

Asia-Pacific Coasts and Their Management

Coastal Systems and Continental Margins

VOLUME 11

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States of Environment

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Main photo on the left - Mangrove rehabilitation in abandoned shrimp ponds in Southern Thailand (photograph Sanit Aksornkoae).

Smaller photo on top right - A coral community at Mu Koh Chang; a newly developed area for ecotourism in the eastern part of the Gulf of Thailand (photograph Thamasak Yeemin).

Smaller photo at bottom right - Artificial reef constructed by local people in North Sulawesi, Indonesia (photograph Akinori Sato).

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Preface

Coasts are fascinating places that are both beautiful and dynamic. They attract great numbers of people in any country that faces the sea because they have provided a variety of benefits to humankind. In the Asia-Pacific region, coasts stretch from the Arctic to the tropics, and therefore represent a diverse environment. This rich diversity is a source utilized by the region's coasts to support a range of human activities such as fisheries, use of marine resources, transport and trade, marine sports, recreation and everyday life. As a result, coasts have today become home to about half of the region's population.

The benefits that coasts provide are not limited to economic goods and services, but extend to cultural and artistic values. There is a nursery tale in Japan of a small princess who sailed from a country far off to the south in a small coconut boat and arrived on the coast of Japan, which suggests that a connection between Japan and far off countries existed from long ago. We can find similar stories in many countries. This indicates that the sea has been a medium for cultural exchange and the coast acts as the gateway for such exchange. All the environmental, economic and cultural functions are what attract so many people to the coasts, regardless of whether there have also been dangerous natural disasters originating from the sea.

In the latter half of the 20th century, however, adverse phenomena have spread, such as water pollution, the disappearance of mangroves, degradation of coral reefs and coastal erosion, which are the result of coastal development and an increase in the discharge of land-based pollutants. These problems have become increasingly serious, particularly during the past 30 years. Furthermore, the Asia-Pacific region is expected to undergo more intensive urbanization and development. For example, the trend for population growth will continue, and the number of megacities will increase in the region to more than 25 by the middle of this century, which will further increase the destructive pressures along the coasts in the coming decades. In addition, the effects of global environmental change, such as climate change and sea-level rise caused by global warming, are becoming increasingly apparent. To achieve

sustainable development in the coastal zones against such multiple stresses, it is fundamentally essential to observe, monitor, and understand the status of the environment.

The International EMECS Center was established in 1994 to promote coastal studies and exchange practices in coastal management among researchers, government officials and citizens, focusing on the environmental protection of semi-enclosed seas and coastal waters. The International EMECS Center organizes international EMECS conferences every two to three years to promote such activities on both a regional and global scale. Since the 5th conference held in 2001 in Kobe, Japan, the EMECS conference has hosted special sessions for the Asia-Pacific region because of the urgent need to find a way to ensure a sustainable future for the region's coasts. The idea of editing a book showing the present status of the environment and coastal management was born out of discussions held at these sessions. This book is designed to form the basis upon which to plan a sustainable future for coastal zones in the Asia-Pacific region through summarizing the present status of the coastal environment. During the preparation of the manuscript, we reconfirmed that the region's coasts were vast, and that we still lack sufficient real data on the coastal environment and management practices. However, we believe that this book is a starting point from which to provide an integrated picture of the present status. I shall be more than happy if this book is able to contribute to the improvement of people's understanding of the region's coastal environment.

This book is the fruit of tireless work by a group of some 36 authors and 7 reviewers. As Editor, I would like to express my sincere appreciation to all the authors for their tremendous effort in completing their manuscripts. I also thank Dr. Yoichi Kaya, President, and Mr. Toshizo Ido, Chair, Board of Directors of the International EMECS Center for their continued support of this work and for the great patience they have shown. I am also very grateful to Prof. John Hay for his dedicated work in checking the English and editing the manuscript.

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Editor

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