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International Coastal Resources Management Project

The University of Rhode Island

Funding provided by the Office of Forestry, Environment and Natural Resources,
Bureau of Science and Technology, U.S. Agency for International Development

The four major goals of the AID/URI Coastal Resources Management Project (CRMP) are: 1) to apply, as appropriate, existing experience in coastal resources management to developing countries; 2) to assist three developing nations in the design and implementation of integrated coastal resources management programs; 3) to advance the state-of-the-art of coastal resources management in developing countries; and 4) to build URI's capability to assist developing nations with coastal resources management.

The CRMP will work with the cooperating pilot countries to:

- develop procedures for the assessment of the impacts of coastal development proposals
- develop institutional and technical solutions for resource use conflicts
- support research to better understand the issues that affect the condition and use of coastal ecosystems
- improve the capabilities of in-country professional staff to plan for and manage coastal development

The countries selected for pilot projects are Ecuador, Sri Lanka and, tentatively, Thailand.

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TRIP REPORT ON INITIAL VISIT TO THAILAND
TO DISCUSS A PILOT PROJECT THROUGH THE AID/URI
COASTAL RESOURCES MANAGEMENT PROJECT

April 27 - May 7 and May 19 - 21, 1986

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1. Introduction and Summary

The objectives of this trip were:

1. To discuss the design of a pilot project in Thailand with the AID Mission and Thai agencies likely to be involved.
2. To view areas of the Thai coast of particular interest to those developing CRM programs.
3. To coordinate AID/URI CRMP activities with the ASEAN CRM project in Thailand.

Our principal contact at AID/Bangkok was Will Knowland, the Environmental Advisor. Will works under Ed Plock in the Program Office. The lead Thai CRM agency is the Office of the National Environment Board (ONEB). Dr. Pakit is the Deputy Secretary General with responsibility for CRM at NEB. Dr. Teerayut (Division of Impact Assessment) has primary responsibility for the day to day oversight of CRM projects within NEB.

Molly Kux, Project Officer for the AID/URI CRM Project in Washington, traveled with me to Bangkok and we were together until I left for Sri Lanka on May 7th. In Bangkok we met up with Random DuBois, technical advisor to the ASEAN CRM Project, who participated in many of our meetings and the field trip hosted by NEB (April 29 and 30) along the western side of the Gulf of Thailand. Molly Kux and I visited Phuket, on the western side of the peninsula that connects

Thailand to Malaysia on May 3-5 (see attached map). Our guide was Kasem Srinian, who is on the AID Mission staff in Bangkok and is likely to play an important role in our Thailand pilot. Kasem will be at URI July 5-11.

The trip was highly productive. Our discussions with NEB staff and field trips resulted in general agreement on the magnitude and focus of a pilot project for Thailand. These ideas were refined while I was in Sri Lanka and it was then possible to prepare drafts of both the Memorandum of Understanding to govern the project and a First Year Work Plan when I returned to Bangkok for a three-day stopover on my way home.

2. The AID/Bangkok Mission

Dr. John Eriksson became Mission Director earlier this year. He was formerly on the faculty at Williams College and served with AID in Indonesia and S&T/Washington. He has a special interest in environmental management and plans to make this a focus of the Mission's work over the next several years.

As reflected in the budget below, however, environmental management is a small part of the Mission's current portfolio.

1986 Approved Assistance for Grants and Loans
(from FY 87 Thailand Country Development Strategy Statement p. 62)

Agriculture, Rural Development, Nutrition	\$21 million
Rural Industries Development Loans	20
Housing Guarantees	25
Special Development	5
PVO Grants	1
Emerging Problems in Development	5
Other	<u>3</u>
	<u>\$80 million</u>

A discussion paper entitled RTG/USAID Action Dialogue on Resources and Environment (January 1986) sets forth the elements of a collaborative strategy between the AID Mission and the Thai government for strengthening resources management. At present, Mission projects in this area are funded by the Emerging Problems in Development (EPD) Project which is now in Phase II. EPD II will fund any buy-in to our CRM project--at least in the first two years. It is possible that the Mission will develop a major stand-alone project in Environmental Management 18 months or 2 years from now. This new project is likely to focus on CRM or Forestry. EPD II projects are approved by a committee comprising the Mission, the Department for Technical and Economic Cooperation, and NESDB (see Section 4). All projects must focus on policy issues and be national in scope. There are seven joint projects underway and 10 additional proposals are expected in natural resources and environmental management. Of particular interest to us among the projects underway is the National Environmental Profile (first drafts June '86), an Overview Report on Thailand Coastal Fisheries (April '86) and a National Parks and Preserved Lands Assessment (April '86). None of these had yet been completed when I was in Bangkok.

3. Background on Thailand

Thailand has a land area of 514,000 km² and is thus about the size of Texas. Its present population is 50 million. The annual population growth rate has recently fallen to two percent. The Thais came into a previously sparsely populated region some 700 years ago migrating down rivers from South China. Bangkok was founded only 200 years ago.

Bangkok, you hear said, is Thailand with a population of over 5 million. Power is concentrated in Bangkok and government is very much top down. The three power centers are the royal family, the army and the Bangkok bureaucracy.

Governmental policy in Thailand is expressed through Five Year Plans. The sixth Plan will be released this fall and for the first time will contain a chapter on the environment and natural resources. The central government exerts much of its control by denying project funding if they do not conform to the current Plan. This means, however, that small projects not involving governmental funding can take place without being subjected to the review processes now in place. Five Year Plans are prepared by NESDB (see Section 4) and are periodically amended by the cabinet.

Provinces are governed by governors appointed by the Ministry of Interior. Governors work their way up to their position through a special branch of the civil service. Elected officials fill only municipal level positions. Members of Parliament are elected every four years and are increasingly influential.

Thailand's population was at half its present level in 1960. According to foresters at the University of Kasetsart, some 53 percent of the country was in natural forest that same year. Only 20 percent of that natural forest exists today and cutting continues.

Thailand has just graduated to the status of a Recently Developed Country (RDC). During the past twenty years the annual growth in GNP has been sustained at about seven percent and personal income has grown at about four percent. Recent studies (for example the report of T. Panayotou through the Harvard Institute for International Development project with TDRI) point out that this phenomenal growth has been based on the exploitation of Thailand's rich natural resources and the price in environmental degradation is very high. According to the HIID/TDRI study, some 24 percent of the GDP can currently be directly attributed to natural resources and 50 percent of all manufacturing, trade and services is indirectly linked to resources based activities. Three quarters of the Thai labor force is employed in agriculture, fisheries, forestry and mining.

Much is said about the "Thai way" government operates. The system is highly hierarchical and compartmentalized. A small elite representing the three seats of power controls most of what takes place. The system is characterized by decision making by consensus and by adherence to a consensus decision once it has been made in a manner that Americans used to confrontation and open criticism find difficult to understand. If consensus among the elite has not been reached, then no action will be taken. But once agreement is reached everyone will fall into line and support the policy. The time and processes involved

in reaching consensus is often mysterious and frustrating to Americans.

4. Key Agencies for Coastal Management

There are a number of agencies that will be directly involved in an integrated CRM initiative. A short list--taken in part from the 1984 NOAA/AID CRM assessment for Thailand--is as follows:

1. National Environment Board (NEB) was created in 1975 with a mission of protecting natural resources. The Office of NEB is an executive secretariat that reports directly to the Deputy Prime Minister. NEB was created from sections formerly in NESDB and therefore has a strong planning orientation. The leadership is now moving the agency toward a strong role in implementation.
2. National Economic and Social Development Board (NESDB) is the national planning agency that prepares the Five Year Plans and is therefore in a pivotal policy position. This agency's priority is development.
3. Ministry of Agriculture and Cooperatives. The various departments in this ministry tend to work with relative independence. Crucial to CRM initiatives are the Departments of Forestry, Fisheries and Land Development. The last of these contains the Department of Land Development that took an initial lead in CRM affairs.
4. Mangrove National Committee (ManNatCom): The ManNatCom operates under the auspices of the National Research Council within the Ministry of Science, Technology and Energy. The

Committee includes representatives from several government agencies and academic institutions. It serves in an advisory role to implementing agencies, informing them of the impact of proposed activities involving mangroves.

5. Ministry of Industry-Department of Mineral Resources (DMR): Mining activities have significant impact on coastal resources, especially through sedimentation and loss of mangrove forests.
6. Tourist Authority of Thailand: The Tourist Authority has commissioned a number of Tourist Development Plans for different coastal locations.
7. Thailand Development Research Institute (TDRI), was created in 1984 as a blue ribbon, semi-governmental think tank that is expected to play a key role in developing environmental management policies. It is preparing the Thailand Environmental Profile and is expected to undertake the institutional analysis that will precede design of a national CRM Program.

The current institutional framework for CRM may change over the next several years. There is a possibility that a new Ministry of Natural Resources will be created but this is unlikely to happen for quite some time. The management of coastal resources and of forestry resources would likely be priorities for such a new Ministry. Another very important development is the growing recognition that government must be decentralized to provide for more power and initiative to the provincial level. Since the effective implementation of a CRM Program

will require a lead role at the provincial level, a decentralization policy will be helpful to CRM initiatives in Thailand.

5. Major Issues for CRM in Thailand

Many CRM issues are well defined and much discussed. Issues one through four are commonly recognized as the priorities.

1. Ineffective implementation and enforcement of natural resources policies, plans and laws. Frustration levels are high over the inability of government to implement existing policies for natural resources management. Time and again we were told that there is no lack of laws and policies and there is widespread agreement among all those to whom we spoke both in Bangkok and in the field on the principals and objectives for CRM. The lack of experience in implementation and the absence of authority to implement at the local level appear to be the major problems. Some policies are poorly conceived for implementation. For example, the national policy is to prohibit all further destruction of mangroves. Clearly this is unimplementable in a country where coastal development of all types is occurring rapidly. Sites where preservation is truly a priority and pragmatically enforceable should be identified. Several marine parks have been created but there are insufficient resources for their management. Stiff penalties for dynamiting reefs are on the books but are very seldom enforced. From a national perspective the most obvious failure is the inability of government to control deforestation. If our project is to be

truly helpful to Thailand we must focus our efforts on this policy implementation/enforcement problem.

2. Loss of Fishery Resources. This is most evident in the Gulf of Thailand. Dr. Dihra of TCRI, in a brief presentation to us on major CRM issues on May 1, summarized the situation. Demersal stocks in the Gulf were abundant in the 1960s but an expanding trawler fishery passed the MSY in the early '70s. The trawler fishery responded with a massive modernization scheme that enabled fleets to operate in distant waters. As other countries begin to enforce their EEZ's, this strategy is running into problems. Currently fisheries landings primarily from these distant water trawlers total some two million tons per year and account for 1.6 percent of the gross national product. Today, squid dominate commercial catches in the Gulf. The Gulf harvest of squid and other pelagics are now also declining from what is believed to be a combination of overfishing and poor water quality. Several decades ago wild shrimp were abundant in the Gulf and at first the fishermen who turned to pond culture relied on wild seed and the nutrients brought in by the seawater that flowed into the ponds. According to Dr. Teerayut at NEB, shrimp farmers are now having to rely increasingly on hatchery produced post larvae and feed supplements that erode the profit margins for such operations. In addition, poor water

quality near the Mae Klong estuary stunts the growth of cultured shrimp on farms near this estuary during periods of low flow.

3. Deforestation. As mentioned above, this is a nationwide problem of enormous proportion. For example, some 35 percent of the country is known as the northeast Plateau. It lies in the northeast and until recently was almost all in natural forest. According to the AID Mission Director, who had just returned from a tour of the area, virtually all the forest cover is gone and erosion and desertification processes are proceeding rapidly. In the coastal zone these trends are seen in the destruction of mangroves. The issue of mangrove destruction is often presented as a classical conflict between two agencies. The Department of Fisheries is encouraging aquaculture even though this leads directly to losses in the mangroves that the Department of Forestry is trying to preserve. According to foresters at Kasetsart University, Thailand recently switched from being a major exporter of wood to a net importer.
4. Preservation of Tourist Amenities. Tourism is a primary source of foreign income. There is great concern that popular tourist sites are losing their appeal in the face of mounting user conflicts and uncontrolled development. This was obvious in Phuket, a famed beauty spot where the proliferation of hotels, destruction of mangroves to build port facilities, and tin mining are all threatening the

scenic qualities that make it a major tourist haven. Master plans for tourist development have been prepared--including one for Phuket--but they are not being enforced.

5. Mining. According to the HIID/TDRI report, tin mining has peaked but other mineral mining operations are in their infancy. In Phuket tin mining has been responsible for destruction of mangroves as well as large scars on the hillsides. A major symbol for environmental interests and success for NEB was the prevention of large scale tin mining operations in the Bay off Phuket. The operation was not permitted because a convincing argument was made that the resulting loss of revenues from tourism would outweigh the profits of mining.
6. Declining Water Quality. This is viewed as a major cause of the losses in fishery resources. The major rivers that empty into the upper Gulf are grossly polluted by excessive organic loadings primarily from domestic sewage. Many of the estimated 90,000 (NEB, 1984) registered industries in Thailand contribute to water pollution. Coliform levels in rivers are high. Heavy metal concentrations are reported to be high in several rivers and pesticide residues are high enough that some food products contain levels that exceed those sanctioned as safe by FAO/WHO.
7. Sedimentation. This is linked directly to deforestation. It is particularly obvious in the upper Gulf.

8. Destruction of coral reefs--primarily by dynamiting.
9. Ship breaking and associated spills and user conflicts.
10. Spills of petroleum and hazardous substances.

6. Ongoing Coastal Management Initiatives

The NEB is currently working on, or planning, five distinct CRM projects:

1. Eastern Seaboard Project. This is essentially an environmental component for an extensive industrial development plan for this region. The project is due to end in July '86. It has been carried out by NEB staff in collaboration with a team from Southeast Asia Technologies, Inc. A major emphasis is on water quality standards.
2. The ASEAN upper south CRM Project. This covers a corridor extending across the peninsula from Phuket to Surat. It, too, is in many respects an environmental assessment of an existing development plan. The project is funded and about to begin.
3. The ASEAN/Australia project for the lower western side of the peninsula. This is focused upon assessments of mangrove and coral resources. This is slated to begin this year.
4. A project proposed jointly with TDRI to the Swedish Assistance Program (SIDA) that would identify major CRM issues from a national perspective. The focus is to be on fisheries and tourism. Funding approval is not at all certain.

5. The project funded by our AID/URI project. This is projected to be national in scope and to provide the framework for an integrated national program.

7. Field Trips

The April 29-30 trip was arranged by NEB. We flew in a helicopter provided by the Royal Thai Police west along the coast of the upper Gulf and then south to Hua-Hin. This provided us with an appreciation for a long stretch of very varied coastline that would be difficult or impossible to view from a car or boat. This stretch of coast could be readily placed into five distinct regions based on dominate patterns of use and physical features. I have salted away fairly detailed notes on this. The northern Gulf shore has been denuded of mangroves that I was told existed 30 or more years ago. In their place is a wide belt of mariculture ponds and salt works. In the vicinity of the Mae Klong estuary the extensive flats are intensively used in a cockle fishery in a variety of fish traps and staked nets. Below Ban Laem sandy beaches replace mud flats and tourism is important. We spent the night at Hua-Hin and returned to Bangkok in a van the next day. We stopped to view several recreational and mariculture sites on the return trip.

The weekend trip to Phuket enabled us to see a gorgeous mountainous coast with deep inlets and bays. We met with Dr. Harnsa of the Phuket Marine Biological Center and visited examples of the many problems that are threatening this famous beauty spot. We met briefly with the new Governor, who told us that environmental quality was his priority concern. He meets regularly with a working group of local officials to review environmental issues. He was very interested in

our project. Since all flights from Phuket to Bangkok were full, we drove across the peninsula to Sierat on Sunday.

8. Next Steps

The AID/Bangkok Mission and NEB will have prepared a CRM Proposal for a three-and-a-half-year project funded through the AID/URI Cooperative Agreement and the EPD II project. They are also refining the Memorandum of Understanding with our project. Both documents should be in final form by August and the project may begin as early as October.