

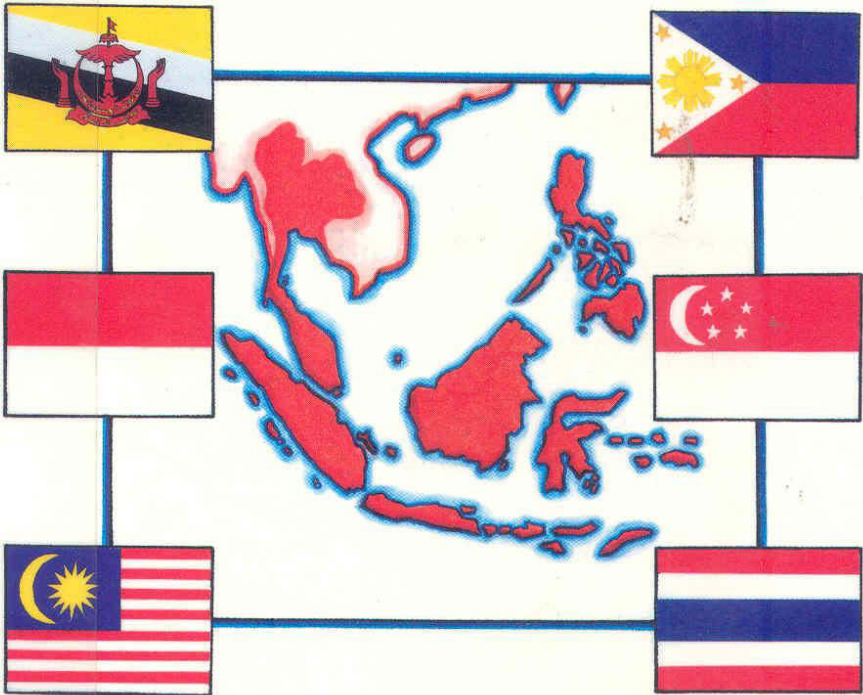
# Policy Recommendations for Coastal Area Management in the ASEAN Region

as discussed by policymakers, administrators and scientists

at the

Policy Workshop on Coastal Area Management

25-27 October 1988, Johore Bahru, Malaysia



Edited by Chua Thia-Eng and Alan T. White

## Present State



Artwork by Dodie/Aque

Increasing population and economic and social development inflict heavy demands on coastal resources, resulting in natural resources depletion, environmental degradation and resource use conflicts. These problems have begun to constrain development opportunities and cause expensive remedial measures.

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# **Policy Recommendations for Coastal Area Management in the ASEAN Region**

Edited by

CHUA THIA-ENG  
ALAN T. WHITE

1989

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## POLICY RECOMMENDATIONS FOR COASTAL AREA MANAGEMENT IN THE ASEAN REGION

The following are based on the discussion by policymakers, administrators and scientists who attended the Policy Workshop on Coastal Area Management, 25-27 October 1988, Johore Bahru, Malaysia. The workshop was organized by the Association of Southeast Asian Nations (ASEAN) Coastal Resources Management Project (CRMP) funded out of a grant from the United States of America.

### Preamble

The workshop participants reviewed the current exploitation of coastal resources and examined the severity of degradation of the coastal environment in the ASEAN region. They were guided by the policy on environmental management endorsed by the 1987 ASEAN Summit Meeting in Manila, Philippines:

*In the area of environment, ASEAN shall cooperate in promoting the principle of sustainable development and systematically integrating it into all aspects of development and shall focus on the need for policy guidelines to protect ASEAN's common resources and environment.*

The participants also reviewed the approach and methods adopted by the ASEAN CRMP which is developing integrated and intersectoral coastal area management programs. The group recognized the complexities of the coastal area management issues in ASEAN and fully appreciated the initiative and useful efforts being undertaken by the project.

Most countries in the region rely heavily on the coastal area for food, livelihood and foreign exchange. About 70% of the total ASEAN population lives in the coastal area and is directly or indirectly economically dependent on it. The population will double in most of the countries within the next 25 to 35 years.

This economic dependence brings about environmental degradation and overuse of resources which constrain development.

### Management Issues

The participants agreed that the overriding problem is how to maintain the resource base for sustainable production. The most serious management issues of concern are the following:

- ***Overexploitation of fisheries resources***  
Heavy fishing pressure occurs along many coastlines where there is dense human population. In recent years, there have been rapid declines in fish catch rate by small-scale and commercial operators. Conflicts between and among small-scale and commercial fishermen over in-shore fishing grounds have increased. Use of mechanical push nets, fine-mesh nets, dynamite and cyanide, along with traditionally acceptable gears, are rapidly depleting fish stocks.
- ***Degradation of coastal and marine ecosystems and habitats***  
More than half of the coral reefs in the Philippines are severely damaged due to destructive fishing and sedimentation. In Indonesia, coral mining is still common. Destructive and heavy fishing, siltation from deforestation, sand mining, use of anchors and pollution all take their toll on coral reefs, seagrass areas, algal beds and beaches. Mangrove habitats are dwindling due to their conversion for human settlement, agriculture, logging, tin mining and aquaculture, especially shrimp farming.
- ***Declining water quality and pollution***  
These are common in many urban coastal areas where large amounts of solid and chemical wastes are flushed into the sea. Upland deforestation, improper agriculture techniques and mining are dumping large amounts of silt into the marine environment. Industries, oil facilities and shipping are generally responsible for increasing pollution.
- ***Endangered marine species and coastal wildlife***  
Vulnerable marine animals are becoming scarce as habitats are degraded. Due to overexploitation, some commercially and biologically important species are nearing local extinction. Biological diversity and gene

pools for marine organisms are being reduced, causing severe instability in marine ecosystems.

- *Low level of institutional capability for integrated coastal area management*

Existing government structure, institutions and laws are often arranged for unisectoral approaches to management which fail to consider the interrelations of coastal ecosystems, resources and activities. The lack of experience with scientific techniques and lack of knowledge about feasible solutions translate into a weak political will to tackle the problems.

### **Causes of Issues**

The first step in solving the above issues is to identify their causes; the major ones are:

- High population growth;
- Poverty as exacerbated by dwindling resources, disturbed fisheries habitats and lack of alternative livelihoods;
- Large-scale commercial enterprises by organizations outside of the coastal area which displace or do not involve the local people and are motivated to obtain quick profits with little concern for the impact on the coastal environment;
- Lack of awareness about sustainable coastal area management among coastal people and policymakers;
- Lack of effective economic evaluation of the worth and contribution and ecological role of coastal resources to society;
- Inadequacies of regulations and laws in aiding coastal area management efforts and enforcement.

### **Policy Recommendations**

Ultimately, the solution to coastal resources degradation will have to be long-term. The following policy recommendations to the resolution of coastal area management issues, however, need to be considered for immediate action to reverse degradation. It is urged that full support be given to the organizations and projects which can help attain these goals.

- Coastal area planning has been left out of national development plans because of ignorance about the significance of coastal ecosystems' contributions to the economic and cultural well-being of the population. Coastal areas and their resources should be included in national, regional, provincial and local planning.
- Unisectoral management has ignored the inter-relationships of various components of coastal ecosystems. The case of watersheds and their impact on the coasts in the form of sedimentation and flooding is an example. The development and implementation of wholistic plans on the environment, resources, population and private and government sectors are needed.
- The overemphasis on economic development in lieu of sustainable use management schemes has caused expensive remedial measures. Focus is needed on eco-development which strengthens and addresses sustainability and requires environmental impact statements in all coastal activities.
- The importance of resource-user participation in planning and management has been neglected and thus needs more attention.
- The complexity of coastal area planning and management indicates that national objectives and plans cannot be easily implemented. It is important to establish general policy guidelines which encourage selected pilot site projects to develop coastal area management plans on a practical scale. A decentralized approach will allow a development plan to be implemented according to particular management objectives and sites.
- Resource use activities may be managed by applying zonation schemes, permit systems or other regulatory mechanisms. Such mechanisms allow coastal resource managers to focus attention on sensitive or valuable coastal resources and/or on activities likely to have adverse impacts on resources.
- The increase in population and resulting need for food and resources will require long-term solutions to poverty. Also, as educational levels rise along with the people's awareness on environmental quality, governments will have to address this in wholistic terms to avoid crisis in areas with dense population.



## Proposed Guidelines

### 1. *Industrial development and environmental quality*

Coastal industries should be located in sites which have minimal impact on critical habitats and which do not lower water quality below acceptable standards. Planning for industrial development should include zonation for industries, ports and shipping facilities and standards for water quality maintenance. Environmental impact statements and sustainable use criteria need to be incorporated in planning.

### 2. *Mangrove conversion*

Zonation schemes that prescribe clear guidelines designating areas for conservation, protection and development are needed. Pilot site modules should be developed as examples for management. Adequate evaluation of the resources, including replacement costs, must be made for use in decisionmaking. Public education is needed to reverse the "wasteland" image. Existing mangrove habitats should be included in management plans which provide for sustainable use and/or protection.

### 3. *Shrimpfarming and other coastal aquaculture*

The use of mangrove habitat for aquaculture must be reconsidered. Land use zonation and water quality for and the environmental impact of aquaculture should be included in local and national development plans.

### 4. *Exploitation of fisheries resources*

Limitations on open access and entry are needed through management schemes which specify fishing gear; set levels of effort; determine fish stocks and sustainable yields and what constitutes an excess number of fishermen. Laws on fishing and on the jurisdiction of national, provincial and local governments over marine areas need to be clarified and publicized. Alternative livelihood programs for displaced fishermen are needed to relieve excess fishing effort. Foreign intrusion in coastal fishing grounds should be monitored and regulated.

### 5. *Coral reef protection*

Enforcement of laws on fishing practices needs to be strengthened. Education and community programs to establish local resistance and alternatives to destructive activities must be initiated. Marine parks and reserves at the municipal and community levels must be established

in more areas and must involve community leaders for effective management. Regional cooperation to support existing bans on coral trade is required.

**6. *Reversing the decline of water quality***

Setting of quality standards is needed. Integration of river and watershed management should be made, if possible, with water quality zones affected by upland activities. Sampling and monitoring must be standardized for the region or at least, on a national basis. Industries and sectors which violate standards should be closely monitored.

**7. *Preventing coastal erosion and sedimentation***

Initial management and preventive measures should be focused in areas where valuable productive ecosystems, such as coral reefs, seagrasses, mangroves, estuaries and beaches, are affected by erosion and sedimentation. Construction projects which affect coastal dynamics and offshore dredging should be required to submit comprehensive environmental impact statements. All mining and dredging along inshore coastal areas or on coral reefs should be stopped or regulated.

**8. *Tourism development***

Plans for this should include guidelines for environmental management on sewage discharge, shoreline erosion, maintenance of beaches, coral reefs and other ecosystems and general zones appropriate for tourism. The local government and communities should be involved in implementation so that human and cultural displacement is minimized. Guidelines for use of marine areas by tourist boats, swimmers and fishermen can be developed.

**9. *Improving institutional arrangements and capabilities***

The development of agencies which have jurisdiction over coastal areas and trained personnel to analyze management issues and develop plans is needed. All levels of government should be involved in coastal area management which is interdisciplinary and multisectoral in nature. Training courses on coastal area management and sharing among communities and nongovernmental organizations of experiences in it will improve national and local institutional building.

**10. *Public awareness***

Highlighting issues and possible solutions in the media will increase public awareness. Including coastal ecology in the educational curriculum will start molding a

generation which understands and respects the need for sustainable use of natural resources. This is a long-term solution to improving public knowledge on coastal area management.

### **11. Upgrading legislation**

Many existing laws on coastal area management need to be carefully reviewed, and improved to be more practical and enforceable. Otherwise, these laws should be nullified and replaced with better ones.

## **List of Participants**

### ***Brunei Darussalam***

Awang Diris bin Haji Belaman  
Deputy Commissioner  
Town and Country Planning  
Department  
Old Airport, Barakas  
Ministry of Development  
Bandar Seri Begawan 2068

Dato Paduka Awang Haji Mohammad  
bin Haji Serudin  
District Officer  
Brunei-Muara District  
Ministry of Home Affairs  
Bandar Seri Begawan 2030

Awang Matdanan Haji Jaafar  
Director  
Department of Fisheries  
P.O. Box 2161  
Bandar Seri Begawan

Dr. M.W. Ranjith N. de Silva  
National Coordinator  
ASEAN/US CRMP (Brunei  
Darussalam) and  
Fisheries Officer  
Department of Fisheries  
P.O. Box 2161  
Bandar Seri Begawan

### ***Indonesia***

Dr. Aprilani Soegiarto  
Deputy Chairman for Natural  
Sciences

ASEAN/COST Working Group on  
Marine Sciences and  
Deputy Director-General  
Indonesian Institute of Sciences  
Widya Graha  
Jl. Jenderal Gatot Subroto No. 10  
Jakarta Selatan

Mr. M. Soepardi  
Head

Cilacap District (Bupati Cilacap)  
Bupati KDH TK 11 Cilacap  
Cilacap-Jawa Tengah

Dr. Roesmidi  
Head

Cilacap Planning Board (BAPPEDA)  
Ketua BAPPEDA TK 11 Cilacap  
Jln. A. Yani No. 6  
Cilacap 53212, Jawa Tengah

Dr. Purwito Martosubroto  
Director

Directorate of Living Resources  
Management  
Directorate General of Fisheries  
Jln. Harsono, RM No. 3, Gedung B,  
Lantai VI  
Ragunan, Pasar Minggu  
Jakarta Selatan

Mr. Koesoebiono  
Program Manager  
Coastal Zone Management Program  
Environmental Research Centre  
Bogor Agricultural University  
PPLH-IPB  
Kampus IPB Darmaga  
P.O. Box 145, Bogor

**Malaysia**

The Honorable  
Datuk Amar Stephen K.T. Yong  
Minister  
Ministry of Science, Technology and  
the Environment  
14th Floor, Wisma Sime Darby  
Jalan Raja Laut  
50662 Kuala Lumpur

Tuan Haji Abu Bakar bin Mohd. Noor  
Deputy Secretary-General (I)  
Ministry of Agriculture  
Wisma Tani  
Jalan Sultan Salahuddin  
50628 Kuala Lumpur

Dato' Mohamed Darus bin Hj.  
Mahmud  
Acting Director-General  
Forestry Department HQ  
Jalan Sultan Salahuddin  
50660 Kuala Lumpur

Mr. Abdul Rahman bin Jamal  
Director  
Regional Economic Development  
Economic Planning Unit  
Prime Minister Department  
Jalan Dato' Onn  
50250 Kuala Lumpur

Dato' Ishak Mohd. Yusof  
Director  
Johore State Economic Planning Unit  
2nd Floor, Bangunan Kerajaan  
Bukit Timbalan  
80000 Johore Bahru

Datin Paduka Fatimah bte Abdullah  
Director  
Johore State Office of Land and  
Mines  
Bangunan Kerajaan  
Bukit Timbalan  
80000 Johore Bahru

Dr. Abu Bakar Jaafar  
Chairman  
National Working Group on ASEAN  
Cooperative Programmes on  
Marine Science and  
Deputy Director-General  
Department of Environment  
Ministry of Science, Technology and  
the Environment  
13th Floor, Wisma Sime Darby  
Jalan Raja Laut  
50662 Kuala Lumpur

Puan Halimatun Saadiah bte Hashim  
Director  
State of Johore  
Department of Town and Country  
Planning  
4th Floor, Bangunan Kerajaan  
Bukit Timbalan  
80000 Johore Bahru

Ms. Ch'ng Kim Looi  
National Coordinator  
ASEAN/US CRMP (Malaysia) and  
Head  
Management Resources Unit  
Fisheries Department  
Jalan Mahameru, Kuala Lumpur

Mr. Raman Letchumanan  
Principal Assistant Secretary  
Ministry of Science, Technology and  
the Environment  
14th Floor, Wisma Sime Darby  
Jalan Raja Laut  
50662 Kuala Lumpur

Dr. Kam Suan Pheng  
Lecturer  
School of Biological Sciences  
Universiti Sains Malaysia  
11800 Pulau Pinang

**Philippines**

His Excellency  
Joaquin Ortega  
Governor  
Province of La Union  
Capitol Building  
San Fernando, La Union

Mr. Joseph M. Alabanza  
Director  
National Economic and Development  
Authority (NEDA)-Region I  
Don Pedro Building, Pagdaraoan  
San Fernando, La Union

Dr. Rafael D. Guerrero, III  
Chairman  
Project Steering Committee  
ASEAN/US Coastal Resources  
Management Project and  
Executive Director  
Philippine Council for Aquatic and  
Marine Research and Development  
Los Baños, Laguna

Dr. Edgardo D. Gomez  
 Director  
 Marine Science Institute  
 University of the Philippines  
 Diliman, Quezon City

Dr. Virginia L. Aprieto<sup>a</sup>  
 Program Leader  
 ASEAN/US CRMP (Philippines)  
 National Coordinator's Office  
 c/o Bureau of Fisheries and Aquatic  
 Resources  
 Marcelo Building, Quezon Boulevard  
 Quezon City

Prof. Elmer M. Ferrer  
 Project Leader  
 Socioeconomic and Legal/Institutional  
 Divisions  
 ASEAN/US CRMP (Philippines)  
 College of Social Work and  
 Community Development  
 University of the Philippines  
 Diliman, Quezon City

Mr. Jesus C. Alix  
 Officer-In-Charge (Executive Director)  
 Central Visayas Regional Projects  
 Office  
 HVG Arcade, Subangdaku  
 Mandaue City, Cebu

Dr. Frederick J. Vande Vusse  
 Fisheries Consultant  
 Central Visayas Regional Project-I  
 Rural  
 HVG Arcade, Subangdaku  
 Mandaue City, Cebu

### ***Singapore***

Mr. Leslie Cheong  
 National Coordinator  
 ASEAN/US CRMP (Singapore) and  
 Head  
 Marine Aquaculture Section  
 Primary Production Department  
 Changi Fisheries Complex  
 300 Nicoll Drive, Changi Point,  
 Singapore 1749

---

<sup>a</sup>Her address as of 1989 is:  
 University of the Philippines in the  
 Visayas, Miag-ao, Iloilo City,  
 Philippines.

Dr. Chia Lin Sien  
 Vice Dean and Associate Professor  
 Department of Geography  
 National University of Singapore  
 Kent Ridge Crescent, Singapore 0511

Mr. Lim Lian Chuan  
 Senior Primary Production Officer  
 Primary Production Department  
 National Development Building  
 Maxwell Road, Singapore 0106

Mr. Khoo Chin Hean  
 Head  
 Pollution Control Department  
 Environment Building  
 40 Scotts Road, Singapore 0922

### ***Thailand***

His Excellency  
 Capt. Yongyuth Bunyawat  
 Governor  
 Province of Phangnga  
 Phangnga City Hall  
 Amphoe Muang, Phangnga 82000

His Excellency  
 Dr. Bunterng Srijanthagapan  
 Vice Governor  
 Province of Krabi  
 Krabi City Hall  
 Amphoe Muang, Krabi 81000

His Excellency  
 Mr. Jainvit Sitthidamrong  
 Vice Governor  
 Province of Surat Thani  
 Amphoe Muang, Surat Thani 84000

Dr. Pakit Kiravanich  
 Deputy Permanent Secretary  
 Ministry of Science, Technology and  
 Energy  
 Yodhi Road, Bangkok 10400

Mr. Arthorn Suphapodok  
 Project Director  
 ASEAN/US CRMP (Thailand) and  
 Deputy Secretary-General  
 Office of the National Environment  
 Board  
 60/1 Soi Pracha-sumpun 4  
 Rama VI Road, Bangkok 10400

Dr. Sanit Aksornkoae  
 Professor  
 Department of Silviculture

Faculty of Forestry  
Kasetsart University  
Bangkok 10903

Mr. Robert J. Dobias  
Project Manager  
World Wide Fund for Nature (WWF)  
Beneficial Use Assessment Project  
P.O. Box 8-101, Bangkok 10800

Honolulu, Hawaii 96848  
USA

Dr. Richard Tobin<sup>b</sup>  
SUNY/ITM Program  
No. 5, Jalan SS 17/1A  
Subang Jaya  
47500 Petaling Jaya, Selangor  
Malaysia

**United States**

His Excellency  
Mr. Thomas C. Hubbard  
*Deputy Chief Mission*  
The US Embassy  
Jalan Tun Abdul Razak  
Kuala Lumpur, Malaysia

Mr. Jeffrey Beller  
Economic Section  
The US Embassy  
Jalan Tun Abdul Razak  
Kuala Lumpur, Malaysia

Dr. William V. Branam  
Technical Coordinator  
URI/AID Coastal Resources  
Management Project  
Coastal Resources Center  
The University of Rhode Island  
Narragansett Bay Campus  
Narragansett, RI 02882  
USA

Dr. John A. Dixon  
Research Associate  
Environment and Policy Institute  
East-West Center  
1777 East-West Road  
Honolulu, Hawaii 96848  
USA

Dr. Kem Lowry  
Chairman  
Department of Urban and Regional  
Planning  
*University of Hawaii at Manoa*  
Porteus Hall 107  
2424 Maile Way  
Honolulu, Hawaii 96822  
USA

Dr. Mark J. Valencia  
Research Associate  
Resource Systems Institute  
East-West Center  
1777 East-West Road

**USAID<sup>c</sup>**

Mr. Lawrence Ervin  
AID Representative to ASEAN

Mr. Noel Ruiz  
CRM Project Officer

**ICLARM<sup>d</sup>**

Dr. Max Aguero N.  
Associate Scientist and  
Project Manager  
Small-Scale Fisheries Project

Dr. Chua Thia-Eng  
Senior Scientist and  
Project Coordinator  
ASEAN/US CRMP

Dr. Daniel Pauly  
Senior Scientist and  
Director  
Capture Fisheries Management  
Program

Dr. Alan T. White  
Associate Scientist and  
Technical Advisor  
ASEAN/US CRMP

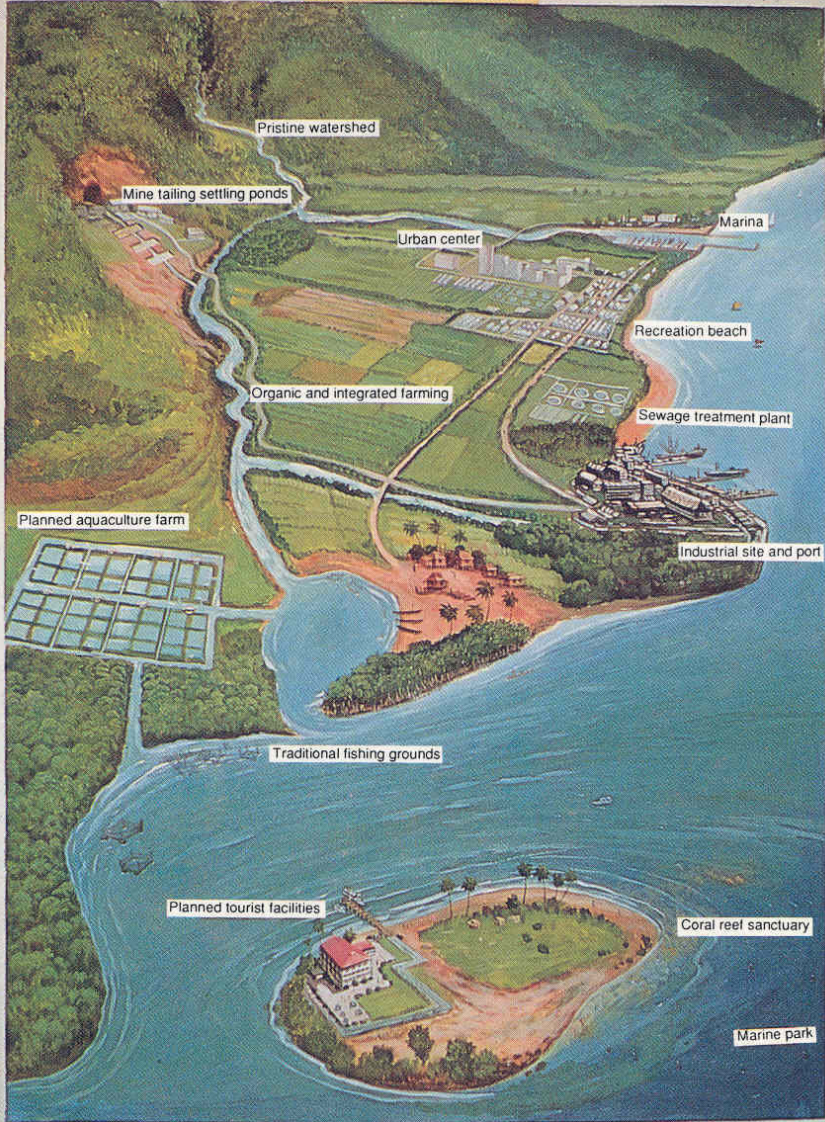
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<sup>b</sup>Effective 18 May 1989: Visiting  
Scientist, ASEAN/US CRMP,  
ICLARM.

<sup>c</sup>USAID ASEAN Regional Office  
37 Soi Somprasong 3  
Petchburi Road, Bangkok 10400  
Thailand

<sup>d</sup>3rd Floor, Bloomingdale Building  
Salcedo St., Legaspi Village  
Makati, Metro Manila  
Philippines.

## Model State



Coastal Dreamland

Artwork by Papo/Aque

Adequate planning and proper management of the coastal areas ensure sustainable development and existence of natural resources for the future.

The goal of the Coastal Resources Management Project (CRMP) is to increase existing capabilities within the Association of Southeast Asian Nations (ASEAN) region to develop and implement comprehensive, multidisciplinary and environmentally sustainable CRM strategies through: analyzing, documenting and disseminating information on trends in coastal resources development; increasing awareness of the importance of CRM policies and identifying and, where possible, strengthening existing management capabilities; providing technical solutions to coastal resources use conflicts; promoting institutional arrangements that bring multisectoral planning to coastal resource development.

The project has two components. The first is the development of site-specific CRM plans in the respective ASEAN countries. This includes resource assessment, cooperative research and planning activities. The second component is information dissemination and manpower development through publications, training activities and technical workshops and policy seminars.

These activities are coordinated through the following national institutions in the ASEAN nations: Brunei Darussalam - Department of Fisheries; Indonesia - Indonesian Institute of Sciences; Malaysia - Ministry of Science, Technology and the Environment; Philippines - Philippine Council for Aquatic and Marine Research and Development; Singapore - Science Council of Singapore; and Thailand - Office of the National Environment Board.

The CRMP, funded by the United States Agency for International Development (USAID) is being executed by the International Center for Living Aquatic Resources Management (ICLARM). The CRMP's Project Steering Committee, composed of representatives of the ASEAN nations, is responsible for establishing overall project policy direction and overseeing and evaluating project activities and performance.