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ENERGY MARKET AND POLICIES IN ASEAN

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ENERGY MARKET AND POLICIES IN ASEAN

Edited by
Shankar Sharma & Fereidun Fesharaki



ASEAN Economic Research Unit
INSTITUTE OF SOUTHEAST ASIAN STUDIES

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FOREWORD

This book was prepared under the auspices of the Joint Energy Programme of the Institute of Southeast Asian Studies (ISEAS) and the East-West Center. The goals of the Joint Energy Programme, which was initiated in 1988, are to develop a data base and conduct analyses on key aspects of the energy economies of the Asian-Pacific region and its major constituent nations. A further purpose of the Programme is to utilize the expertise at the East-West Center for the development of a research capability within ISEAS with respect to major aspects of energy supply and demand of the region. A number of monographs and papers have already been completed and published under the Joint Programme.

The main objectives of this book are to assess the energy situation in ASEAN (Association of Southeast Asian Nations) and to analyse the key aspects of the energy policies of the member countries, viz. Brunei, Indonesia, Malaysia, the Philippines, Singapore, and Thailand, in broader regional and international perspectives. The book provides a comparative analysis of the energy situation and policies in the region as well as detailed country studies of all the ASEAN countries except Brunei. (A country study on Brunei has not been included due to lack of data.)

There are primarily three reasons for focusing this study on ASEAN. First, ASEAN countries have been economically dynamic. They have all adopted export-oriented policies and have had rapid economic growth making their economies highly interdependent with the rest of the world. Second, the energy demand, especially demand for oil and gas in this region, has been spectacular – in fact, one of the highest in the world. Third, the region provides a unique combination of countries in terms of energy resources and activities. Indonesia, Malaysia, and Brunei are three major producers of oil and gas and depend heavily on these resources for foreign exchange earnings and government revenues. Singapore, the largest oil-refining and trading centre in the Asian-Pacific region, is a major exporter of petroleum products. On the other hand, the Philippines and Thailand depend overwhelmingly on imported oil. These factors make ASEAN an interesting region for energy study.

Unavailability of comprehensive and standardized energy statistics is one of the constraints in analysing and comparing the detailed energy situation between countries and in examining the specific problems. The energy statistics coverage are different in different countries and vary

from one publication to another. Thus, the analysis has to be carried out on the basis of limited information. These constraints forced us to make the framework of analysis more flexible.

The analysis of this book is concerned more with the medium- and longer-term energy policy issues. However, one has to be cautious. Things change quickly. Any major changes in oil prices, economic activities, new discoveries of energy resources, technological breakthroughs, OPEC countries' behaviour, and political and economic turmoils can change the future outlook. Depending upon the situation, some of them affect the shorter-term energy outlook and others may affect shorter- as well as longer-term perspectives.

One of the political turmoils that occurred after the completion of this study was the Gulf crisis of 1990. However, by all considerations it appears that the disruption in the oil market resulting from the Gulf crisis is temporary. The analysis for the medium- and longer-term is thus not affected very much.

However, even with these limitations, we hope that this book will be of use to academicians, decision-makers in government, the business community, and others who are concerned with the energy situation and policies of the thriving Asian-Pacific region and especially those of ASEAN economies.

We would like to acknowledge the help of the contributors and researchers and their affiliated institutions for making this research study possible.

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INTRODUCTION

The economies of the ASEAN countries – Brunei, Indonesia, Malaysia, the Philippines, Singapore, and Thailand – are highly energy dependent. The member countries have always been vulnerable to price, supply, and demand swings relevant to energy resources. Any disruption in energy supply and price represent a serious threat to economic stability as was proved by the oil crises of 1973–74 and 1979–80. Both crises caused higher inflation, depressed the export market, and raised import expenditures. The economy of the region slowed down considerably.

In response to the volatile behaviour of the oil market, oil importing countries, since the first oil crisis, have increased indigenous energy production, diversified their source of energy supply, intensified substitution efforts to replace oil with alternative energy resources, and have reduced energy intensity significantly. Similarly, to minimize the impact of lower oil prices in the economy, Malaysia and Indonesia, the major oil exporting countries in the region, have increased the share of non-oil-and-gas exports dramatically and are now better prepared to absorb the shock of lower oil prices than in the 1970s.

However, even with these structural changes and the experience of two decades of dramatic price fluctuations, the region is still vulnerable to energy prices and supply disruptions as demonstrated by the energy problems triggered by the Iraqi invasion of Kuwait in 1990. Higher oil prices generated a multitude of problems – pressure in trade balance and balance of payments, inflation, and the curbing of economic growth in oil importing countries. The oil windfalls produced by the 1990 energy crisis were still highly significant to Indonesia and Malaysia.

The strong relationship that exists between energy and economic development in the ASEAN countries (as is true in many developed as well as developing countries) makes comprehensive energy planning imperative, but the uncertainty involved in the energy market makes such planning increasingly difficult. As a consequence the energy situation has to be assessed and policies have to be reviewed regularly.

Considering the importance of these issues, it was decided to undertake the present study of the energy market and policies in ASEAN. This study not only provides assessments of the energy situation, and energy strategies and policies of individual ASEAN countries, but also examines the prospects for regional oil and gas production, energy demand pattern,

the future of the regional refining sector, and various policies adopted to overcome the problems created by energy crises in the region. Our comparative analysis should contribute to an understanding of the energy situation of individual countries in a regional perspective.

This book has been organized in seven chapters. Two chapters provide a regional comparative analysis of the energy situation and the remaining five chapters are devoted to country analyses. Chapter 1 reviews the energy situation in the Asian-Pacific region and provides an outlook for the regional oil and gas market. It begins with a review of the structure of demand, the extent of the regional oil and gas resources, the prospects for crude oil production through the year 2000, and the future of the regional refining sector. Chapter 2 examines the energy policies of ASEAN countries especially after 1973. Policy responses to the crises on demand and supply management, pricing, non-pricing and macroeconomic policies are also discussed in this chapter.

The country studies (chapters 3-7) provide detailed descriptions of the energy sector and its relationship with the economy together with discussions of the energy policies of the respective countries. Future problems and prospects of energy development in these countries are also examined and the particular problems of each country are reviewed and discussed.

In particular, chapter 3 reviews the energy developments in Indonesia during the last three decades, examines the role of oil and gas in the economy, describes the formulation and implementation of energy policies, and discusses future prospects of the country in terms of energy policy.

Chapter 4 provides an economic assessment of Malaysia's energy policy in relation to the overall objective of developing the nation's energy resources for economic growth. Chapter 5 reviews the energy policy of the Philippines for the last two decades with the objective of identifying important problem areas along with the policies that evolved. The problems implied by the aspiration of national leadership to transform the country into a newly industrializing economy by the year 2000 are also examined.

Similarly, chapter 6 provides an overview of the energy economy relationship in Singapore, evaluates Singapore's petroleum industry, and examines the country's position in the regional oil trade. There is also some discussion on the linkages between public policy, economic development, and the energy sector.

By reviewing the past energy strategies and by assessing the energy demand and supply situation, chapter 7 provides an analysis of the energy

policy in Thailand with emphasis on oil and gas. Development of possible future energy policies is also discussed in this chapter.

All chapters included in this volume discuss, analyse, and address energy policy issues mainly from a longer-term perspective. The short-run energy situation may be affected by political upheavals like the one caused by the Iraqi invasion of Kuwait in 1990, but in the longer-run economic forces are expected to determine the shape of the energy market. The longer-term analysis is thus more important for the purpose of policy formulation.