect of intensive and destructive logging on both future tree supply and underground and surface water. More importantly, the structural political economic context of forest management is not taken into account.

This monograph was written to provide a more holistic ecological perspective of the environmental problem in the Philippines and other Southeast Asian countries. Since scholars in underdeveloped nations cannot afford the luxury of merely presenting the determinants of the crisis but feel compelled by the extent of the problem to identify points of interventions, this monograph represents one of my first attempts to grapple with the situation.

The delay in its publication can be blamed on my initial plan to incorporate the information I was gathering while doing further research on the forestry sector and participating in numerous discussions and debates on the issues regarding intervention measures. This proved to be difficult. Although the basic premises about the relationship between

economics and ecology would have been the same, the outcome would have been totally different. Hence, the decision to publish the original text.

Several institutions facilitated the production of this monograph. The Rockefeller Reflections on Development Fellowship enabled me to take precious time off from my teaching responsibilities to connect past researches on the forestry sector with concerns about political economy and the larger environment. The Ateneo de Manila University supported my sabbatical leave while the Institute of Southeast Asian Studies in Singapore was generous in providing an environment conducive to thinking and reflection. Finally, the Faculty of Economics, University of Tokyo in Japan supported an earlier research, data from which was used in the monograph.

I am indebted to many people: my colleagues at the Ateneo who took over some of my academic responsibilities; the Asian advisers of the Rockefeller Foundation, the late Professor Kernial S. Sandhu, Dr Wilfrido Arce and Dr Chai-Anan Samudavanija for their comments; my wife Cynthia for invaluable discussions which helped clarify my ideas; and my children, Daniella and Micah who inspire me to continue working on environmental problems which will affect the future of their generation.