

Coastal Resources Management

Project Evaluation  
953-5518

FINAL REPORT

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## ACRONYMS

CORIN	Coastal Resources Institute (Thailand)
CRC	Coastal Resources Center (University of Rhode Island)
CRM	Coastal Resources Management
CRMP	Coastal Resources Management Project
CZM	Coastal Zone Management
FAO	Food and Agriculture Organization
G/ENV	Global Bureau, Environment Division (USAID)
ICZM	Integrated Coastal Zone Management
NAREPP	Natural Resources and Environmental Policy Project (Sir Lanka)
NGO	Non-governmental Organization
ROCAP	Regional Office for Central America Programs (USAID)
S&T	Science and Technology Bureau (USAID)
SAM	Special Area Management
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Program
UNEP	United Nations Environment Program
URI	University of Rhode Island
USAID	United States Agency for International Development
WID	Women In Development

## **I. EXECUTIVE SUMMARY**

The following evaluation reviews the evolution and effectiveness of the Coastal Resources Management Project [CRMP-Project No. 536-9918] carried out under a Cooperative Agreement between the Coastal Resources Center of the University of Rhode Island and the United States Agency for International Development. The project's objectives were to adapt tools, methods and strategies emerging from the innovative U.S. national coastal zone management program for use in developing nations.

Designed and authorized in 1984 as a six-year project (later extended to 1995), the CRMP included the selection of sites for three extended pilot projects, plus regional training and an international information outreach effort designed to assist coastal practitioners engaged in slowing or reversing environmental degradation of coastal ecosystems and communities.

The Cooperative Agreement with Rhode Island was signed May 15, 1985, and subsequently amended with an End of Project date of May 15, 1995. LOP funding was authorized at \$20.8 million including a Mission add-on capacity of \$7 million. Actual LOP funding, at the time of the evaluation, was \$12.8 million.

The proposed program was ambitious, exploratory and timely, as UNEP, UNDP, FAO and USAID were, in various ways, urging countries to develop national policies and management strategies for high-value coastal resources. The areas ultimately selected for pilot projects were Ecuador, Sri Lanka and Thailand. At the outset, these were conceived of as policy and planning projects. This top-level emphasis was subsequently modified to include an alternative, more experimental, community-based field testing of planning and management technologies in each of the three pilot countries. This combination of top-down and bottom-up focus led to what would later be referred to as the "Two-Track Approach" as selected coastal communities were targeted for "Special Area Management" (SAM) planning strategies and were provided an opportunity for decentralized local experimentation.

### **KEY FINDINGS**

1. USAID and the Coastal Resources Center of the University of Rhode Island, under the aegis of the cooperatively developed Coastal Resources Management Project, have significantly advanced the state of the art of coastal management in developing countries.
2. The extended project has established a solid institutional foundation for the policy and practice of coastal system management in the three pilot countries -- Ecuador, Sri Lanka and Thailand. In Ecuador and Thailand, it helped to shape in-country, university-based education and training programs in coastal affairs which have greatly reduced local dependency on costly imported talent.
3. Well beyond the boundaries of the pilot countries, USAID and Rhode Island's Coastal Resources Center have successfully trained several hundred technical and professional coastal management practitioners through various international workshops in the later stages of the project. This cadre of converts to improved coastal system planning and the institutions that

sponsored their individual participation are now actively engaged in shaping better-informed coastal resource management initiatives in a variety of countries which were not directly within the purview of the CRMP.

4. On an even larger scale, one affecting literally all coastal nations, USAID's commitment of resources to this program through cooperation with the University of Rhode Island has engendered a combined publication and outreach program that has set a high standard of superior performance in providing information services to governments, resource planners, coastal managers, and the international scholar and donor communities.

### **KEY ASSUMPTIONS TESTED**

1. It was assumed in the original Project Paper that many of the principles and practice of the United States' national experience with coastal zone management, especially at the state level, could be translated into effective international guidelines for use in developing countries. This premise was fundamental to the design of CRMP and the selection of the University of Rhode Island as the partner. It has proven correct with some tailoring required to adapt to different social, cultural and political factors.

2. It was determined by CRMP leadership, after some experimentation in the field with the pilots, that the original national-level policy, planning and training focus or "track" for the project ought to be supplemented by a second, citizen-focussed participatory second track using modest "special management zones" as vehicles for community-based planning. It was also assumed that management techniques could be tested at this level more expeditiously and at lower cost before they were applied nationally.

These assumptions proved correct although the relationships between the two tracks are not as strong as they need to be and there are some implementation problems with the second track.

3. It was assumed that the mechanism of a cooperative agreement between USAID and URI would provide a more flexible operational setting for the project, allowing a "rolling design" which would facilitate successful completion of project objectives. This assumption proved valid, especially in light of unforeseen, external exigencies.

### **KEY RECOMMENDATIONS**

1. A program of continuing support to URI's Coastal Resource Center should be maintained to capitalize on USAID's previous investment of time, effort and resources and on the significant progress made to date.

2. The Coastal Resource Center offers unique capabilities to provide direct access to experiential lessons learned and new approaches regarding the next stage of coastal program development leading to more effective coastline management strategies. However, there are some areas in which additional expertise is need, e.g., social science, economics and gender.

3. USAID can best move forward with the CRMP effort through the mechanism of a new cooperative agreement with CRC and other partners that incorporates extensions of former training, outreach, publication and dissemination tasks in conjunction with new links with the coral reef initiative and with other Global Bureau and Mission programs.
4. Some continuing follow-up services should be scheduled by USAID for CRC in Ecuador and Sri Lanka, in part to track longer-term effects of the initial investment and approaches used.
5. Social science, gender and economics inputs to resource assessment, planning and other participatory activities should be expanded, especially at the community level.
6. The existing network of collegial relationships with other universities and NGOs active in coastal management training and research should be expanded.
7. A broader base of working relationships with multilateral donor and banking institutions should be developed, in part to expand CRC's capacity to help target countries diversify their funding options for coastal resource management projects.

## **I. BACKGROUND AND METHODOLOGY**

The following evaluation reviews the evolution and effectiveness of the Coastal Resources Management Project [CRMP-Project No. 536-9918] carried out under a Cooperative Agreement between the Coastal Resources Center (CRC) of the University of Rhode Island (URI) and the United States Agency for International Development. The project's objectives were to adapt tools, methods and strategies emerging from the innovative U.S. national coastal zone management program for use in developing nations.

### **A. The Project**

1. The Coastal Resources Center at The University of Rhode Island has been working in the field of international coastal management for almost a decade, and in the United States for over twenty years. In 1985, CRC entered into a cooperative agreement with the U.S. Agency for International Development (USAID) to establish the Coastal Resource Management Project (CRMP) in three nations: Ecuador, Sri Lanka, and Thailand. The total authorized funding of the project over nine years was \$20.8 million, although actual LOP funding to date was \$12.8 million.

2. Designed and authorized in 1984 as a six-year project (later extended to 1995), the CRMP included the selection of sites for three extended pilot projects, plus regional training and an international information outreach effort designed to assist coastal practitioners engaged in slowing or reversing environmental degradation of coastal ecosystems and communities.

3. The Cooperative Agreement with Rhode Island was signed May 15, 1985, and subsequently amended with an End of Project dated May 15, 1995. LOP funding was authorized at \$20.8 million including a Mission add-on capacity of \$7 million. Actual LOP funding, at the time of the evaluation, was \$12.8 million.

4. The components of CRMP were:

- pilot coastal resource management projects
- outreach
- international training, and
- global leadership.

### **B. Pilots**

#### **1. Ecuador**

1. The Ecuador Pilot Project began in 1986 with the signing of a Joint Project Agreement between the USAID and the Government of Ecuador (GOE). The total cost of the 9 year

project was \$4.2 million of which \$3.3 million was provided by USAID. The principle objectives of the pilot were to:

- identify resource conflicts,
- explore institutional and technical solutions to resource use conflicts,
- identify and support research on topics that can resolve resource management problems,
- promote private and public sector coordination, and
- establish the institutional framework and build human resource capacity to undertake integrated coastal resource management.

## **2. Sri Lanka**

1. The CRMP work in Sri Lanka was initiated on January 1, 1986, through a Memorandum Of Understanding between the Government of Sri Lanka and USAID. The Coastal Conservation Department (CCD) was designated as the counterpart agency to CRC. The total cost of the project was \$2.1 million, of which \$1.6 million was provided by USAID. The major objective of the Sri Lanka CRMP was to assist the CAD in formulating and implementing a national coastal resources management program. The CRMP components were:

- policy formulation and planning,
- establishment of a regulatory framework,
- public education, and
- training.

2. In 1991, the CRC project became part of USAID's Natural Resources and Environmental Policy Project (NAREPP). Under NAREPP, the CRC has focused more on the establishment of Special Area Management sites in Hikkaduwa and Rekawa. CRC has also begun to work in conjunction with the National Aquatic Resources Agency(NARA).

## **3. Thailand**

1. The CRMP worked in Thailand from 1986 through 1991, when the project was abruptly terminated in response to a *coup d'etat*. The total cost of the project was \$2.8 million of which USAID provided \$2.2 million.

2. The project focused on building a national core group knowledgeable about integrated coastal management, planning for the development of Phuket province, developing a national strategy for the protection of coral reefs, and establishing a coastal zone management institute (CORIN) at Prince of Songkla University (PSU). Other institutions engaged in the project were Chulalongkorn University and the Phuket Marine Biological Center.

## **C. Training and Outreach**

1. Through the CRMP, training and outreach have been provided in the following ways: in-country short-courses, the strengthening of in-country university curriculum, participation in

international workshops and conferences, the URI Summer Institute in Coastal Zone Management, developing regional newsletters in coastal zone management, developing on-line data-bases, and preparation of professional publications.

2. CRC has implemented seven international training courses for over 170 individuals from 30 countries. Four of these courses have been implemented in developing regions with partner institutions.

3. CRC has also been active in attempting to establish regional centers of excellence in Asia and Latin America.

#### **D. Participation, Gender and Women in Development**

1. Because it was originally conceived as a policy and planning project, the social soundness analysis within the original project paper (PP June, 1984) states that the direct beneficiaries of the project were to be "...the host country governmental counterparts of the Country Program manager and others trained during the course of the CRM project. These beneficiaries were to include: policy-makers, senior government agency staff, professional staff, planners, developers, scientists, and researchers." Indirect beneficiaries included those who live, work or visit the coastal zone, including those whose livelihoods, food and health are dependent upon coastal resources, and they would accrue benefits both during and after the CRMP.

2. Since the 1992 Project Paper Amendment, the participatory approach to coastal management has been promoted at national, regional and international levels through workshops, literature including newsletters, university partnerships and direct communication with the missions. Participation (which communities, groups, households, etc. are participating in which project activities), gender (how do roles, rights, responsibilities and resources differ between men and women) and WID (how many women relative to men are involved in various project activities and benefit distribution) issues were not part of the original performance criteria outlined in the Logical Framework of the Project Paper. However, these issues have been included in the report below:

- to assess the valuable lessons which can be learned from CRMP's emerging experience with participatory approaches, and
- to inform design efforts for a follow-on project which must address current USAID objectives with regard to participation, gender and WID.

#### **E. Methodology of This Evaluation**

The evaluation team consisted of three external evaluators recruited by Management Systems International (MSI) supplemented by two staff members from USAID. The first site visit (6 to 10 September) was made to the University of Rhode Island's Coastal Resources Center. The CRMP resident staff had prepared an extraordinarily comprehensive, well-organized set of project documents for each member of the evaluation team. Four full days of briefings by CRC senior administrators, professionals and technical personnel, supplemented by meetings

with University officials and faculty, completed the preparatory and institutional phase of the evaluation. The team left for Ecuador on the 11th of September.

The Ecuador schedule was well organized by the local Coastal Resource Management Project office. Ten full days in country allowed time for team members to visit several Special Area Management (SAM) sites including the Guayaquil estuary area in the south and several sites in the Esmeraldas, Muisne and Atacames on the north coast. In addition, USAID Mission, IDB, NGO, university and Government of Ecuador personnel were interviewed. Two days were spent in Quito. The team returned to Washington on the 20th of September, and departed three days later for Colombo, Sri Lanka.

Reflecting constraints which resulted from domestic civil unrest that has plagued Sri Lanka (and the project indirectly) for years, the team's efforts in that country were geographically confined to the Colombo area, the Hikkaduwa marine park site in the southwest and the Rekawa Lagoon area on the southeastern coast. Interviews and briefings included the Mission, NAREPP project leadership, government, university, NGO and private sector representatives.

The two team members from USAID left Colombo on the 2nd of October to undertake a short Thailand site visit. The CRMP pilot project in Thailand had been foreshortened by a coup and USAID withdrawal of funds. These findings are incorporated into the current evaluation. The remainder of the team stayed in Colombo to finish the Sri Lankan pilot evaluation field work and then returned to the United States.

The team re-assembled in Washington on the 17 October, meeting at MSI intermittently to prepare the draft evaluation report. The USAID and URI debriefings on the preliminary findings were held on the 27th of October.

## **II. Institutional Support Base**

### **A. Assumptions**

1. Based principally on statements of need from AID Missions and Regional Bureaus, the original USAID Project Paper approved in 1984 proposed undertaking an international multi-country project in the field of Coastal Resources Management . It assumed that the technical and administrative lessons learned under the innovative 1972 U.S. Coastal Zone Management Act had placed the United States in a strong leadership position with unique expertise in the field of coastal area management.
2. Additional explicit assumptions at the outset included:
  - Technical assistance would enhance institutional capacity for anticipatory or forward planning.
  - Integrated, inter-agency cooperation would enhance the development planning process.
  - Trained host country professionals would find local institutional employers when qualified.
  - Qualified country program managers could be found in the United States.
  - The political and institutional climate in the pilot project countries was favorable for a CRM initiative.
3. Once URI was selected as the "cooperating institution" and launched the various tasks specified in the Cooperative Agreement, a whole battery of new assumptions came into play. Examples are shown under Project Design in Section IV A below.
4. One of the most significant assumptions in the CRMP was that required leadership, scholarship, management skills and institutional oversight would emerge over time from the URI and its CRC, as the University defined a partnership relationship with USAID, the host countries, and selected resident NGOs, communities and user groups in the pilot countries.

### **FINDINGS:**

1. On balance all the preceding assumptions proved valid, except for the assumption of a favorable political climate. This exception proved more or less manageable although it clearly arose from an underestimation of the nature and kind of issues that surfaced in each of the three pilot countries. In the case of the assumption regarding qualified program managers, this proved mostly irrelevant as qualified program managers were by design recruited from the host country or region as a preferred and feasible means of building national capacity.

### **CONCLUSIONS**

1. Many of the initial Project Paper assumptions were too general to be of much use in this review. They were all "achieved" in the sense that advances were made but seldom in

any usefully quantifiable way, save for the training, education and skills transfer inputs and outputs.

## **RECOMMENDATIONS**

1. Complex extended resource management projects warrant an improved baseline and implementation assumption tracking system as a device for both management and evaluation.
2. Demonstrated success at crisis management in an overseas setting should be added to the desirable experience qualifications for candidate institutions being evaluated for stand-alone project management under a Cooperative Agreement with USAID.

### **B. Management Issues**

#### **1. CRC and URI**

## **FINDINGS**

1. The CRC is one of URI's numerous program activities which can be characterized as "public service". CRC's programs provide a wide range of services to communities, public sector agencies, and to the University of Rhode Island.
2. CRC professional staff serve the University in a number of ways including participation in planning and administrative committees, teaching, curriculum review, and supervision of graduate students theses.
3. CRC employs a large number of graduate and undergraduate students primarily from the Marine Affairs Program and the School of Oceanography. In addition, CRC started a formal internship program in the fall of 1993. To date, 18 students from Marine Affairs, Finance, Resource Economics, Political Science and Natural Resource Sciences have worked on CRC projects for academic credit.
4. Since the start of the Cooperative Agreement in 1985, 21 faculty from eight departments including a President and three Vice Provosts have provided technical assistance or advisory support to CRC operations.
5. Currently, one Vice Provost and one Dean serve as Board Members to the CRMP.
6. In 1992, the CRC established a Faculty Council to advise the Director on
  - strengthening ties between CRC and the URI academic community;
  - research and funding opportunities within and outside URI; and
  - program directions and implementation.

Some departments still feel that more could be done to get their faculty involved in CRC projects.

7. A Seminar series with speakers from CRC and URI has been an ongoing tool for information exchange.
8. Despite difficult financial times and the turmoil of a University-wide reorganization, the URI administration continues to make a significant commitment of resources to CRC, including the funding of several positions, a reduced rate of overhead charged to USAID (since 1990), the return of overhead generated by CRC through projects like the CRMP, and the establishment of the Coastal Institute(which will include CRC).
9. URI's administration is revising faculty tenure requirements to encourage faculty participation in non-traditional academic activities such as the CRC.
10. About one-third of CRC's project staff have graduate training in URI's Marine Affairs Program. The other have their degrees in Oceanography, Planning, Biology and Business Management.
11. There appears to be little direct input from the field of economics or other social sciences in the design of the pilot programs.

## CONCLUSIONS

1. The overall relationship between CRC and the University Administration is excellent. And while on the whole good relations exist, CRC's relationship with individual departments varies.
2. CRC, the URI Administration and the academic departments are well aware of the issues that face them and are trying to develop solutions in the context of the University-wide reorganization.

## RECOMMENDATIONS

1. CRC and the URI need to continue efforts at developing mutually beneficial methods of operation and to the extent possible, remove the remaining bureaucratic barriers to increased involvement of departmental expertise in CRC programs.
2. CRC should make an effort to:
  - recruit staff from other nationally recognized programs, and
  - hire a marine resources economist to help increase the input from that field in the design and implementation of their pilot programs.
3. Within CRC, greater efforts should be made to diversify perspectives on coastal resource management. Two possible mechanisms include post-doctoral students and visiting scholars from other universities.

4. URI would benefit from increased interaction at CRC and in the field with professionals trained at other U.S. universities in coastal resource management.

## 2. CRC and USAID

### FINDINGS

1. CRC's relationship with USAID/Washington continues to be excellent. Despite the turnover in AID project officers during the life of the project, working relations remain excellent and efficient.
2. CRC's relationship with USAID Missions has been dependent on Mission priorities and evolving professional relationships between CRC and Mission staff.
3. In general, Missions were more accustomed to working with direct contractors than with Cooperative Agreements where implementing organizations have greater autonomy.
4. The program mechanisms by which CRC participated differed in each of the pilot countries. In Ecuador, CRC was the sole international implementing organization; in Sri Lanka, CRC was part of larger project with a private contractor and an international NGO; and, in Thailand, CRC was part of a larger natural resources management project.
5. In addition to the CRMP, CRC has worked with other Missions, Regional Programs such as ROCAP and other US Government Agencies. It has also cooperated with other USAID projects, including, EPAT, the Biodiversity Support Program, and PROMESA.
6. The USAID/Quito Mission provided 15% of the \$4.2 M expended on the Ecuador pilot project, while USAID/Washington provided 60%. In contrast, the Colombo and Bangkok Missions both provided about one-half of the funding for those projects, while USAID/Washington contributed about one-fourth.
7. The GOE contributed about \$1 for every \$8 from USAID, whereas the Thai and Sri Lankan governments matched USAID funding at about 1:3; the GOE's national policy framework and programs for integrated coastal management are the weakest of the three pilot programs.
8. The profiling of Central America's coasts for USAID/ROCAP produced a synopsis of good quality although time and resources were quite limited; and initial drafts were criticized for significant gaps.
9. G/ENV relies heavily on the CRC's expertise in inter-agency affairs, e.g., the Coral Reef Initiative, the Small Islands Developing States Conference, the World Coast Conference, and the National Estuaries Program. The CRC's competence and stature in these fora is increased by their experience in implementation.
10. CRC feels that it has had insufficient staff to meet add-on demand.

## CONCLUSIONS

1. In general USAID/Washington needs to inform missions on the uniqueness of objectives and approaches to project implementation characteristic of Cooperative Agreements, especially in cases where the Cooperator is implementing pilot programs.
2. There are probably some interesting lessons to be learned for both USAID and URI from the different implementing approaches used in the three pilot countries.
3. This centrally-funded cooperative agreement provided Missions with opportunities to learn and experiment in new sectors, and catalyzed Mission, host country, and other support.
4. Missions, development banks, and other parties may require or desire greater control over operations than is typical under a cooperative agreement.
5. It is appropriate or even necessary that the CRC or other institutions with Cooperative Agreements should continue to implement programs beyond their experimental stages. However, such a transition will require new arrangements that are clearly recognized by all parties. Specifically, a Mission's investment of time and desire for direct accountability will correlate with its level of financial investment.
6. The CRC made great efforts to accommodate Mission concerns when those concerns were made clear. Frustration has occurred where communication has been more limited ( Ecuador/Sri Lanka).
7. The Cooperative Agreement mechanism gave USAID/G greater responsiveness, stronger leadership, and closer working relationships in inter-agency affairs with EPA, State, and NOAA than would have other contract arrangements.
8. Lessons learned from other USAID activities in community-based natural resource management are likely to be relevant to CRC's work.
9. Current staff at CRC are already stretched quite thin; additional staff are needed to work on future USAID add-ons and services to other agencies, etc.

## RECOMMENDATIONS

1. Missions and USAID Washington should have a higher level of coordination and planning.
2. Lessons learned from the pilot projects should be analyzed and disseminated widely within the Agency and to other donors.
3. Future USAID/Washington projects in coastal management should include a mechanism with the flexibility of a cooperative agreement to respond to and participate in new opportunities.

4. USAID should continue to directly support field projects to enable it to speak from experience in inter-agency and international fora.
5. Future programs in coastal zone management run by USAID/Washington should be designed to support pilot programs long enough to establish their value and direction. Afterward primary responsibility should be transferred to the Mission or another donor.
6. The CRC should take great care to identify the requirements and expectations of new donors whether they are different branches of USAID or international institutions.
7. Missions must express their needs clearly when they have been identified, and allow latitude to cooperators when they have not.
8. CRC should study the three pilot experiences to determine what programmatic and personal differences led to the differences in satisfaction in the Missions.
9. CRC should continue to increase collaboration and consultation with other USAID projects (both centrally and mission-funded), particularly those working in community-based natural resource management.
10. CRC needs to institute new mechanisms or improve existing systems for accessing additional staff for short and long-term work which results from USAID add-ons or other donor consultancies. Development of a consultant roster or coordination with existing rosters (e.g., Institute of Development Anthropology, U.S.D.A./U.S. Forest Service/International Forestry) should include professionals from both social and natural science disciplines.
11. CRC needs to insure that its visibility to Missions is high in countries where it is implementing pilot programs. Coastal resources issues are often overlooked and need to be better profiled.

### **3. CRC and Host Country Institutions**

#### **FINDINGS**

1. In all three pilot countries, CRC worked with a wide range of governmental, non-governmental organizations, and in the cases of Ecuador and Thailand with selected universities.
2. In Ecuador and Sri Lanka, CRC helped to establish Special Area Management (SAM) zones and the institutional frameworks for preparing coastal profiles and management plans.
3. CRC helped to establish institutional processes and legal frameworks which laid the groundwork for national level policy making and local participation.

4. In Ecuador and Thailand, CRC developed and established training programs for project staff and worked with local Universities to establish in-country integrated coastal management training programs.

5. Most of the economic work undertaken in the program has focussed on specific problems such as shrimp mariculture and has not been integrated into the pilot program implementation.

## **CONCLUSIONS**

1. CRC's approach to establishing partnerships with local institutions was important for project success and sustainability.

2. CRC's approach needs to fully integrate economic analysis into the pilot program implementation and more broadly into the institutional development strategy.

## **RECOMMENDATIONS**

1. CRC's approach is transferable and can and should be applied in a variety of socio-economic circumstances.

2. CRC should attempt to refine their approach to include more economic criteria in the selection of special area management zones and to build local marine resource economics capacity.

3. At the national level, CRC should include in the inter-ministerial committees members of key ministries responsible for economic and financial planning.

### **4. CRC and Other Donors**

## **FINDINGS**

1. USAID has been the major international donor supporting pioneering efforts in coastal area management. The strategy implemented through the CRC has focussed principally on planning, training, policy design and field testing supported on occasion by a limited regime of research activities. Generally, however, these initiatives have not been carried much beyond the planning or pilot project stage. Some of these first-phase project undertakings involved incidental support from other donors like the World Bank, the United Nations Development Program, the Tinker Foundation and the Consultative Group on Biodiversity.

2. Second-stage implementation efforts which lie ahead clearly are in need of new financing from new bilateral and multilateral donors. This is not only true for the CRMP pilot project countries, but also for the seven ASEAN countries covered under a separate USAID-funded coastal planning project based at the International Center for Living Aquatic Resource Management in Manila. Through its own devices and through its CRC partner, USAID has endeavored to help with the transition. But this work is far from finished.

3. CRC has a long history of being a coastal resource information center, providing independent counsel, access and services regarding coastal management issues and marine matters to the community of United Nations agencies and other international organizations. These include, UNDP, UNEP, FAO, UNDOA, GESAMP, IOC, the World Bank, Asian Development Bank, Inter-American Development Bank, the Tinker Foundation and the Rockefeller Brothers Fund. This kind of routine activity has placed it in an enviable position as a nodal point in a *de facto* network of donors to coastal projects in those CRMP areas where good planning initiatives have already been carried out and sufficient training has been undertaken to assure access to a modicum of skills and project management experience.

4. As analyzed in the pilot evaluation (see Annex A), USAID's \$2.9 million grant to support the CRMP pilot in Ecuador (1985 to 1994) led directly to the Inter-American Development Bank's decision to finance the next stage, a four year, \$14 million project loan investment in coastal management. CRC designed much of the loan project.

5. CRC and CRMP(Ecuador) staff were successful in assisting Mexico with the design of a coastal resource management project scheduled for World Bank funding in the near future.

6. Along with the Asia Development Bank, the World Bank is currently evaluating the possibility of financing two major Philippine projects built on previous USAID/Manila funding of a pair of small, community-based coastal management projects.

7. The University of Rhode Island (with State funds), through matching grant support of CRC (required by USAID under the CRMP Cooperative Agreement), is also a donor to the program. Officials at URI take great pride in its role in international affairs.

8. The CRMP in Thailand made very effective use of data developed by ASEAN, and of facilities in Phuket provided by Denmark. Interaction with these projects and NGOs was rather limited.

9. The CRMP's cooperation with DANIDA in Thailand was rather limited, as the two organizations worked with distinct elements of the CRM portfolio.

## CONCLUSIONS

1. The expanded leveraging of first-phase project coastal management planning prototypes into an implementation phase raises the issue of how to confront the supply vs. demand dilemma for:

- Phase Two funding through donors or lenders, and
- trained managers and skilled technicians for which there will be increasing competition.

2. The ASEAN project in Thailand and CRMP worked well in parallel. Maintaining the projects as separate entities was a more realistic design for implementation than attempting to fully integrate them. This mode of operation allowed everyone to take credit for successes.

## **RECOMMENDATIONS**

1. Coastal centers like CRC at the University of Rhode Island may need to take the lead in developing a financial management component to supplement its otherwise comprehensive coastal training packages. This component would integrate the financial management requirements of conducting CRM activities for donors, with the other project-related technical and management issues.

2. A data bank on both public and private sector donor profiles and funding sources for all kinds of coastal management programs, from marine parks to coastal parks to industrial parks, would be an appropriate task for CRC to undertake if funding can be identified. Perhaps a pilot could be done with Rockefeller Brothers Fund support and a trial focus on Southeast Asia.

### **5. CRC and Other Universities**

## **FINDINGS**

1. CRC has also worked with a number of other Universities outside of the CRMP pilot project context including Silliman University (Philippines), and Chulalongkorn (Thailand).

2. Individuals from many other US and developing country universities have provided technical assistance to CRMP.

3. Twenty-five individuals from 16 universities have attended either the Summer Institute or one of the regional training courses.

4. Communication and liaison with other institutions has been limited.

## **CONCLUSIONS**

1. CRC does an excellent job of identifying specialized expertise from other universities to undertake consulting assignments on CRMP activities.

2. CRC has marketed the Integrated Coastal Management training well beyond the pilot countries of the CRMP.

3. Communication and liaison with other institutions has been inadequate.

## **RECOMMENDATIONS**

1. CRC should involve scholars from other universities in its programs when URI lacks the expertise or when specific program products will be improved.
2. CRC should continue to market its training and partnership concept to new countries.
3. CRC should increase communications and liaison with other institutions.

### **C. Participation, Gender and Women and Development**

#### **FINDINGS**

1. Of the 21 URI faculty members who have worked with CRC, two have been non-economic social scientists (political science and anthropology) and five have backgrounds in resource economics. The anthropologist appears to be the only URI faculty member who has worked previously on gender issues.
2. There has been no involvement of social scientists and gender specialists from other U.S. universities and limited involvement of faculty and consultants with social science training from host country institutions.
3. CRMP obtained a \$25,000 add-on from the USAID's Family Initiative (via the Office of Women in Development) to conduct gender-related work on rapid appraisal indicators of project impact on coastal households.
4. Although CRC's professional staff is fairly well balanced with respect to men (7) and women (6), few female faculty at URI (2/21 faculty) and other collaborating academic institutions have been involved in CRMP activities. Almost all of the consultants who have been hired by CRMP have been men.
5. Services provided to other agencies, donors or institutions have for the most part not addressed gender issues.

#### **CONCLUSIONS**

1. Given the participatory nature of their work, CRC has had too little involvement of social scientists and gender specialists.
2. It is not entirely clear why more female faculty and consultants have not been involved in CRMP's work.
3. It seems likely that there are possibilities for including gender and other social issues in services for other agencies, etc.

## **RECOMMENDATIONS**

1. To strengthen social science and gender perspectives in the project, CRC should increase collaboration and consultation with social scientists and gender specialists from URI, other U.S. universities (e.g., Clark University), host country institutions and USAID (including the Office of Women in Development).
2. Whenever possible, CRC and its university partners should expand their use of female faculty and consultants in their work.

### **III. PROJECT DESIGN AND ADAPTATIONS**

#### **A. Assumptions**

##### **1. The U.S. Coastal Management Model**

### **FINDINGS**

1. Because the field of coastal area management is relatively new, there are not very many proven examples of workable development strategies. The principles, nevertheless, of marine and coastal science and the associated marine technology are fairly standard, varying little throughout the world and then mostly as a consequence of latitude. This body of knowledge is readily transferable.

2. However, coastal management as a process is not quite so transportable since it is a blend of science, policy, law, and administration, all of which evolve in a given place reflecting the social, institutional, political and economic circumstances that shape that given culture and country.

3. The CRMP is based upon the assumption that the nearly twenty years of experience from state coastal resources management programs in the United States is relevant and can be made useful to developing nations. The U.S. coastal management model launched in the early 1970s has some advantages as a model. The strength of the U.S. experience on which the CRMP was based lies in its diversity and in its decentralization through a federal partnership with each coastal state. One lesson learned from the U.S. case is that both planning and management must be decentralized, even though there may be some common national standards, because different places have different needs and priorities.

4. The U.S. program evolved in a fashion sensitive to these differences, fostering at the state and community level a local sense of stewardship. This decentralization and local sense of ownership of a program that is national in scope are what make the U.S. model so useful. It has a democratic flavor. In many developing countries decentralization of planning and regulatory authorities runs counter to established traditions of centralized power.

### **CONCLUSIONS**

1. CRC was actually formed before the state of Rhode Island had a coastal management program. It learned from the bottom up. As a result the real attraction power of the "small state coastal resource management model," as developed by CRC and the University of Rhode Island, arises from their extended and continuing direct experience as contributors to the state of Rhode Island's coastal zone management program -- real experiences drawn from real life, real institutions, involved in real conflicts requiring resolution, decisions, and compromises, and involving some failures.

2. Beyond Rhode Island, the great diversity among other U.S. coastal states presents to the would-be student of the coastal resource assessment, monitoring, and management process a wide selection of experiences and options from which to make choices.

3. The North American experience and reliance upon a broad spread of non-governmental organizations, which assume and provide various civic roles and duties within the operational framework of state and local coastal resource planning, presents a useful backdrop and example for the visiting student attending CRC classes and workshops at the Center. It is a friendly and non-intimidating environment.

## **RECOMMENDATIONS**

1. There is a need for an updated compendium of smaller and rural coastal state experiences that go beyond Rhode Island to Delaware, South Carolina, Maine, Louisiana (for the delta), and Florida (for the Everglades and the Cays as sub-tropical). The U.S. offshore insular systems, at least one large and one small, should be included. This document should be an exploration of lessons learned about the "how" of decentralized consensus building. The model should be CRC's Publication No 101 (1991).

### **2. Assumptions Applying the Model**

## **FINDINGS**

1. In a non-U.S. setting, other assumptions acquire elevated priority. For example, the process of reshaping local institutions to be more responsive to resource management issues is most often characterized by bargaining and accommodation, rather than through the application of a technical solution.

2. Weak local-level institutions will most likely be the biggest barrier to achieving effective resource management (not policy weaknesses).

3. Priority coastal resource management issues and the means to address them will vary widely from one geographic area to another (which is why local SAM plans need to be issue driven).

4. Coastal resource management programs in developing countries need to be based on concepts of sustainable levels of development, rather than on a rigid, anti-development, conservationist stance as is more common in the U.S. This can often be achieved by an emphasis on the economic implications of management issues and management alternatives.

5. Coastal management programs tend to be more sustainable when formulated under local leadership with support for any initiative broadly based among government agencies, academic institutions, NGO's and direct resource users.

## CONCLUSIONS

1. Local area demonstration areas within a SAM provide a site to test a variety of conservation and management techniques quickly without the cost or the complexity of undertaking a nationwide plan of action. Experiences drawn from any special demonstration zone offer the advantage of later becoming a basis for action at the national level. If the above assumptions are taken seriously, the SAM can be used as a laboratory.

## RECOMMENDATIONS

1. Continue project implementation using SAM sites.

### 3. Replicability

## FINDINGS:

1. The Project paper stated that the CRC would develop replicable methods of CZM. The CRC has identified four steps in developing a CZM program:

- assessment of issues and planning,
- approval of policies and funding,
- implementation, and
- evaluation and re-assessment of issues.

It also calls for working at national and local levels, the "Two-Track Approach."

2. Track 1 is the development of a nationally approved CZM policy (the first two steps). The operational assumption of the CRC is that fundamental challenges to CZM are institutional rather than technical. This priority is reflected in the Ecuador budget, which allocated two-thirds of the budget to the SAMs, the national strategy, and project management, while less than 10% went to technical studies.

3. Track 2 is the development of local constituencies to implement new CZM policies. These groups are brought together for concrete actions selected through participatory processes, as in the SAMs.

4. Formally, a cadre of trained professional coastal zone managers and enforcement officials links the two efforts. However, the strength and interaction between the two tracks has varied over time.

5. The CRC has followed this program in each of its pilot countries with positive results (see Annexes), which they have extensively documented.

6. At the Track 1 level, CRC has been has had some notable achievements (eg. establishing a framework for national policy dialogue and the passing of key legislative reforms). For example, in Ecuador the CRMP established a National CRM Board (where two

previous attempts by another agency had failed) and the implementation of a debt-for-nature swap through the Fundacion Maldonado.

7. At the community level (Track 2), the CRMP established core groups of resource users in all three pilot countries who have contributed significant amounts of time to negotiations to prepare resource agreements. This commitment demonstrates that local users are receiving immediate or anticipating long-term benefits from the CRMP.

8. In both Sri Lanka and Ecuador, at least some local users' groups did not perceive themselves to be participants in larger programs, and many were disappointed by the slowness of local results.

## **CONCLUSIONS**

1. The two-track approach is a replicable method for developing coastal zone management programs.
2. Its experience has made the CRC uniquely capable of implementing the processes of the two-track approach.
3. The CRC's has notable achievements at both the Track 1 and Track 2 levels. However those achievements have varied among the three pilot countries.
4. Community-based aspects of its programs are essential to the this success and valuable in their own right. These are perceived as important benefits by the community.

## **RECOMMENDATIONS**

1. The CRC's two-track model should be considered for future USAID programs in CZM and in comparable natural resource management programs.
2. The CRC and future USAID CZM programs should seek to improve community-based programs to insure that the interest and effort of participants is adequately rewarded.
3. At the Track 2 level, more resources need to be made available for practical exercises and infrastructure investments.

### **4. Scope and Scale**

## **FINDINGS**

1. CRMP was targeted at developing sustained partnership relationships in coastal management through the provision of technical assistance, training, applied research, and special area management planning, and the development at the national and local levels of participatory planning processes.

2. The choice of countries was fully representative of the complex social, economic, and scientific problems facing coastal nations from the developing world.
3. CRMP utilized an "incremental approach" that permitted CRC to reassess the project's progress and operating environment on a yearly basis.
4. The total authorized USAID support for URI/CRC from May 1985-May 1995 was \$20.8 million, although actual LOP funding was \$12.8 million. These funds supported project management and component implementation in Rhode Island, Ecuador, Sri Lanka, and Thailand. The majority of these funds went to project management, special area management planning, technical assistance, and training. Only a very small percentage went for practical exercises (ie. project investments) in coastal communities.
5. Economic criteria were not as important as resource management issues in the selection of the pilot sites.

## CONCLUSIONS

1. The scope of the overall project design including the choice of countries was appropriate for a new and experimental project.
2. In project implementation, CRMP's use of an incremental approach which enabled it to adjust to changing circumstances and feedback from its results was entirely appropriate and one of the project's most important strengths.
3. The ten-year costs for project implementation were realistic considering the projects goals and objectives. However, at the local level, communities expected more investments in infrastructure.
4. Resource economics should play a larger role in coastal profiling.
5. There does not appear to be a clear strategy for "scaling up" SAM activities. The Ecuador experience suggests that increasing the number of SAMs per country is not effective at current budget levels and does not resolve the weak link between Track 1 and Track 2 activities.

## RECOMMENDATIONS

1. Future CRMP type pilot projects should be of similar scope and scale, but include additional resources for appropriate community level infrastructure.
2. Additional weight to economic criteria must be given in the selection of special area management planning and implementation.
3. One of the next steps for the CRC pilots should be an expansion of the SAM concept - "scaling up" - expanding an individual SAM over time ( provincial and regional levels,

moving inland, including larger towns, etc.) rather than expanding the number of SAMs with which CRC is working.

## **5. Role of Research**

### **FINDINGS**

1. A premise of the CRC is that the primary obstacles to sustainable development of coastal resources are institutional rather than technical.
2. The emphasis on human and institutional issues led to only nine percent of the budget being spent on technical studies of water quality and mariculture research in Ecuador, and considerably less than this amount in Sri Lanka and Thailand. Of 140 papers produced by the Ecuador CRMP, 82% directly address policy or education issues.
3. The scientific work appears to be of high quality, and of direct relevance to planning decisions. However, the work of the SAM committees (negotiation of Joint Project Agreements) is not closely informed by analytical data.
4. Technical and political problems of mariculture and water quality in Ecuador greatly exceed the scope of the CRMP. In the same way, the problem of water quality in Thailand requires more resources over a longer period than the CRMP could reasonably offer.
5. "Participatory Research" by Fundacion Maldonado was critical to the coastal profiles and establishment of the SAMs in Ecuador. Equal efforts were not undertaken in the other countries.
6. Studies produced on a limited contractual basis for the Sri Lanka project have not always produced high-quality work, particularly in economic analysis.

### **CONCLUSIONS**

1. The chosen allocation of resources, away from technical analyses and toward institutional development, governance and policy analysis, is an appropriate evolution of the 1984 project paper. These areas are the real and unique strength of the CRMP.
2. The necessity of the above choices is not widely understood in the ministries, the universities, in the Missions, or in the SAMs.
3. There is a gap between the perceived need for quantitative data in Ecuador (a focus of the new IDB project) and the mechanisms by which it would be applied.

## **RECOMMENDATIONS**

1. The CRC and future USAID CZM projects should maintain some distance from active involvement in research as CRMP did.
2. Other national and international institutions, including other parts of URI with stronger interest, capacity, and mandates for research should be sought as cooperators where necessary.
3. National organizations like the Fundacion Maldonado that are simultaneously capable of research, education, and community development should be fostered.

### **B. Unexpected Events and Their Effect on the Project**

## **FINDINGS**

1. In Thailand the project came to an unexpected and abrupt end which curtailed the work that was to be undertaken.
2. In Sri Lanka, the Sri Lankan civil war restricted the area where field work could be undertaken and led to closures of the universities during the first several years of the CRMP pilot projects' activities.
3. There was an unanticipated gap in funding between the end of the CRMP pilot project in Ecuador and the beginning of the IDB coastal project.

## **CONCLUSIONS**

1. Due to the abrupt end of the CRMP work in Thailand, there was little possibility of linking the projects' activities with ongoing or follow-up project funding.
2. In Sri Lanka, the civil war impacted on the CRMP performance, at the outset of the project, in the areas of strengthening in-country university training in CZM and establishing the Track 2 work in SAM planning.
3. There was a drop in local-level motivation and participation at the SAM sites (Ecuador) due to the interruption in dispersal of funds associated with the transition to IDB funding.

## **RECOMMENDATIONS**

1. The work begun by CRMP in Thailand should be linked with other Government of Thailand, donor, and USAID initiatives..
2. In Sri Lanka more support should be given in the future to strengthening in-country university training and to continuing to develop management plans at the SAM sites.

3. In the future there should be better planning to ensure that there are bridge funds available where maintaining motivation and participatory development is an important factor in the successful sustainability of the projects' work.

### **C. Participation, Gender and Women in Development**

#### **FINDINGS**

1. CRMP's activities, particularly for Track 2, were informed primarily by an inductive, learning-process approach which CRC first used in the United States. There is not much evidence of how deductive social concepts have guided their work. Survey methods are used for social research; occasionally, other rapid appraisal methods are incorporated. In addition, there does not appear to have been much interaction with other community-based natural resource management projects in non-coastal areas ( social forestry).

2. On balance, the commissioned studies, policy and planning documents ( SAM profiles) and training materials cover some demographic issues, but very little information on other relevant social and gender issues ( tenure; gender division of labor; communities, households and household members, and local politics).

3. Originally, their constituency-building "user group" approach was seen as a planning method and a means to an end -- developing broad-based support for a meaningful and implementable Coastal Resource Management Plan. As the project progressed, the value of user groups for other community-based development goals and democracy-building was also emphasized.

4. Selection criteria do not appear to be explicit or consistent for choice of participant NGOs, communities, user groups and households.

5. The SAM Committee, resource user agreements and the Ranger Corps have successfully created new participation in Ecuador amongst certain groups of resource users and regulators. The same is true for the national core group of coastal resource management practitioners. In addition, the SAM Committee appears to serve as training school for new administrative leaders at the local level.

6. With respect to women's participation in planning and policy, the CRMP approach appears to have worked best in places where women are already taking a strong role in public life (Bunche, Ecuador).

7. CRC and its collaborators have not routinely monitored the participation of women and/or other people-level indicators.

8. In some pilot areas, the SAM boundaries, defined primarily by geography and ecosystem features, have not corresponded with social, economic and political boundaries.

## CONCLUSIONS

1. There is a tendency for CRC staff to understate the social, political and economic differences (gender division of labor, livelihood strategies, and political voice) between Rhode Island/U.S. coastal experience and the situation in other countries. In addition, culturally based values, assumptions and agendas from the U.S. (e.g., the role of minorities in decision-making and the value of constituency-building for decision-making) need to be identified as such.

2. On balance, the CRMP approach does not appear to be much influenced by an understanding of social systems and how these influence planning and policy. The project is driven by a participatory planning philosophy and set of methods. However, the participatory dimensions do not appear to be solidly based on relevant social science concepts, methods, theory and literature nor are the links to theory made by the practical experience of the pilot in three settings. In project documents and training materials, there is a notable lack of literature referenced from the social sciences.

3. In their literature, CRC and its partners tend to either lump communities altogether or break them out into resource user groups (defining individuals by what they do). Neither approach captures how people organize themselves - sub-household units, households, extended families and clans, neighborhoods, social exchange relationships, local politics - or how most rural people survive (multiple and seasonal livelihood strategies which include illegal activities) - or how rights to resources (tenure) are distributed among communities, households and particular household members (men, women, seniors, youth, etc.). Without having this information at the start of their activities, CRMP is at a severe disadvantage with respect to picking community-level partners and is more likely to work with only local elites.

4. While a participatory planning process by definition should include NGOs, in practice, CRMP has not always worked well with NGOs at the local or national level. However, it is not clear from CRMP's literature as to the conditions under which NGOs make good partners.

5. There is a fundamental tension in the project between its planning processes and the push from local people to have it be an operational project with significant resources allocated to local activities and material benefits. In addition, technical staff should not be placed in the field without extension/community training. Extension is a weak link in this project.

6. Several of CRMP's activities (e.g., SAM Committees which include resource users, the Ranger Corps, and resource user agreements) appear to be effective at increasing the responsiveness of local government to local users. The relative effectiveness of these mechanisms under varying governance arrangements is not clear.

7. In some places, the SAM boundaries have been somewhat artificial because they do not correspond with locally recognized social, economic and political boundaries.

8. Given the extent of local level activities, monitoring of people-level impact by gender has been inadequate to date.

9. CRMP is somewhat vague with respect to the power dimensions of participation. The latter is seen as a technical or intellectual issue but the project needs to be clearer about how local and national power relations influence the decision-making authority for local resource users.

10. There has been no clear policy regarding the distribution of project benefits or mechanisms for ensuring equity (NGOs, communities, households and SAM members.)

## **RECOMMENDATIONS**

1. At the community and national level, CRC needs additional assistance with systematic social and gender analysis including, the conditions under which specific kinds of participation are successful; the role of households and different household members in Track 2 activities; and, the relationship of resource tenure to coastal zone management).

2. For existing pilot countries, additional faculty or even new university partners may be necessary to draw in social scientists and gender specialists with relevant expertise. The work of CRMP could benefit from input from a committee of social scientists and gender specialists in the U.S. and in each country where it works.

3. For new and existing staff, faculty and consultants, additional training is necessary to augment U.S.-based experience in coastal zone management. In particular, those working with communities and local bureaucracies (Track 2 level) will benefit from a social science background and gender training.

4. In existing and new countries, basic social and gender information needs to be gathered from the secondary literature and studies commissioned to fill knowledge gaps related to coastal resource management. For new countries, this should be among the first set of activities undertaken. Other community-based natural resource management activities (not necessarily coastal) should also be reviewed.

5. Particularly for the CRMP training, profiling and national planning processes ( commissioned studies), natural resource management and planning methods should be balanced by the inclusion of social science (particularly sociology, anthropology and political science) concepts, methods, secondary research and gender analysis. In particular, recent methodological advances in gender analysis and participatory rural appraisal (see the work of Clark University) should be incorporated into the training, profiling and planning processes. The SAM profiling process needs to be modified to include social and gender issues such as the gender division of labor, tenure, class and local politics.

6. Criteria need to be made explicit for selection of user groups and households at the local level. Gender and socially based criteria should be introduced so that men and existing elites do not automatically dominate project activities.

7. The operational tension in these pilots need to be resolved. As it stands now, there are too few field staff with too few resources (including transportation and training) at their

disposal. While this situation has been resolved via the well-funded IDB follow-on project in Ecuador, Sri Lanka's inadequate field efforts appear to be quite frustrating to both field workers and community members.

8. In countries where women play a quite limited role in public life, CRMP will need to make extra efforts to identify forums where women feel comfortable expressing opinions.

9. Gender-disaggregated people-level data on project impact should be better monitored in the future.

## **IV. Outreach and Liaison**

### **A. Training**

#### **FINDINGS**

1. As indicated in the CRMP mid-term evaluation, the training and outreach components are necessary project activities and fundamental to the sustainability of CZM.
2. CRMP's training component is well developed, transportable, and one of the strongest elements of the CRC program. CRC's efforts have reflected excellence in every aspect of work undertaken, including:
  - an ability to incorporate lessons learned into the ongoing CZM course development process;
  - the development of a multi-pronged approach to training which includes the a range of quality pilot country in-country training courses, courses at URI, and
  - the development of regional training programs to serve as "centers of excellence/twinning centers".

#### **CONCLUSIONS**

1. The USAID investment in the training and outreach aspects of the CRMP has had an impact far beyond the pilot countries with the Project becoming a leader and advisor in other international CZM projects and activities.

#### **RECOMMENDATIONS**

1. In support of the CRMP mid-term evaluation recommendation, CRC should be encouraged to augment communication and coordination both within and between the pilot projects and interested parties, and to launch an aggressive international outreach effort based on lessons learned from the pilot project, including expanded use of videos. Additional funds are needed to implement this outreach effort.
2. Follow-on CZM training components should focus on three main activities:
  - utilize URI's capabilities in conjunction with other U.S. institutions that offer programs in coastal studies (i.e., Florida Institute of Technology , University of Massachusetts , University of Washington, Oregon State University, Texas A & M University, Duke University, Nova University, University of Delaware, University of North Carolina, University of West Florida) to build regional CZM centers around the world that establish USAID as a leader in CZM training;
  - continue to utilize URI to provide support in training/educational development to field programs through the inclusion of URI as an advisor/technical partner

on ongoing USAID projects that have a CZM component, such as PROMESA, SUSTAIN, NAREPP, ENCORE as well as USAID projects focused on health, urban development, and education.

- emphasize the utilization of URI's training capacity to link USAID as a formal collaborator with CZM efforts being undertaken by the United Nations (eg., by Global Environment Fund projects, UNEP, FAO, the World Bank, the African Development Bank, the Asian Development Bank) by multilateral initiatives (such as identification of specific URI training efforts which can be undertaken through the Coral Reef Initiative) bilateral donor agencies, governments, grants/fellowship programs, and research/educational centers.

3. The implementation of regional workshops and pilot in-country workshops should be given greater emphasis.

#### **B. Publications/Communication Networks/Workshops**

### **FINDINGS**

1. There is a proliferation of excellent outreach materials (as opposed to verbal conference and workshop outreach) developed under the CRMP. These materials include: peer-reviewed articles, technical handbooks, national CZM plans, pamphlets for local user groups, videos and newsletters. The orientation of CRMP to produce numerous written materials reflects the value of selecting a university to carry out an "experimental" process-oriented type of project.

2. The Coastal Resource Center is now over twenty years old. Within Rhode Island, it has a long history of producing first-class, high-quality policy guidelines and planning documents, most under the aegis of the federally funded national coastal zone management program. The Center has maintained an equally high standard in carrying out the CRC publication and dissemination task undertaken within the Cooperative Agreement.

3. In support of the Coastal Resource Management Program, CRC has developed an extraordinary spread of technical, educational, analytical, and instructional documentation, in addition to working papers and a variety of newsletters, including *Intercoast*, *Coastal Management in Tropical Asia*, and *Faro* (in Spanish). It far exceeds the output of any other coastal group in the world. Additionally, CRC has averaged the remarkable publication rate of seven delivered conference papers per year since 1980.

4. In its main collection of serious technical publications, the listing shows 24 general titles, 77 for Ecuador, 24 for Sri Lanka, 30 for Thailand, 32 in the general education series, and four published training documents and ten working documents developed for trainers. During the 1992-1993 period, over 6,000 volumes of CRC publications were shipped to 66 different countries.

5. In accordance with the Project Paper, CRMP succeeded in providing regional and international workshop/outreach activities very effectively. Most of these efforts were focused on participating in conferences (over 35 presentations have been made at more than 12 conferences in eight countries) and in international workshops and seminars; regional workshops have also been held through CRMP, although more focus has been given to date on participation in and organization of international workshops.

6. In addition, CRMP is beginning to assist in developing workshops for other projects outside of USAID. For example, CRMP is participating in a new initiative to organize a training workshop for international estuary management practitioners based on lessons learned from the National Estuaries Program (this CRMP work being carried out as a collaborative effort between USAID and EPA).

7. At the present time, CRC is developing an international database on coastal area programs in conjunction with FAO (whose program is known as CAMPIS).

8. COASTNET is an Internet-accessible electronic discussion group on coastal resource management which went on line in August of 1993 and now has over 300 subscribers from 16 different countries.

## CONCLUSIONS

1. CRC's publication program is superior, and its information, dissemination, and communication networks are well above average on virtually all counts. Both *Intercoast* and *Coastal Management in Tropical Asia* are top quality, timely and well designed publications.

2. The written and on-line information base developed to date through CRMP provides an important database to mark the development of the CRMP lessons learned so as to guide the replication process for future CZM project designs. The excellent technical quality and broad range of audiences addressed by the Project means that USAID has made a good investment in selecting a university as a base of operations for this experimental project.

3. The workshops have provided intensive forums to review case study experience and develop new ideas for future projects.

4. CRMP has participated in all major international CZM meetings (workshops and conferences) held since the onset of the Project. The implementation of regional workshops and pilot in-country workshops should be given greater emphasis in the future as a reflection of the need to evolve regionally based CZM training centers of excellence.

## RECOMMENDATIONS

1. URI should continue to serve as a U.S. leader for publishing materials on CZM which can be used by other universities in the USA and throughout the world.

2. USAID should continue to support the CRC newsletters, the electronic network, and CRC's document distribution system.

3. The electronic data bases and direct communication with USAID missions through meetings and the use of videos should continue to be supported as an important vehicle for information dissemination and U.S. global leadership in CZM activities.

4. In conjunction with the development of a regional system of CZM "centers of excellence," CRMP should focus on organizing more regionally based CZM workshops as well as workshops in Pilot countries to:

- review CRMP Pilot country results in the context of the Pilot country, and
- to exchange results with other projects with a CZM component ongoing within a given region (building on the conclusion that CZM training capability is best transferred to other areas on a regional basis).

### **C. Participation, Gender and WID**

## **FINDINGS**

1. Overall, approximately 30 percent of the trainers and participants in the international courses (Summer Institute, Latin America and Asia Regional Courses) were women. Although available upon request by the evaluators, these figures are not routinely tracked. CRC estimated that applicants for courses are approximately 70 percent male and 30 percent female.

2. The overall percentage of women attending the four-week Summer Institute (offered in 91, 92, 94) has been 33 percent. However, of the five Ecuadorian participants from 91-91, none were women. Of the six Sri Lankans attending, two were women. Two Thai women and two Thai men attended the Summer Institute during these three years. Review of the 94 applicant lists indicates that one of three Ecuadorian applicants was female; the same is true for Sri Lanka and Thailand had no applicants. USAID missions were in charge of selecting the USAID-funded participants.

3. For the regional courses, participation of women ranged from 24-33 percent. For the two Latin America Regional Courses, 12 out of 49 multi-country participants were women. Of the 12 Ecuadorian participants in the two Regional Courses, half were women. In Asia, the two regional courses (Thailand, Philippines) were attended by 15 women and 30 men. Of the six Sri Lankans in attendance, only one was female. For the Thais, two of the five participants were female.

4. All of the training ( group management, environmental education, natural resource management) for SAM community members has taken place within the SAM. Some family topics have been included with natural resource management and environment education topics in Ecuador's SAM training. Via mixed-sex and single-sex user groups, women

involved in CRMP's SAM work have received training. Given time limits, it was not possible to assess whether or not they had equal access to CRMP training at the SAM level.

5. In addition, a small number of women received training in coastal resource management via workshops for local officials (who are predominately male). Data provided from CRMP/Sri Lanka indicates that approximately six percent of the participants in the CRMP workshops were women.

6. For post-graduate degrees, CRC facilitated a few fellowships via other USAID projects ( Thailand, Sri Lanka) but none of the participants were women.

7. Training materials for the Summer Institute and Regional Courses include very little or no information on relevant secondary social research, social science concepts and research methods. The same is true for information related to gender ( gender division of labor, rights, resource tenure, etc.).

8. Gender issues relevant to adult learning methods ( mixed group behavior, use of examples of male:female roles, etc.) do not appear to be included in training materials.

9. Discussion of gender and other social issues are generally either minor or absent in CRC publications. Gender and Household Issues -- a study done under the \$25,000 WID Office add-on - is the only one which is gender focused. A few other publications mention gender.

10. CRC has promoted their participatory approach as part of advisory services for other agencies. However, gender issues have generally not been included.

## CONCLUSIONS

1. In general, fewer women than men are attending CRMP's Summer Institutes and Regional Courses. For women working in this field, the difference in attendance rates is likely to be attributable to lack of knowledge about the courses (dissemination), problems with course logistics such as timing, family commitments (logistics), lack of funding (financial) and unequal access to sponsorship (status) or other reasons. These same reasons seem likely to apply to female candidates for post-graduate training.

2. More local men than women appear to have benefited from training within the SAMs because men tend to outnumber women in most of the user groups. Training for local officials will always benefit more men than women as long as there are a higher percentage of men in these positions.

3. Course participants for the Summer Institutes and Regional Trainings do not receive much exposure to relevant social science and gender literature, concepts or methods. At times, it appears that URI believes that their adult learning methods are an adequate substitute for social research methods. In addition, the former methods do not appear to include appropriate gender issues.

## RECOMMENDATIONS

1. URI and its partner institutions need to track and devise a strategy (dissemination, logistics, financial, status, other) for increasing the participation of women in their courses. The same practice should be done to identify which types of people, countries, etc. are not participating in their courses. In some instances, scholarships may be necessary and some research may be needed to identify source of money for this purpose.
2. By revising their user group selection criteria and working with their local partners to provide equal access to interested women, CRMP could improve the participation of women in their SAM training. In situations in which local official positions are dominated by men, the composition of these groups should be modified to include lower-level officials, more NGO representatives and other community groups where women are present in greater numbers.
3. The training materials should be revised to include more literature, concepts and methods from social science and gender analysis. If existing case studies cannot be revised, new case studies which include gender analysis should be supported ( elements of the Pollnac et al. study could be used for this purpose). The adult learning methods should also be revamped in light of gender issues (mixed sex work groups and women's groups/interests represented in role plays). Where possible, the percentage of women trainers should be increased.
4. In publications and services, attention to social and gender issues needs to be expanded. For the former, this may mean greater attention to distribution and tenure issues. For some topics, gender-focused work may be appropriate.

## **V. FUTURES/OPTIONS**

### **A. Sustainability**

#### **FINDINGS**

1. CRC has laid a solid institutional foundation for improved coastal resource management in the three pilot countries. Nevertheless, the continuation of local initiatives and policy development could not progress without support from donors, national governments and local communities.
2. CRC itself appears to be on solid institutional footing. Its services and publications are in demand from governments, universities, and the international donor community. It receives support from the State of Rhode Island and will be one of the member institutions of the new URI Coastal Institute.
3. CRC's approach to implementing coastal management programs through the development of partnerships, increased public participation, and integrated multi-sectoral analysis reflects many of the current USAID strategies for sustainable development.
4. In addition to being recognized internationally as a center of excellence on integrated coastal management, CRC's extensive experience working with developing country institutions and policy makers makes it an attractive participant in future USAID-funded programs in urban environmental management, coral reef protection etc.
5. The original project design made allowance for experimentation and recognized that a learning process would be a key element of implementation.
6. From USAID's current perspective on sustainable and participatory development, one of CRMP's greatest strengths has been the intersection of environmental and democracy/governance issues.
7. In the case of Thailand, extenuating circumstances curtailed CRMP activities abruptly. Unlike Sri Lanka or Ecuador, there was no direct link of CRMP work with follow-up funding -- either through USAID or through an outside donor's project.

#### **CONCLUSIONS**

1. Working with CRC will increase the likelihood that coastal management programs will be sustainable.
2. The demand for CRC expertise, training and publications coupled with the support it receives from the State suggests that its programs are not only sustainable, but should be able to achieve moderate growth.

3. The original CRMP design, which emphasized process and planning, was appropriate as a model for a first phase of a new project that introduced and developed a replicable framework for participatory management.
4. Although the CRMP project was weak in economic, gender and social analysis, follow-on activities and operational investments will be implemented in Ecuador and Sri Lanka. CRC showed resourcefulness and flexibility in successfully looking for follow-up funds and in each country a different precedent was established for identifying and achieving follow-up to the CRMP work.
5. In Thailand, at least three possible mechanisms still exist for follow-up activities:
  - the development of specific activities under the Coral Reef Initiative;
  - linking CRMP's investment in training and planning to the World Bank Coastal Investment Project, which will be appraised in 1995; and
  - cooperating with institutions formed or strengthened by the CRMP for regional activities of the Bangkok RHUDO.

## **RECOMMENDATIONS**

1. CRC should continue to receive USAID support in order to maximize returns on USAID's investment.
2. Future pilot project sustainability should be enhanced by increasing economic, gender and social analysis in all aspects of the program.

### **B. General Recommendations for USAID**

1. Based on the CRC's performance over the last nine years, a new Coastal Zone Management Project in USAID's Global Bureau should include the University of Rhode Island's Coastal Resources Center.
2. USAID's support to programs which help develop regional coastal management centers will be an important step toward fulfilling the U.S. commitment under Chapter 17 of Agenda 21.
3. It seems likely that a consortium of cooperators with diverse expertise will be the best means to continue the work in CRM.
4. Future demand from Missions for expertise in community-based natural resources management is difficult to estimate. However, if we assume current or increased demand, USAID will need to draw on a more diverse pool of cooperators with expertise in economics, social sciences and gender issues than the CRC can presently offer.
5. The cooperator for the follow-on project needs strong linkages to

- social science (sociology, political science, anthropology) and social scientists via URI, universities and a broader consultant roster, community-based natural resource management (including community forestry) literature and field experience,
- operational organizations, particularly those with expertise in household issues and extension, and
- gender specialists - both academics and consultants.

6. The cooperator for the follow-on project should integrate gender across all components of a new project design through consultation with the WID Office on project design. For research, gender-inclusive and gender-focused work should be incorporated into the agenda.

7. The cooperator for the follow-on project should actively promote the hiring, training and advancement of women.

8. The cooperator for the follow-on project should clarify policies for equity of benefit distribution (e.g., whose interests are being supported?) across NGOs, universities, communities, households and household members.

9. The follow-on project should further experiment with scaling up in new countries. This scaling up could be geographic (town, urban), administrative (regional and province), environmental (land use-planning, inland as well as coastal), regional( Africa, NIS) and operational (other partners, including, large businesses, international agencies). Urban-related work for coastal towns and cities will fit within plans for "scaling up" the CRC pilot activities.

10. The cooperator should broker other donor or government relationships that match resources to operational activities. To the extent possible, this role should be formalized under the new cooperative agreement.

11. USAID can best build upon their investment in the CRMP through a new Cooperative Agreement which:

- Support the CRC's training and outreach programs, and the development of regional centers of excellence such as the one in Ecuador -- ESPOL.
- Support the CRC's dissemination activities such as the regional coastal newsletters.
- Provide support to CRC for monitoring, evaluation, and research/policy analysis.
- Continue to engage the CRC in design and implementation of USAID's and other activities of the Coral Reef Initiative.

- Establish formal links with other Global Bureau Centers (ie. Democracy, Economic Growth, Population, Health, and Nutrition), by the means of working groups.
  - Establish formal links with other Global Bureau (Environment Center) Programs and Projects (ie. Biodiversity Support Program, Environmental Planning and Institutional Capacity, Environmental Policy and Training etc.).
  - Support the preparation of a monograph which analyzes the CRMP experience.
  - Support the development of a roster of institutions and individuals within the US that can provide technical assistance in coastal zone management.
11. G/ENV and USAID Missions should identify countries where CRC's expertise can be utilized and work closely to develop strategies and action plans. In most cases, USAID Missions will be the appropriate source of funds for pilot programs. The new project should retain add-on capacity.
  12. G/ENV needs to better inform Missions on the role of Cooperative Agreements.
  13. To best capitalize on past investments, USAID/Sri Lanka should extend support to CRMP to correspond with the end of NAREPP and its anticipated follow-on project.
  14. USAID/Ecuador should consider a role for CRC and the local project in the context of new urban (coastal) environmental initiatives.
  15. The CRC should continue to develop and expand working relationships with other U.S. Government departments (Commerce, EPA, State, and the Coast Guard).
  16. The CRC should continue to develop and expand working relationships with other donor organizations (e.g., IDB, World Bank, and UNDP).
  17. To the extent possible, the design of future pilot projects should provide a more formal linkage between planning and future operational support.
  18. The CRMP follow-on project should increase the interaction of resource users and local officials across SAMs through activities such as travelling workshops.
  19. The profile process has merit, but the social and economic dimensions must be significantly expanded and be fully incorporated into pilot activities at the Track 1 and 2 levels. In particular, issues such as tenure, governance and household economics need more attention.
  20. Additional incentives to enhance the participation of different and currently disenfranchised stakeholders need to be investigated.

21. Operational and extension work at the community level seems likely to require collaboration and sometimes new mechanisms with existing and additional organizations and individuals.

22. CRC needs to improve evaluation of the impacts of their courses on participants. These impacts could include changes in post/job, actions taken on the job after course, etc.

23. CRMP should track progress for improving the participation of women in CRC, host country institutions and field-based activities, training and monitoring people-level impacts.

## ANNEXES

**ANNEX I**  
**ECUADOR PILOT PROJECT**

## ACRONYMS for ECUADOR ANNEX

ACEBA	Association of Bioaquatic Species Growers
ARD	Office of Agriculture and Rural Development/USAID
CAAM	Comision Asesora Ambiental
CEMP	Coast Erosion Management Plan
CEPE	State Petroleum Corporation
CONADE	National Development Council
DIGEM	Directorate of General Maritime Interests
DIGEMA	General Direction for Environmental Affairs
DIGMER	Directorate General of the Merchant Marine and Coast
ESPOL	Escuela Superior Politecnica del Littoral (Polytechnic University of the Coast)
GOE	Government of Ecuador
IDB	Inter-American Development Bank
INOCAR	Navy Oceanographic Institute
INEFAN	Instituto Ecuatoriano Forestal y de Areas Naturales
INP	Instituto Nacional de la Pesca
IPZ	Investment Promotion Zone
UCV	Unidades de Conservacion y Vigilancia (Ranger Corps)

## **I. The Institutional Support Base**

### **A. Management Issues**

#### **1. CRC and USAID**

### **FINDINGS**

1. Relationships, communications, and overall coordination between URI and G/ENV/ENR (formerly AID/R&D/ENR) have been excellent.
2. Due to budget constraints, no USAID project officer was able to visit the project since the mid-term evaluation.
3. The Office of Agriculture and Rural Development in the Mission (ARD/USAID) did not include Coastal Resources Management as a Mission Strategic Objective as was recommended in the Mid-Term Evaluation.
4. ARD/USAID does not appear to have utilized the CRMP experience in the design and implementation of its natural resources management program.
5. USAID/Ecuador provided less than 15% of the funds that it had committed during project design, and this decision significantly reduced all project activities, but it especially affected project impact on national level policies and institutions.
6. Solid and continuous administrative and liaison support was provided by the ARD/USAID foreign service national.
7. The CRC management was fully aware of the potential for financial difficulties which developed during the transition phase.
8. The Project lost much credibility in the communities during the six month lacunae between the end of USAID project and the start of the IDB program.
9. Transition phase planning was insufficient and financing was inadequate. All participating agencies bear responsibility for this gap.
10. Over the next few years, USAID Ecuador (RHUDO) will be directing more resources to "brown" issues.
11. The CRC's field experience in Ecuador and LAC has made it a valuable resource for USAID. CRC has helped with EPA, State, and NOAA collaboration, allowing G/ENR to be the kind of technical leader it was designed to be. The SAM process has also been a primary source of training information for regional and global education.

## CONCLUSIONS

1. While the general goals and objectives outlined in the project paper were met, opportunities to influence national policy development for coastal resources management may have been missed due to the lack of interest on the part of the USAID Mission in Quito and, over time, CRC's increased emphasis on getting the SAM process going.
2. Long-term policy and planning projects and cooperative agreements can be effectively managed from Washington.
3. If the day-to-day involvement of the Mission is not essential, their steady support is critical.
4. A modest investment of \$100,000 could have insured effective project implementation during the final six months of the transition phase.
5. Despite URI's accomplishments, their endeavors could have been given more direct visibility in the USAID Mission office and in other national level authorities. This would have enhanced the dissemination of the results and increased possible collaboration with ongoing national level environmental work underway at CONADE and CAAM.

## RECOMMENDATIONS

1. An opportunity exists for RHUDO and the Urban Office to develop some interesting urban/coastal initiatives and build on the Project. URI should look into possible USAID-Mission support from the Urban Office. Efforts will need to be closely coordinated with the IDB follow-on.
2. While there are not likely to be similar opportunities with the ARD Office, lessons learned from Project, particularly related to getting communities and resource user groups organized for better management, should be incorporated into their current natural resources portfolio (e.g., Parks in Peril, CAAM and others)
3. USAID/Washington needs to play a more active role in working with Missions where cooperative agreements are being undertaken.
4. USAID/Washington Project Officers should be given the necessary resources (i.e., time and travel funds) to develop stronger ties and influence with the Missions (i.e., helping to set Mission Strategic Objectives).
5. The CRC and USAID should prioritize transition planning and financing when designing long-term investment projects.
6. Projects funded primarily by the Global Bureau are valuable. It must be recognized that they are not in the same category as more reactive, Mission-driven projects. The CRC must be careful to distinguish the needs of its clients.

7. Pilot programs, by any other name or structure, should be included in future CZM projects.

## **2. CRC and Host Country Institutions**

### **FINDINGS**

1. Over the life of the project, the CRC worked with a range of government and non-governmental organizations. Some important institutional changes occurred such as the transfer of responsibility from the Ministry of Energy and Mines (Phase 1) to the National Secretary of Public Administration (Phase 2).
2. Efforts at Track 1 led to the creation of an inter-ministerial committee for coastal management composed of key public sector ministries with responsibility for programs and policies related to coastal development.
3. The National Secretary and the Committee have provided consistent support to CRC in all aspects of project implementation. Their responsibilities will increase dramatically under the IDB project. To date, their impact on policy has been minimal. Policy development in Ecuador is still largely sectoral in character.
4. With Track 2, the key participants have been the Fundacion Maldonado, ESPOL, DIGMER, and INEFAN. Efforts at this level led to the creation of the UCV's, SAM's and their corresponding committees and to the establishment of the Ranger Corps.
5. The Project has played a major role in the development of legal and supra-legal instruments to support improved coastal resources management.
6. At the Track 1 level, the key laws were Executive Decrees 375 and 3399, which created the CRMP and established the National Executive Committee.
7. At the Track 2 level, resource user agreements were concluded and SAM management plans produced. CRC also helped procure a boat for the conch collectors.
8. DIGMER has not formulated a policy to insure that Port Captains actively participate in the SAM's.
9. All institutions which implemented the CRMP will participate in the IDB supported follow-on.
10. CRC hired a local company to identify the most representative people at a SAM site. Their report identified mostly individuals from the upper socio-economic strata.
11. There are currently no plans by the GOE or other donors to expand the SAM concept to other coastal areas.

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## CONCLUSIONS

1. Among the most important accomplishments of the project were the establishment of institutional processes and working relationships at the national and local level and the establishment of legal instruments for improved coastal resources management. The participation of key public sector ministries at the local level is a major accomplishment.
2. Enforcement of laws such as the ban on mangrove cutting has been spotty.
3. A national plan to expand the SAM approach needs to be developed.
4. Analysis of community power structures needs to be fully representative.

## RECOMMENDATIONS

1. The current Chairman of the CRMP is a former owner of a large shrimp farming business. One of his major responsibilities should be to devise a strategy to expand shrimp farmer participation in SAM committees and coastal resource management planning.
2. DIGMER must develop a policy to get Port Captains to participate on a regular basis in the SAM process.
3. As the SAM process matures, criteria need to be established for selecting project investments. These criteria should include both socio-economic and environmental resource management factors.
4. Key GOE ministries need to make a better effort at implementing and enforcing laws.
5. Expand the SAM model to other coastal communities.

### 3. CRC and the IDB

## FINDINGS

1. CRC played the key and indispensable role in the negotiation and preparation of the follow-on project to be supported by a soft loan from the IDB. The new project builds directly on the design of CRMP.
2. The long process associated with project design and approval has created numerous transition problems for the Project including insufficient funding for personnel, loss of personnel at the Project headquarters, a decline in project activity within the SAM's, and reduced participation in SAM committee activity.
3. To date, negotiations between local participating organizations and URI have not been concluded and contracts with IDB have not been signed.

4. URI was not totally aware of the more complicated nature of working under an IDB contract, as compared with the less structured USAID cooperative agreement. IDB projects need government approval and identification of an executing agency. URI's role in the IDB follow-on will be advisory (i.e., much less hands on).

5. The IDB project will implement many of the activities identified in the SAM plans.

## **CONCLUSIONS**

1. Transition funding was insufficient given the longer than anticipated preparation, negotiation and implementation of the IDB loan. This fact continues to have a negative impact on project implementation.

2. IDB funding of SAM activities suggests that Project pilot activities were successful and worthy of continued support.

## **RECOMMENDATIONS**

1. USAID and their contractors need to be better informed on procedures and processes used by development banks such as IDB.

2. Adequate transition funding must be provided. Both USAID and the IDB bear responsibility for ensuring that this phase goes smoothly.

3. User groups in the SAM's need to be reassured that all their organizational efforts will produce results. Infrastructure development identified in the Plans should be a high priority.

4. The IDB project needs to establish monitoring and evaluation guidelines for project performance.

5. URI's advisory efforts in the context of the IDB project should include participation of CONADE and CAAM.

## **II. Project Design and Adaptations to Changing Conditions**

### **A. Scope and Scale**

## **FINDINGS**

1. The scope and scale of the project were both sufficiently targeted and of adequate size for pilot efforts. The project utilized an "incremental approach" that permitted CRC to reassess the project's progress and operating environment on a yearly basis.

2. The Office of Agriculture and Rural Development (ARD) at the USAID Mission in Ecuador believes that CRC failed to seize opportunities to have an impact at the national level during the collapse of the shrimp industry and more recently with the Tauro Syndrome.

3. The selection of the SAM sites represented the full range of coastal management issues facing the county.
4. Economic criteria were not as important as resource management issues in the selection of pilot sites.
5. In two cases, the political process influenced the choice of pilot sites.
6. In contrast to the conclusion of the Midterm Evaluation, the Team felt that URI did make an attempt to address the shrimp mariculture problem by trying to encourage shrimp farmers to join the SAM Committee.
7. It was difficult to mobilize the shrimp farmers into the context of project activities because shrimp farmers held onto the belief that the Project was a threat to their livelihood.
8. The chosen allocation of resources seems appropriate, even though shrimp farming is the primary conflict considered in the 1984 Project Paper. The necessity of this choice is not widely understood, e.g., in INP (where they want research), in the Mission (where they want clear changes in land and water use patterns), and in the SAMs (where they want credit and latrines).

## **CONCLUSIONS**

1. Cooperative Agreements can play an important role in establishing pilot projects.
2. USAID Mission support to meet original project goals is key and needs to be realistically incorporated into project design.
3. Additional Mission resources could have played a catalytic role on high profile issues such as the Tauro syndrome. However, the Project could not have fully tackled the Tauro Syndrome issue as the problem goes beyond the scope of a \$3-4 million project.
4. The coastal profiling exercises did not adequately incorporate economic analysis of different resource user/management systems.
5. Technical and political issues related to mariculture development and water quality greatly exceed the scope of the CRMP.

## **RECOMMENDATIONS**

1. Additional weight to economic criteria must be given in the selection of special area management planning and implementation.
2. The GOE still needs to promote research to clarify the cause of Tauro Syndrome.

3. GOE can complement the activities undertaken, to date, by the Project through the upcoming IDB Project. In particular, the IDB Project (with guidance from URI) can be used to:

- help initiate a comprehensive program to enhance environmental management in the Gulf of Guayaquil;
- develop a national program of research on causes of the Tauro Syndrome which would be managed and coordinated through ESPOL and Zamorano, with assistance from CRMP, URI, the EPA, and RHUDO; and
- strengthen local government institutions to support and coordinate their activities with the local community user groups.

## **B. Role of Research**

### **FINDINGS**

1. Nine percent of the budget was spent on technical studies of water quality and mariculture research. The scientific work appears to be of high quality, and of relevance to planning decisions.

2. No one in the SAM committees is using analytical data to negotiate their Joint Project Agreements. There is a gap between the perceived need for quantitative data (a focus of the IDB project through ESPOL) and the mechanisms by which it would be applied.

3. In Project's Ecuador output of 140 papers, about half address policy, about one-third address technical issues (mangroves, mariculture, shore line processes, water quality), and one-fifth are educational or address education and training issues. Of the technical papers, about one-quarter are also directed to policy issues.

4. Fundacion Maldonado led research on resource-use. ESPOL led research on coastal morphology and water quality. "Participatory Action Research" is an important part of the work in the SAMs and UCVs. Extensive cross-links between these organizations has made the information accessible and relevant.

### **CONCLUSION**

1. The goal of the project paper has been accomplished, most successfully in the profiling, where it was pursued most vigorously. Multiple professional contacts between research and management bodies were invaluable.

### **RECOMMENDATIONS**

1. Use the model of overlapping research and outreach/education organizations wherever possible.

2. ESPOL should be encouraged to make better use of the shrimp research laboratory to help develop a comprehensive research program on shrimp diseases.

## **C. Evolution of the Two Track Approach**

### **FINDINGS**

1. The Ecuador pilot did operate at both levels as called for in the original design. Some observers believed the project achieved more at the local level (Track 2) than at the national level (Track 1). In the latter stages of the project, more resources were directed at Track 2 activities.
2. Over the life of the project the technical assistance approach changed from a URI/USAID driven one to a definition of TA needs through the participatory process within the SAM committees.
3. At the Track 1 level, the management of coastal resources was included in the National Plan (1989-1992).
4. URI did attempt to affect the development of shrimp aquaculture at the national level with the preparation of the shrimp policy document.
5. The Project developed coastal zone management planning capabilities through the National CRM Board and the SAM committees, developed the enforcement capability of the UCVs, and produced a substantial amount of literature on ICRM, water quality, and mariculture.
6. Of the \$4.2 million budget, 66% was spent on project management, development of the SAMs and development of the national strategy. SAMs and the Joint Management Plans designed by the SAM committees represent CRC's primary (preferred) institutional solution to conflict resolution.

### **CONCLUSIONS**

1. The two-track approach is appropriate for building institutional processes.
2. At the Track 2 level, project activities need to provide the opportunity to establish national "ownership" over research, policy studies. International technical assistance should be provided only when local participation and commitment are present.
3. As was pointed out in the mid-term evaluation, despite the CRC's success in initiating local participation in coastal issues at the five SAM sites, CRC was not able to link these activities with national level institutions such as CONADE and CAAM. Such linkage would have helped assure broader dissemination of information about the projects accomplishments at both the regional and national levels.
4. Over the short-term, the CRMP report on shrimp mariculture did not affect policy development at the national level.

## **RECOMMENDATIONS**

1. Future projects like CRMP need to elevate the debate and increase participation and ownership at the national level. Increase support for policy analysis and research.
2. At the Track 2 level, building processes are indispensable for project success, but practical short term investments for key resource users must also be included.

### **III. Outreach and Liaison**

#### **A. Training**

## **FINDINGS**

1. URI helped to train a small and effective core of coastal managers, based at the CRMP office in Guayaquil.

## **CONCLUSIONS**

1. Much more in-country training is needed to build-up the number of trained coastal managers and technical specialists who can understand integrated approach to CZM. ESPOL needs further strengthening to become a center of excellence and supplement URI's capability.
2. A larger core of coastal resources managers is required to help build the ESPOL programs and to establish its reputation as a center of excellence for coastal management in Latin America.

## **RECOMMENDATIONS**

1. The IDB Program should place emphasis on building the human resources capacity at ESPOL and other national institutions as appropriate.
2. A two-pronged training approach needs to continue. ESPOL needs to become a recognized regional center of excellence to train coastal managers as well as help strengthen the use of technical extension agents.

### **IV. Participation, Gender, and Women in Development**

## **FINDINGS**

1. Given the community-based nature of their work and their limited on-staff social science expertise, CRC relied on collaboration with an experienced local NGO (Fundacion

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Maldonado) to help them organize and build consensus among resource users within the Special Area of Management (SAM) for Coastal Resource Management Plans.

2. CRC, together with the Government, decided on a strategy in which unregistered user groups would be allowed only "voice" on the SAM Committee whereas government-registered groups would have "voice" and "vote."

3. Because there appear to be very few formal groups organized at the community and regional level along Ecuador's coast, the work of the field staff was dominated by assisting similar resource users to work together in formal organizations or strengthening pre-existing informal organizations.

4. Only some of the resource users are now affiliated with a formal user group in the SAM. For example, in Atacames SAM, only about one-quarter of the charcoal makers and clam collectors are now members of formal user groups which are affiliated with the SAM Committee.

5. To date, very few higher-income, large-scale economic enterprises (e.g., large shrimp farmers with more than 100 hectares of land) have participated in the SAM Committees.

6. Among those members attending the SAM Committee meetings held during the project evaluation, there appears to be a fairly high level of satisfaction within the SAM Committee regarding how resources are allocated among the priorities of different users and across the different communities within the SAM. This finding is qualified given that time constraints did not allow the evaluation team to meet with all members of the SAM Committee, schedule separate member meetings, meet with former members or those who have never participated in SAM Committee activities.

7. Local women had access to the SAM committee in two ways: via their membership in women-only or mixed- sex groups, or their professional employment with GOE ministerial offices in the SAM sites. However, women had fewer opportunities to participate in the SAM Committee than men because the women-only and mixed-sex groups were vastly outnumbered by the men-only groups. Despite the historic under-representation of women in the technical fields associated with coastal resource management, the SAM Committees had a surprisingly good representation of women from the local GOE ministerial offices. It is not clear how many of these women are originally from the SAMs in which they are now working.

8. The logistics (timing, location, scheduling) of local meetings, training and workshops does not appear to have been problematic for the women involved in user groups and the SAM Committee.

9. On occasion, material benefits were targeted directly to SAM women via the Special Projects Fund (e.g., a boat was bought for the Bunche clam collectors to enable them to avoid high transport costs). Women also benefited from other community-based activities such as water storage tank construction and latrines.

10. In general, Ecuadorian women have not been trained by the Project in equal numbers to Ecuadorian men.

11. Few professional/technical Ecuadorian women are employed by CRMP and Fundacion Maldonado (e.g., none of the SAM coordinators are female but three of five SAMs have female technicians). However, the project has achieved some success in including professional/technical women in the technical working groups on topics, such as mangrove management, which inform national policy and local planning.

12. Although CRC's SAM-based fieldwork in Ecuador generally took into account the gender division of labor, little of their written outputs includes a systematic discussion of relevant gender issues and other social variables. One recent exception is the USAID-WID funded research of Pollnac and Perrera which investigates the gender and age division of labor at the household level in two quite different SAMs.

13. Although SAM level discussions and investigations have covered gender-based issues, the Project policy documents and reforms do not have not included analyses or discussion of relevant gender issues and impacts.

## CONCLUSIONS

1. The SAM-based "user group" approach successfully incorporated some but not the majority of the disenfranchised poor and middle-income resource users into a local planning process. However, this approach was not particularly effective in Ecuador for engaging large-scale, rich commercial individuals and groups (e.g., the shrimp farmers) in project activities.

2. Because male-only groups numerically dominate the SAM Committees, the "user group" strategy in Ecuador SAMs provided more opportunities for local men than for local women to participate in project activities (decision-making, training, material benefits).

3. Community women at the local level have benefited from some of the special projects, (better access to potable water, increased financial independence), training (improved environmental awareness, new technical skills in resource management) and access to new venues for community decision-making on resource management. One or two women in each SAM have been employed by the CRMP.

4. A few Ecuadorian professional/technical women have had the opportunity to participate in SAM or special topic committees, contribute to the local and national planning process and receive coastal resource management training.

5. Without outside assistance, investigation of the relevance of gender issues to coastal resource management planning and policy-making in Ecuador did not appear to be a set of priority topics for the CRMP staff. The Pollnac, et al. work is a good starting point for future activities.

6. URI's ability to adjust to particular and often distinct situations at a given SAM site is a very important strength of the URI Program.

## RECOMMENDATIONS

1. Different incentives need to be used to engage the richer, larger-scale resource users in SAM planning activities. These incentives may include assistance with technical and market issues.
2. As was done in some of the SAMs, the "user group" needs to be broadly defined so that the voting members of the SAM Committee and other Project activities include a higher proportion of women and better address gender-based issues related to resource management.
3. The Project and its local partners need to make a stronger commitment and greater efforts in the hiring, training and advancement of professional/ technical women in the countries where it is working.
4. More attention needs to be given to both gender issues and their broader social science framework. In particular, the CRMP needs to devote project resources to better understanding how local level gender issues related to coastal resource management should inform policy and how specific policies affect both men and women at the local level.
5. The work by Pollnac, et al. needs to be more closely linked with project operations, monitoring and evaluation.

## V. Options for the Future

### A. IDB Precedent

## FINDINGS

1. The IDB reports that the USAID/CRC program was a pre-project in all respects. (\$4 million leveraging to gain a \$14 million investment project).
2. Over a period of four years, the CRC played a key role in design of the loan project. The GOE requested that IDB request CRC involvement in the design of the follow-on project.
3. The IDB follow-on project will allow URI a continued, although somewhat reduced role in integrated coastal management. The role will be advisory and supportive.
4. Certain activities not undertaken in the Project will be implemented in the IDB project (i.e., shrimp disease research, water quality improvement, credit for small-scale enterprises).

5. As stated above, the RHUDO program offers opportunities for collaborative CZM work, including in established SAMs.

## **CONCLUSIONS**

1. URI/CRC work over the last 9 years has been acknowledged as successful through the design of the IDB follow-on.
2. URI will be able to continue to provide valuable technical assistance and training in the context of the new IDB project.
3. USAID project support through the mechanism of the Cooperative Agreement can lead to larger multilateral bank investments.

## **RECOMMENDATIONS**

1. URI will need to adapt to working under the IDB project management system and become a part of an operational project team which is not oriented to the same experimental approach underlying the original project.
2. In the IDB project, URI's comparative advantage is working with local level institutions and the user groups developed at the SAM sites.
3. URI should also be encouraged to play a role in training and dissemination in the IDB Project.
4. Collaboration with the RHUDO should be sought.

**ANNEX II**  
**SRI LANKA PILOT PROJECT**

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## ACRONYMS for the SRI LANKA ANNEX

CCA	Coast Conservation Act
CCAC	Coast Conservation Advisory Council
CCD	Coast Conservation Division
CEA	Central Environmental Authority
DWLC	Department of Wildlife Conservation
GCEC	Great Colombo Economic Commission
GSL	Government of Sri Lanka
JPA	Joint Project Agreement
LHI	Lanka Hydraulic Institute Limited
MEIP	Metropolitan Environmental Improvement Program
MFAR	Ministry of Fisheries and Aquatic Resources
NARA	National Aquatic Resources Agency
NAREPP	Natural Resources and Environmental Policy Project
NARESA	Natural Resources, Energy and Science Authority
UDA	Urban Development Authority

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## **I. Institutional Support Base**

### **A. Management Issues**

#### **1. CRC and USAID**

## **FINDINGS**

1. The Cooperative Agreement funded by G/ENR was a worthwhile investment and laid the groundwork for the USAID Sri Lanka Mission Buy-in.
2. The Mission Buy-in to the Cooperative Agreement supports Project activities under the Mission's lead environmental project, NAREPP.
3. Under the new Cooperative Agreement, good working relations between Project and NAREPP management took time to work out.
4. Some members of the Mission do not look favorably upon the Cooperative Agreement as a contracting mechanism.
5. Some members of the Mission believe that the Project is not responsive to their needs.
6. When Project has clearly understood these needs it has been fully cooperative.

## **CONCLUSIONS**

1. Mission Buy-ins as follow-ons to USAID Global Bureau investments are a relevant and suitable mode for future CRM support.
2. Better planning between CRC and USAID is necessary when Missions take over support and when Cooperative Agreements become part of a larger umbrella project.

## **RECOMMENDATIONS**

1. When USAID Washington investments in new areas show promise Missions should support buy-ins.
2. The Mission should support the one year extension of CRMP under NAREPP.
3. The Mission should include the CRMP and the CRC under the new NAREPP.

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## 2. CRC and Host Country Institutions

### FINDINGS

1. When the Project began work in Sri Lanka, the Coast Conservation Act had already outlined the CCD's obligations to institute a CRM program. The project's major efforts have been the development of a management plan (1987-1990), and its revision (1994), and development of a long-term management strategy (*Coastal 2000*, 1988-1992).
2. CCD still has only eight professional staff, although 12 new hires have been approved. This is not sufficient to implement the CRM plan or to adequately lay out long-term plans. Increased staff had been recommended by previous reviewers.
3. The Project has provided training to CCD and the National Aquatic Resources Agency (NARA) through workshops for district-level staff (part of the decentralization initiative), international workshops and study tours, the CRC Summer Institute, and M.Sc. programs in Rhode Island and Hawaii.
4. Collaboration among Project officers at the SAM site, regional CCD officers, and the district councils will evolve as the roles of the new CCD field officers emerge. Although contact appears to have been rather limited at the SAM sites, Project staff have organized coordinating committees in Hikkadewa and Rekawa.
5. The Project work with the NARA is progressing, mainly through the formation of the CRMP core group. This forum of NARA and CCD staff promotes discussion of integrated area management programs outside of the Project.
6. The CCD and NARA are now within a single ministry, increasing the prospects for collaboration of biological and physical research and management.

### CONCLUSIONS

1. The project has developed strong plans, improved management and planning by CCD, has trained a large number of staff, and has increased consciousness of the need for integrated planning throughout the Sri Lankan government.
2. CCD will remain largely an enforcement body reliant on external support for planning until they enlarge their staff. The problem is not CCD's competence, but their work load.
3. Local-level interaction between the Project and Sri Lankan officials needs to be improved.

### RECOMMENDATIONS

1. The Project should continue to strongly advocate the prompt selection of staff to fill the 12 new positions on the basis of the Joint Project Agreement.

2. The Project should encourage CCD to participate in the core CRM group in NARA. The core group should to come together on common topics and goals such as management of marine parks.

3. The Project must carefully foster a closer and mutually supportive relationship with local officials and CCD field officers.

### **3. CRC and Other Donors**

## **FINDINGS**

1. Project assisted in the design of coastal projects such as the coastal component of the World Bank's National Environmental Action Plan. This activity brings the Project in contact with a variety of national agencies involved in the upcoming project execution.

2. The Project hosted the first donor coordination meeting in 1992 for all donors working on coastal projects. This effort was then carried forward by the Dutch and now by NAREPP. DANIDA stopped its coastal projects in Sri Lanka two years ago because of the ethnic conflict. CRMP has recently been invited to DANIDA's international CZM planning meeting.

3. Phase II of NAREPP will be designed in 1995. Even if support for the SAM sites continues (which is likely but far from certain) these programs will need other support after about 1999. The prospects for independence or internal support are poor.

4. Relations between the Project and a small turtle conservation project in Rekawa have been very poor. There have been recent discussions to discuss collaboration between the two projects.

## **CONCLUSIONS**

1. CRMP is making an effort to collaborate with some other donors. Greater familiarity with DANIDA's program seems desirable.

2. Outside assistance will be required to support the SAM sites within the next few years.

3. Local distrust of one conservation project will reflect badly on all conservation efforts.

4. Staffing is far too limited in Rekawa for the resources potentially available in the turtle conservation project to be ignored.

## **RECOMMENDATION**

1. CRMP collaboration with other donors should continue to be strengthened.

2. Sustainable support for the SAM sites should sought, and transfer mechanisms planned.

3. The Project should actively look to identify mutual interests in cooperation with the turtle project.

## **II. Project Design**

### **A. Design of Pilot**

#### **FINDING**

1. Time spent on writing coastal plans and policies has predominated in the CRMP work. This has led to problems with sustaining the interest of local user groups in the SAM process.

#### **CONCLUSION**

1. There has been too much emphasis on planning work versus identification of issue-driven, economically based, operational activities, which could support alternative livelihoods.

#### **RECOMMENDATION**

1. The project should better link its activities to operational projects and the decentralization initiative to ensure the motivation of local user groups initially organized through the SAM planning process.

### **B. The Two Track Approach**

#### **FINDINGS**

1. Prior to NAREPP, the Project's main accomplishments (1985-1991) were on Track One, national-level coastal planning and policy. Under NAREPP (1991-1994), the Project began community-level work in two SAMs with its own employees - a Colombo-based field director and three field officers. Track Two (local SAM planning) is a relatively recent and, compared to the other pilot projects, a relatively small part of the Sri Lankan program. As the SAM projects were the first of its type in Sri Lanka, a long lead time was required to gain GSL approval.

2. Policy work has focused almost exclusively on CCD and NARA.

3. Due mainly to the limited available time of the Project staff, there still remains a need to increase the policy-level work to facilitate discussion and collaboration among national agencies concerned with CRM.

4. The Project is making progress on two of five priority coastal management issues:

- Management of lagoon fisheries, and
- Feasibility of small-scale marine aquaculture to replace the government's close-out of inland aquaculture.

Although there has been some important activities in the other priority areas, to date there has been somewhat less progress on:

- Feasibility of tourism,
- Replacement of coral mining, and
- Sustainable use of mangroves.

5. Sanctuary protection remains poor. Fishing boats still anchor in the sanctuary area because no alternative harbor is available.

6. Fishermen and glass-bottomed boat owners are pleased with greater opportunities to report violations, but feel that follow-up by officials is poor. (The evaluators were unable to investigate this relationship in any detail.)

7. The SAM Management Plans have not yet been drafted. However, resource user views have been incorporated into the Profiles. Presently, local resource-users feel little ownership of the process.

8. Augmented CCD staff in the SAM sites in December should improve enforcement and extension work.

9. Large-scale aquaculture is feared by the local people and viewed as a potential threat to their livelihoods. This could hinder attempts to introduce aquaculture into SAM sites as an alternative income activity.

10. The SAM planning process was advanced by a major CRMP Planning Workshop in Kalutava in July. The Project recognizes that the SAM planning process will require increased basic communication, outreach and understanding of what the SAM process is.

11. *Coastal 2000* is too long a document to be readily absorbed by most government officials or NGOs.

## CONCLUSIONS

1. There is an immediate and pressing need for local resource-users to feel that their participation in the SAM process is significant, appreciated, and will bring them benefits.

2. There is a need for increased local government involvement in the SAM implementation.

3. *Coastal 2000* needs to be summarized for distribution and easy reading by national and local-level government officials.

4. Fair enforcement and the perception of fairness must improve.

5. Feedback between the local and national policies is inadequate.

## RECOMMENDATIONS

1. The Project should look for opportunities to coordinate with government programs in industrial, urban, and rural development, health, and education (as recommended by the NAREPP evaluation).
2. Small projects to boost incomes or ultimately to provide alternative livelihoods are called for in Rekawa, such as small-scale aquaculture.
3. The quality of outreach and extension work in the SAMs must improve; the project manager should take an active role in supporting the field staff and monitoring their work.
4. A summary version of *Coastal 2000* should be prepared and distributed through the broad activities under NAREPP.

### C. Unforeseen Events

## FINDING

1. The most important unexpected event was the civil war, which kept the project out of the universities and the field until 1991. Decentralization to the field was therefore impossible. Instead attention was shifted to planning for the future (e.g., *Coastal 2000*).

## CONCLUSIONS

1. The lack of cohesive local-level SAM participation can be largely attributed to the newness of the SAM process.
2. The practice of decentralization has not kept pace with the incorporation of the concept in management plans.

## RECOMMENDATIONS

1. The SAM process should be given an extension of time to reach its original project target goals.
2. Decentralization must be accelerated if the two tracks are to run parallel to each other.

### D. Participation, Gender, and Women in Development

## FINDINGS

1. The CRMP has not worked closely with national or regional NGOs at the community level but efforts have been made very recently to modify this situation.

2. At both Special Areas, CRMP/Sri Lanka staff made choices to focus their efforts on some but not all of the relevant user groups. In Rekawa, they worked primarily with poor and middle-income resource users (sea and lagoon fishers, farmers) but much less often with richer households who are involved in coral lime production, transport and sale, and developers of tourist hotels. Coral miners and hoteliers generally operate relatively independently of each other. In Hikkaduwa, the main clients were the managers (and sometimes owners) of large hotels and the middle-income owners of glass-bottom boats but not the majority of small-scale, poor artisanal fishers and the owners of small tourist businesses.

4. Unlike Ecuador, there are many types of community-level groups in Sri Lanka. Having judged many of the existing groups to be either non-functional, unrepresentative or inappropriate, Project field staff have spent a considerable amount of their time working with local people to form new "user" groups.

5. The distribution of Project benefits (environmental education, CRM training, group organizing assistance, liaison with government) varies across the two SAMs. CRMP is working in several dispersed locations within the Rekawa SAM. Its work is concentrated exclusively on the shoreline in Hikkaduwa although these Project-defined boundaries of the SAM do not appear to conform to the boundaries which are socially and economically defined by local people (e.g., many of those working for the glass-bottom boat sector appear to come from inland families located outside the SAM).

6. As in Ecuador, both men and women participate in Project activities in Rekawa but men's participation is greater than women's. Due to the choice of user groups in Hikkaduwa (hotel managers and glass-bottom boat owners), participation of local women from that community is almost nil.

7. Apart from the project secretary and the CMTA newsletter editor, all professional/technical and field staff from CRMP/Sri Lanka and all consultants hired have been male. However, some of the research assistants hired by male consultants have been women.

8. Approximately 25% of the in-country trainees of the Project have been females.

9. For almost all of the CRMP/Sri Lanka documents, there is no discussion of gender and other sociological issues (e.g., division of labor, tenurial rights, status and caste). One exception is the first draft of a commissioned socio-economic survey in Rekawa but it is methodologically weak and the gender analysis is quite superficial. Until recently, their SAM-based field work appears to have been gender-blind. Their national policy-related work does not mention gender nor does it reflect detailed social analysis. Some in the Sri Lankan environment community also challenged the thoroughness of the economic analysis.

10. The dissemination strategy for CRMP/Sri Lanka materials does not appear to reach as many women as men in Sri Lanka. This is in part due to the largely male composition of government officials and NGOs.

11. The SAM concept was advanced for discussion via a well-circulated paper, but the idea of the SAM approach encountered resistance by national level entities. The concept of integrated management was not easily translated from written form to local understanding by local government agencies.

12. The team was told by several sources that the Project and CCD were apparently unaware of the beginning of construction of one of two new hotels.

## CONCLUSIONS

1. After twenty months of field work, broad-based community and NGO participation in the Project has not been achieved. In part, this situation can be explained by the limited number of field staff and in part, on the hands-off management style of Project Colombo-based staff.

2. Given the limited resources for field work, there is some logic to focusing on only a few user groups at the local level. However, there can be a fine line between focusing and either irrelevance or elitism. The work in Rekawa seems likely to be undermined unless additional work is done with the developers. In Hikkaduwa, the proposed plan to work even more closely with the hoteliers (co-funding a coordinator) in the future seems likely to further alienate other resource users, groups and women from the Project process.

3. As with Ecuador, the user group strategy has the potential to include both women and men but not if all-male groups are the main ones chosen as project clients.

4. Without a clear understanding to date of gender and social issues and with only limited project resources, CRMP/Sri Lanka's strategy of working with existing, yet poorly organized groups seems ill-advised.

5. CRMP/Sri Lanka appears to have made no extra effort to ensure that their staff, consultant roster, dissemination strategy and training participants are balanced by gender.

6. As a result of following another donor's integrated rural development project, the Project appears to be faced with unrealistically high expectations of local people for a wide array of project services (e.g., family planning). The community and even the District officials, do not see CRMP clearly enough to differentiate it from another project.

7. Enforcement is still very lax, and the Project is not in close communication with the Rekawa community.

8. Fishers should have multiple opportunities to shape the development of mariculture, and should have the support of CRMP/CCD/NARA in this matter.

9. The delay in beginning the SAM planning process and its subsequent implementation means that less has been accomplished to date than hoped to benefit the resource users and lead to their more active participation in management.

## RECOMMENDATIONS

1. At the national and local level, CRMP/Sri Lanka needs to be more inclusive and broad-based. At the national and local level, the Project would benefit from more involvement with NGOs. At the local level, early detailed social and gender analysis should be informing the selection of client groups. The Rekawa study needs to be (and is being) revised and the gender analysis should provide more detailed information. The Project's participatory process seems unlikely to succeed unless they are able to work with groups, either mixed-sex or single-sex, which represent the interests of women and in which they take leadership roles.
2. CRMP/Sri Lanka needs to make a stronger commitment and greater efforts in the hiring, training and advancement of professional/technical women. The dissemination strategy should also be modified to target more women and women's groups.
3. Sri Lankan field and policy work in CRM needs to be nested within a broader social science framework which includes gender considerations. In particular, CRMP/Sri Lanka needs to commit project resources to better understanding how local-level gender issues related to coastal resource management inform policy and how specific CRM policies affect both men and women at the local level.
4. CRMP/Sri Lanka needs to continue to clarify its role and resources to local people to prevent disappointment and disaffection from project activities.
5. The Project must be in free enough and frequent enough contact with local people that they will receive full and timely information when large projects (e.g., mariculture or hotels). Zoning must be more rigorously enforced if the program is to be credible. Have wide enough contacts with the community that information is flowing freely in many different directions.
6. The progress of transferring the information in the SAM Concept Paper into private-sector and government practice needs to be evaluated as an ongoing, long-term process.

### V. Outreach

#### A. Training

## FINDINGS

1. One of the original training objectives of the project was to build local university capacity for education in coastal management. This objective has not been met due to the civil war in Sri Lanka. The project instead focused its training efforts on providing short-term in-country training and short-term international training for a select number of participants, to build a core group of CZM officers.
2. With support from NAREPP, the Center for Environmental Studies at Paradeniya University is developing a limited educational program on coastal zone management.

3. The ability to assist in building a sustainable national training capacity, in which Sri Lankans become trainers, has only become a viable activity since the end of the civil war.
5. Project produced written materials are being offered to national and local NGOs and government officials involved in CRM activities.
6. CCD staff members who obtained M.Sc. degrees in the U.S. have proven to be very valuable planning officers on returning to the agency.

## CONCLUSIONS

1. CRMP's training has been very valuable to the government staff who have participated. However, neither the in-country courses nor international training can overcome a lack of sufficient staffing at CCD that will provide a critical core of trained individuals necessary for sustained management of coastal issues in Sri Lanka.
2. The project needs to focus on broader dissemination of its work.
3. The Project needs to educate both local users and government groups about the broader implication of their work and its linkage with economic benefits to local communities.

## RECOMMENDATIONS

1. Further coordination between NAREPP and CRMP activities should continue to be encouraged in order to strengthen the educational curriculum for training in CZM activities and to address the need for wider dissemination of Project activities.
2. Efforts should be undertaken to disseminate results from Asia Foundation and other programs. A program of press releases, videos, summaries of *Coastal 2000* (in English and Sinhala), and related outreach activities should be developed.
3. The Center for Environmental Studies at Paradeniya University, which is the focus for NAREPP's training efforts, should also be utilized to develop a curriculum in coastal zone management studies.
4. While in-country training is the priority, foreign training of CRM professionals is valuable and should be considered on a case-by-case basis.

## **B. Publications**

### **1. Environmental Profiles**

#### **FINDINGS**

1. The Hikkaduwa Profile was completed in 1993. The Profile describes and analyzes a comprehensive compilation of environmental and institutional background information of the SAM site, but does not include rigorous socio-political or socio-economic analyses of the community's industries or activities. A summarized Sinhala version of the profile is being drafted and will be ready for publication soon. A recent economic study of Hikkadewa has also been completed.
2. The Rekawa Profile is nearly ready for release.

#### **CONCLUSIONS**

1. These documents are useful background planning tool. They will provide a vehicle to focus the SAM committee discussions for planning. The project may have overlooked at times that the profiles are only tools (as discussed above).
2. Further economic studies will still be needed to provide for changes in livelihoods.

#### **RECOMMENDATIONS**

1. The Environmental Profiles should be translated, summarized and distributed to local user groups and government agencies.
2. Further economic studies will be useful to build upon information in the profiles.

## **C. Advisory Services**

#### **FINDINGS**

1. The Project staff has worked to facilitate collaboration primarily through participation in interagency conferences on CZM and articles for publications in *The Coastal Management in Tropical Asia Newsletter*.
2. The URI/CRMP program has experience and approaches that will be useful in many countries that are facing similar problems to Sri Lanka's.

#### **CONCLUSIONS**

1. CRMP has had a strong contribution to increase regional-level awareness of CZM through *The Coastal Management in Tropical Asia Newsletter*.

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## RECOMMENDATIONS

1. In support of the recommendation made in NAREPP evaluation, more emphasis should be given to the worldwide transfer of information and expertise by CRMP via technical reports and facilitating links to other Asian CZM work.

### VI. Options for the Future

#### A. Sustainability

## FINDINGS

1. There is valuable community-based management beginning in Sri Lanka.
2. There remains significant institutional weakness in the counterpart offices, staffing, and technical expertise required to ensure the long-term sustainable transfer of CZM activities beyond the framework of CRMP's project.

## CONCLUSIONS

1. It is important to continue with the CRMP activities into the next phase of NAREPP to help ensure the sustainability of the Track II success such as the long-term participation of user groups in the SAM sites.
2. It is important to look now beyond USAID support for these activities.

## RECOMMENDATIONS

1. CRMP activities should be implemented in the next phase of NAREPP to:
  - ensure that the initial *Coastal 2000* policies link to operational support to undertake dissemination of Project activities;
  - complete the SAM process and link SAM plans to national policy;
  - strengthen national agencies and ensure their ability and to continue implementing CZM activities in other coastal sites in the country (particularly in northern coastal sites that have only become accessible recently with the end of the civil war);
  - develop an in-country "center of excellence"; and,
  - provide guidance to others.
2. CRMP should expand their coordination with other ongoing integrated, community-based projects both within USAID and beyond.

#### B. Institutional Linkages

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## **FINDINGS**

1. CRMP had explored coordination with The Asia Foundation (TAF) in 1992 and had decided to divide the NGO work effort with TAF, and focus on strengthening national NGOs and CRMP with local-level NGOs and trade associations.
2. Project staff lack an adequate number of staff to manage local-level activities.

## **CONCLUSIONS**

1. Additional staff for the Project would be valuable to help develop in-country training, increased backstopping to SAM site Project Officers, and ongoing coordination with NAREPP and other donor projects.

## **RECOMMENDATIONS**

1. The CRMP, through work already begun under NAREPP, should further coordinate with other donors such as the World Bank's National Environmental Action Program , as well as with other USAID projects in Sri Lanka, such as the Agriculture Enterprise Development Project, to address linking Project plans with operational funds.
2. The Project should be encouraged to increase its operational projects to ensure the motivation of local user groups initially organized through the SAM planning process.
3. CRMP should engage (1) additional person in Rekawa or Hikkaduwa to serve as liaison coordinator/outreach specialist to work closely with staff at the SAM site.

### **C. Decentralization**

## **FINDINGS**

1. The SAM process both supports and requires the Government's decentralization initiative. Numbers of local CCD staff and trained local officials are increasing.
2. CCD is under-staffed and easily ignored. This discourages participation as unnecessary or unimportant.

## **CONCLUSIONS**

1. Delegation of CZM responsibility to the local level needs to be accelerated and the roles of the various parties more clearly defined.
2. Decentralization of CCD will succeed only if training of District officials in zoning, permitting, short- and long-term revenue collection, and the purpose of set-backs is extensive and thorough. CCD will become an effective policy-making body only if it can delegate many of these duties. These programs have begun.

## RECOMMENDATIONS

1. The government of Sri Lanka needs to provide strengthened support in regional offices to ensure that there is adequate local government participation in user groups and NGOs. The government also needs to devote more resources to enforcement and monitoring.
2. The Project should strengthen at every opportunity the training offered to local officials, and move to expand training far beyond permitting.

**ANNEX III**  
**THAILAND PILOT PROJECT**

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## ACRONYMS FOR THE THAILAND ANNEX

CORIN	Coastal Resources Institute
OEPP	Office of Environmental Policy and Planning
ONEB	Office of the National Environmental Board
PMBC	Phuket Marine Biological Center
PSU	Prince of Songkla University

## **I. The Institutional Support Base**

### **A. Management Issues**

#### **1. CRC & URI**

#### **FINDING**

1. The Thailand Pilot made little use of URI staff from outside of the CRC. Instead they relied on local and international experts such as Michelle LeMay, Suraphol Sudara at Chulalongkorn University, and the Hansa Chansang of Phuket Marine Biological Center (PMBC). The use of local experts for analysis and planning served a complimentary role of developing capacity.

#### **CONCLUSION**

1. Given the good technical capacity at Thai institutions, the project's focus on national policy and national capacity, and its relatively short duration, this staffing and contracting pattern is reasonable.

#### **RECOMMENDATION**

1. Although greater involvement of the URI faculty could improve specific elements of the CRC and would widen its support, projects such as this should continue to maximize the utilization of local expertise. These are not mutually exclusive goals.

#### **2. CRC & USAID**

#### **FINDINGS**

1. Evaluation of the CRMP in Thailand is difficult because OF political developments. USAID suspended activities in Thailand in February, 1991, when the Thai military overthrew a democratically elected government. Assistance was resumed in November, 1992, following elections. In 1993, USAID decided to close out the Thailand Mission in September, 1995, as part of its reorganization and consolidation.

2. After the coup, the CRMP worked in Thailand only briefly, in 1992. The Thai government returned \$1.3 million to USAID/Thailand already allocated for the Mission buy-in.

3. The Mission reviewed, approved, and monitored work plans. The relationship appears to have been excellent, with the USAID foreign service national playing a valuable role in communication with national authorities. Communication between the CRC and the Mission was described as candid and frequent.

4. The Mission worked with CRMP to include a coastal component in the MANRES project in 1990. This activity focused on establishment of an international Coastal Resources Institute (CORIN) at Prince of Songkla University. CORIN has maintained some contact with the CRMP offices in Rhode Island and Sri Lanka. This second phase of the project was severely truncated, but appears to have met the early expectations of the parties.
5. The RHUDO in Bangkok is currently designing a regional environmental strategy, for which it requires the input of institutions international perspectives.
6. The Project's work on coral reef management strategies in Thailand was invaluable in the early framing of the Coral Reef Initiative.

## **CONCLUSIONS**

1. Within the constraints imposed by the abrupt termination of the project, and the CRMP and the cooperative agreement through which it worked met the needs of the Mission in Thailand for planning and institutional development over extended periods.
2. The field work in Thailand had unexpected policy benefits in the Coral Reef Initiative.
3. Institutions and expertise developed by the CRMP in Thailand are in a position to serve the Bangkok RHUDO.

## **RECOMMENDATIONS**

1. USAID/Global Bureau should strongly consider the cooperative agreement mechanism, with provisions for transfer of responsibility to the Mission, for future projects in natural resources management.
2. The Global Bureau should retain direct access to institutions with direct field implementation experience, such as the CRC, so as to inform policy development.
3. The Bangkok RHUDO should consider using and supporting USAID's investment in CORIN by soliciting their cooperation in the regional environmental assessment.

### **3. CRC & Host Country Institutions**

## **FINDINGS**

1. The CRMP attempted to form an inclusive national core group by holding regular meetings of experts from different universities and ministries from 1988-1991. The group has not continued to meet or remained in close contact.
2. The CRMP worked primarily with the Office of the National Environment Board (ONEB, now renamed the Office of Environmental Policy and Planning, OEPP). The OEPP is playing an active and increasingly regulatory role in ICZM. Through OEPP, coastal issues were

placed on the national agenda in the form of separate National Plans for CZM, corals, and mangroves.

3. It is difficult to know what current activities of the OEPP result from the work of the CRMP. Projects with apparent links include:

- Publishing Annual State-of-the-Coast Reports for 23 provinces: These were only intended to be bi-annual when the first were produced with the support of the CRMP in 1990. The doubling of the rate at which they are revised indicates that the exercise is valued, and that OEPP has at least the anticipated capacity to perform the evaluations.
- Provincial Planning: Coastal zones are being classified for different uses by inter-agency and resource-user workshops, facilitated by OEPP. The CRC was specifically credited with showing OEPP the value of local involvement and techniques to elicit it.
- Coordinating the National Coral Strategy and National CZM Policy Plan: These inter-agency efforts have been approved and funded by the cabinet. The national plans were first formulated with the CRMP.
- Phuket Management Plan: Achievements in coral conservation, waste water treatment, and water quality monitoring originated in CRMP's activities. The installation of mooring buoys begun by CRMP has become a major activity around the coast. However, wide efforts in land use planning, water quality monitoring, and training are failing to keep pace with development in Phuket
- Public education: Education in schools and through diverse media is a major focus of OEPP's work, and one that they seem to do well.

4. Several parties in different universities criticized the value of OEPP money being spent at the provincial level, and questioned the value of further refining the national strategies.

5. OEPP lacks CZM practitioners outside of Bangkok, and few such people are being trained. Contracts are regularly granted to universities and private firms. The early termination of the project prevented TA for mariculture planning, salt intrusion, and related issues.

6. CORIN is working on two significant domestic projects in coastal and watershed management, and is providing TA on contract to Malaysia and soon will be to Vietnam. (This is further discussed under "Research")

7. Training activities at CORIN are primarily short-term and international in focus.

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## CONCLUSIONS

1. The CRC established technical and institutional programs that have not only endured but expanded since the end of the project.
2. The predominance of work on institutional rather than technical programs in Thailand is typical of the philosophy that CRMP evolved, and was an effective allocation of USAID resources to foster more strategic programming of host-country resources.
3. The OEPP is doing a fine job of executing projects, and seems to have wide and cordial working relationships. Still, the simple volume of daily work limits the depth of their planning and their success in truly integrating CZM. The evaluation could not determine the validity of criticism of OEPP's implementation.
4. Without outside support and/or a unifying agenda, the former members of the national core group appear to have little incentive to work together. It is possible that this group would have solidified if CRMP support had continued as planned.
5. Provincial planning is progressing fairly slowly (2 plans per year) and the genuineness of local representation could be improved. However, the direction and intent are very good.

## RECOMMENDATIONS

1. To build sustainable national core groups, the CRMP should not only provide a mechanism or forum for meetings, but should assist the group in identifying priority issues and tasks.
2. It is incumbent that OEPP re-convene an interagency program that will better incorporate the universities (Chulalongkorn and Prince of Songkla) and other agencies. The new group should move quickly to coordinate policy, enforcement, and training functions. This will require increased staff. This role would also improve relations with other institutions that are now critical of OEPP.
3. CRMP's success, in spite of its abrupt termination, suggests that relatively short projects can bring about policy reforms and should be considered.

### 4. CRC & Other Institutions

## FINDINGS

1. CRMP and its partners made very effective use of data developed in by the Association of South East Asian Nations (ASEAN), and of facilities provided by Denmark to the PMBC. There was little direct interaction with these projects, or with NGOs.
2. The World Bank Coastal Investment Project that will begin in Thailand in November, 1994, offers many opportunities to follow through on OEPP, CORIN, and other programs.

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## **CONCLUSION**

1. The CRMP worked well in parallel with the ASEAN project, and with facilities provided by DANIDA to the PMBC. Parallel programs are simpler and more practical than are fully integrated programs. This mode of operation allows everyone to take credit for successes.

## **RECOMMENDATIONS**

1. USAID and other donors should seek opportunities for parallel rather than closely interactive programs around the world (for USAID or other donors) and in conjunction with the World Bank Project.

2. The Bangkok RHUDO and USAID/G should be alert to possibilities of collaboration with the World Bank Coastal Investment Project in regional environmental activities and the U.S. Coral Reef Initiative.

## **IV. Project Design and Adaptation to Changing Conditions**

### **A. Assumptions**

## **FINDINGS**

1. CRC was chosen for this cooperative agreement on the assumption that the institution's domestic field experience in ICZM implementation provided a practical preparation for translating the method to developing countries.

2. The CRC's experience in Ecuador led to demonstration projects that began almost immediately in Thailand.

## **CONCLUSIONS**

1. The CRC performed well, and fully justified the award of its cooperative agreement with USAID.

2. The project's shift to emphasize training and work in the field may not have occurred with a group more focused on technical or policy issues.

## **RECOMMENDATION**

1. The CRC and USAID should move further to implementation of coastal programs through partners with extensive field and community experience, while retaining the expertise in coordination and national planning that has evolved.

## **B. Replicability**

### **FINDINGS**

1. In Phuket the CRC applied a method developed over the previous three years in Ecuador. They worked intensively on a simple but high-profile issue in a limited geographical area and used it to leverage government action and to mobilize public support.
2. Skills in facilitating community input to planning were refined by the CRC in Thailand, and were exported to ONEB, and to a lesser extent, to CORIN.
3. Modest progress was made toward unifying agencies with jurisdiction over the coastal zone in work on the National Strategies.
3. The CORIN has attempted to replicate the CRC, with more than reasonable success.
4. Its most sympathetic observers and participants say that "What the CRMP did was a lot of talking." The CRMP's intent was clearly to direct change rather than to effect it. However, individuals in universities criticized the lack of material progress that was made during and since the project in Phuket.
5. CRMP's experience in Thailand has been documented in peer-reviewed and less formal literature.

### **CONCLUSIONS**

1. Phuket can be viewed as the first application of a replicable method of national CZM planning that the CRC developed in Ecuador. The CRC's accomplishments in a relatively short period may be related in part to experience gained in Ecuador.
2. Because of its emphasis on communication, the CRC's approaches to community involvement in planning are being spread through OEPP's and CORIN's programs.
3. The CRC's program has been presented as a national and international model for ICZM.
4. Demands for more operational programs persist.

### **RECOMMENDATIONS**

1. The two-track approach can should be considered in future coastal and other natural resources management projects.
2. Care must be given that initial goals are reasonable, so that failure to achieve ultimate goals will still leave successful local products behind.

3. A greater emphasis on work in the community early on in the project cycle would demonstrate the value of planning, generate greater interest and reduce skepticism.

### **C. Scope and Scale**

#### **FINDINGS**

1. Phuket and coral management were the obvious and perhaps inevitable choices because of their separate and combined importance, and because of strong specific interests of the Thai government. It was nonetheless apparent that the area's physical size and explosive growth would not be greatly modified by the limited resources of the CRMP alone.

2. Rapid development of hotels and shops has continued at Patong and Katya beaches, driven by large economic opportunities. This growth has limited the success of watershed protection plans at these sites.

3. The mooring buoy program that was designed largely to promote interest in CRM in Phuket has become a major OEPP program.

4. Public awareness programs initiated by the CRMP have continued to expand.

5. Mariculture is a critical issue in Thailand, but the sector was not addressed by the CRMP.

#### **CONCLUSIONS**

1. The scale of the problems and the momentum of growth in Phuket were beyond the capacity of the CRMP, as anticipated.

2. Although no comprehensive reform of development policies has occurred in Phuket, smaller programs with more intermediate opportunities (public education and mooring buoys) were short-term successes with sustainable products.

3. The CRMP did not have the capacity to take on economic, chemical, biological, and political issues of mariculture, even without the large Phuket program.

#### **RECOMMENDATION**

1. Multiple intermediate goals should be carefully established in policy projects, especially when working on an excessively broad agenda.

### **D. Role of Research**

#### **FINDINGS**

1. Examples of applied research stemming from the CRMP program are:

- CORIN's GIS work in Songkla, Vietnam, and Malaysia, for which essential equipment was provided under MANRES;
- CORIN's "Ecological History" and continuing work at Pak Phanag;
- PMBC's nationally-funded water quality monitoring at Patong and Katya;
- PMBC's studies of coral reefs, mangroves, and sea grasses for the national strategies.

2. Professional linkages between the research and policy worlds remain very few. Dr. Hansa of PMBC is an important exception.
3. CORIN aspires to bridge the gap between research and policy.
4. Mariculture is a critical issue in Thailand, but the sector was not addressed by the CRMP, either in terms of research or policy.

## CONCLUSIONS

1. Although the CRMP directly supported very little research, a great deal of applied work was initiated by the project's institutional work.
2. Thailand's ability to independently support research was an enormous advantage.
3. As in Ecuador, the CRMP did not have the capacity to take on the mariculture issue.
4. CORIN will need to develop a more inclusive approach to other institutions and to add significant staff if they are to become a national coordinating center.

## RECOMMENDATIONS

1. For reasons of efficiency and sustainability, the CRC and future USAID projects in coastal resources should continue to work primarily to enable and initiate research rather than to engage in it directly.
2. The current, discreet, emphasis on strategically tenable issues should be continued.
3. The OEPP is the obvious organization to provide liaison between policy and technical institutions.

## E. Unforeseen Events and Consequences

## FINDINGS

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1. The obvious unexpected event in Thailand was the abrupt termination of the project, due to a *coup d'etat* in the government.
2. Despite the abbreviation of the plan and the lack of closure, CRMP's activities have been sustained.
3. CORIN proved especially resilient, and remains anxious to work with CRC or USAID representatives.
4. The significant levels of funding available from the Thai government and other sources makes Thailand an unusual case among countries assisted by USAID.

## CONCLUSIONS

1. The sustained vitality of the Thai programs after the project's unexpected termination suggests that excellent work was done in the years of the CRMP.
2. This success suggests that such programs are robust and can be transferred from USAID to other support more aggressively. This would allow CZM programs to be introduced to more countries.

## RECOMMENDATIONS

1. The CRC and USAID should make the early independence of cooperating agencies a higher priority in CZM planning.

### V. Outreach and Liaison

#### A. Training

## FINDINGS

1. CRMP worked in Thailand generally before a formal curriculum was developed. Training therefore consisted largely of study tours and workshops, e.g., in environmental impact assessments.
2. CORIN consists of a core of about eight faculty from five departments of science or management. The degrees of involvement vary widely, and other faculty have expressed some interest in specific activities. CORIN's primary goals are to formulate management strategies on the basis of research, interactive public education, and TA; and train public and private CZM managers, especially internationally.
3. CORIN is clearly modeled after CRC, and wishes to expand rapidly into international and national programs.

3. CORIN has projects funded by DANIDA. It is active in coastal management research in Malaysia and Vietnam through contracts to those governments. This work relies heavily on GIS capabilities set up under MANRES.

4. CORIN has run three international CZM training programs, in which only about 20% of the students were Thai. There has been little outreach to other Thai universities, even to recruit students. Next year PSU will offer an international M.Sc. program in Natural Resources, with CORIN's participation.

5. One CORIN faculty member has just completed his Ph.D. at CRC. Two more will follow shortly.

6. Dr. Suraphol, at Chulalongkorn, is active in marine research through Phase III of the ASEAN Australia project. Chulalongkorn has offered a course in CZM since 1993 that is not coordinated with others. There is little effort made at national outreach.

## CONCLUSIONS

1. Study tours were apparently effective in encouraging senior officials to move management in positive directions.

2. In our brief tour we saw no evidence that local workshops on environmental impact assessment had advanced the decentralization process, as they were intended to.

3. CORIN has made important progress in training, research, and institutional development. However, it is rapidly moving into the international arena before Thailand has its own staff of professionals.

4. The newly-trained faculty at CORIN could increase the level of national training to a more appropriate level, but their roles will not evolve for a few more years.

5. Greater resources allow Thai institutions to pursue individual courses, but better focus and coordination would clearly benefit the national coastal program.

## RECOMMENDATIONS

1. OEPP should be doing more to convene the CZM community, in the universities as well as the Agencies.

2. The need for further guidance in institutional development is illustrated by CORIN's somewhat precipitous move into international affairs. Prolonged cooperation with international institutions is important to such academic planners.

3. Follow-through was impossible in this pilot project. However, it is necessary for future short-term training to have an influence, and should be carefully included in these programs.

## F. Participation, Gender, and Women In Development

### Methodological Note:

Given the time and logistical constraints of the evaluators and the three-plus years that had elapsed since CRMP was active in Phuket, it was difficult to obtain multiple assessments on the community-level participation in CRMP/Thailand activities. These observations should be viewed accordingly.

### FINDINGS

1. In terms of organizing an inclusive national core group, CRMP supported regular meetings of experts from different university and government ministries from approximately 1988-1991. This group included both women and men. However, since the cessation of CRMP/Thailand activities in 1991, this group has not continued to meet nor are they in regular contact with each other.
2. CORIN, supported by CRMP/Thailand, is still active. However, participation by other university staff, particularly social scientists is still quite limited, as is the participation of female faculty. Although female informants and enumerators have been used in the field work, the research agenda has not looked at gender issues to date.
3. In Phuket, as in Hikkaduwa, Sri Lanka, CRMP worked closely with hoteliers, the diver associations and private enterprise (Kodak) on clean-up, buoys and sign projects. Few local women are involved in these associations. Much less attention was paid to lower-income resource users and their groups. In terms of public education, CRMP/Thailand appears to have reached a wide diversity of households by working with local schools, a teacher's college and the local aquarium.
4. National policy efforts by CRMP/Thailand have placed little emphasis on social issues, primarily demographics, and do not include gender analyses.
5. In terms of training, data available on participants for the Summer Institute and the two regional courses suggests that representation was approximately equal for Thai men and women. No participant data was provided for national and local training.
6. Thai-based staff, as well as Thai- and U.S.-based consultants, were predominately male.

### CONCLUSIONS

1. Without outside support and/or a unifying agenda or task, the former members of the national core group appear to have little incentive to work together or stay in regular contact. It was not possible to assess whether or not this group would have solidified and continued on its own if CRMP support had continued for a longer period of time.

2. Most of CORIN's staff do not appear to understand the relevance and importance of social and gender analysis to their work.
3. User group selection by CRMP in Phuket did not appear to include criteria related to the involvement of women or members of poorer classes.
4. Investigation of the relevance of gender issues to coastal resource management planning and policy-making in Thailand does not appear to be a set of priority topics for the CRMP staff or its partners.

## **RECOMMENDATIONS**

1. OEPP should take a leadership role and provide appropriate incentives for building a sustainable national core group.
2. CORIN's work with natural resource professionals should be balanced by the inclusion of social scientists (e.g., sociology, anthropology and political science) and gender specialists.
3. OEPP may need to pay greater attention to selecting groups and representatives at their local level meetings so that the interests of women and poorer community members are presented.
4. CORIN needs to adapt the profiling process so that social and gender issues are directly addressed.

## **VI. Options for the Future**

### **A. Sustainability and Options**

#### **FINDINGS:**

1. The continuing, autonomous activity in coastal zone management in Thailand clearly demonstrates the sustainability of the CRMP approach.
2. The relative wealth of Thailand in the developing world makes this case unusual.
3. Regional activities by the Bangkok RHUDO have an opportunity to utilize and strengthen the structures fostered by the CRMP.

#### **CONCLUSION**

1. Continued opportunities exist for CRM projects through RHUDO and regional projects, despite the closing of USAID/Thailand

## RECOMMENDATIONS

1. The RHUDO and the implementers of the Coral Reef Initiative should consider partnerships with the institutions noted here in carrying out regional environmental, coastal, and biodiversity work.

**ANNEX IV**

**TERMS OF REFERENCE FOR THE FINAL EVALUATION**

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# FINAL EVALUATION OF THE COASTAL RESOURCES MANAGEMENT PROJECT

(Project No. 936-5518)

United States Agency for International Development (USAID)  
Bureau for Global Programs, Field Support and Research  
Office of Environment and Natural Resources

June 6, 1994

## BACKGROUND AND OBJECTIVES

The Coastal Resources Management Project (CRMP) was authorized on June 11, 1984, as a six-year project. In 1988 the project was modified and extended to May 15, 1995. The objective of CRMP was to adapt tools and strategies for integrated coastal resources management that were emerging in the U.S. for use in developing nations. Pilot projects in Ecuador, Sri Lanka, and Thailand, plus supporting regional training and information outreach programs, were implemented through a cooperative agreement with the Coastal Resources Center at the University of Rhode Island (CRC).

The primary purpose of the program was to establish management programs that could make progress toward slowing or reversing the degradation of coastal resources through:

- (1) analysis of the causes and consequences of selected CRM practices;
- (2) building constituencies for improved CRM among stakeholders along the coast and within the central government;
- (3) formally mandating and funding national CRM plans or programs; and
- (4) increasing the technical and managerial capabilities of indigenous personnel in public and private institutions.

Cooperative apprenticeship programs and national, regional, and U.S.-based studies were used to train managers to design and execute integrated CRM programs. While local managers and coastal resource-users gained competence, national policies instituting the principles of integrated CRM were developed, and linkages between the local and national tracks were established. Public education and public participation were fundamental to the entire process. Public interest in CRM was enhanced by an emphasis on specific management issues of immediate concern, issues that could demonstrate the value of integrated CRM programs. This approach required flexibility and adaptability to take advantage of political and environmental opportunities as they arose. New policies that emerged were implemented on an experimental scale.

As the project nears completion, USAID requires:

- (1) a retrospective assessment of the project's success in establishing sustainable programs to manage coastal resources in the pilot countries;
- (2) determination of lessons learned for future projects in CRM and other sectors of natural resource management; and
- (3) a prospective analysis of needs and opportunities for field support in the coastal resources sector.

## **ARTICLE I. THE PROJECT**

Title: Coastal Resources Management Project  
Project Number: 936-5518  
Grant Number: LAC-5518-G-00-5054  
LOP Funding: \$20.8 million  
Core Funding: \$13.8 million  
Add-on Capacity: \$7 million  
PACD: May 15, 1995

## **ARTICLE II. OBJECTIVES**

The contractor shall provide a team that shall evaluate the CRMP, including:

- 1) the extent to which CRMP has met the objectives of the project paper (PP) and its amendments;
- 2) the extent to which the CRC has fulfilled the program description of the cooperative agreement;
- 3) the effects of unanticipated and external actions on the overall project, and the appropriateness of CRMP's structure and responses to unforeseen events;
- 4) the present relevance and need for CRM and related water resources management in USAID's Missions, Regional Bureaus, and Global Bureau, considering revisions in the Agency's policies, strategies, and structures.

## **ARTICLE III. STATEMENT OF WORK**

The contractor shall prepare a final report that addresses each of the following components and evaluates their roles in achieving the project's goals. The report must be clear, concise, and comprehensive. It must identify all important factors and responses affecting project's performance. The report must make recommendations for the design of future activities in CRM in developing countries on the basis of specific information and examples from the pilot projects in Ecuador, Sri Lanka, and Thailand.

## A. ISSUES

### ISSUE 1: USAID STRATEGIES FOR SUSTAINABLE DEVELOPMENT

The "USAID Strategies for Sustainable Development", published in March, 1994, states categorically that "the sole standard of success is the impact that programs have on host nations, their societies, and the lives of citizens" ("USAID Strategies," p. 14). This is the single most important task of this evaluation, and it must underlay analyses of programmatic and strategic details.

The evaluation shall address how well the ten-year old project met the broad prescription for sustainable development laid out in the USAID's new Strategies: "USAID will employ certain operational approaches in all its endeavors: support for sustainable and participatory development; an emphasis on partnerships; and the use of integrated approaches to promoting development" (pp. 3-4). The report shall consider how a new project in CRM could best reflect these strategies.

The evaluation shall also address how well the project met the broad criteria for environmental projects stated in the USAID's "Strategies" (pp. 12-13).

- a. Did the project target objectives that will "[improve] agricultural, industrial, and natural resource management practices?"
- b. Did the project "[strengthen] public policies and [indigenous] institutions to protect the environment" through activities such as:
  - i. "reform of national economic policies, development strategies, and market mechanisms...
  - ii. Development of a comprehensive environmental policy framework, including laws, regulations, and standards...
  - iii. Promotion of procedures for measuring, assessing, monitoring, and mitigating the environmental impact of economic growth.
  - iv. Improved enforcement of environmental laws and regulations...
  - v. Creation or strengthening of competent environmental institutions within government, the private sector, the NGO community, and academia.
  - vi. Creation of environmental data bases and...inventories."
- c. Did the project "work bilaterally and multilaterally, pursuing dialogues with governments on environmental issues, such as environmental regulations, [and] natural resource usage?"
- d. Did the project "support...applied research on key environmental issues..."

## **ISSUE 2: MISSIONS AND REGIONAL BUREAUS**

The Overview of the Reorganization Plan for The Bureau for Global Programs, Field Support and Research lists among the functions of the Bureau (1) provides field support to Missions and the rest of USAID; (2) ensures global programs exist, as necessary, to support the accomplishment of the Agency's strategic objectives."

The report shall evaluate how well the project met the needs of Missions and Bureaus, and shall recommend improvements in future activities.

- a. Has the project effectively met the needs of Missions through the add-on mechanism?
- b. Has the approach and philosophy of integrated CRM generated new ideas in Missions or Bureaus, for work in the coastal zone and elsewhere? Has the project proactively generated interest in Missions in new approaches, new technologies, and CRM in general?
- c. Has the project leveraged assistance from other sources of funding?

## **ISSUE 3: MODELS FROM THE PILOT PROJECTS**

What lessons can be taken from these pilot projects and applied elsewhere? The report shall address the following questions, and make recommendations for improvements in future activities.

- a. By what processes did the project select and adapt management principles and strategies from the U.S. to the different context of developing nations?
- b. What revisions in the PP were necessary because of these differences in context or other factors?
- c. What positive and negative lessons were learned from the CRMP about the design and implementation of USAID-funded CRM projects that could be applied in, e.g., Central America, East Africa, and tropical Asia?

## **ISSUE 4: SCOPE**

The PP recognized that the large size and environmental complexity of coastal zones would force this project to make strategic decisions regarding the appropriate geographical scale and environmental scope for its work. The report shall address the following questions, and make recommendations for improvements in future activities.

- a. By what process and under what rationale were decisions of scale and scope made?
- b. Could larger areas and more sectors have been addressed, or did the project over-reach? Was the appropriate balance achieved?

c. Were the project's attempts to build constituencies for CRM and thereby to expand its range successful?

d. How successfully did the project prioritize and address issues of:

- i. sustainable development of natural resources?
- ii. environmental impact assessment?
- iii. natural hazards abatement?
- iv. institutional process, organization, and capacity?
- v. community participation in CRM programs?

#### **ISSUE 5. TRAINING**

The project emphasized education and training as a means to both build capacity and to disseminate approaches of U.S. and other integrated CRM programs. Training sessions were conducted (1) at the CRC, (2) at host-country institutions, (3) through twinning programs, and (4) through in-service training.

- a. Did these approaches establish cadres of professional CRM staff in the host countries?
- b. Were training staff technically and pedagogically qualified? Was the curriculum appropriate and sufficient?
- c. Did the training programs adapt and build on experience?
- d. How could each component be improved?

#### **ISSUE 6. DISSEMINATION**

- a. The CRMP was one of the first major projects of OECD nations, multilateral development agencies, or multilateral banks to promote integrated CRM in developing nations. Has dissemination of information from the project served a catalytic role in demonstrating and publicizing needs and opportunities of CRM in development?
- b. Did the publications, workshops, and networks undertaken by CRMP reach intended and appropriate audiences? What impacts have they had? Should they be continued in the future, and if so with what modifications?

#### **ISSUE 7. CAPACITY AT THE CRC**

A recent internal USAID/G/E report on the CRMP stated that "The University of Rhode Island has become a world leader in developing nation coastal resources, well beyond the scope of the CRMP." Is this accurate?

- a. Is the URI's Coastal Resources Center in a strong position and does it have sufficient capacity to design and initiate sustainable CRM programs in the developing world through cooperation with USAID or other bilateral or multilateral arrangements?
- b. What were the relative contributions of the University and USAID to the CRC's development?
- c. What is the CRC's capacity to develop further through new activities sponsored by USAID?

### **ISSUE 8. MANAGEMENT**

Assess the adequacy and effectiveness of project management:

- a. Has the CRC effectively managed its pilot and training programs? Are or were better alternatives available for capacity building?
- b. USAID management staff and environmental policies changed repeatedly over the life of the project. How did this instability affect the project? How did the CRC cope with these transitions?
- c. Were communications between the Missions, the CRC, and the central (Global) Bureau clear and effective?
- d. Was funding predictable, and how did deviations affect the project?
- e. Has CRM's support to multi-agency and multinational programs (e.g., the U.S. Coral Reef Initiative, the World Coast Conference, the UNEP OCA/PAC training workshop) been effective? Did this work divert resources and impact the CRC's ability to carry out its core program? Has this participation altered the views of the Missions?

### **ISSUE 9. FOLLOW-ON PROJECTS**

New integrated coastal resource management activities are starting in East Africa, North Africa, Central America, and the Philippines. Is there a need for a renewed CRM project in the Global Bureau to support these efforts and to continue to provide leadership in CRM, e.g., through the U.S. Coral Reef Initiative?

- a. What are the present needs, and what needs will develop in the next five to ten years?
- b. What are the alternatives to a centrally funded project, and what are their relative merits (e.g., working through existing projects, through the Regional Bureaus, or solely through Missions)?

c. Would a new CRM project fit USAID's new environmental strategies and policies? What would the minimum staffing and funding requirements be? Would it be useful to combine a new CRM project with a broader watershed/water resources management project?

d. Would the current project have the institutional capacity to meet anticipated field demands? If not, how could other partners, such as NOAA, be included in the follow-on program.

## **ISSUE 10. CROSS-CUTTING ISSUES**

The Bureau for Global Programs, Field Support and Research compiles data on the performance of projects in areas of general concern. The following issues must therefore be succinctly addressed as separate units:

1. Cost-sharing: Did organizations other than USAID, including contractors, grantees, and participants, share costs, and was this participation beneficial?
2. Buy-ins: Have buy-ins enhanced the work of the project? Have they altered its focus or objectives?
3. Sustainability: Does the project promote activities that will be supported beyond the duration of USAID funding?
4. Women in Development: Were gender issues considered in the project proposal? During implementation? Can the results of the project be disaggregated by gender?
5. Peer-review of research (if the cumulative cost for research exceeds \$100,000): Is there a mechanism for peer review, and is it followed?
6. Collection and dissemination of information: Are findings of the project being disseminated? Are they being used?

## **B. REQUIREMENTS OF THIS EVALUATION**

### **1. METHODS OF EVALUATION**

This evaluation will conform to USAID's guidelines (Supplement to Chapter 12 of USAID's Evaluation Handbook 3, "A.I.D. Program Design and Evaluation Methodology Report No. 7"). The evaluation will use methods appropriate to the adaptive nature of the project.

#### **a. REVIEW OF REPORTS**

The contractor will review the Project Paper and Supplements, cooperative agreements, subcontracts, work plans, and progress reports from the CRC, previous evaluations, and CRM plans adopted by host countries, technical reports and manuscripts, training curricula, and other relevant materials.

## **b. INTERVIEWS AND SITE VISITS**

Evaluators will interview the designers, implementors, and stakeholders in the CRM Project at (1) USAID/Washington, (2) USAID Missions, (3) other U.S. government Agencies, including NOAA and the Department of State, (4) the University of Rhode Island, (5) national and local governments of each host countries, (6) field sites (management zones). Other Missions and participants, especially in the Philippines, will be contacted by telephone and fax. Staff from cooperating bilateral and multilateral institutions will also be interviewed.

Officials, employees, community and NGO leaders and resource users will be asked for personal and institutional perspectives on the effectiveness of the CRMP. Both participants and eligible non-participants from the communities where CRM programs were established will be interviewed.

Evaluators will collect qualitative and quantitative information on levels of participation in the program, satisfaction or discontent with the program, and "lessons learned." The sustainability of partnerships and indigenous institutions will be determined. Field sites to be visited will be determined in consultation with USAID, the CRC and host-country institutions.

The alumni of the various training courses will be interviewed, and their skills assessed.

## **c. PERSONNEL AND RELATIONSHIPS**

The team will work under the technical direction of Dr. John Wilson, USAID/G/E/ENR. Dr. Wilson will accompany the team to Ecuador. The team will be assisted by Dr. Thomas Rhodes, USAID/G/E/ENR, who will also travel with the team.

The evaluation team must combine the qualities listed below. Three team members will visit each field project. Ideally, there will be three members on the team. However, the requirement for regional expertise could be met by having a team of four persons, of which one would go only to Asia and one only to Ecuador. The team leader should fit description (a) or (b).

- a. Past executive responsibility for coastal resources management projects, including technical expertise in CRM issues;
- b. Experience in institutional development at various levels in developing countries, including experience working with senior federal officials in policy and program development. This person should speak excellent Spanish.
- c. Experience in the design and implementation of training programs in developing countries.
- d. Experience in qualitative methods, such as focus groups, for the evaluation of environmental management programs.

e. Familiarity with USAID programs and policies, including relationships between Missions, Regional Bureaus, and central Bureaus;

f. Experience in natural resource development in Latin American countries, preferably Ecuador (for the Ecuador component), and experience in natural resource development in Asia and the Pacific, preferably including Sri Lanka, Thailand, or the Philippines (for the Asia component).

#### d. SCHEDULE

The evaluation will be performed in July, and August, 1994. It is expected to require a total of approximately 96 work days. Approximately four work days will be required in each site. It is anticipated that the Pacific and American evaluations teams may be different. The tentative schedule is:

	Elapsed work days
July 1: Team Planning, Washington	3
July 5-8: University of Rhode Island	15
July 10: Fly to Sri Lanka	18
July 19: Fly to Washington	42
July 20-22: Telephone interviews, writing	51
July 24: Fly to Ecuador	54
July 31: Fly to Washington	75
Aug. 1-5: Interviews, writing, discussion	
Oral Briefing on 8/5	87
Aug. 11 Draft Report due	
Aug. 25: Final Report due	96

#### ARTICLE IV. REPORTING REQUIREMENTS

The format of the evaluation will follow USAID guidelines established in USAID Handbook 3. The contractor shall submit to USAID/G/E/ENR the following deliverables both on paper and on diskettes using Word Perfect 5.1 and Lotus 123.

a. **Work Plan:** Within five working days of the start of the evaluation the team shall submit five copies of a work plan, including a schedule of activities (who, what, and when) and delivery dates for the items listed below.

b. **Field Briefings:** At the conclusion of each field visit the team shall brief appropriate USAID and CRM personnel on their findings.

c. **Draft Report:** Within ten days of returning to the U.S., the team shall submit five copies of a preliminary draft of the final report to USAID/G/E/ENR for review and discussion.

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d. **Oral Briefing:** Within two weeks of returning to the U.S., the team shall present an oral briefing of their findings, conclusions, and recommendations.

e. **Final Report:** Within two weeks of the presentation of the Draft Report, the team shall submit thirty (30) bound and one unbound copies of the Final report and diskettes to USAID/G/E/ENR. The Report shall consist of:

(1) a three-to-five page Executive Summary;

(2) a Project Identification Data Sheet;

(3) a Table of Contents;

(4) the Body of the report, including background materials, descriptions of activities, findings, conclusions, and recommendations (this shall not exceed 30 single-spaced typed pages); and

(5) Appendices of supporting data and a concise chronology of each pilot project.

**ANNEX V**  
**ITINERARY AND PARTIAL LIST OF CONTACTS DURING THE**  
**EVALUATION**

**9/12, Quito**

Dr. Mauricio Montalvo  
Subsecretary of Public Administration  
Government of Ecuador

Carlos Menafra  
Asesor Regional Medio Ambiente,  
Interamerican Development Bank

Mike Pulley  
Project Manager  
USAID Regional Housing and Urban Development Office

William Yaeger  
Director  
USAID RHUDO

EcuadorCRMP Staff

**9/13, Guayaquil**

Washington Macias Pena  
Executive Director  
Fundacion Pedro Vincente Maldonado

Emilio Ochoa Moreno  
Project Director  
Fundacion Pedro Vincente Maldonado

Graciella Trelles  
Former Staff Member  
Fundacion Pedro Vincente Maldonado

**9/14, Guayaquil**

Hector Alberto Ayon Jo  
Professor, former Director  
Escuela Superior Politecnica del Litoral

Eduardo Cervantes  
Vice Dean, Marine Engineering  
Escuela Superior Politecnica del Litoral

Jose Luis Santos  
Professor and Director, CRC-ESPOL

Contralmirante Carlos Garcia Mata  
Director General  
Merchant Marine

Sr. Sanchez  
Department of Beaches and Bays

Captain Caesar Benalcazar  
Department of Beaches and Bays

Juan Bravo  
Chief of District  
Institute of Ecuadorean Forests and Natural Areas (INEFAN)

Mireya Pozo  
Biologist  
Institute of Ecuadorean Forests and Natural Areas (INEFAN)

Franklin Ormaza Gonzalez, Ph.D.  
Sub-director  
National Institute of Fish

**9/15, Playas-Posojora-Puerto El Morro**

Jose Luis Villon  
SAM Corrdinator  
CRMP, Playas

SAM Committee members:  
Miguel Mejillon, Head of Cooperative de Pescadores, Playas  
Manuel Crispin, President, Community Development Association, Data Villamil

Santos Chamba  
President of Barrios  
Posorja

Apollino Crespín  
President of Artesinal Fisheries Cooperative  
Posorja

Maxima Lopez  
Women's Cooperative  
Pto. del Morro

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Ricardo Jordan  
Pto. del Morro SAM

Flora Morales  
Pto. del Morro SAM

Playas SAM Committee members:  
Santiago Morales Santos, Fishing Cooperative  
Macario Capin, Fishing Cooperative  
Angel Bravo, Pasorja Health Inspector  
Jose Mero, President of Zonal Committee  
Manual Vera, President, Community Development Association  
Miguel Mejillon, Playas Fishing Cooperative  
Manuel Crispin, President, Data Villamil Community Development Association

**9/17**

**Muisne**

Muisne SAM Committee Representatives:  
Digno Castenella, President of Carboneros  
William Chilabones, Treasurer of Carboneros  
Maria del Carmen Cheney, President of Concheras  
About 15 other members

Atacames SAM Committee  
Hilda Piras Olaza, Vice-president of SAM  
Wilson Peres, Cooperative of Artisanal Fishers  
Renet Zello, President, Caiperinheros Association  
Linda Piral Oliyan, Vice President, Caiperinheros Association  
Other Members

Atacames UCV:  
M. Zapata, UCV Atacames Port Captain  
Guillermas Oleas, INEFAN  
Herman Jaramillo, INEFAN Regional Chief  
Emile Perdomo, Ministry of Agriculture  
Manuel Nicola, Ministry of Urban Development and Sanitation  
Romulo Turado, SAM Coordinator  
Guillermo Prado, PMRC  
Carlos Hernandez, UCV Coordinator for PMRC  
Ludys Mastinez, UTE Ecotourism Student  
Maria Bare, UTE Ecotourism Student

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**9/19**  
**Quito**

Dr. Fausto Maldonado  
Office of Agriculture and Natural Resources  
USAID

Dr. Kenneth B. Wiegand  
Environment Officer  
Office of Agriculture and Natural Resources  
USAID

Luis Carrerra de la Torre  
President  
Advisory Commission on the Environment

**9/26**  
**Colombo**

Avanthi Jayatilake  
Environment  
USAID

M. Glenn Rutanen-Whaley  
Environment Officer  
USAID

Louis Kuhn  
Chief  
Office of Program  
USAID

Terrence Liercke  
Asst. Mission Director  
USAID

Mohan Siribaddana  
SCOR Project Manager  
USAID

**9/27**  
**Colombo**

H.J.M. Wickemerante, Formerly of CCD and CRMP  
General Manager  
Lanka Hydraulic Institute

Piyasena Ganewatte  
Consultant, Social Scientist  
CRMP

Dr. Alan White  
CRMP

David McCauley, Ph.D.  
Chief-of-Party, IRG  
Sr. Advisor to NAREPP

U. Sapukotana  
Consultant  
Ministry of Transports, Housing, and Women's Affairs

Nissanka Perera  
Senior Engineer  
Coast Conservation Department

Steven Claborne  
Asst. Representative  
The Asia Foundation

Mr. Jayantha  
The Asia Foundation

**9/28**  
**Colombo**

R.A.D.B. Samaranayake  
Planning Manager  
Coast Conservation Department

B.S. Kahawita  
Director of Coast Conservation  
Coast Conservation Department

Dr. M.U. Jayasekara  
Director General  
National Aquatic Resources Agency

NARA Staff:  
Dr. Pauline Dayaratne  
Dr. Jayakody  
Dr. Padmini de Alwis  
Arjan Rajasuriya

Siri E. Goonewardene  
Executive Director  
Coral Sands Hotel, Hikkaduwa  
Director of Hoteliers Association

Mr. Watuwitige  
IMMI

Kamalini Balasriya  
USAID Housing Advisor

**9/28**  
**Hikkaduwa**

Mr. Haryatna  
Assistant Divisional Secretary  
(Head of SAM Coordinating Committee)

CRMP Staff:  
W.M. Karunaratne Barida  
Mr. Fernandes

Gunatilaka Tantrigama  
Economist, Dept. of Business Administration  
University of Sri Jayawardenepura

Glass-bottom boat owners:  
Gamini Senanayake  
Approx. 15 others

Fisheries Cooperative Members  
Approx. 6 members

**9/30**  
**Tangalle**

Mr. Tissa  
CRMP

Mr. Siripala  
Assistant Director of Planning  
Tangalle Divisional Secretariat

Mr. Sirising  
Assistant Director of Planning  
Tangalle Divisional Secretariat

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SAM committee members:

Mr. Amarasiti, teacher & lime kiln operator

M.M. Rinjit, Farmer's Association

2 Lime Kiln operators and family members

Ms. Shanti, Secretary, Madala Fishing Cooperative, Rekawa

Bill Foerdoer

Office of Economic Development

USAID, and

Care for the Wild's Turtle Conservation Project

**10/3**

**Bangkok**

Julie Otterbein

Director,

Regional Housing and Urban Development Office

USAID

Kamol Chantanumate

advisor

USAID

**10/4**

**Bangkok**

Ampa Pintukanok

Dir., Subdivision of Marine and Coastal Resources

Office of Environmental Planning and Policy

Ramate Sukpum

Subdivision of Marine and Coastal Resources

Office of Environmental Planning and Policy

Sunthad Somchevita

Secretary General

Office of Environmental Planning and Policy

**10/5**

**Bangkok**

Suraphol Sudara, Ph.D.

Dept. of Marine Science

Chulalongkorn University

Kassem Srinian  
former USAID project officer

**10/6**

**Hat Yai**

Somsak Boromthanarat, Ph.D.  
Director  
Coastal Resources Institute  
Prince of Songkla University

Wichai Pantanahiran, Ph.D.  
Bussabong Chaijaroenwantana  
Coastal Resources Institute  
Prince of Songkla University

Boonsom Sirsbumrungsukha  
Vice President for International Relations  
Prince of Songkla University

Siripongse Sribhibhadh  
President  
Prince of Songkla University

**10/7**

**Phuket**

Sombat Poovachiranon  
Fisheries specialist  
Phuket Marine Biological Center

Nalinee Thongtham  
Aquatic Science specialist  
Phuket Marine Biological Center

Ms. Karnchana Adulyanulosol  
Phuket Aquarium--Marine Mammals  
Phuket Marine Biological Center

**10/11**

**Bangkok**

Hansa Chansang, Ph.D.  
Director of Marine Ecology  
Phuket Marine Biological Center

10/6