Sustainable Coastal Communities and Ecosystems Program (SUCCESS)

A component of the Integrated Management of Coastal and Freshwater Systems Program (IMCAFS)

Year 2 Work Plan

October 1, 2005 – September 30, 2006

Leader with Associates Cooperative Agreement
for
Sustainable Coastal Communities and Ecosystems (SUCCESS)

A component of
The Integrated Management of Coastal and Freshwater Systems (IMCAFS)
Program

Year 2 Work Plan

October 1, 2005 – September 30, 2006

(Cooperative Agreement Number: EPP-A-00-04-00014-00)

A partnership between:

Coastal Resources Center
University of Rhode Island
and
United States Agency for International Development
Bureau for Economic Growth, Agriculture and Trade
Office of Natural Resource Management

In association with:

University of Hawaii Hilo, Pacific Aquaculture and Coastal Resources Center
Western Indian Ocean Marine Science Association (WIOMSA)
EcoCostas
Universidad Centro America
and
Conservation International
The Nature Conservancy
World Wildlife Fund
The Sea Grant Network

Contact Information:

Brian Crawford
SUCCESS Program Director
Coastal Resources Center
University of Rhode Island
220 South Ferry Rd
Narragansett RI 02882 USA
Tel: 401-874-6225
Fax: 401-789-4670
Email: brian@crc.uri.edu
Web: www.crc.uri.edu

Maria Haws
SUCCESS Deputy Director
University of Hawaii Hilo, Pacific
Aquaculture and Coastal Resources Center
Email: haws@aol.com
Tel: 808-933-0707
Fax: 808-933-0704

Julius Francis
Executive Director
Western Indian Ocean Marine Science
Association (WIOMSA)
Email: julius@wiomsa.org

Emilio Ochoa
Executive Director
EcoCostas
Email: emilio@espoltel.net

Agnes Saborio-Coze
Director
Centro de Investigación de Ecosistemas
Acuáticos (CIDEA)
Universidad Centro America
Email: agnes@nxs.uca.edu.ni

Richard Volk
Cognizant Technical Officer
United States Agency for International
Development
Bureau for Economic Growth, Agriculture
and Trade
Office of Natural Resource Management
Tel: 202-712-5373
Email: Rvolk@USAID.gov

Lesley Squillante
SUCCESS Deputy Director
Coastal Resources Center
University of Rhode Island
220 South Ferry Rd
Narragansett RI 02882 USA
Tel: 401-874-6489
Fax: 401-789-4670
Email: Lsquill@gso.uri.edu
Web: www.crc.uri.edu

Monique Derfuss
Conservation International
Email: m.derfuss@conservation.org

Larry Hausman
The Nature Conservancy
Email: lhausman@tnc.org

Kate Newman
World Wildlife Fund
Email: katenewman@wwfus.org

Barry Costa Pierce
The Sea Grant Network
Email: bcp@gso.uri.edu

Table of Contents

# I.	Introduction

On September 30, 2004, the University of Rhode Island (URI) was awarded a United States Agency for International Development (USAID) Leader with Associates (LWA) Cooperative Agreement in Coastal Management, Fisheries and Aquaculture for a five-year program with core annual funding of $750,000. This is *the Sustainable Coastal Communities and Ecosystems* (SUCCESS) Program.

The Coastal Resources Center (CRC) at the URI is the Leader of this Agreement. The Pacific Aquaculture and Coastal Resources Center at the University of Hawaii (PACRC/UHH) is the sub-recipient. The Program's strategic partners are the Sea Grant Association of Universities, through the Rhode Island Sea Grant College Program; the Nature Conservancy (TNC); World Wildlife Fund (WWF); and Conservation International (CI). Regionally, the partners include the Western Indian Ocean Marine Science Association (WIOMSA) based in Zanzibar, Tanzania; the University of Central America (UCA) based in Nicaragua; and EcoCostas, a non-governmental organization (NGO) based in Ecuador.

The Program's overarching goal is to help the people of a place improve both their quality of life (health, income, education) and their physical environment through good governance. The Program has four major components.

1. Achieving Tangible On-the-Ground Results
2. Increasing Capacity through Training Linked to On-the-Ground Activities
3. Establishing Regional Learning Networks Supported by Effective Knowledge Management
4. Applying Science to Management and Good Governance

In each region where the LWA Program operates, these components come together to make a coherent, mutually re-enforcing set of strategies. These strategies ensure that community-based demonstrations of successful natural resources governance are connected to supporting actions and policies at the provincial, national and regional scales. This integrating, cross-sectoral and multi-scaled approach has proven to be adaptable to a very wide range of settings.

In addition to these four primary Program elements, we are working to promote US global leadership in ICM by advocating internationally for sound coastal governance and a stewardship ethic within coastal ecosystems. Further, the SUCCESS Program integrates across a number of cross-cutting themes including:

● Partnerships and alliances
● Gender mainstreaming
● Nested governance structures
● Health and HIV/AIDS
● Volunteers for Prosperity

These topics are highlighted in various USAID policies, and are topics in which CRC and its partners have developed skills and experience.

This Year 2 workplan covers work activities that will be implemented between October 1, 2005 and September 30, 2006. It lists by Program element the accomplishments achieved relative to the goals and objectives programmed in the first year and maps out the key objectives and tasks

for this second year. It describes the management structure for implementation of the work, key management issues, challenges and constraints that were faced while implementing the Program in the first year and adjustments made in our strategy. It also includes a brief description of the SUCCESS Associate Award focusing on tsunami rehabilitation in one district of Thailand, and the rebuilding of sustainable livelihoods for those affected from the disaster. The Performance Monitoring Plan (PMP) is included as Annex A of the workplan. It lays out the Program's logical framework, monitoring and reporting procedures, and describes indicators and targets (annual and Life-of-Project) for each category of result.

Program Strategic Context

The Development Challenge

Coastal regions (coastal watersheds, their associated estuaries and inshore marine waters) are where human populations and their supporting infrastructure are increasingly concentrated. Here, the major development challenge is the absence of resilient governance institutions capable of effectively and efficiently addressing the many inter-related issues central to the forging of sustainable forms of development and ecosystem health. Such institutions must be capable of implementing the planning and decision-making structures that are sustained over the long-term and that operate as nested systems that link actions at the community level with similar actions at the scale of a province, nation and region. While the number of governance initiatives addressing coastal issues more than doubled in the decade following the Rio Conference in 1993, their impacts are modest. The challenge today is to work with existing programs, and launch new ones that:

- More clearly define their goals
- Attach greater importance to strengthening institutional capacity
- Place greater emphasis on partnership, participation and ownership in programming external assistance
- Produce tangible socioeconomic results in the short-term to assist in building constituency and political support
- Pay more attention to absorptive capacity constraints
- Improve donor coordination

These are the necessary features of aid highlighted in the recent USAID White Paper on its development challenges[1].

The priority issues that must be addressed through long-term governance processes in the coastal regions of developing nations are remarkably constant:

- Poverty
- Efficient use and equitable allocation of fresh water
- Optimizing the sustained contributions of estuarine and marine ecosystems to food security
- Promoting justice, transparency and accountability in public and private institutions
- Achieving greater equity, including gender equity

---

[1] US Foreign Aid: Meeting the Challenges of the Twenty-first Century. Bureau for Policy and Program Coordination, U.S. Agency for International Development. January 2004.

- Improving quality of life of coastal people including health improvements by combating HIV/AIDS

Since the inter-relationships among these issues are complex and occur in a context of constant change, it is essential that governance systems practice adaptive management.

USAID Strategic Interests

USAID has stated that "development progress is first and foremost a function of commitment and political will directed at ruling justly, promoting economic freedom, and investing in people" (USAID, 2004). The SUCCESS Program is constructed around this fundamental truth and therefore places the establishment of flexible and resilient governance systems at the core of all of its work. In SUCCESS, the central challenge is to create sufficient governance capacity at a suite of interconnected spatial scales to sustain forward progress towards unambiguous coastal management goals. These goals are defined with the people of the places and respond to their values, their needs and how they believe the principles of democracy must be adapted to their culture and heritage.

Development Hypotheses

Nearly three decades of experience in a wide diversity of settings has convinced CRC and its partners that the design, administration and evaluation of coastal governance initiatives in all settings is made more efficient and transparent when structured within the Orders of Outcomes framework[2].

As illustrated by Figure 1, the ultimate goals of coastal management are (1) healthy, productive ecosystems, (2) an acceptable quality of life for their associated human populations, and (3) a governance system that is equitable, transparent and just. These are defined as Third Order outcomes and must be defined in specific terms for a specific locale. Sustained progress towards Third Order goals requires first creating the necessary enabling conditions (the First Order) and then implementing a plan of action (the Second Order). The Second Order is signaled by specified changes in the behavior of user groups, relevant institutions and – often making the necessary investments in infrastructure. Attainment of Third Order goals in human-dominated, typically stressed coastal ecosystems at the large scale (thousands of square kilometers) typically requires decades of sustained effort[3]. Third Order goals have been documented at the community scale (ten to hundreds of square kilometers) within the span of three to ten years. Verifying and refining the Orders of Outcome framework requires probing a set of hypotheses that include:

- The practice of *adaptive* governance requires documenting change on topics of central importance to the initiative as this relates to a governance baseline. Our premise is that preparing such *governance baselines* is an efficient strategy for assessing the existing capacity and for framing goals in terms that reflect the heritage of a place. Such baselines

---

[2] See: Olsen, S.B. 2004. The orders of outcome in integrated coastal management: A framework of progress markers to more sustainable forms of coastal development. Sea Technology. pp. 41- 46. and; Olsen, S.B. Editor. 2003. Crafting Coastal Governance in a Changing World. University of Rhode Island, Coastal Resources Center, Narragansett, RI. USA.

[3] Olsen, S.B. and D. Nickerson. 2003. The Governance of Coastal Ecosystems at the Regional Scale: An Analysis of the Strategies and Outcomes of Long-Term Programs. Coastal Management Report #2243. University of Rhode Island Coastal Resources Center. Narragansett, RI.

must document the status of the Third Order variables that will subsequently be used to assess progress towards the goals of an initiative.
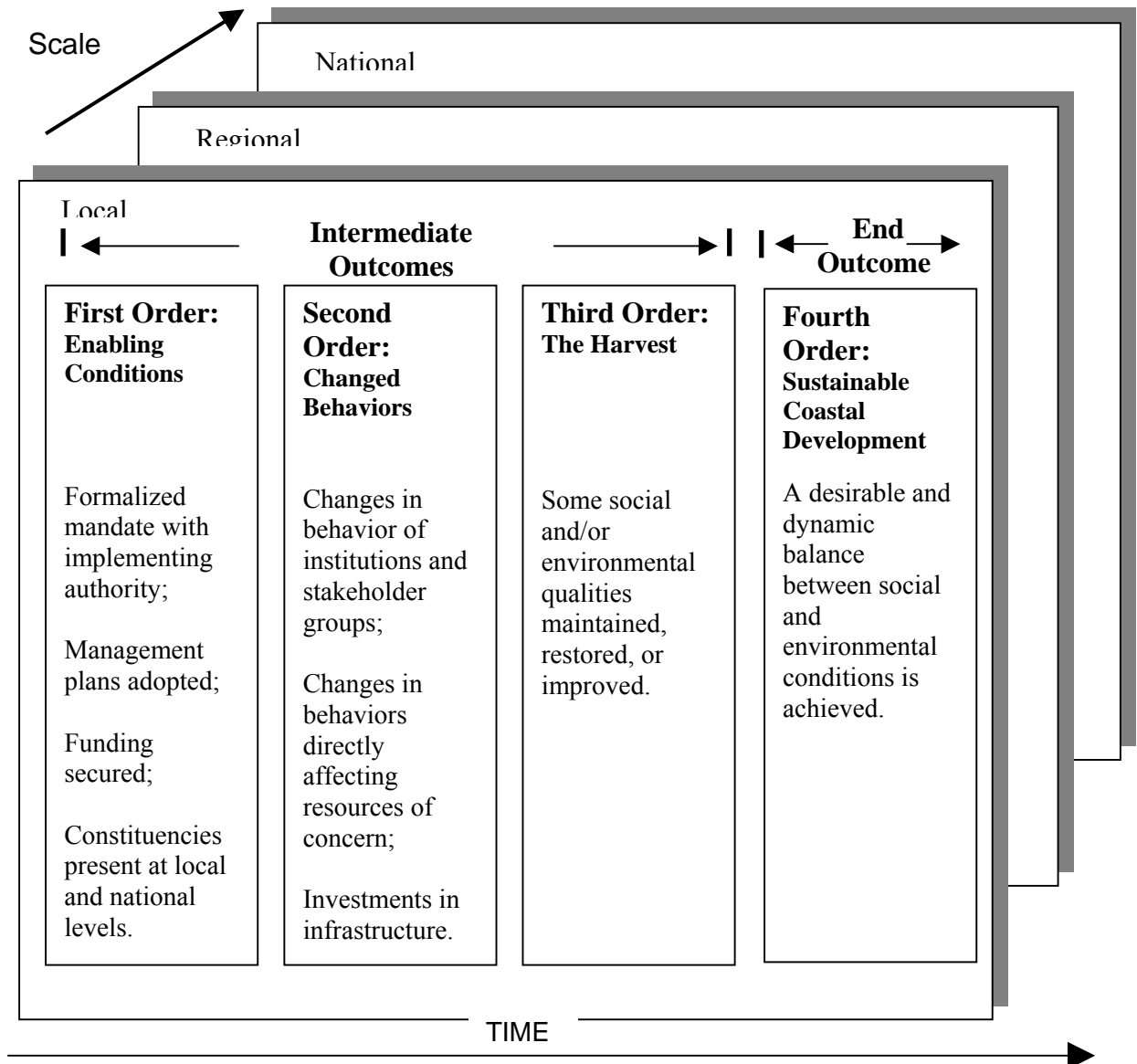
Figure 1: The Orders of Outcomes Framework

- In young programs, our hypothesis is that the first threshold of achievement requires assembling *all* the enabling conditions (unambiguous goals, commitment to a course of action, capacity to implement and constituencies that support the program). An associated premise is that early actions that demonstrate tangible benefits of the program's approach are crucial to sustained progress[4]. When framed in this manner, First Order outcomes require a

---

[4] Christie, P., K. Lowry, A.T. White, E.G. Oracion, L. Sievanen, R.S. Pomeroy, R.B. Pollnac, J.M. Patlis and R.L.V. Eisma. 2005. Key findings from a multidisciplinary examination of integrated coastal management process sustainability. *Ocean and Coastal Management* 48: 468-483.

highly participatory approach to governance that addresses issues of equity, transparency, corruption and efficiency in the planning and decision-making process.

- A third hypothesis is that sustained progress can be achieved only if a governance system is constructed from the outset as a *nested system* in which the approach and actions are reflected across a range of spatial scales that link a coastal community to supportive policies and procedures at the national scale. The importance of institutional frameworks was recently identified as an important factor promoting sustainability of coastal management programs[4].

- Finally, the SUCCESS Program is predicated on the assumption that sufficient experience now exists in the practice of effective and equitable coastal governance that makes it necessary to invest in the codification of good practices and their dissemination through networks of well trained extensionists grounded in the culture of a region.

Program Description

The hallmark of this Program is active engagement with coastal people at the grass roots level. CRC and its partners believe that if the needs of coastal people are to be met in a rapidly changing world, it is essential to create a network of institutions in the regions where SUCCESS operates that have the knowledge and skills to analyze problems and opportunities, develop the tools and practices that respond to priority issues and then widely disseminate them. The SUCCESS Program applies the Sea Grant model for building institutions that link extension with applied research and education. The aim is to create in each region where SUCCESS operates, a permanent capacity-building resource that responds to the needs of its coastal ecosystems and the human populations they contain.

Summary of Overall Expected Results

The Program's overarching goal is to help the people of a place improve both their quality of life (health, income, education) and their physical environment through good governance. SUCCESS will apply a mechanism for developing and refining innovative approaches and new models for addressing the complex issues posed by the urgent needs for both development and conservation in coastal ecosystems. SUCCESS hopes to play a catalytic role through modest field programs, linked to regional networks of practitioners and linked series of training courses that will demonstrate the benefits of integrated approaches to coastal governance. Four interlocking components of the Program will deliver a coherent capacity-building program aimed at institutions operating at a range of spatial scales, starting at the program field sites.

1. The first "layer" of the SUCCESS design is a global network of incubators, grouped by region, that are serving as living demonstrations of the benefits of just governance and the effective application of coastal stewardship practices. These incubators will initially operate at the community scale where they will demonstrate and document the benefits of applying a suite of actions that together can generate, at a small scale, the Third Order outcomes of improved quality of life in the context of healthy ecosystems. The incubators will be placed in a wide diversity of settings in Latin America (LA) and East Africa (EA). All incubators will be working to apply and refine known good practices in coastal land use and livelihoods, including (but not limited to) fisheries, mariculture and tourism.

2. The second "layer" is the regional networks of coastal management practitioners that draw together the many ongoing, but typically isolated, projects and programs in the two regions. Projects and programs will be invited to participate in the networks if they have attained sufficient maturity to offer insights on "what works, what doesn't and why" within their setting. Participating programs will be requested to generate governance baselines that organize their past experience and future aspirations in a common format using standardized terms. This will be the basis of a knowledge management system available to all members of the network.

3. A series of linked training courses will be offered in each priority region and countries that brings together practitioners at the incubator sites with participants in the regional network. Completing a sequence of courses and demonstrations of professional competence will be the basis for certification. Courses will have a strong learning-by-doing theme and will be conducted at one of the field sites that are conducting pertinent activities.

4. The research undertaken through SUCCESS will be directed primarily at better understanding the linkages and interdependencies between the actions associated with the different Orders of Outcomes and probing how sustained progress is influenced by the conditions that are present in a given locale.

In the regions where the SUCCESS Program operates, these components come together as a coherent, mutually reinforcing set of strategies. The approaches developed and refined through SUCCESS are designed for replication in other USAID coastal countries after adaptation for differences in the context, scale, complexity, and governance capacity in a specific locale.

Key Principles and Approaches Employed

- The *values that underpin coastal governance* — participation, transparency, accountability, equity and involvement of marginalized groups — are essential to building constituencies.
- *Government commitment*, including provision of human and financial resources, is essential to successful, long-term coastal governance in any place.
- *Pilot projects* can catalyze the enabling conditions and behavioral changes that, when sustained, can produce a harvest of improved societal and environmental conditions.
- Successful programs *set clear, unambiguous goals* for the social and environmental outcomes that the Program is working to achieve.
- *Individual and institutional capacity* is the foundation for translating the principles of coastal stewardship and participatory democracy into an operational reality.
- *Good practices* – refined and adapted to the needs of the place – must guide the actions, and linkages among actions, that bridge planning and implementation.
- *Improved human well being* is inextricably linked to the health of coastal ecosystems.
- A *nested governance system*—where management power and responsibility is shared across scales and throughout a hierarchy of management institutions to address the cross-scale nature and complexity of management issues—is essential to success.
- ICM must address *social and environmental change in ecosystems* and link the impacts of watershed activities to processes in estuaries and along the coastlines.
- It is time to *codify how best to achieve the changes in values and behaviors* that are essential to the practice of coastal stewardship.

Technical Program Elements and Life-of-Program Results

On- the- Ground Results

The incubator sites have been selected because of their on-going efforts to apply and refine good practices at the community scale. At these sites in Nicaragua, Ecuador and Tanzania, SUCCESS will emphasize tangible actions that demonstrate the benefits of applying selected ICM practices to community development, mariculture and fisheries. Once an initial threshold of First Order enabling conditions are in place in these communities, the SUCCESS Program expects to see and measure in its five years:

● Local capacity at the district or municipal level is sufficient to sustain implementation of ICM district action plans, including monitoring, evaluation and adaptive management as evidence that Second Order outcomes are being achieved.
● Local capacity at the community level is sufficient to see Second and Third Order outcomes including, for example, monitoring and surveillance of nearshore fisheries resources, and adoption of more participatory planning and decision-making procedures at the community level.
● Sustainable natural resource-based, small-scale enterprises in mariculture, fisheries or tourism are benefiting local households.
● Good practices are being applied to shorefront development and sanitation.
● Progress is being documented towards a permanent nested system of governance that can sustain the enabling conditions that catalyze on-the-ground results.
● A core group of community ICM extension agents is established.
● A community of local ICM practitioners is practicing active learning and adaptive management in program implementation.

While the above mentioned Life-of-Program results apply generally across all three of the field sites selected, more detailed Life-of-Program results for each site have been identified during Year 1 as part of initial phase of workplan activities. This required careful scoping of the local context and capacity of local partners to carry out the work. In addition, it was undertaken in a participatory manner with the local partners at each site. As a result of this process, initial 18-month operational plans were prepared and approved for each country site.

Within each country, activities span more than one site. In Tanzania, we are working in the village of Fumba on Zanzibar Island located within the Menai Bay Marine Conservation Area, as well as in the districts of Mkuranga and Bagamoyo on several mariculture and resources management initiatives. In Ecuador, we are working in several villages within the Cojimies estuary and less intensively in the town of Manta. In Nicaragua, activities span the Padre Ramos estuary and Estero Real. Quantitative targets were set for the Life- of -Program at each site and this is reflected in the program results framework and detailed performance monitoring and reporting plan attached as Annex A. For more background information on each site and specific tasks, see Section III.

Training

Training agendas are tailored to the needs of the place as defined through activities at the community level and by the regional networks of ICM practitioners. In the initial year, the courses were targeted at a core group of professionals working at the on-the-ground field sites

with open enrollment for a limited number of participants from each region. A central purpose of the training program is to widely disseminate and apply ICM good practices that are now known and to create multidisciplinary teams of extension agents with the knowledge and skills required to apply such practices in a diversity of settings. SUCCESS will also work to create the larger institutional context for the next generation of practitioners at universities, and within selected governmental institutions and nongovernmental organizations (NGOs).

Specifically this element of the SUCCESS Program will deliver the following over the Life -of - Program:

- A series of at least 10 regional training courses are implemented in the two regions (LA and EA) on a range of topics including ICM, mariculture and fisheries for at least 200 participants.
- Curriculum materials and extension bulletins on at least five topics in ICM, mariculture and fisheries are written and published in both English and Spanish (and Kiswahili as appropriate), with content that draws from the regional training courses. These materials are accessible as both hard copy documents and electronically through the CRC knowledge management system (described below).
- At least two institutions in each region are made capable of sustaining regional training initiatives after the SUCCESS Program concludes.
- Partner regional institutions have a full-time, experienced capacity building specialist on staff who is leading – vs. co-leading, as initially will be the case – the regional training effort.
- A cadre of at least six regional trainers has been established in each region and is actively participating in the design and delivery of the suite of courses.
- There is a certification program that is endorsed by multiple agencies in both regions and which has at least 10 individuals (between the two regions) who have either received or are in the process of receiving their certification.

The capacity building effort is designed as a sequence of inter-connected training courses. Initial courses covered the basics of ICM practice and how to "do" good extension. Subsequent sessions will build sophisticated skills in practices identified by the regional networks as those needed to address specific topics of concern/interest for the field sites. Successful completion of the full suite of training courses qualifies participants for ICM certification. This certification would be issued in the name of the CRC, EcoCostas, WIOMSA Partnership with endorsements from respected national and regional agencies, NGOs, universities and private sector companies. Where possible, links will be made to larger professional certification programs and to international organizations and university degree programs. A feature of the training component is a strong learning-by-doing theme. Throughout the suite of courses, trainees will undertake and report on early actions at their home sites and will share the experiences and lessons learned as they apply the skills and practices from the training to their work on-the-ground.

Regional Networks and Knowledge Management

ICM programs and practitioners are often isolated from other efforts in their own country and unaware of programs elsewhere in their region. Information of practical usefulness to ICM practitioners is often hard to obtain. The result is that programs often reinvent the wheel, or worse, repeat mistakes that others have learned to avoid. This is inefficient and breeds frustration and cynicism. Program success is higher when practitioners have ready access to the information they need and when they participate as members of regional associations of peers. We believe

therefore, that the regional networks organized by this LWA will accelerate the rate of and improve the probability of program success. They feature peer-to-peer exchanges and peer assessments, sustained collaborative learning and action among network participants in a given region and globally.

The SUCCESS knowledge management (KM) components are designed as web-based layered systems that are demand-driven and designed to assist in problem-solving and the dissemination of good practices on a wide range of coastal ecosystem governance topics. They combine face-to-face interactions with web-based materials. The networks' knowledge management elements provide for documenting, archiving and making available the Program's working and final documents in a variety of formats. Documentation is supported by electronic services including internal and external websites, CD-ROMs, and electronic collaborative workspaces for Program teams. CRC uses open source servers and software and a database-driven system for its public and restricted-access websites. This allows Program teams to upload and manage their own content, permitting information services to focus on maintaining core systems, data bases and programming that meet the needs of different work groups. This approach is low cost, flexible and readily extensible.

Specifically, the SUCCESS Program will put primary emphasis on building web-based KM systems for the two regional networks and promoting creation of Sea Grant-like programs. SUCCESS Program resources are too small to support regional meetings of practitioners – an essential complement to a web-based system. Funding for such events are a priority target for leveraged funding and program alliances. This is already occurring through the Avina-supported Latin American Network for Collective Action and Learning for the Governance of Coastal Ecosystems. Specifically we expect the Program to:

- Collaborate with, or establish, not less than two regional networks of ICM practitioners with parallel agendas for collaborative learning and action;
- Establish and maintain two functional web-based KM systems – one in Latin America operating in Spanish and a second in East Africa operating in English with Kiswahili sub-elements;
- Encourage peer to peer exchanges and collaboration;
- Build Sea Grant-like programs of linked programs in education, extension and research at selected universities in the two regions linked specifically to the on-the-ground field initiatives, and;
- Provide easy access to documentation of tangible expressions of the successful application of ICM in specific geographic locales.

Science for Management

The wealth of scientific information available to coastal managers in the U.S. is not present in most developing countries. Where scientific capacity does exist, too often it is not applied to planning and decision-making on natural resource issues. The SUCCESS Program seeks to strengthen this link and thereby increase understanding of the relationships between human activities and the condition of the coastal environment and its resources. The focus is on applying and analyzing the conditions and the practices that contribute to effectively linking among the three Orders of Outcomes as nested coastal governance systems emerge at the incubator sites and across the two regions. A second priority is to apply and refine simple and robust techniques for forecasting the impacts upon estuaries of changes to the quality, quantity and pulsing of fresh

water inflows. The science for management program element is not seen as a series of stand-alone activities but is integrated into all aspects of SUCCESS, particularly with the on-the-ground field sites, knowledge management as well as monitoring and evaluation.

Specifically, the SUCCESS Program anticipates that after five years:

- Local stakeholders will be generating baselines and implementing goal-based monitoring of social and environmental variables as the basis for assessing progress toward stated ICM goals.
- Good practices in ecosystem-based fisheries and aquaculture are being applied and their impacts are being documented at the community scale.
- Testing and refining governance hypotheses that underlie the Program will codify the knowledge that emerges from field programs and strengthen emerging good practices.
- Techniques for forecasting change within estuaries are being applied in several sites and are influencing planning and decision-making within watersheds.

Global Leadership

CRC and its partners will continue to play an active role in advocating globally for sound coastal governance and a stewardship ethic within coastal ecosystems. On-the-ground field sites will serve as tangible demonstrations and examples of how ICM can and should be carried out successfully. The regional networks in themselves provide important fora for promoting collaborative approaches to learning and action. The experience and energy generated by SUCCESS will be showcased in appropriate regional and global events. Linkages to the global Millennium Goals will be drawn. Major findings and conclusions will be reported in appropriate journals and more popular media. The CRC Director is a member of the Science Steering Committee of the Land-Ocean Interface in the Coastal Zone (LOICZ) program of the International Biosphere Geosphere Program that, in its second decade, will be working to link the latest coastal research to policy-making and coastal management. CRC is also an active participant in such United Nations-sponsored programs as the United Nations Educational Scientific and Cultural Organization (UNESCO) International Oceanographic Commission and the Global Plan of Action on Land Based Sources of Pollution. In all these venues, CRC and its partners will be advocating for the pragmatic and learning-based approach to coastal governance that lies at the core of the SUCCESS Program.

Cross Cutting Program Elements

A priority set of cross cutting issues link across the incubator sites, the regional networks and the training courses. These common themes are as follows:

- Partnerships and alliances
- Gender mainstreaming
- Nested governance structures and procedures
- Health and HIV/AIDS
- Livelihoods and Economic Growth

These themes give substance to the integrated approach to development challenges that is the hallmark of the SUCCESS Program. They are topics that are highlighted as important in recent

statements of USAID policy and are all topics in which CRC and its partners have developed skills and experience in recent years.

Volunteers for Prosperity

By the end of the Program, the volunteer program element would expect to see that U.S. professionals have offered technical assistance to various aspects of the Program and its clients, including field assignments in the countries and regions where the Program works. We expect that such assignments will be for an average of two to four weeks in Nicaragua, Tanzania or Ecuador, or in areas where regional training courses are implemented. Assignments to other countries would be determined based on the origin of the Associate Awards. The anticipated total per person level of effort would be 70 hours to 160 hours depending upon the nature of the assignment and the length of stay of the volunteer.

- At the end of five years, CRC will have provided international opportunities to at least 10 US professionals to work on-site on technical elements of the SUCCESS program.
- Volunteer opportunities will be initiated and coordinated through the Leader with Associates Award on a small scale and will grow in volunteer numbers as Associate awards are received by CRC.

II.   The Program Results Framework

The SUCCESS Program will use its Program Results Framework (Fig. 2) as a basis for tracking progress and performance across its Life-of-Program Results.
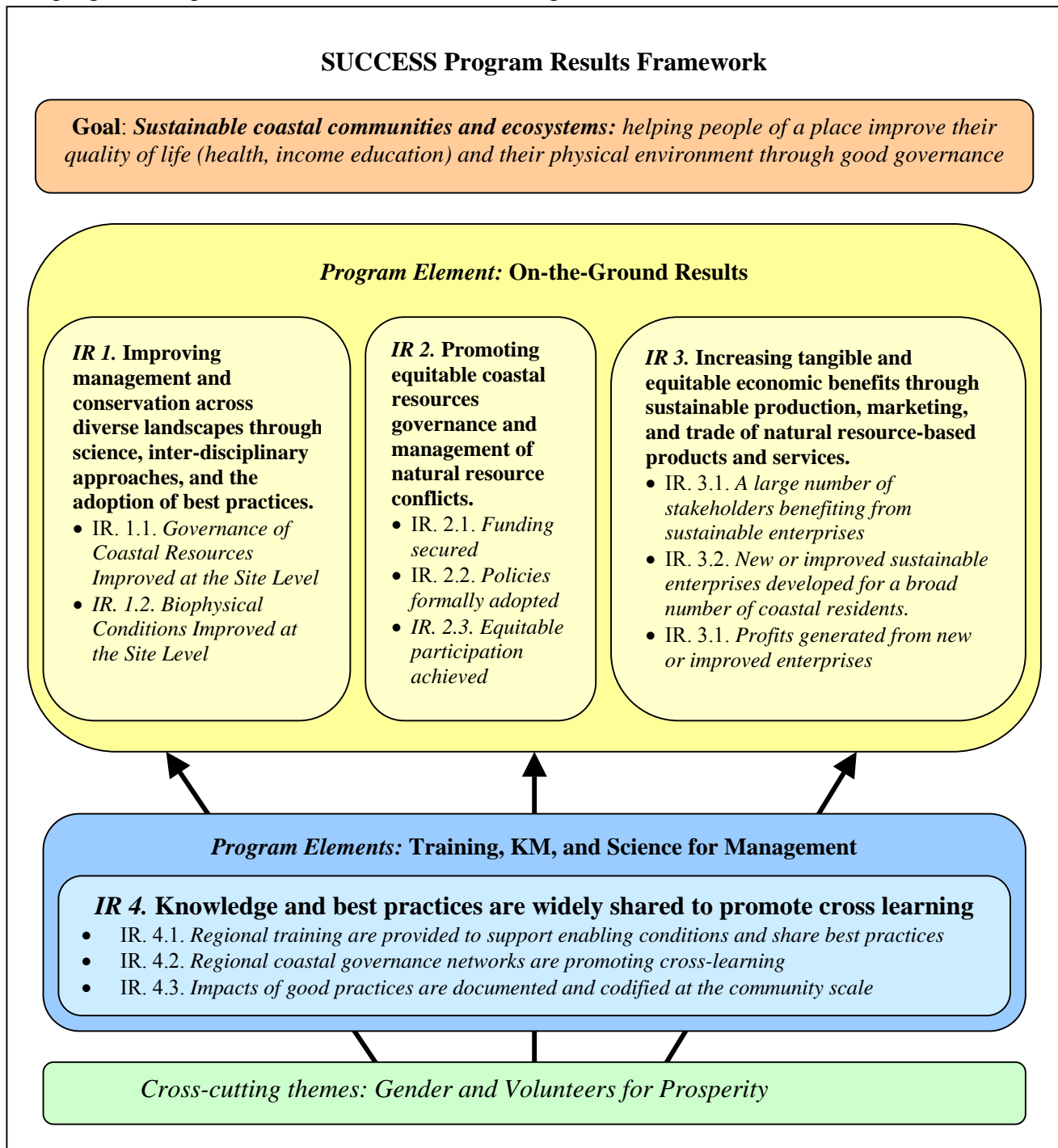
SUCCESS Program Results Framework

Goal: *Sustainable coastal communities and ecosystems: helping people of a place improve their quality of life (health, income education) and their physical environment through good governance*

Program Element: **On-the-Ground Results**

IR 1. **Improving management and conservation across diverse landscapes through science, inter-disciplinary approaches, and the adoption of best practices.**
- IR. 1.1. *Governance of Coastal Resources Improved at the Site Level*
- IR. 1.2. *Biophysical Conditions Improved at the Site Level*

IR 2. **Promoting equitable coastal resources governance and management of natural resource conflicts.**
- IR. 2.1. *Funding secured*
- IR. 2.2. *Policies formally adopted*
- IR. 2.3. *Equitable participation achieved*

IR 3. **Increasing tangible and equitable economic benefits through sustainable production, marketing, and trade of natural resource-based products and services.**
- IR. 3.1. *A large number of stakeholders benefiting from sustainable enterprises*
- IR. 3.2. *New or improved sustainable enterprises developed for a broad number of coastal residents.*
- IR. 3.1. *Profits generated from new or improved enterprises*

Program Elements: **Training, KM, and Science for Management**

IR 4. **Knowledge and best practices are widely shared to promote cross learning**
- IR. 4.1. *Regional training are provided to support enabling conditions and share best practices*
- IR. 4.2. *Regional coastal governance networks are promoting cross-learning*
- IR. 4.3. *Impacts of good practices are documented and codified at the community scale*

Cross-cutting themes: Gender and Volunteers for Prosperity

Figure 2. The SUCCESS Program Results Framework

The SUCCESS Program Results Framework guides our planning and program management. It consists of the Program Goal, Intermediate Results (IRs), and indicators (with associated performance targets) which span the four major program elements of SUCCESS. The SUCCESS

Results Framework mirrors the USAID Results Framework. Activities carried out through the SUCCESS Program will feed into the overall USAID Results Framework, and will track selected USAID indicators. The complete Results Framework, with indicators and associate performance targets are presented in the Performance Monitoring Plan (PMP), Annex A.

III.   Year 2 Activities

A. On-The-Ground Results: **Year 2 Budget: $480,952**

In Tanzania

Task No. A.1. Equitable livelihood development through mariculture and community-based resource management

Scale of intervention: District level
Lead Implementing Organization: TCMP/WIOMSA
Other Partnering Organizations: Institute of Marine Science, University of Dar es Salaam
Activity Coordinator: Aviti Mmochi
US Liaison: Brian Crawford

Accomplishments to Date

Background: The need to better manage Tanzania's coastal ecosystems and conserve marine biodiversity is urgent. The nation's 1,424 kilometers of coastline include important bio-diverse assets such as estuaries, watersheds, mangrove forests, beaches, coral reefs and seagrass beds and rare species of wildlife – all of which are threatened. Pressures include increasing populations, widespread poverty, poorly planned economic development, under-resourced government institutions, and weak implementation of existing policies and laws. Within this already-challenging context, it becomes increasingly difficult to improve coastal resources management and to improve the quality of life for coastal people when growing numbers of Tanzania's coastal population are HIV positive and when a lack of gender equity permeates coastal resource-based enterprises. Yet against this backdrop, Tanzania has made substantial progress in developing the enabling conditions for sustainable management and conservation of its coastal resources.

One of the more significant milestones in Tanzania was approval of the National Integrated Coastal Environment Management Strategy (ICEMS), adopted in 2002 by the Tanzania cabinet. There have been a number of supporting policies and strategies developed in the last several years as well. This includes best practice guidelines for mariculture, tourism, environmental monitoring and district action planning, and the seaweed development strategic plan. These policies help set the stage for sustainable economic development that can contribute to the government's objectives on poverty alleviation while ensuring environmentally sustainable development.

The national ICEMS and related policies and guidelines provide an overarching framework for implementation on the ground, and this process has begun. District action plans are being implemented – with support of the National Environmental Management Council (NEMC) and related national agencies – in Pangani, Bagamoyo and Mkuranga. District ICM committees have been formed to coordinate action plan implementation. In these districts, most of the enabling conditions necessary to achieve rapid progress on second and third order outcomes (changes in behaviors, social, economic and environmental improvements) are present. Implementation emphasizes activities such as collaborative fisheries management in addition to enterprise development opportunities linked to the coast's rich cultural heritage and natural resources. This includes development of small-scale enterprises in tourism and mariculture, among others.

The challenge now is how to harvest these investments and move from policy and planning to much-needed execution while connecting the national governance framework to local actions.

Continued and strong support for Tanzania's efforts in coastal management have come from the United States Agency for International Development (USAID). This includes the agency's support for development of the ICEMS, which calls for "*implementing the national environment policy and other policies in conserving, protecting and developing Tanzania's coast for use by present and future generations*". Since 1997, the Coastal Resources Center (CRC) at the University of Rhode Island (URI), has partnered with USAID and the National Environment Management Council to achieve a long-term goal to establish a sustainable ICM program in Tanzania – one that makes ICM the business of national level government and uses decentralized mechanisms at the district and local levels. These activities have been implemented through the Tanzania Coastal Management Partnership (TCMP), an institutional arrangement created by CRC/URI, USAID and NEMC and in 1997. CRC has also worked with WIOMSA previously on regional training programs in ICM funded through USAID/REDSO. CRC has also worked with other donors including the World Bank and private foundations - in mainland Tanzania as well as in Zanzibar on a number of coastal resources management initiatives. CRC's work continues to be supported by USAID with a new five-year cooperative agreement signed in September 2005. CRC was also awarded USAID Washington funding for a two-year, cross-sectoral program integrating HIV/AIDS, gender, and population dimensions into ICM district-level initiatives in Tanzania. This is called the PEACE Project. These two projects, along with small, complementary strategic interventions from SUCCESS, are helping to sustain CRC's long-term efforts in Tanzania to ensure that a national coastal management program is a permanent feature of the governance landscape in Tanzania

Currently, there are a number of other planned and on-going ICM initiatives along the mainland Tanzania coast that complement and support the implementation of the National ICEM Strategy. These initiatives include: Tanga Coastal Zone Conservation and Development Program; Kinondoni Integrated Coastal Area Management Project; Smallholder Empowerment and Economic Growth through Agribusiness and Association Development Project (SEEGAAD); Marine and Coastal Environment Management Project (MACEMP); Kinondoni Integrated Management Project; World Wildlife Fund (WWF) - Eastern African Marine Eco-region Program; Rufiji, Mafia, Kilwa Seascape Project (RUMAKI); and the Mangrove Management Project. The Marine Parks and Reserves Units (MPRU) with its existing Marine Reserves (of Maziwe and Dare Es Salaam) and Marine Parks of Mafia Island and Mnazi Bay and Ruvuma Estuary also contribute to the framework for marine and coastal resources management in Tanzania. In Zanzibar, MACEMP will also be active and is now in the initial start-up phase.

It is essential that activities carried out by the SUCCESS project are synergistic and complementary to these project initiatives and recognize that the coastal management governance and donor assistance landscape is quite advanced in Tanzania in comparison to the other SUCCESS field sites. In particular, SUCCESS is working in sites in Zanzibar and the mainland where there are overarching ICM policies in place and where local visioning and planning has already been carried out. Therefore, we do not have to start with a process of building a nested system of ICM governance as one already exists, albeit still weak.

While the SUCCESS Leader awardfunds are small in comparison to the other donor initiatives, we can be quite strategic with interventions that have a high likelihood of adoption and

replication or scaling-up by these other programs. In addition, the USAID Mission funded project will be revisiting the district action plans in 2006 and therefore, the SUCCESS Leader award can use this as an opportunity to revisit the district's vision and adjust activities accordingly, if necessary, rather than implementing a separate visioning activity. Therefore, we are concentrating on livelihood development through mariculture particularly in the mainland sites, since it is considered to have high potential but is still relatively undeveloped. Governance frameworks are well advanced in our selected districts and they have already identified mariculture as a priority.

In Zanzibar, the Menai Bay Conservation Area has a management plan but specific issues concerning wild shellfish harvests and culture are not specifically addressed. Therefore, our activities will need to be linked closely to the vision already set forth in this plan. This includes zones for example, grow out bivalve aquaculture as currently practiced in Fumba and many adjacent villages, and managing the wild harvest through small-scale – community-managed no-take.

In all cases we will demonstrate how mariculture development needs to be linked to other related management issues. For instance, ways to avoid use conflicts in Bagamoyo and protect wild brood stock harvests of bivalves in Zanzibar. An underlying premise to our efforts is that concentrating on economic and livelihood development mentioned above is not sufficient for sustainable development and management. Such efforts must be complemented with related resource management strategies to achieve dual objectives of improvements in both improvement in quality of life and improvement of the environment.

Links to USAID Mission Priorities: SUCCESS activities directly link to the USAID Tanzania Mission's strategic objective for improved resources management and conservation. SUCCESS activities in the Bagamoyo and Mkuranga districts directly support and link to implementation of district ICM action plans. In the Fumba, Zanzibar site, the Program is working with women within the Menai Bay Conservation Area on improved management of the wild harvest of bivalves. Another Mission focus is on ensuring that national policies are being implemented. Here too, SUCCESS is playing an important role – by assisting the sites/districts to make operational both the national mariculture guidelines and the national seaweed development strategy. The mariculture guidelines and seaweed strategy were developed with support of the USAID Tanzania Mission and contribute to the poverty alleviation and environmental management priorities of Tanzania. The SUCCESS Program links directly, as well, to the Mission's emphasis on livelihood development as the Program focuses on helping communities develop natural resources-based enterprises that will improve quality of life. This includes providing technical and business support services to groups of mariculture farmers on culture technology and post-harvest handling as well as providing advice on micro-financing, delivering training on entrepreneurship, and offering marketing assistance. In addition, the Program is helping partners develop strategies for how to utilize pilot demonstration farms to promote adoption of finfish, seaweed farming, and bivalve culture.

Year 1 Accomplishments: In February of 2005, four sites were selected in Tanzania for the SUCCESS Program – all involving mariculture activities. In the village of Fumba on Zanzibar, groups of women are collecting and growing in small impoundments several types of bivalves including pearl oysters and *Anadara sp.* clams. While most of this production is used for local consumption, some is sold. At this site, the Program is assisting with improving production systems and marketing. This includes a market survey to determine the viability of selling

bivalves to hotels, and construction of a small food kiosk on the beach where tourists arrive daily for excursions to island beaches. During year 1, we have also learned that the grow out impoundments are dependent on harvest of seedlings from wild stocks inside the Menai Bay Cconservation area, requiring us now to add on a wild harvest management strategy

The second site is in Bagamoyo district where a group of seaweed growers are establishing their own farms and market independently to seaweed buyers – thereby breaking the dependence on buyers for capital inputs for farming. The Program is working with this group to establish a pilot floating farm as an alternative to the off-bottom peg-and-line method that is plagued with problems of die-off and disease. Since they are growing *E. cottonii*, which is more environmentally sensitive, the floating farm in deeper water is expected to reduce disease problems and die-off. Deeper waters provide a more stable temperature and salinity regime that are thought to be the main causes of seaweed die-offs. The pilot farm has been constructed and seedlings set out on lines. Initial results indicate faster growth and more healthy seaweed than the traditional stake method. The Program has also provided a boat to assist the farmers in reaching deeper waters and for carrying seaweed back to land. SUCCESS has signed agreements with the farmers that 1) gives the farmers a boat and other production materials, and 2) agrees to allow SUCCESS to use the plot and farmer assistants for demonstration purposes.

The last two sites are in Mkuranga district where the Program is working with farmers on a demonstration tilapia farm and pilot milkfish pond. A team of two professional volunteers recently visited the milkfish farm and assisted with redesigning the pond layout and engineering. In July 2005, the first harvest of milkfish was made of 340 kg from an approximate 1 ha pond that was sold at a price of tsh 1142/kg (approx. $1/kg), demonstrating production capability as well as marketability of farm raised milkfish in Tanzania. At the tilapia site, the Program is assisting a farmer to obtain a wind-driven water-pumping system to reduce production costs and make the operation more economically viable. Local teams involved in providing extension services to all these sites participated in the first regional training course on mariculture extension. In addition to the country-specific workplans that were prepared for these sites in March 2005, each site was evaluated during the training course and updated action plans were prepared for each.

Governance baselines are under development for each of the above mentioned sites. This work was started in September 2005. Training on the baselining method was provided by the CRC monitoring and evaluation specialist in a small participatory session with the TCMP, PEACE and SUCCESS program managers and the Bagamoyo district ICM coordinator. Three baseline reports for each site are expected to be completed in the first quarter of Year 2. Lastly annual and Life-of-Program targets were set for each Program indicator in each field site.

Year 2 Task Description

An 18-month operational plan was prepared and approved in June of 2005. This plan will guide Year 2 activities. Already, on-the-ground experience is resulting in an evolution of strategy and some modifications to initial plans. The following description provides a summary of the key lessons and the primary activities for Year 2.

The main goal in the Tanzania field sites is livelihood development through expansion of household mariculture activities in coastal communities. The strategy to achieve this goal is to deliver an integrated package of extension services. This includes provision of technical and

business support services to groups of mariculture farmers on culture technology and post harvest handling as well as in the form of micro-financing, and training on entrepreneurship and marketing assistance. Strategies are also under development to utilize pilot demonstration farms to promote adoption of best practices in milkfish, seaweed farming, and bivalve culture more broadly than just in the current targeted communities.

Experience from Year 1 has also demonstrated the need to concentrate on selected resources management issues as well as on mariculture business development. For instance, in Fumba, the grow-out of bivalves on reef flats relies on wild harvests of source stock, which is declining in abundance. Therefore, managing the wild harvest is needed in order to sustain a source of bivalves for grow-out. Our strategy is to promote the adoption of Fiji-style Locally Managed Marine Areas (LMMAs) on selected reef flats adjacent to village harvest areas. In Bagamoyo, as elsewhere in Tanzania, the expansion of seaweed farms is resulting in maritime space conflicts with fishers. On-water zoning schemes are needed to reduce conflicts between resource users. In Mkuranga, interest in milkfish farming is increasing and it is critical to move carefully to ensure a good demonstration model farm is set up and available for training other farmers. In addition, we must ensure that milkfish farm expansion is conducted in an environmentally sustainable manner. Of particular concern is that pond sites are properly selected and constructed, and avoid any significant impacts on adjacent mangrove forests. Therefore, we will work with the local community on a sustainable mariculture development plan for the area, taking into account and applying the national mariculture guidelines.

The Program will coordinate closely with the USAID Mission in Tanzania. As previously mentioned. we are also linking to specific strategic objectives in the Mission in their strategic plan. The Program Director will keep the Mission appraised of Program activities through regular communications. The USAID Mission is regularly briefed and consulted concerning SUCCESS site-based activities and is supportive. The USAID Mission is informed of all international travel conducted by SUCCESS program staff and consultants, and staff has briefed the mission on program activities. The Mission will also be furnished with copies of semiannual and annual program reports and workplans.

Year 2 Task Objectives

In all of the following activities, strict attention will be paid to helping the mainland districts link their actions to the national ICEM strategy, and in Zanzibar in coordinating more closely with the Menai Bay Conservation Area management group. In the mainland sites of Bagamoyo and Mkuranga, all work will be coordinated closely with TCMP activities on district action planning and with the district ICM facilitators and fisheries officers. Specific objectives are to:

- Complete a governance profile including both a hindcast and a definition of future goals and strategies for each district.
- Assist the sites to prepare area-specific mariculture plans – a participatory seaweed and fisheries zoning scheme for the Mlingotini lagoon and a milkfish development strategy in Mpafu, Mkuranga.
- Start to establish a shellfish management plan for Menai bay – emphasizing Fiji-style no-take zones of selected reef flat areas in and around Fumba village.
- Deliver extension support services to seaweed farmers in Bagamoyo, concentrating on floating culture methods to preserve seed stock, and milkfish demonstration farms in Bagamoyo and Mkuranga.

- Document results from pilot demonstration farms for milkfish and seaweed farming and pilot half-pearl farming in Fumba, with an emphasis on the economics of production.
- Deliver extension support services to Tilapia farmers in Mkuranga including expansion of services from one to eight ponds, and training in unisexual stocking of tilapia and installation of windmills to assist with water pumping in the original pond.
- Expand the number of seaweed and milkfish farmers and establish additional farm sites, including a new milkfish farm in Bagamoyo.
- Develop a milkfish extension manual, which will be used in training during Year 3.

Tasks, Milestones and Schedule

Tasks and Milestones	Date
Monitor and analyze harvest results from tilapia, milkfish, bivalves, and seaweed in all sites	Continuous
Complete governance baselines	December, 2005
TDY of E Requintina for the regional training course (milkfish fry gathering and pond construction), follow-up on site selection, pond and gate design, and production management in Mkuranga, provide assistance to PEACE project for site selection in Biynui, and SUCCESS in Changwahela village)	December 2005
Conduct economic feasibility analysis of seaweed, milkfish and bivalve farming (TDY of Dr. Q. Fong, Univ. of Alaska Sea Grant)	December 2005
Develop and print an extension manual for milkfish	June 2006
Deliver national training on milkfish	August 2006
Fumba	
Expand number of villages involved in bivalve culture in Fumba from one to four.	September 2006
Open kiosk at Fumba in Menai Bay to business	November 2005
Redesign bivalve farms in Fumba including pilot half-pearl farming (TDY of M. Haws)	December 2005
Develop zoning plan for bivalve harvesting area in one village (Fumba) within Menai Bay	August 2006
Bagamoyo	
Initiate seaweed farming in Changwahela village, Bagamoyo	January 2006
Develop zoning plan for seaweed and fisheries in Mlingotini	July 2006
Mkuranga	
Provide extension support for tilapia farmers in Mkuranga on sexing methods	December 2005
Install windmills at tilapia farm	February 2006
Expand milkfish pond pilots to one additional site in Mkuranga	March 2006

In Nicaragua

Task No. A.2.   Equitable livelihood development through mariculture and improved estuarine management

Scale of intervention:	Municipality level
Lead Implementing Organization:	Centro de Investigación de Ecosistemas Acuáticos de Universidad Centro America (CIDEA – UCA).
Other Partnering Organizations:	The EcoCostas-CRC regional network for assistance in governance baselines and design/delivery of training courses; the Pacific Aquaculture and Coastal Resources Center at the University of Hawaii; the Sea Grant network as partners in the design and early delivery of a diversified mariculture strategy; Peace Corps and local NGOs for diversification of livelihoods and governmental institutions such as the Ministry of the Environment and Natural Resources (MARENA)
Activity Coordinator:	Agnes Saborio
U.S. Liaison:	Maria Haws

Accomplishments to Date

Background: The Center for Research and Development of Aquatic Ecosystems (CIDEA) is an operating unit within the University of Central America. It began as a five-year project, initially funded by the Japanese development agency, and has evolved into a professional center with several laboratories at the University and a field station at Puerto Morazan. CIDEA was able to raise approximately $1 million over the last four years to support activities on campus and in the Gulf of Fonseca. CIDEA also was a primary recipient of USAID post-Hurricane Mitch reconstruction funding and successfully implemented a Sea Grant extension initiative as part of that effort. CIDEA employs six extension agents and works closely with marine and coastal resource users in the Gulf.

Since the mid-1980s, shrimp aquaculture has grown to be one of the most important sources of income in the Gulf region of Nicaragua. By 2002, approximately 9,000 hectares were in shrimp aquaculture – with approximately 4,000 hectares operated by large producers and about 5,000 hectares operated by 130 shrimp cooperatives. On average, there are 13 associates in each cooperative with a total involvement of approximately 1,200 families. Despite CIDEA's efforts to assist small-scale shrimp producers, a growing number of issues has made it clear that shrimp farming at the artisanal scale is not viable. Small shrimp farmers have difficulty accessing loans, often face high interest rates, have limited financial management capacity, high input costs, and excessive fees for bringing shrimp to the sole processing facility that sets the local price for shrimp. These factors, combined with falling prices for shrimp on world markets, have made the cooperative shrimp farms unprofitable. Therefore, farms are being sold to the foreign-owned, large-scale operators or are being abandoned. CIDEA has concluded that a diversified mariculture industry for small pond holders that is less dependent on shrimp farming is necessary.

CIDEA has been working to develop the capacity and infrastructure to support development of alternative livelihoods. A freshwater demonstration site "La Polverosa" that will host research

and demonstration activities for tilapia culture and ornamental fish is nearing completion. CIDEA also provides extension and laboratory services to industry and natural resource management initiatives including aquatic pathology and diagnosis, water quality analysis, nutritional analysis and freshwater and saltwater wet laboratories. Additionally, CIDEA is also engaged in a number of applied research efforts such as documenting the presence of bivalves with commercial potential and assessing issues related to the threatened cockle fishery. Original funding for initiation of these efforts was from Japan. The Padre Ramos efforts were begun in collaboration with the Portuguese NGO Oikos, with funding from the European Union (EU). Findings from their applied research agenda are directly applicable to informing the SUCCESS efforts and applied research is continued as part of the project's efforts.

Links to USAID Mission Priorities:

The SUCCESS Program directly addresses USAID priorities in the following areas.

Economic Freedom/Economic Growth, Agriculture and Trade
This Strategic Objective is directed at providing support to enhance competitiveness of Nicaraguan businesses emphasizing market-oriented approaches for small-and-medium-scale producers and increasing market access to take advantage of the Central America Free Trade Agreement (CAFTA). SUCCESS is providing technical assistance to aquaculture producers, working to diversify aquaculture products and evaluating possibilities for coastal communities to utilize previously under-exploited natural resources and skills to engage in new productive businesses. Products and services for local use and export that are either under study or are being supported include small farm-produced shrimp, shellfish, fruit, vegetables, sewing workshops and bread bakeries. In the case of aquaculture, emphasis is being put on production of ecologically sustainable products and improving sanitation to allow aquaculture products to compete in the various markets. Capacity building in production skills, business management, marketing and financing is included in these efforts.

Ruling Justly/Democracy, Conflict and Humanitarian Assistance
This SO aims to support development of more transparent, responsive and accountable governance. SUCCESS contributes to stronger governance in the arena of natural resources management through enabling coastal communities and local governments to develop skills and capacity to better manage resources and to engage in public dialogue on questions of resource management, conflicts and equitable use. Additionally, means to allow local communities to access opportunities and markets are being developed where they have been inhibited by systemic disincentives, weak governance, gaps in policy and regulation and corruption. For example, at the two SUCCESS coastal sites, management of fisheries and aquaculture resources is a chronic problem due to issues of regulatory gaps, lack of enforcement, corruption, insufficient data, encroachment by non-residents, lingering impacts from Hurricane Mitch and other forces which community members must grapple with daily in order to protect, harvest, or market their products. Environmental management relies heavily upon the ability of local government and civil society to understand management principles and methods, and to work with the central government towards laws and practices that are appropriate, just and acceptable to local peoples. In this way, local ability to manage and sustainably use resources contributes to decentralization and strengthening of civil society.

Investing in People/Global Health

This SO targets maintaining and improving gains in basic education, health care, food security, reproductive health and HIV/AIDS prevention. SUCCESS contributes to this through working in food-insecure communities to maintain the natural resource base for food production, generate alternative livelihoods, optimize current resources use and improve the ability of communities to manage their resources and revenues. There is an explicit emphasis on working with women as heads of families to build capacity to generate income and use it for priority family needs. Additionally, CIDEA has strong ties to the Puerto Morazan health clinic and school and is assisting them with education and health initiatives. Among these is the establishment of a water harvesting system at the CIDEA training center as a model for the community.

Year 1 Accomplishments: In April 2005, two sites on the Pacific Coast of Nicaragua were selected as SUCCESSsites. The Estero Real Estuary, is one of the major watersheds in Nicaragua and is distinguished by its extensive mangrove systems, high level of biodiversity and as a major economic area where most Nicaraguan shrimp ponds are located. The estuary and surrounding areas support fishing, agricultural and tourist activities. Hurricane Mitch significantly impacted the physical attributes of both the estuary and the surrounding communities in 1998 and recovery is not complete. The second site, Estero Padre Ramos, is a large coastal lagoon located on the northwest Nicaraguan coast and is encircled by numerous rural communities that depend on fishing, cockle gathering and related activities. This lagoon, although officially under a co-management scheme, faces serious environmental threats and its communities are impoverished with little access to services, markets or other opportunities. Citizens of El Salvador and Honduras also heavily utilize both estuary systems.

Governance baselines were completed for the communities around the two estuaries. Baselining served to bring together community members, collect critical information, identify key issues, and establish the beginnings of consensus-building for community management and livelihood activities. The baseline report for the site is expected to be completed in the first quarter of Year 2. A Project Monitoring Plan was developed which includes the two estuary sites. Lastly, annual and Life-of-Program targets were set for each Program indicator for the site.

Initial activities focused on evaluation of opportunities to establish alternative livelihood efforts for coastal communities surrounding the two estuaries. Stakeholders around the estuary have traditionally depended on fisheries, bivalve collection, and small-scale agriculture for their living. However, overexploited fish and bivalve stocks, removal of mangroves by shrimp farms and increased pressures by immigrants from elsewhere have combined with rapid local population growth to make income generation and food security increasingly tenuous in the area. Each of the coastal communities confronts different opportunities and challenges. Thus, options for new forms of livelihood required careful evaluation and feasibility studies, particularly as most options were unfamiliar to residents. By the end of Year 1, the most feasible alternatives have emerged as tilapia production – using either new ponds or converted shrimp ponds, fruit production and sales, honey production, family gardens and eco-tourism. Tourism and retirement settlements (mainly by U.S. citizens) is rapidly growing on the Nicaraguan coast and developing opportunities for the smaller communities oriented around eco-tourism were found to have possibilities.

CIDEA is working with two large groups representing cooperatives - women's groups and community groups (FINCAMAR and AGROPESCA) - to move towards establishing opportunities for eco-tourism, "green" shrimp culture and other agricultural activities. The NGO

Oikos is working in the same sites with collaboration from CIDEA for mangrove reforestation and improving shrimp post-larvae capture. Culture of tilapia in new and converted shrimp ponds are also being evaluated as a way to help economically troubled shrimp farming cooperatives. Accompanying these are efforts to transfer successful models for community banks and micro-financing to these small communities to provide locally controlled and sustainable, long-term funds to maintain efforts.

Another largely untapped resource of the region are cultivated and semi-wild fruits such as the jocote (similar to a wild plum) and cashew. These grow abundantly in many areas, but commercialization is sporadic. CIDEA is providing technical assistance for improved cultivation, value-added processing and assisting community members in accessing markets.

One of the key economic species in the Nicaraguan estuaries is the blood cockle, which is not only a major target species for fisheries (often by women) but is an important part of the generally protein-poor rural diet. Nicaragua also has dozens of other bivalve species with commercial potential, but bivalve culture is almost non-existent. A key part of the evaluation phase for alternative livelihoods and natural resources management is the applied research that CIDEA has been conducting for several years on bivalve populations and cockle culture, the latter focused on whether cockles could be grown in fish ponds. This work has been instrumental in determining that diverse and completely un-exploited potential exists to culture various species of bivalves. Many of these species have high market values in Nicaragua. Illegal extraction and export of bivalves to El Salvador and Honduras also exists and represents both a challenge in terms of management and an opportunity in terms of potential commercial value if brought under legal management and commercialization schemes that bring more benefit to local communities. CIDEA has been working with collaborators to evaluate the potential for bivalve culture, develop low-cost low-technology culture methods, provide training in culture methods, identify marketing channels and develop initial recommendations for co-management strategies to protect the declining cockle populations. A cockle pilot grow-out project is in progress at a local shrimp farm and at La Ballona (Padre Ramos) with the first results due in late 2005.

Improved management of estuarine and forest areas in the watershed areas is also clearly a critical need if the traditional livelihoods such as cockle culture are to be maintained or revived and if the regional ecosystems are to be preserved in functioning form. A key part of this is developing institutional ties and agreements for coordinated strategizing and actions. CIDEA has led the way with development of agreements with multiple institutions including municipal, national, community-based organizations (CBOs), NGOs and international organizations. This is summarized in an institutional matrix to be submitted to USAID. Among the key partnerships are those with MARENA /Ministerio del Ambiente y Recursos Naturales (the national agency with responsibility for the environment and protected areas) and SELVA, an NGO charged by MARENA with implementing co-management of Padre Ramos. CIDEA has also been invited by the national government to participate in development of a management plan for the Estero Real, given their extensive past efforts in management and the ample database developed as a result of long-term monitoring. CIDEA also has long-standing partnerships with the shrimp industry association (ANDA) and individual shrimp farmers and will work with these on both management issues and for piloting the culture of tilapia in shrimp farms. Institutional arrangements with the unions of cooperatives AGROPESCA and FINCAMAR are also in place. CIDEA has also been working with Peace Corps-Nicaragua to integrate volunteers into their activities and to learn from successful Peace Corps initiatives in other parts of the country such as in micro-financing and community banks. CIDEA has also been tapping into the Sea Grant

network, primarily with Dr. Maria Haws (Hawaii Sea Grant) and Dr. John Supan (Louisiana State University Sea Grant) for technical information and assistance.

Training has been an important component of all activities. Community members are involved in all activities for joint learning purposes. CIDEA has delivered day long courses in the various estuary communities covering 10 key themes supporting the resource management and livelihood efforts. In order to be able to use the CIDEA training facilities in Puerto Morazon which were severely damaged during Hurricane Mitch, we contributed to rehabilitation of the facilities by adding on a roof rainwater catchment system and holding tank to provide freshwater for the dormitories. Previously, water needed to be trucked in and existing storage tank capacity was too small to meet needs. This also serves as a demonstration for the community that has continuing water shortage problems.

An important vehicle for achieving the SUCCESS objectives is development of a local and national network of extension agents and specialists who can be utilized as resource persons for the technical elements of the SUCCESS work such as the livelihoods and management efforts. While CIDEA is already well staffed with six extension agents active in various sites along the Pacific coast, expanding and strengthening the extension team is key to achieving desired outcomes. A multidisciplinary team of specialists has been developed under the auspices of CIDEA and partner institutions. A regional workshop/training event, "Fundamentals and Basic Practices of Extension" was held in July 2005 in Puerto Morazan, Chindega, to provide training in coastal management methods, alternative livelihoods and extension for community leaders, researchers, resource managers and extension agents.

CIDEA is also working with other educational and technical specialists to evaluate possibilities for a masters degree in integrated coastal management as none exists at this time.

Year 2 Task Description

An 18-month operational plan was prepared and approved in June of 2005 that will guide Year 2 activities. Already, our on-the-ground experience is resulting in an evolution of strategy and some modifications to our initial plans. The following description provides a summary of the key lessons and the primary activities for Year 2.

The main goal in the Nicaragua program field site is livelihood development through introduction and expansion of alternative livelihoods in coastal communities. A secondary goal is to develop natural resources management initiatives that preserve key habitats and biodiversity, but which also put traditional livelihoods such as fishing/cockle gathering on a more sustainable basis. Our general strategy is to deliver an integrated package of extension services. This includes the provision of technical and business support services to community groups engaged in developing small businesses or productive activities and includes production technology, post harvest handling, business development and operations, a micro-financing, training on entrepreneurship and marketing assistance. Individual, local and municipal level capacity building in natural resources management will also be carried out through the extension delivery system.

The program will coordinate closely with the USAID mission in Managua and as previously mentioned, will link to specific Strategic Objectives of the Mission. The Program Director will keep the mission appraised of Program activities through regular communications. The USAID

mission is regularly briefed and consulted concerning SUCCESS site-based activities and is supportive. The USAID Mission is informed of all of international travel conducted by program staff and consultants, and staff has briefed the Mission on program activities. The Mission will also be furnished with copies of semiannual and annual program reports and workplans.

Year 2 Task Objectives

The following are objectives planned for Year 2. Most represent a continuation of Year 1 work. A new task relates to the science for management component of SUCCESS. CIDEA has been monitoring the Estero Real for four years (since Hurricane Mitch) and has a large data base adequate to now conduct a carrying capacity and hydrodynamics study in order to better understand estuary processes with relevance for management and aquaculture. Conducting basic water quality monitoring has also emerged as an important need due to the paucity of information for Padre Ramos and biophysical changes in the Estero Real following Hurricane Mitch which affects decision-making for mariculture and natural resources management. In the case of the carrying capacity study, additional technical assistance is required and CIDEA will attempt to find a qualified SUCCESS volunteer or Sea Grant specialist, or to develop linkages with U.S. universities for execution of this task.

- Complete a governance profile including both a hindcast and a definition of future goals and strategies for the district.
- Use governance profiling to generate community visions for Padre Ramos and the Estero Real, priority issues and strategies for implementation.
- Continue, strengthen and expand collaborative agreements with governmental institutions, CBOs, NGOs and the private sector.
- Deliver extension support services to support alternative livelihoods and natural resources management.
- Develop extension materials for use in Nicaragua.
- Continue work with the Peace Corps to coordinate on activities in the communities and integrate them into Program initiatives.
- Collaborate with EcoCostas on the production of three extension manuals for alternative livelihoods (for fish culture, honey, family gardens).
- Develop and implement a co-management plan for cockles.
- Develop alternatives for cockle fishers and other estuary inhabitants with cockle and other bivalve culture being the first priority.
- Select and implement other alternative livelihood pilots for the coastal communities.
- Evaluate the feasibility of growing tilapia in shrimp ponds.
- Support the efforts of FINCAMAR – an association of communities, women's groups and cooperatives – to work toward sustainable aquaculture and other forms of sustainable development (e.g. agriculture, tourism).
- Conduct a study of carrying capacity and behavior of the Estero Real. (contingent on finding a qualifes specialist – will be funded through the Science for Management Program Component)

Tasks, Milestones and Schedule

Tasks and Milestones	Dates
Engage in collaborative agreements with institutions and groups – institutional matrix	September 2005
Deliver extension support services to for development of alternative livelihoods and natural resources management	Continuous
Develop and distribute extension materials (includes collaboration with EcoCostas manuals)	September 2005-May 2006
Publish governance profile	October 2005
Coordinate with Peace Corps and volunteers	Continuous (integration into activities)
Strategies for cockle co-management and improvement of revenues	
Complete identification of cockle marketing channels, strategies and value-added methods	November 30, 2005
Implement activities related to cockles to increase revenues	Initiated December 2005, continuing through September 2006
Implement initial co-management strategies for cockles	January 15, 2006-September 2006
Publish and distribute to Mexico, Ecuador and USAID the findings from cockles efforts	February 2006-June 2006
Develop alternatives related to cockles and other bivalves	
Build capacity for bivalve culture	September 2005-January 2006
Continue technical assistance from SUCCESS to cockle/bivalve research efforts and linkages with other international efforts	Continuous through January 2006
Continue to conduct applied research and work with communities to select bivalve species and culture systems	Continuous through January 2006
Continue monthly water quality monitoring with Bayona community members to select bivalve culture sites	Continuous through January 2006
Distribute findings	Continuous through January 2006
Establish and operate bivalve culture pilot	February 2006-June2006
Select and implement alternative livelihoods	
Conduct capacity building workshops to support implementation	December 2005-January 2006
Conduct feasibility studies	January 2006
Conduct workshops to assist communities to select alternatives and develop business plans	January 2006
Establish pilot projects	March 2006
Document experiences and distribute to partners/USAID	March -August 2006
Evaluate feasibility of culturing tilapia in shrimp ponds	
Conduct feasibility study and resource assessment	August 2005

Tasks and Milestones	Dates
Design and implement pilot	September 2005
Conduct training in tilapia culture (9 courses)	September 2005 - October 2006
Establish other tilapia culture projects	January 2006- September 2006
Support FINCAMAR efforts for sustainable aquaculture and other coastal crops	
Continue extension to support Best Management Practice efforts by FINCAMAR	Continuous
Collect information relevant to institutional arrangements and economics of FINCAMAR	July 2006
Train and assist FINCAMAR members in feasibility analysis for eco-tourism and other proposed activities	January 2006
Select specific themes for SUCCESS support to FINCAMAR efforts	March 2006
Provide technical support for implementation	October 2005-August 2006
Distribute findings and post to website	August 2006
Conduct carrying capacity study for Estero Real	Continuous through 2006

In Ecuador

**Task A.3   Sustainable livelihood development and improved management of the the
                Cojimies estuary**

Scale of intervention: Municipal level
Lead Implementing Organization: EcoCostas
Other partnering organizations: University of Hawaii at Hilo and Sea Grant
Activity Coordinator: Emilio Ochoa
U.S. Liaison: Maria Haws

Accomplishments to Date

Background: Ecuador was one of three countries targeted by the USAID/CRC Coastal
Resources Management Program initiated in 1985. Ecuador's national Coastal Resources
Management Program (PMRC) was launched by Executive Decree in 1989 and continued to
receive support from USAID and CRC through 1993 when a major loan to support an initial
phase of implementation was negotiated by the government of Ecuador and the InterAmerican
Development Bank (IDB). CRC, primarily through its NGO partner EcoCostas, continued to
support the program through the first IDB loan and during the three-year gap between this and a
second IDB loan that becomes operational in early 2005. Recent efforts have included a "macro-
zoning" initiative that: 1) has set – in consultation with local stakeholders – the development and
conservation priorities for each of the coastal provinces, and 2) has generated consistent sets of
geographic information systems (GIS) maps as a basis for further planning and management at
the municipal and provincial scales.

In November 2004, EcoCostas designed and implemented a training session for the staff
responsible for implementing the work funded by the second IDB loan. An earlier decision was
made – at the May 2004 meeting of the founding leaders of a LA regional university network
modeled on the U.S. Sea Grant approach – that the focus of this training would be on diversified
mariculture at the community level. This training will be a collaborative effort between the
Polytechnic University of the Coast (ESPOL)-based mariculture center (CENAIM), CIDEA at
the University of Central America (UCA), based in Nicaragua and the aquaculture center at
Zamorano Agricultural College in Honduras.

Through a grant from the Tinker Foundation in the late 1990s and current support through the
EcoCostas-CRC regional network funded by the Swiss Avina Foundation, CRC has supported
activities in Galapagos. This has included an analysis of the many problems facing management
of the recently created marine reserve surrounding the islands. Our partners in the PMRC, the
Galapagos and CENAIM all have a strong interest in collaborating to achieve the goals of the
SUCCESS Program.

The Cojimies Estuary, located on the northern coast of Ecuador is one of the few estuaries not
brought under a management regime as a result of prior coastal management efforts. Relatively
pristine in comparison to the other heavily used and degraded estuaries and one of the few areas
where traditional fishing and gathering activities have managed to survive, it is increasingly
threatened by development pressures of many sorts. One of these is a major highway project that
has opened access to most of the formerly isolated estuary communities and has led to increased
extraction of natural resources. Adding to the urgency to improve local management capacity is

the surrounding Mache-Chindul watershed area, one of the few coastal forest ecosystems left fairly intact and in such a condition that it continues to exist as a functional forest habitat. Like the estuary, the forest areas, although designated a national reserve, are threatened by increasing human settlement and by the timber industry. In addition to the SUCCESS initiative, EcoCostas is developing other approaches to management. For example, EcoCostas received support from USAID/Ecuador in 2005 to characterize the 21 micro-watershed areas in the Mache-Chindul reserve and was requested by a local cooperative to assume management of 300 hectares of forest given through concession to the cooperative. EcoCostas also received support from USAID for a chame culture demonstration project working with industry cooperators.

Links to USAID Mission Priorities: SUCCESS activities directly link to the USAID Ecuador Mission's strategic objectives and focus areas in several ways. With respect to improved resources management and conservation, SUCCESS activities in the Cojimies area address several USAID priority areas. First, the work aims to create local and institutional capacity to manage an estuary area and forest reserve – both of which are important to maintaining biodiversity. Focus areas include promotion of best management practices for various fields (e.g. fishing, cockle gathering, shrimp farming) and income-generating alternative livelihoods. Development of alternative livelihoods takes an integrated approach through development of small businesses, while at the same time working to create alternatives that are socially and environmentally sustainable. For example, initiatives in chame (a native fish species) culture, eco-tourism, honey production and family gardens will diversify sources of income, particularly for women, and utilize local resources not currently fully accessed. Preliminary work is being conducted to prepare for efforts in business management, micro-financing and connecting producers with markets in anticipation of future production. Additionally, there is a strong management component for conservation of mangroves, fish stocks and cockle populations. The initiative also speaks to USAID's emphasis on reducing overexploitation and extraction pressures from influences in Southern Columbia. The Cojimies area includes territory in the provinces of Manabi and Esmeraldas, both of which are affected by their proximity to Columbia. The SUCCESS efforts will coordinate with and build governance capacity with the Esmeraldas and Manabi province-level governments to complement the estuary community-level efforts in management and development, as well as to eventually increase local satisfaction with government performance. Where possible, formation of private-public partnerships is encouraged, such as the work with the shrimp farming industry.

EcoCostas is also working with USAID/Ecuador in support of three additional projects that complement the SUCCESS efforts: 1) a chame culture project; 2) a watershed characterization and assessment for the Mache-Chindul Forest Reserve; and 3) a self-assessment for partners involved in the USAID-funded Galapagos Islands conservation initiatives. EcoCostas is also working with Peace Corps Ecuador to place volunteers in the estuary communities to collaborate with the various SUCCESS activities and to help transfer models such as community banking which Peace Corps has pioneered in other areas of Ecuador.

Year 1 Accomplishments: In April of 2005, the Cojimies site was selected in Ecuador for the SUCCESS Program. Initial activities focused on evaluation of opportunities to establish alternative livelihood efforts in the 14 coastal communities surrounding the Cojimies Estuary. Stakeholders around the estuary have traditionally depended on fisheries, bivalve collection, and small-scale agriculture for their living. However, overexploited fish and bivalve stocks, removal of mangroves by shrimp farms and increased pressures by immigrants from elsewhere in Ecuador and Columbia combined with rapid population growth have made income generation

and food security increasingly tenuous in the area.   Each of the coastal communities confronts different opportunities and challenges. Thus, options for new forms of livelihood require careful evaluation and feasibility studies, particularly as most options were unfamiliar to residents. By the end of Year 1, the most feasible alternatives have emerged as chame production using either new ponds or converted shrimp ponds, honey production, family gardens and eco-tourism. Tourism is rapidly growing in Manabi and Esmeraldas due to their relative proximity to the capital, Quito. An opportunity for smaller communities to get involved in eco-tourism was also found to have possibilities. Accompanying this are efforts to transfer successful models for community banks and micro-financing to these small communities.

Improved management of estuarine and forest areas in the watershed areas is also clearly a critical need if the traditional livelihoods such as cockle culture are to be maintained or revived as well as preserving the regional ecosystems in functioning form. During Year 1, EcoCostas began working with local communities to raise awareness and build consensus as to the priority natural resource management needs as well as institutional issues associated with improved governance and management capacity. Among the priority needs are management and restoration of the cockle fishery, preservation of the Mache-Chindul Forest Reserve, reducing impacts from shrimp farming, improving local capacity among the estuary communities for management, developing stronger ties with and improving capacity of municipal level government for management and developing a network of NGO partners for activities in the region. Meetings and workshops to develop joint strategies for immediately implementing the priority actions followed the initial assessment.

A regional workshop/training event was held in August 2005 to bring together community and business leaders to consider these issues, make choices as to which livelihoods would be the focus of Year 2 efforts, initiate efforts towards community banking, and develop institutional strategies. A follow-up workshop/training was then held in September to begin to operationalize the strategies.

An important vehicle for achieving the SUCCESS objectives is development of a local and national network of extension agents and specialists who can be utilized as resource persons for the technical elements of the SUCCESS work such as the livelihoods and management efforts. Training in extension methods and initial development of an extension network for the area occurred in Year 1, including identification of community members who could serve as local extension assistants. EcoCostas also worked with Peace Corps to begin the process of placing Peace Corps volunteers (PCVs) in the Cojimies communities to assist with extension efforts. EcoCostas has requested one PCV to be assigned with the project. However, no volunteers expect to be assigned this year. EcoCostas also established a physical presence in the estuary area through establishment of a small office, which is rapidly becoming a community meeting place since meeting space is almost non-existent in the area and hinders many community efforts. The EcoCostas-led extension agent, Mr. Guillermo Prado, now resides in Cojimies and oversees activities there.

EcoCostas has also been successful in developing other projects which support the SUCCESS work and the mandates of USAID/Ecuador (see section above). Also, the possibility of a locally-based and locally-funded trust for estuary management is being evaluated as a means to assure future funding for activities initiated under SUCCESS and for their replication throughout the communities.

Governance baselines were completed for the communities. Emilio Ochoa, Director of EcoCostas, was one of the originators of the baselining methods and has been training his staff as well as community members in the methods. The baseline report for the site is expected to be completed in the first quarter of Year 2. A Project Monitoring Plan was developed which includes the Cojimies site. Lastly, annual and Life-of-Program targets were set for each Program indicator for the site.

Year 2 Task Description

An 18-month operational plan was prepared and approved in June of 2005 that will guide Year 2 activities. Already, on-the-ground experience is resulting in an evolution of strategy and modifications to initial plans. The following description provides a summary of the key lessons and the primary activities for Year 2.

The main goal in the Ecuador program field site is livelihood development through introduction and expansion of alternative livelihoods in coastal communities. A secondary goal is natural resources management initiatives designed to preserve key habitats and biodiversity, but also to put traditional livelihoods such as fishing on a more sustainable basis. The strategy to achieve this to deliver an integrated package of extension services. This includes the provision of technical and business support services to community groups engaged in developing small businesses or productive activities and includes production technology, post harvest handling, business development and operations, micro-financing, and training on entrepreneurship and marketing assistance. Individual, local and municipal-level capacity building in natural resources management will also be carried out through the extension delivery system.

The program will coordinate closely with the USAID Mission in Quito and will link to specific of their Strategic Objectives, as previously mentioned. The Program Director will keep the Mission appraised of Program activities through regular communications. The USAID mission is regularly briefed and consulted concerning SUCCESS site based activities and is supportive. The USAID mission is informed of all of international travel conducted by program staff and consultants, and staff has briefed the mission on program activities. The Mission will also be furnished with copies of semiannual and annual program reports and workplans.

Year 2 Task Objectives

The following are objectives planned for Year 2. Most represent a continuation of Year 1 work, with the exception of the development of eco-tourism options for the islands of the estuary. Among them is Jupiter Island, an attractive barrier island near the estuary coast and has been identified as a likely site for small-scale eco-tourism. A highway project has opened up the area, removing one of the last obstacles to developing this form of tourism. Work with shrimp farmers to begin developing Best Management Practices has taken on new emphasis during the Year 1 assessment given the impacts purported to be caused by the industry, conflicts with the community, and production difficulties which affect the laborers hired from the community. Additionally, more emphasis is being put on developing stronger linkages with Peace Corps. Conducting basic monitoring of water quality has also emerged as an important need due to the total lack of information for Cojimies that affects decision-making for mariculture and natural resources management.

- Complete a governance profile including both a hindcast and a definition of future goals and strategies for the district.
- Digitize information and create maps for management use with the community.
- Finalize collaborative agreements with PMRC, ESPOL, CENAIM, community women's associations and other organizations.
- Deliver extension services to support alternative livelihoods and natural resources management.
- Continue work with the Peace Corps to place volunteers in the Cojimies communities and integrate them into Program initiatives.
- Complete cost-benefit analysis and feasibility studies for alternative livelihoods (fish culture, honey production and family gardens); publish and distribute.
- Prepare business plans with stakeholders for the various livelihood alternatives.
- Conduct alternative livelihood workshops (fish, honey, and gardens).
- Identify options for eco-tourism for the Cojimies estuary.
- Print three extension manuals for alternative livelihoods (for fish culture, honey, family gardens).
- Conduct a workshop for the local extension group members.
- Conduct basic water quality monitoring to establish a baseline for mariculture and management purposes.
- Conduct assessment of bivalve stocks and document trends (e.g. recovery or continued decline).
- Conduct a visit to the zone for a multidisciplinary group of experts.
- Conduct end of year planning and evaluation meeting.
- Begin development of an integrated coastal management network for the coast of Ecuador.

Tasks, Milestones and Schedule

Tasks and Milestones	Date
Complete governance profile	November 2005
Print three extension manuals (fish culture, honey, family gardens).	December 2005
Identify options for eco-tourism for the estuary	Nov.- June 2006
Complete cost-benefit analysis and feasibility studies for alternative livelihoods (fish culture, honey production and family gardens); publish and distribute.	March 2006
Conduct three local training workshops (fish, honey, gardens)	December 2005 - March 2006
Conduct assessment of bivalve stocks and document trends (e.g. recuperation or continued decline)	April 2006
Livelihood diversification pilot projects	Beginning in December 2005 (continuous)
Prepare business plans with stakeholders for the various livelihood alternatives	December 2005 (for initial set of projects, continuous assistance to new participants)
Group of experts visit the zone	January 2006
Place Peace Corps Volunteers in the Cojimies communities	April 2006 (placed)

	Continuous (integration into activities)
Conduct a training workshop for the group of promoters	April 2006
Conduct end of year planning and evaluation meeting	July 2006
Deliver extension support services to support alternative livelihoods and natural resources management	Continuous
Conduct basic water quality monitoring to establish a baseline	Continuous
Secure collaborative agreements with institutions and groups	Continuous
Create GIS maps	Continuous
Begin development of an ICM network for the coast of Ecuador	July 2006

B.   Training   **Year 2 Budget: $232,073**

Task B.1   Development of a regional capacity building strategy and implementation of initial courses prioritizing on-the-ground field site participants and needs in mariculture extension

Scale of intervention: Regional, National, and Local Scales
Lead Implementing Organization: CRC, EcoCostas, CIDEA/UCA, WIOMSA
Other Partnering Organizations: Sea Grant Universities, TNC, CI, WWF
Activity Coordinator: Julius Francis/Aviti Mmochi-Tanzania, Agnes Sabrio-Cotze – Nicargaua, Emilio Ochoa-Ecuador
US Liaison: Lesley Squillante

Background: Coastal management has been practiced internationally for over three decades. As the number of coastal projects and programs has increased, so too has the number of training courses targeting coastal practitioners. Unfortunately, these courses are too often designed as "one-off" events that fail to link to real issues and actions on-the-ground or to specific changes in the thinking, behavior, and skills needed to address the fundamental issues and driving forces pushing many coastlines to increasingly unsustainable forms of development. In contrast, the SUCCESS Program training curriculum draws from and contributes to the work on-the-ground. Further, the Program is investigating the interest in and feasibility of linking a series of these courses into a certification program in integrated coastal management (ICM) – one that helps ensure that coastal practitioners have a comprehensive understanding of ecosystem governance and a full suite of both technical and management skills that qualify them to undertake the complex task of coastal management. A further complement to the training courses and certification program is the production of extension bulletins/manuals that both draw from and feed back to the issues and topics being covered in the training and certification program. These bulletins and other key training materials are then incorporated into the SUCCESS knowledge management (KM) system as appropriate.

A real strength of the SUCCESS training is that the Program's partners – the University of Hawaii (UHH), WIOMSA, the University of Central America (UCA), and EcoCostas – also bring extensive experience and skills in training and extension.

Year 1 Accomplishments: In Year 1, Ecuador designed and delivered two SUCCESS training courses and Nicaragua and Tanzania each delivered one. In all cases, course curriculum linked directly to practical, on-the-ground needs of participants, communities, and projects.

Tanzania's course was held in Zanzibar from June 27 – July 2, 2005. It focused on the basics of extension including tools and strategies for delivering effective extension services; on mariculture opportunities in Tanzania – the what and how; on milkfish farming and pond construction; on seaweed farming and its technical and economic aspects; on other bi-valve cultures; and on developing participant action plans that outlined what each would do to improve his/her own extension efforts/program over the next six months. Nicaragua's course was held in Puerto Morazan on July 25-30, 2005. Its sponsor, the Center for Research and Development of Aquatic Ecosystems (CIDEA) at the University of Central America (UCA), has operated in Puerto Morazan for over a decade as an aquaculture field station and has offered many short courses on a diversity of topics related to shrimp mariculture. CIDEA welcomed, however, the

opportunity – as a part of the SUCCESS Program – to design and deliver a course that introduced the broader and more integrative concepts and practices of ICM and of governance baselining to participants representing relevant agencies of central government, local municipalities, local nature preserves and representatives of the various user groups (small scale fisheries, aquaculture and agriculture). The first course in Ecuador was held in Atacames with a focus on the foundations and practice of extension, emphasizing how to design and develop diversified livelihoods for the people of the coastal zone. It also touched on technical solutions in aquaculture; allowed participants to construct a model of extension services for the estuary of Cojimíes; covered issues of how to calculate the viability of a small business enterprise under different scenarios; presented the opportunities and challenges of alternative livelihoods such as beekeeping and chame cultures; and discussed the role community banks can play in helping small businesses. The second course was held September 03, 2005 in Chamanga, Muisne, Ecuador and focused on validation of the profile and generation of a vision for the coastal zone.

Another accomplishment in Year 1 was a draft of three extension bulletins/manuals produced by Ecuador – the first in what will be a series of ten or more such bulletins/manuals planned as outputs during the SUCCESS Life-of-Program. These first three "how to" bulletins/manuals give clear instructions on how to set up and operate fish culture, honey production and family garden projects. Final production and dissemination of these bulletins/manuals will occur in Year 2.

Results from desktop research and an electronically distributed survey[5] provided input from individuals in the two SUCCESS regions on the interest in, feasibility of, and other benefits and constraints of an ICM certification program. This input was summarized for presentation at the annual SUCCESS team meeting in October 2005 with recommendations for a "go" or "no go" decision.

On a more administrative level, all systems and protocols for adhering to the USAID TraiNet system of reporting were put in place and successfully implemented in Year 1.

Year 2 Task Description

Based on input from evaluations from participants of the Year 1 training, the curriculum for Year 2 will include even more opportunities for practicum, and an increased emphasis on technical tools and techniques, on the marketing and financial aspects of small business/enterprise development, and in Ecuador and Tanzania on more in-depth coverage of the techniques of governance baselining.

In Tanzania, the target for Year 2 is to design and deliver two training courses– one a regional course as a follow up to the Year1 course on extension, and the other a national course on milkfish. Ecuador plans for at least five local courses emphasizing alternative livelihoods development and extension techniques for local promoters; and one regional course funded largely by the AVINA Foundation but to which participants from the SUCCESS program will be invited and for whom SUCCESS will pay the costs. Nicaragua plans for nine one-day courses on topics that span but are not limited to topics such as the "The Environmental and Socioeconomic Problems of the Aquaculture Industry" to "New Approaches to Cultivating Shrimp (Best Management Practices)" to "Mangrove Seedling Nurseries".

---

[5] CRC conducted a www-based survey (Survey Monkey) distributed to coastal practitioners in East Africa and Latin America. Responses were received from 47 individuals and those results were used to craft the position paper that will help decide a "go" or "no go" decision regarding the ICM certification program

A minimum of four extension manuals/guides will be published in Year 2. Three of these (noted above) were drafted but not completed in Year 1. These will be produced in Spanish with a focus on but not limited to the SUCCESS Ecuador sites. The topics of these are honey production, the culture of Chame (a local fish), and family gardens. In Tanzania an extension manual will be produced on milkfish culture and possibly one on half pearl oysters as well. Discussion is also underway on the potential of contributing to the finalization and publication of a "toolbox" of training materials on product marketing – materials suitable for both the SUCCESS Latin America and East Africa sites. All manuals/guides and other training materials will adhere to USAID branding requirements effective January 2006. In addition to the more concise, technically specific "how to" extension manuals/guides, the SUCCESS Program will *contribute to* the production of a more lengthy and in-depth series that couches technical issues within the broader context of the principles and values that underlie coastal ecosystem governance. Again, these may complement but will not substitute for the "how to" practitioners manuals. For example, in Year 2, one of the SUCCESS-funded bulletins will be on governance baselining and/or an abbreviated version of the Fresh Water to Estuaries guide which is being funded under another USAID project.

These bulletins, as well as key training materials, will be incorporated into the SUCCESS knowledge management system as appropriate. Selected Spanish language materials will be translated into English and vice versa.

Based on research and an interest and feasibility study conducted in Year 1, SUCCESS will move forward with developing an ICM certification program. The first step will be to assemble a working group. The group's charge will be to collect additional stakeholder input; design a model/framework for the overall program (adapted from the certified financial planner model); draft the program's curriculum; identify interested in-country partners to sponsor/support the program and deliver selected courses; recruit potential candidates for the program; solicit additional "planning grant" funds; and develop an implementation strategy and action plan. The goal is to have a class "enrolled" by the end of Year 3.

Year 2 Task Objectives

By the end of Year 2, in-country extension capabilities will be in place and operative on key ICM topics – with a focus on livelihoods, mariculture, and governance baselining within the larger ICM context – particularly at the SUCCESS field sites, as evidenced by:

● Delivery of at least two courses in each region targeted at participants from Program sites (although in some cases open to others from the region)
● Drafting of the framework for an ICM certification program including a strategy and plan of action developed to ensure the first "class" of individuals can begin the program in Year 3
● Identification of additional training partners from within the SUCCESS regions and within the cadre of SUCCESS Program strategic partners (TNC, CI, WWF, and Sea Grant Network)
● Production of at least four extension bulletins/manuals with uploading to the KM system
● Uploading of key, relevant training materials to the KM system

Tasks, Milestones and Schedule

Tasks and Milestones	Date
Identify Latin America (LA) co-trainers and with CRC/UHH/Strategic Partners design curriculum for first Year 2 LA course	December 2005
Identify East Africa (EA) co-trainers and with CRC/UHH/Strategic Partners design curriculum for first Year 2 EA course	December 2005
Present to full SUCCESS team research findings and recommendations for and feasibility of ICM certification program	October 2005
Agree to advance with or dismiss pursuit of ICM certification program	October 2005
Deliver three short courses in Nicaragua	October – December 2005
Deliver three Ecuador courses on livelihoods	December 2005 - March 2006
Deliver first EA course	March 2006
Incorporate training materials from LA and EA courses into knowledge management (KM) system	March 2006
Produce and disseminate three extension bulletins/manuals	March 2006
Develop marketing, recruitment strategy and design and implementation plan for ICM certification program	March 2006
Begin implementing the above strategy/plan	March 2006
Identify LA co-trainers and with CRC/UHH/Strategic Partners design curriculum for second Year 2 LA course	March 2006
Identify East Africa EA co-trainers and with CRC/UHH/Strategic Partners design curriculum for second Year 2 EA course	March 2006
Deliver training workshop for local promoters	April 2006
Deliver three additional short courses in Nicaragua	April – June 2006
Produce and disseminate two additional manuals/bulletins	June 2006
Deliver the second Ecuador course	June 2006
Deliver three additional short courses in Nicaragua	July–September 2006
Design and produce one to two extension bulletins/manuals	September 2006
Incorporate training materials from LA and EA second courses and from extension bulletins into KM system	September 2006

C. Regional Networks and Knowledge Management   Year 2 Budget: $61,498

In Latin America

Task No. C.1.   Development of a web-based knowledge management system

Scale of the Intervention: The Latin American region
Lead Implementing Organization: EcoCostas-CRC
Other Partner Organizations: The Avina Foundation
Activity Coordinator(s):   Emilio Ochoa and Bob Bowen

Accomplishments to Date

Background: The Latin American region has a long history of ICM initiatives, yet most of the initiatives operate independently as small, stand-alone projects. There are few program level initiatives and very little sharing of experience among the countries and practitioners. The concept for a Knowledge Management System (KMS) is centered around building a data-driven website that will provide its users with access to knowledge that begins with overarching concepts and principles and proceeds to tools, good practices, case studies, comparative assessments, evaluations and databases.

The direction of the Latin American KMS is to gather, collate and make available information on governance baselines for selected mature coastal management programs and projects. This information provides histories of governance initiatives within a project area or place. It also helps analyze where these programs and projects are at in the policy cycle and Orders of Outcomesframework.

Year 1 Accomplishments: The KMS for the EcoCostas-CRC Network was presented at the Network of Leaders meeting held March 24 to April 4, 2005 in Mar del Plata, Argentina. Two presentations were given. One focused on the overall concepts of knowledge management as being applied in the CRC KM system. The second was a more detailed description of the KMS including detail on computer architecture and data flow diagrams. Workshop participants engaged in the discussion of overall architecture, data requirements and desires, and expressed enthusiasm for the methodology being used to develop the KMS.

A data schema has been drafted to contain the governance baselining portion of the KMS in conjunction with EcoCostas and CRC staff. This schema builds upon definitions of the place-based analysis of governance capacity being developed by the Avina-funded EcoCostas-CRC Network (ECCNet). Data gathering has begun on a number of ECCNet places in Latin America with the data being entered into the KMS.

An initial demonstration website has been set up and operational since mid April 2005 and is being further developed at CRC in collaboration with EcoCostas staff. A CRC KM specialist traveled to Ecuador to work with EcoCostas information specialist staff in June 2005 to further refine the data model for the governance baselining portion of the KMS. Input from that trip has been built into the KMS draft and is being further refined. Staff from EcoCostas traveled to Rhode in July 2005 to input and refine data from two pilot sites in Latin America that are being used to test the KMS. Currently, there are three sites where information has been fully loaded into the system.

Year 2 Task Description

The Avina Foundation, as mentioned above, is funding most of the CRC-EcoCostas network activities. The SUCCESS Program, however, is providing a small contribution to the development of the web-based knowledge management system. The goal for the pilot system developed for Latin America, is that it will then serve as the foundation of a web-based regional knowledge management system for East Africa as well.

The SUCCESS contribution to the development of the Latin America KMS will focus on collecting data and information from the SUCCESS field sites in Ecuador, Nicaragua and Tanzania, and entering this information into the KMS. Data flow models employed in the ECCNet pilot sites will be used and staff from EcoCostas will be involved again in the entry of information to the KMS. Some training of program staff at the Nicaraguan site may take place so as to familiarize them with the operation and goals of the KMS. These staff are also members of the larger EcoCostas-CRC Network.

Year 2 Task Objectives

- Engineer remote access security protocols so ECCNet members can access and manipulate data and information within the KMS. (AVINA).
- Expand data and information collection to include not only a few pilot sites but on a large number of mature coastal management projects in the region. This will expand participation in the regional network beyond the core team at CRC and EcoCostas. (AVINA).
- Test, refine, and expand the system to incorporate the project-based and adaptive management elements of the system. (AVINA).
- Develop the web architecture that can make available to the network materials on one of the thematic topics that the network will emphasize and that are the topics of the SUCCESS training modules (likely candidates are mariculture and/or freshwater to estuaries). (SUCCESS).

Tasks, Milestones and Schedule

Tasks and Milestones	Date
Web architecture for thematic topics completed	March 2006
One thematic topic inputted into the website	Junne 2006

Task No. C.2. Preparation for development of a web-based knowledge management system

Scale of the Intervention: The Western Indian Ocean region
Lead Implementing Organization: WIOMSA
Other Partner Organizations: Potentially, the UNEP Nairobi office through the WIO-LaB
                                                      program.
Activity Coordinators: Julius Francis and Bob Bowen

Accomplishments to Date

Background: CRC's history of involvement in this region, and its partnership with WIOMSA, provide a strong foundation for the development of a regional KMS. On-the-ground activities at

selected places in Tanzania provide for the gathering of governance baselines at those locations that can be incorporated directly into the KMS established under the Latin American Regional Networks activity. Like other geo-regions where CRC is working, there is difficulty in the East African region in sharing information on good practices, successful implementation strategies, and lessons learned from ICM initiatives. The place-based governance baselining provides the basis upon which to extend the KMS for the region.

The East African regional ICM practitioners have a widely shared theme of mariculture that is actively being developed and a potential regional network on this topic is beginning to take shape. Experience suggests that a successful network needs this kind of a common theme to build upon in order for members to become actively engaged.

Year 1 Accomplishments: CRC staff presented the KMS design and architecture at the first meeting of the WIOMSA Institutional Directors in April 2005. During that meeting, representatives of the United Nations Environment Programme (UNEP) office in Nairobi were present and expressed an interest in contributing to the development of this regional network KMS. WIOMSA was primarily interested in the use of this KMS to facilitate the management and dissemination of mariculture resources. Another presentation was made to the USAID Tanzania Mission specifically on the application of a web-based Internet Map Server (IMS) project for Tanzanian coastal datasets initially developed under the Geographical Information for Sustainable Development (GISD) project and the overlay of this map data with data from the health and democracy sectors. This presentation led to an expressed interest by the USAID/Tanzania Mission in developing a system of networked IMS servers providing web-based access to this information.

Task Description: Application of the Latin America developed KMS to SUCCESS Program sites in Latin America and East Africa will begin with the inputting of governance baseline data and information on these sites (places). The place-based nature of the KMS will be expanded using project-specific coastal management theme information – focusing first on the mariculture work SUCCESS is implementing. This design enhancement will allow for other coastal management themes to be included as the Program matures. Options will also be explored for establishing an IMS that would serve the needs of the SUCCESS KMS for sharing place-based Geographic Information Systems (GIS) data. Availability and generation of GIS datasets need to be assessed before this would be applicable to SUCCESS Program sites.

Year 2 Task Objectives

- Input governance baseline data and information from the SUCCESS field sites into the KMS.
- Gather data and information on existing mariculture initiatives in the region for inputting KM thematic website. (See C.1 which will build the architecture for this. Here we will develop the content for it)
- Evaluate partner institution involvement in the development of GIS and IMS systems supporting the KMS

Tasks, Milestones and Schedule

Tasks and Milestones	Date
Input governance baselines for Tanzania sites to KMS	March 2006
Input governance baselines for Nicaragua sites to KMS	March 2006
Input governance baselines for Ecuador sites to KMS	March 2006

Conduct TDY to WOIMSA to evaluate and design strategy for GIS and IMS systems	February 2006
Collect data on mariculture appropriate to East Africa	May 2006
Input mariculture data to KMS	July 2006

Task No. C.3   KM support to other SUCCESS activities

Scale of the Intervention: CRC Main Office Rhode Island, and Field Sites
Lead Implementing Organization: CRC
Activity Coordinator(s):   Bob Bowen

Accomplishments to Date

Background: The SUCCESS Program has a number of activities that would benefit from a structured, systematic, data management approach to collecting, collating and distributing information. Past experience with large-scale projects has suggested: 1) that methodologies for managing information must be flexible within established guidelines, and 2) that separating operational functionality from design and engineering is the best way to proceed.

Past database development for the performance monitoring and evaluation activities within large coastal management programs was done on proprietary software systems by individuals uniquely experienced in that software system. While that system functioned over the short-term it is no longer viable for the SUCCESS Program.

CRC's website has not yet been set up to allow for advertising volunteer opportunities and posting the associated procedures and application materials. It does, however, post an activity description of completed volunteer assignments along with the post-assignment reports generated by returning volunteers. Making this and more information on the volunteer program available on the site in a more interactive fashion is an enhancement targeted for Year 2.

Year 1 Accomplishments: Design work on the performance monitoring and evaluation data structure has resulted in the development of multiple templates for the input and display of information reported from the field sites. The formal performance monitoring and reporting plan can form the basis of future data architecture and web-based development. A web link for volunteer opportunities through SUCCESS has been created and is active on the CRC website. Interested applicants can contact CRC through this portal and volunteer reports are now posted here as well.

Year 2 Task Description

A web-based and database driven system for managing the monitoring and evaluation data will be constructed and operationalized. This system will draw input from the field sites and be managed and coordinated by the SUCCESS Performance Monitoring Plan (PMP) officer. Protected access to this system of data gathering, management and reporting will be extended to USAID staff on request. This activity will be coordinated with the capacity building activity. The Volunteers for Prosperity activity will be supported with the development of upgraded webpages and forms-driven datasets that display online the availability of volunteer opportunities, policies and procedures for volunteering, and online/electronic submission of application materials.

Experience gathered from returning volunteers, beyond the posting of reports, will be incorporated into a slide show format and put online.

Year 2 Task Objectives

- Develop the database for monitoring and evaluation incorporating the design in the current PMP plan.
- Develop data driven webpages that allow for the forms-based input of monitoring and evaluation material, initially from CRC staff, and expanded with secure input from field staff. Include web-based reporting.
- Develop an online slide show of photos and extended captions to highlight the experiences of returning volunteers in the Volunteers for Prosperity activity.
- Develop webpages to display the availability of volunteer opportunities, policies and procedures for volunteer applications, and online application materials.

Tasks, Milestones and Schedule

Tasks and Milestones	Date
Design PMP database system including required report formats	October 2005
Program PMP web pages	November 2005
Enhance SUCCESS Volunteer page on CRC website	November 2005
Test PMP web input system	December 2005
Complete PMP web-based database system	December 2005
Develop on-line SUCCESS Volunteer application materials	December 2005
Complete SUCCESS Volunteer web page upgrades	January 2006
Collect slide show text and photos	January 2006
Complete on-line slide show	February 2006

D. Science for Management   **Year 2 Budget: $24,021**

Task No. D.1.   Develop the key hypotheses concerning best practice in ICM

Scale of the Intervention: Latin America and East Africa Regions
Lead Implementing Organization: CRC and UHH
Other Partner Organizations: EcoCostas, UCA, WIOMSA (and, potentially, the
                                        SIDA/SAREC marine sciences program) and the Sea Grant
                                        Network
Activity Coordinators: Maria Haws (in-country action research) and Elin
                                        Torell (cross-portfolio learning)

Accomplishments To Date

Background: CRC has been an active contributor to the global dialogue on best practices in
ICM since the late 1980s. The development of the Policy Cycle and Orders of Outcome
frameworks has been instrumental to this work. Early versions of the five-step Policy Cycle were
developed in the early 1990s as the organizing framework for CRC's international training
courses offered through the Summer Institute in ICM. The policy cycle was subsequently
adopted by GESAMP (1996) in its paper *The Contributions of the Sciences to Integrated Coastal
Management*. The Orders of Outcomes Framework first appeared in a manual for assessing
progress in ICM (Olsen et al, 1999) and was further developed in a series of articles (Olsen, 2002
and Olsen 2004). The two frameworks were applied to a review of large-scale, long-term
programs in coastal governance (Olsen and Nickerson, 2004) and to case studies on CRC's
international programs (Olsen, ed.) published that same year. These studies showed that to
achieve and sustain Second Order outcomes, sites need to assemble all enabling conditions
(unambiguous goals, commitment to a course of action, capacity to implement and constituencies
that support the program). First Order outcomes require sustaining a highly participatory
approach to governance that addresses issues of equity, transparency, corruption and efficiency
in the planning and decision-making process. In 2004, CRC pioneered a governance baselining
method, which included assessing the enabling conditions, through the regional network in Latin
America and built it into a web-based knowledge management system.

Year 1 Accomplishments: In Year 1, preliminary governance baselines were started for each
field site. This process included the use of the five-step Policy Cycle and the Orders of Outcome
frameworks to help organize the baselining exercises. These governance baselines will become a
basis for learning in each field site as well as for cross-project learning dialogues.

In 2003, CRC joined with the Nature Conservancy (TNC) to conduct two initiatives in Latin
America (Mexico and the Dominican Republic) that are designed to generate simple, methods
for forecasting the impacts of changes to freshwater flows into estuaries. USAID's Water Team
funds this work. A manual of simple methods for forecasting impacts is under development.
SUCCESS will endeavor to apply these methods in the Program and incorporate these best
practices into the training curriculum.

Year 2 Task Description

In Year 2 of SUCCESS, the probing of the hypotheses and assumptions outlined in Section I of
this document will be closely tied to designing a more systematic cross-portfolio learning

agenda. This as a more rigorous science-based approach to testing assumptions and key principles in coastal management that will play out over the Life-of-Program.

The first task of Year 2 is to finalize the governance baselines, which were drafted in Year 1. The hypothesis is that preparing such governance baselines is an efficient strategy for assessing the existing capacity and for framing goals in terms that reflect the heritage of a place. Framing the goals and program logic in the outcome mapping language (mission, vision, boundary partners, developing strategy maps, etc.) will help lay the groundwork from which to implement learning and adaptive management. By knowing what the programs want to accomplish and how they intend to get there, it is possible to track how they move towards the goals – and, if they make informed adaptations along the way. This will also include monitoring some boundary partners through outcome journals. At a minimum level, it will be necessary to articulate the "Expect-to-See/Like-to-See/Love-to-See" ladder and document what happens. Such documentation would be a source of data for learning what works and what does not.

In a *Strategy Journal* (adapted from Outcome Mapping), progress in each place will be tracked and changes that are needed to be made to the project logic will be discussed. The journal will capture the practices adopted, will note the strategies on which they are based, and trace learning/adjustments. At the end of Year 2, each site will determine to what extent learning is incorporated and used to 1) adjust the program logic for the place (double loop learning); and 2) improve project activities (single loop learning). An analysis of what has been learned about learning in each site (what makes adaptive management work and what are the stumbling blocks) will be completed also.

With on-the-ground results underway, there are a number of issues that have emerged that provide opportunities for applying sound science to refining best practices for ICM and mariculture. A small amount of funds will be allocated to each regional partner to define and address one applied research problem that will have direct applications to SUCCESS field activities. Often, research conducted in these countries is not driven by the problems that managers face. As a result, the relevance and practicality of that research in terms of improved practice is difficult to assess. Selected topics will be determined in consultation with regional partners and may include the following:

In Tanzania, seaweed die-off is a continuing problem facing farmers of the *E. cottonii* species. While farmers and industry specialists suspect that poor site selection, and/or high temperatures and low salinity are to blame, they also suspect that other factors – such as, water current, turbidity, rainfall, or wind direction and speed – may be contributing to the problem as well. There have been no systematic studies to identify which factors contribute most heavily to this problem or whether it may be a combination of factors. Optimum growth for profitability of seaweed farms requires growth rates of 4-5 percent per day. Simple crop logging and monitoring of environmental parameters over a period of one year may be able to shed more light on factors inhibiting growth and resulting in die off. Knowing what combination of factors come into play can result in better initial site selection of farming areas and can help determine the most appropriate growing seasons, and when seaweed should not be grown. Such action research can also be conducted with the cooperation of farmers and seaweed buyers.

In Ecuador and Nicaragua, there are also a number of issues concerning water quality within the estuaries. In Cojimies, pesticides are blamed for low abundance of cockles, but overfishing may be even more of a contributing factor. A small study on pesticide contamination or carefully

monitoring re-population of cockles in a protected area, or restocked area could shed light on this issue. Hydrodynamic models for the estuary would be useful as well. In Nicaragua, more assessments concerning shellfish spat fall seasonally and locations and hydrodynamic models could help in planning bivalve farming operations.

Another potential action research project would be monitoring shellfish abundance inside and outside community-based no-take zones that the SUCCESS Program plans to establish in all three countries. While the science behind the "reserve effect" and "spillover effect" has been well documented for Marine Protected Areas, especially no-take reserves, it may not occur in all cases for reasons such as poor ecological siting, or lack of compliance with rules. Therefore, local science-based monitoring is needed to ensure they are functioning effectively. Using participatory action research by engaging stakeholders in such monitoring helps to reinforce local stewardship when benefits are documented by users, or can be used to make management adjustments if not working effectively.

Year 2 Task Objectives

During the first part of Year 2, the focus will be on finalizing the governance baselines, refining the learning agenda, developing the strategy journal, and defining the science projects that will be carried out under SUCCESS. In the second half of the year, the focus will turn to the strategy journals, planning for the science for management projects, identifying potential research partners and volunteers, and getting the science projects underway by establishing baselines and beginning the data collection.

Tasks, Milestones and Schedule

Tasks and Milestones	Date
Finalize governance baselines	November 2005
Refined learning agenda complete	November 2005
Develop the strategy journal model	December 2005
Defined the cross-cutting science for management projects	January 2006
Used and tested the strategy journals	Continuous
Identified research partners and volunteers for science projects	March 2006
Undertaken science projects	June 2006

E. Global Leadership   **Year 2 Budget: $9,169**

Task No. E.1. Promoting adoption of ICM best practices in global fora

Accomplishments To Date

Background: CRC and the SUCCESS implementing partners are active in regional and international forums, conferences and workshops on ICM, and have been an influence on the framing of international priorities and agendas for ICM. CRC and the SUCCESS partners will continue to be active in these fora and share our experience and advice concerning the application of ICM principles in a wide range of settings.

Year 1 Accomplishments: CRC's Director is participating in the Scientific Steering Committee (SCC) of the Land-Ocean Interactions in the Coastal Zone (LOICZ) Program as part of the International Geosphere Biosphere Program (IGBP). In this role, he has been tasked to help the program shift focus to include consideration of the human dimensions of change in coastal ecosystems and form a LOICZ node for the Americas that would focus upon the linkages of governance to the dynamics of coastal ecosystem change. CRC has also been working with TNC and USAID to develop a special session at the Global Water Forum to be held in Mexico in 2006, emphasizing the importance of freshwater inflows to estuaries and low costs methods for assessment of needs to maintain estuarine ecosystem services.

Year 2 Task Description

CRC and its partners anticipate continuing their participation in global activities and will be using them as fora for showcasing the results of SUCCESS as these emerge. While not directly funded by SUCCESS, the team's main contribution is expected to be on organizing and implementing the special session at the Global Water Forum – should the proposed session be accepted by the organizing committee. SUCCESS will also send one representative to the Third Global Forum on Oceans, Coasts and Islands to be held in Paris in January 2006. Sessions of particular interest to the family of SUCCESS and IMCAFS activities - both leader and associate awards include freshwater flows to oceans and tsunami rehabilitation.

F. Cross-cutting Program Elements **Year 2 Budget: $0**

Task No. F.1. Equity, health, governance and partnerships

Scale of Intervention: Global
Lead Implementing Organization: Coastal Resources Center
Other Partner Organizations: Western Indian Ocean Marine Science Association (WIOMSA), EcoCostas and the University of Central America (UCA) and others as determined by associate awards
Activity Coordinator: Elin Torell

Accomplishments to Date

Background

Equity: CRC's work has always emphasized the participation of stakeholders, including those who often have the least "voice" – the poor and other marginalized groups. More recently, the Center has put additional focus on ensuring opportunities for the participation of women. CRC has helped its own and others' coastal programs learn to better mainstream gender equity – from the initial design phase to the final evaluation phase of a program.

CRC has been working to mainstream gender into coastal management for over five years. It began with the Women in ICM: Leadership Development (WILD) program in 2000. Recently, CRC and its partners worked with targeted ICM and water programs in Indonesia, Fiji, the Philippines, Kenya, Tanzania, and most recently in Mali, to better understand the tools and techniques for mainstreaming gender and demographic considerations in resource management programs. These programs applied what was learned in the training to their work in the field, and then used that experience to produce teaching case studies. Building on this experience, funding from the USAID Biodiversity team allowed for exploring the nexus between population, equity, AIDS and coastal biodiversity (the PEACE Project) in Tanzania. This project is described in more detail in the next section.

SUCCESS is explicitly working towards the goal of achieving greater equity on-the-ground in the three field sites through its second intermediate results "Promoting *equitable* coastal resources governance and management of natural resource conflicts" and sub IR 2.3 "Equitable participation achieved". However, equity is also mainstreamed into activities undertaken within training, knowledge management, and science for management – and gender indicators has been established whenever possible (see the PMP in Appendix A for a complete list of the indicators).

Health: HIV/AIDS: CRC recently proposed a more holistic approach to coastal conservation and resource management in its work in Tanzania and was awarded USAID funding for a cross-cutting initiative that considers issues of HIV/AIDS, population, and gender in coastal management/biodiversity conservation. The goal of the PEACE project is to better understand and mitigate the impacts of the HIV/AIDS pandemic on biodiversity using integrated coastal management (ICM) processes. In the first year of the PEACE project, a threats assessment was conducted in order to better understand the challenge's to peoples' livelihoods in the project area, the linkages between biodiversity and HIV/AIDS, and how AIDS is affecting access to and use of natural resources such as forests, wildlife, and marine resources within and outside

conservation zones. The threats assessment confirmed that the direct impacts of HIV/AIDS on biodiversity are: 1) accelerated rate of extraction of natural resources due to increased dependence on wild foods and wildlife, medicinal plants, timber, and fuelwood; 2) decreased availability of labor due to sickness and death within the villages and among conservation staff; and 3) loss of traditional knowledge and skills. Currently in its second year, the PEACE project is focusing on developing a mitigation action strategy and implementing tangible actions to address the direct impacts that HIV/AIDS have on coastal biodiversity.

The PEACE project encompasses eight villages in the Bagamoyo and Pangani Districts as well as terrestrial and marine conservation zones adjacent to these villages. As the SUCCESS program is working in the Bagamoyo district as well, there are opportunities to build upon the lessons learned from the PEACE project, and to incorporate health aspects into the SUCCESS Program in future years.

In Year 2, the SUCCESS team's technical expertise in milkfish farming will be tapped to investigate potential milkfish farm sites in Biyuni village of Bagamoyo, which is adjacent to Sadaani National Park. HIV/AIDS vulnerable groups in this community have been identified as migrant fishers and laborers in the salt works. Since alternative livelihood development has been identified as a mitigation strategy by PEACE, it will investigate the possibility of developing salt flats or a portion of the salt works into milkfish ponds. This will provide more employment opportunities for individuals in the village and opportunities for more year-round jobs – rather than reliance on temporary migrant laborers.

Democracy/Governance: CRC is recognized internationally for an approach to coastal management that sees systems of decentralized and participatory governance and the successful application of the principles of democracy as the heart of successful coastal management. The SUCCESS Program is actively working to improve governance of coastal resources at the site level. Under this intermediate result category, the number of sustainable natural resource management and conservation policies and strategies implemented will be measured. In Year 2 this will, for example, mean working towards establishing management zones for bivalve harvesting and seaweed cultivation in Tanzania. These detailed zoning plans contribute to the implementation of the Tanzania National ICEM Strategy and the Mariculture Guidelines and engage citizenry more in participatory resource management decision-making.

The Policy Cycle and the Orders of Outcomes frameworks described in Section I of this document provide guides for sequencing of actions in all field programs and evaluating results. They are central to a learning system that focuses on the connection between governance and the condition of the people and ecosystem in specific places. These methods integrate across the SUCCESSS portfolio and are a central feature of the training programs.

Alliances/Partnerships: In each country and region where the SUCCESS Program operates, there is a growing number of coastal resources management initiatives funded by national governments, business interests, NGOs, and international donors. The SUCCESS Program will inform itself of these activities and, through its regional networks and training courses, work to form alliances with initiatives with similar goals. Such alliances and more formally structured partnerships will be explored to promote collaborative learning and, where appropriate, collaborative action. A goal of the SUCCESS Program is to foster a long-term capacity to generate the knowledge and appropriately prepared professionals that can contribute to sound coastal governance in each targeted nation and region. These will be structured as regional

partnerships modeled on the U.S. Sea Grant Program. Securing leveraged funds for such regional partnerships will be a priority.

Year 2 Task Description and Objectives

In Year 2, the SUCCESS Program will pursue specific partnerships. This includes working more closely:

- In Tanzania, with private sector groups in the seaweed industry for the implementation of the National Seaweed Development Strategy and establishing a model site in Bagamoyo
- With private sector buyers who can provide significant extension support and expertise to communities – this may be a more effective approach than government-supported extension efforts
- In Nicaragua, with the small-scale shrimp producer associations in Estero Real to develop product diversification strategies, and more engagement with other estuary-related management issues

For all of the cross-cutting themes, the task is to mainstream consideration of these issues into the overall fabric and on-going activities of the field sites, network discussions, and training. As such, no SUCCESS budget is allocated specifically to these crosscutting themes.

G.   Volunteers for Prosperity   Year 2 Budget: $24,114

Task No. G.1.   Development and pilot implementation of a professional volunteer program

Scale of Intervention: Global
Lead Implementing Organization: Coastal Resources Center
Other Partner Organizations: Western Indian Ocean Marine Science Association
                                       (WIOMSA), EcoCostas and the University of Central
                                       America (UCA)
Activity Coordinator: Kimberly Kaine

Accomplishments To Date

Background: CRC has a history working with volunteers. The Center has depended upon volunteers in its Rhode Island-based program for citizen monitoring of rivers and ponds and has used volunteers to assist the CRC office with administration of its international programs since 1985. In 2000, the Center established a formal volunteer program at its headquarters. Most volunteers are retired professionals in a wide array of disciplines.

Year 1 Accomplishments: The first year of the international volunteer program of SUCCESS has been a period of learning and experimenting. While CRC has used volunteers domestically for several years, this is the Center's first experiment assigning U.S. professionals to overseas assignments in its international programs. During SUCCESS Year 1, policy and procedures were developed for recruitment and deployment of volunteers overseas. In-country volunteer coordinators were designated for each SUCCESS field country and were briefed on volunteer policies and procedures.

Two volunteers were recruited and sent on assignment in Tanzania: Dr. Michael Rice, a professor in the University of Rhode Island's Department of Fisheries, Animal and Veterinary Sciences, and Mr. Edwin Requintina, a specialist in aquaculture with over a decade of experience managing milkfish farms. Both Rice and Requintina's two-week assignment included delivering training sessions on mariculture at the SUCCESS training program in East Africa and working post-training with participants to redesign a pilot milkfish pond site and to train fishpond operators at the site(s). The value of the services of these two individuals totaled approximately US $12,600.

The Coastal Resources Center became a formal member of the Volunteers for Prosperity (VfP) program and is listed on their website <http://www.volunteersforprosperity.gov>. CRC also developed a location on its own website <http://www.crc.uri.edu> for advertising and accepting inquires concerning volunteer opportunities. This has resulted in eight volunteer inquiries in the first three months of Year 1.

Outside of the VfP program, CRC accepted the assignment of two volunteers from Crisis Corps to work with the SUCCESS associate award Program in Thailand. In addition, several Peace Corp Volunteers are expected to be assigned to the Ecuador project site in Cojimies. Student volunteers were also recruited at CRC to assist in researching information for the Thailand project as well as assist with English-Spanish translations.

Year 2 Task Description

In Year 2, CRC will place two volunteers at SUCCESS sites in Latin America. The CRC website will be enhanced to better advertise volunteer opportunities, and to allow for on-line applications, to publicly post policies and procedures, and to post volunteer pictures stories and products from returned volunteers. The upgrade of the website will be accomplished by January 2006 and will be updated regularly to reflect current volunteer contributions and accomplishments. To achieve gender balance of female volunteers, CRC will also begin advertising volunteer assignments on professional women's websites and listservers. One of the objectives for Year 1 was to evaluate the volunteer program but was postponed to the first quarter of Year 2. CRC is also soliciting a formative written evaluation of its volunteer program from an outside volunteer organization.

Year 2 Task Objectives

- Recruit and place two volunteers in each SUCCESS Latin America field site
- Actively recruit women for volunteer positions by advertising on professional women's list servers and websites
- Upgrade the CRC website
- Secure a formative evaluation of the SUCCESS volunteer program from external source

Tasks, Milestones and Schedule

Tasks and Milestones	Date
Engage CRC, WIOMSA, EcoCostas and UCA in the volunteer program by identifying detailed volunteer job descriptions for posting on the CRC website for Year 2	October 2005
Conduct an evaluation of the international volunteer program with recommendations for program improvements	November 2005
Post volunteer jobs on various websites and list servers with emphasis on locating female professionals as volunteers	December 2005
Report the findings of the evaluation received by CRC	January 2006
Recruit and assign a volunteer to Latin America	January 2006
Recruit and assign the second volunteer to Latin America	June 2006
Research opportunities for leveraged funding for the volunteer program and volunteers	August 2006
Develop a preliminary list of new volunteer job descriptions for advertising for Year 3	August 2006
Evaluate the effectiveness of the SUCCESS volunteer program's marketing strategy and use of the CRC website to advertise and recruit volunteers	September 2006

H.   Key Products and Reports for Year 2

The following table lists the key products and reports that will be produced in Year 2 along with the deadline or expected completion dates and key individuals at USAID who will receive copies.

Key Products and Outputs	Schedule	Recipient
Program Reports		Richard Volk, CTO and Joseph Schmidt, AO
Year 1 Semi-annual Report	31-Dec-05	
Year 2 Semi-annual Report and PMP Report	30-Jun-06	
Year 3 Work Plan and PMP report	1-Oct-06	
Year 2 Semi-annual Report	31-Dec-06	
Financial Reports	quarterly	
Forms SF 269, 269a		Richard Volk,CTO
Forms SF 272,272a		R. Volk,CTO & www.dpm.psc.gov
Trainet Data	w/in 30 days of event	USAID Trainet database
Ecuador - livelihood workshop	Mar-06	
Ecuador - promoter workshop	Apr-06	
Nicaragua - blood cockle capacity building workshops (3)	Nov-05	
Nicaragua - alternative livelihood workshops (3)	Jun-06	
Nicaragua - FINCAMAR eco-tourism feasibility analysis training	Apr-06	
Nicaragua - training of producers	Jun-06	
Tanzania- milkfish farming national training workshop	TBD	
Tanzania - regional training workshop	Dec-05	
Volunteer Reports		
Volunteers for Prosperity	upon request	VfP Coordinator
Publications	w/in 30 days of pub.	Richard Volk, CTO and USAID Clearinghouse
Ecuador - extension manuals (3)	Dec-05	
Ecuador - cost benefit analysis for alternative livelihoods	Mar-06	
Tanzania - extension manuals (2)	Jun-06	
Global - governance baselining bulletin	Sep-06	
Global - marketing livelihood products	Jun-06	
Quarterly - w/in 45 days of Dec 31, March 31, June 30, and September 30		
PMP Report - evidence for all data/entries for each indicator on file at CRC, available on request		
Financial Reports - submitted by URI Controller's Office		
Trainet Data - includes (as applicable) stakeholder compacts, liability waivers, individual participant information, training cost summary, drug use waiver. Backup data on file at CRC, available on request		
Volunteer Reports - limited information provided in PMP Report, detailed data for the VfP annual report available on request		

IV.   Associate Awards

During Year 1, a key objective for associate awards was to inform USAID Missions about the Integrated Management of Coastal and Fresh Water Systems (IMCAFS) SUCCESS LWA mechanism. SUCCESS cooperated with the USAID Water Team and the Global Water for Sustainability (GLOWS) Program to develop and distribute a joint SUCCESS–GLOWS flyer targeted primarily at USAID Missions and Bureaus. CRC also developed a stand-alone flyer with information specifically on the SUCCESS Program. SUCCESS team members have met with each Mission where there are SUCCESS Leader activities on-the-ground (Tanzania, Ecuador, Nicaragua) and have briefed them on Program activities. This communication with missions about the SUCCESS LWA mechanism and accomplishments to date in the countries where the SUCCESS Programs operate will continue.

One Associate Award – the *Post-Tsunami Sustainable Coastal Livelihoods Program* in Thailand – was made to URI/CRC on March 14, 2005 under the SUCCESS Leader Award. Missions are also supporting and funding complementary activities in Tanzania and Ecuador. Although not awarded through the LWA mechanism, these are considered leveraged and complementary funding for our activities. The expectation and hope is for additional associate awards in the years ahead and these will provide opportunities for additional engagement by the family of SUCCESS partners. The LWA Associate and non-associate USAID supported activities in SUCCESS countries are briefly outlined below. Performance management and reporting on USAID indicators and Life-of-Program (LOP) indicators for the leader award does *not* include data from associate awards. Such data, however, is included in Performance reports submitted to the Missions that issue the associate award and copies are furnished to the cognizant technical officer (CTO) for the SUCCESS Leader Award. A summary of past and projected Year 2 results for the Thailand Associate Award are also provided below.

Thailand: The Post-Tsunami Sustainable Coastal Livelihoods Program is a model Program to demonstrate sustainable coastal communities that are resilient to economic and environmental shocks. This Program was created in response to the December 26, 2004 tsunami disaster. The USAID Regional Development Mission/Asia (RDM/A) provided an associate award to the Coastal Resources Center, University of Rhode Island in the form of a grant of US$3 million to rebuild and diversify sustainable coastal livelihoods of severely affected fishing communities on the Andaman Coast of Thailand and to demonstrate effective practices of community-based disaster preparedness. The Program has a 30-month time horizon, with an end date of September 30, 2007. It is implemented in a partnership with the Asia Institute for Technology (AIT), University of Hawaii, Coca-Cola Thailand, WWF Thailand, Asian Disaster Preparedness Center, and other local partners.

The Program selected five tsunami-affected villages in Ranong Province, south of the Myanmar border for the demonstration initiative. The villages are within Laemson National Park. They are small, rural, predominantly fisheries and agriculture dependent communities, consisting of approximately 731 households and 4,560 people.[6] The communities suffered from the death of over 160 of their residents, the loss of over 220 fishing boats, engines and gear as well as scores of homes, public buildings and coastal infrastructure destroyed or damaged. The livelihoods of these communities were devastated.

---

[6] 2004 census data.

In the aftermath, and because they are among the poorest coastal communities in Thailand and depend on local ecosystems for their economic well-being, these communities have expressed a strong interest in livelihood rehabilitation and improved resource management. A key goal of the Program is therefore to demonstrate participatory integrated coastal management (ICM) strategies and good practices for reconstruction that provide tangible on-the-ground results, and that are also environmentally sustainable. Fisheries-related ecosystems, for example, must be protected, and boats, fishing gear and practices should be compatible with responsible fisheries to ensure sustainable long-term fisheries production.

The specific objectives of the Program are to:

- Establish a common vision and coordinated approach to rehabilitation
- Restart and diversify livelihoods, especially those that rely on healthy coastal resources
- Redesign damaged coastal infrastructure and reduce vulnerability to future natural hazards
- Build capacity for planning and decision-making in the coastal zone
- Promote learning and share experience in Thailand and the region

Activities are organized into four Program components:

- Facilitate Consensus and Create a Unified Vision for Action
- Restart and Develop Sustainable Livelihoods
- Site, Design and Construct Coastal Public Infrastructure
- Enhance Management Capacity

The Program was made fully operational shortly after the original award was made in March 2005. A Program office was established at the Tambon administrative office (TAO). Two full-time local field staff coordinators were hired along with two expatriate staff - a Chief of Party based in Bangkok at AIT and a Field Site Manager assigned at the field site. The Program is already producing significant results including:

- 69 people (44 male, 25 female) employed in cash-for-work activities for a total of 941 person days
- 20 fishing micro-enterprises (all male) restarted through replacement of 20 long-tail fishing boats
- 12 persons (1 male, 11 female) received financial assistance to start a catering service. This business provides catering services to organizations doing rehabilitation work in the villages
- 250 persons received business and micro-credit training
- Nine people (8 male, 1 female) were trained in basics of catfish fish seed production
- One section (approximately 1 km) of dirt road in one village was improved

The first workplan for the start-up period from March 15 – September 30, 2005 was prepared and approved by the RDM/A Mission Cognizant Technical Officer (CTO). This workplan includes a PMP framework including Life-of-Program targets. The original 36-month, $2-million award was modified to a 30 month, $3-million award in September of 2006. The Program Statement was modified along with Life-of-Program targets and a Year 2 workplan prepared in September.

Year 2 activities in Thailand will expand the scope of activities and number of partners that we will be working with at the site level. The progress made in setting up the Program and site-

based planning and assessments with the villages and TAO in the first six months of operation provides the foundation for Program activities in FY06. Livelihoods development and capital grants, cash-for-work, micro-enterprise marketing and training, credit mechanisms, and infrastructure projects will deliver tangible benefits to tsunami-affected communities at the Program site. At the same time, Program activities will be advanced in disaster management, fisheries co-management, sustainable fishing practices, government capacity building, and regional learning and networking on tsunami rehabilitation and preparedness. In Year 2, approximately nine local, regional and international partners will assist in implementing the Program. This includes AIT, Asian Disaster Preparedness Center, WWF Thailand, Coca-Cola Thailand, Habitec, SiriConsult, Kenan Institute Asia, Thailand School of Travel Industry Management, and UHH.

In Year 2, Program activities will be quickly advanced in order to provide tangible on-the-ground benefits to the communities following the tsunami disaster that claimed lives and disrupted livelihoods. In particular, it will be important to showcase on-the-ground results and achievements as part of the December 26, 2005 anniversary. It is also important to recognize that Program management is unusually complex because of the mix of other donors operating in the same site and the conflicts and expectations that are created between donors, local government and various interest groups in the villages. The joint objectives of advancing quickly in order to provide immediate benefits to the devastated communities and at the same time seeking to develop activities effectively to help ensure long-term sustainability in this post-disaster environment are not always mutually consistent and make this Program somewhat unique. Year 2 targets include the following:

- 150 people are returned to work
- 25 new business are created
- 75 old businesses are restarted
- $70,000 of loans are provided to 100 micro and small enterprises
- 120 recipients of financial assistance and/or training
- Two community buildings and infrastructure are repaired
- One community building and infrastructure built (e.g. model tsunami resilient home)
- Five communities and 1,000 people are trained in disaster preparedness
- Five government agencies are receiving technical assistance

Ecuador: In Ecuador, the Mission participated in the initial reconnaissance of field sites and has provided EcoCostas with a $30,000 award that is supporting activities in the SUCCESS field site of Cojimies among several other activities. SUCCESS has, in turn, assisted the Mission by conducting a facilitated workshop among USAID partners working on conservation initiatives in the Galapagos.

Tanzania: CRC has been working in Tanzania since 1997 to advance coastal management throughout the nation. The Center's most recent cooperative agreement with the USAID Tanzania Mission was completed in September 2005. However, URI and USAID/Tanzania have just signed a new cooperative agreement to continue activities for another five years. The Mission choose not to use the LWA mechanism for this new cooperative agreement since the application from URI was submitted after the mission advertised an APS (Annual Program Statement). This new program is somewhat different from our previous work, which was concentrated primarily on development of a national ICM strategy and associated guidelines and capacity building. The new project places more emphasis on working at the district and

community level on implementation of the national strategies and guidelines. The goal of this $1.575 million effort is to conserve coastal and marine biodiversity while improving the well-being of coastal residents through the implementation of the Tanzania National Integrated Coastal Environment Management Strategy (ICEMS). The Project will assist three districts to advance from integrated coastal management (ICM) planning and testing to ICM implementation. It will focus on two land-seascape areas – the Wami river basin, including the Sadaani National Park, Maziwe Reserve and the coastal seascapes in the Pangani and Bagamoyo districts; and the Mkuranga district bordering the Rufiji-Mafia-Kilwa marine eco-region. The Project will emphasize local actions that promote best practices – e.g., co-management for nearshore fishery areas including the establishment of no-take conservation zones, and small-scale enterprise development in mariculture and tourism. Activities are nested within the management and action plans being implemented by districts, individual marine reserve and park authorities, and river basin authorities.

V.   Program Management   Year 2 Budget: $67,122

CRC's mission of "promoting coastal stewardship worldwide" is the foundation of all work carried out through this leader award. The primary partners and clients for this work are the people and institutions of the developing countries that participate in the SUCCESS Program. The goal is to improve the well being of these people by promoting healthy ecosystems and sustainable resource management through good governance. These people of the place will be supported by the Program's network of individuals and organizations that serve as its subrecipients, strategic partners and supporting partners (Figure 3).
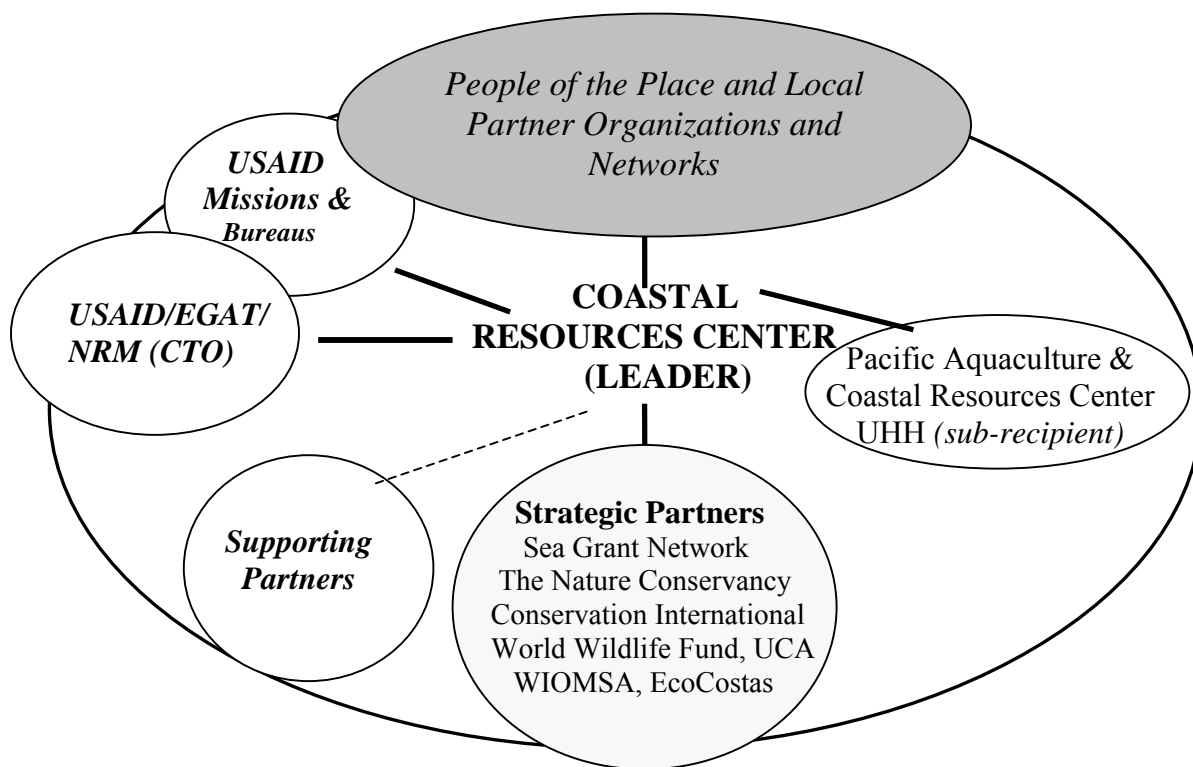

Figure 3: Organizational structure: leader, sub-recipient, strategic partners, USAID.

The Coastal Resources Center (CRC) at the University of Rhode Island is the leader of this Agreement. In this role, CRC maintains lines of communication between the partners, negotiates all associate awards, inform partners of opportunities, and pursues collaborative responses. The Pacific Aquaculture and Coastal Resources Center at the University of Hawaii (PACRC/UHH) is a sub-recipient for this award. The Program's strategic partners based in the United States include the Sea Grant Association, through the Rhode Island Sea Grant College Program; the Nature Conservancy (TNC); World Wildlife Fund (WWF); and Conservation International (CI). Regionally, our strategic partner for East Africa is the Western Indian Ocean Marine Science Association (WIOMSA). In Latin America there are two strategic partners – EcoCostas, a regional NGO based in Ecuador (regional training and networking), and the Universidad de Centro America (UCA), in Nicaragua (provides one of the initial field sites for on-the-ground results and for the regional Sea Grant network).

Key Technical Staff Positions: The Program's key technical staff positions have demonstrated strong, state-of-art knowledge, skills, and experience in ICM, fisheries, and aquaculture and offers multiple language capabilities. Details on the responsibilities of all key positions are outlined in Table 4.

The Program Director is Mr. Brian Crawford, a 25-year international coastal management specialist based at CRC/URI. Mr. Crawford has worked extensively in the field helping to design and manage large, complex ICM projects. The *deputy director at UHH* is Dr. Maria Haws, an international mariculture and fisheries expert specializing in policy, applied research and implementation in aquaculture development and community-based fisheries management. Dr. Haws also has extensive practical experience in community-based economic development and small business management. *The deputy director at CRC* is Ms. Lesley Squillante. Ms. Squillante has 14 years of international experience and expertise in capacity building, training, communications and business administration. The Program's *monitoring and evaluation specialist* is Dr. Elin Torell, who is also based at CRC. Dr. Torell has a decade of international experience in ICM, focusing on adaptive learning systems and applications.

The Strategic Partners: Sea Grant, TNC, CI, and WWF will provide technical input and assistance to the Program and will participate in the in-country activities funded by Associate Awards. Their representatives serve on the Program advisory committee that also includes the Program's leadership team, the CRC Director, one or more URI fisheries experts and one or more representatives from USAID including the Program's CTO. The committee meets annually to discuss the ICM problems and opportunities addressed by the Program and to identify opportunities for knowledge sharing and joint training events. The committee provides advice on strategies, alliances and direction. The committee is not a steering committee or oversight board. The SUCCESS advisory committee is timed to follow IMFAFS (Integrated Management of Coastal and Freshwater Systems) meetings scheduled in October/November of each year. USAID/EGAT through the CTO approves annual workplans and budgets.

The primary responsibility for external communications concerning the Program is CRC. However, given the important presence of many partners in USAID Missions and other countries, and their linkages to other international organizations and donors, the Program ensures that there is a healthy flow of information to its partners for widespread dissemination. Partners with on-going activities and a presence in USAID countries in particular will be important in disseminating information about the opportunities presented by the SUCCESS LWA award, as well as about activities, lessons and accomplishments the Program has achieved.

The Program Director and at least one of the Deputy Directors attend semi-annual IMCAFS meetings and the annual IMCAFS partner meeting. The Program Director keeps missions where the Program is active appraised of Program activities through regular communications. This includes informing the USAID Missions of international travel conducted by Program staff and consultants, and making staff available to brief Missions on Program status and opportunities. Missions are also furnished copies of semiannual and annual Program reports.

Table 4: **Roles and Responsibilities of Key Positions**

Program Director
- Responsible for program execution and management
- Principal liaison to USAID/EGAT CTO and missions; responsible for reporting to USAID
- With the USAID CTO, convenes the advisory committee meetings
- Reports to the CRC Director on program activities
- Supervises deputy directors, M&E specialist, selected in-country technical staff
- Represents the Program with missions and leads negotiations for Associate Awards
- Provides technical oversight for on-the-ground program results
- Supervises activity coordinators

Deputy Director (ICM, Mariculture and Extension)
- Assists the director in program execution with emphasis on mariculture/fisheries elements
- Collaborates in the creation of USAID reports, field program designs and workplans
- Provides technical oversight for Program Results Categories– On-the-ground results in fisheries and aquaculture, and science for management
- Principle liaison with Partners in Nicaragua and Ecuador
- Supervises selected technical staff and consultants
- Oversees performance on selected sub-agreements
- Serves as key technical trainer and member of cross-portfolio learning initiatives

Deputy Director (Capacity Building, Communications & Administration)
- Technical oversight for Program results on increased capacity
- Serves as key designer for all capacity-building efforts
- Supervises the administration & finance manager, & training specialists
- Collaborates in preparing USAID reports
- Provides technical guidance on publications and other print communications
- Oversees performance on sub-agreements/contracts for training or communications
- Serves as team member of the cross-portfolio learning initiatives
- Assists director in program administration

Monitoring and Evaluation Specialist
- Responsible for the design and execution of performance monitoring plan
- Assists field and Program leadership in the design of results frameworks for each Associate Award and the overall program
- Conducts training/mentoring on adaptive management & learning in and across projects
- Technical oversight for Program Results concerning learning networks
- Leads the design of a learning agenda for the program

Note: Stephen Olsen, as CRC Director, oversees this leadership team.

Workplans are developed in close consultation with all Program-implementing partners as well as with the USAID CTO. Draft workplans are shared by the Program CTO with the relevant missions for comment on the respective on-the-ground results program elements with the aim of seeking their concurrence with these activities. The workplan development process starts in the July – August period with the aim of a final workplan submitted to the USAID CTO by September 30th each year. Semi-annual reports are submitted in July and the Annual reports in January.

VI.   Monitoring, Evaluation and Reporting   Year 2 Budget: $61,402

The monitoring and evaluation (M&E) program has two major components. The first component is results monitoring, built around the SUCCESS Results Framework presented in section II and Annex A. During Year 1 of the SUCCESS Program, the Program results framework was refined and indicators developed and targets set for each intermediate result. This results framework will be applied to track progress in each field site over the Life-of-Program. Results indicators will be summed on a semi-annual basis to conform to USAID reporting requirements. However, the frequency of monitoring will depend on the indicator. For example, some indicators are tracked semi-annually while others are tracked annually or bi-annually (see Annex A). Semi-annual and annual reports will be prepared for USAID that include summary information on the indicators for each LOP Result as well as narrative descriptions and stories concerning Program progress and accomplishments. These twice-yearly reports will conform closely to the annual workplan outline.

The second component of the M&E program is learning for adaptive management – described in more detail in the science for management section. The goal is to promote learning and sharing among sites as well as within each site. In Year 1, governance baselines were conducted for each field site. These baselines, which will be finalized in the first quarter of Year 2, will provide a basis from which to track governance progress in the places where SUCCESS works. They will also serve as contextual background for a more detailed learning agenda, which will be developed in Year 2. This learning agenda will feed into a cross-portfolio learning effort for the SUCCESS Program and where appropriate, for the overarching IMCAFS Program.

In Year Two, the CRC Monitoring and Evaluation (M&E) specialist will continue to provide technical assistance to the pilot projects in monitoring and evaluation to ensure that the results framework is properly monitored. This will also ensure that similar approaches are being used to capture appropriate information for both in-Program adaptations and cross-Program learning. Each field site has designated an M&E coordinator to ensure that information is collected on each key result area and for the indicators selected.

Key partners in the SUCCESS program (WWF, TNC and CI) have been involved in a joint monitoring and evaluation program for bio-diversity conservation that is also designed to some extent for cross-portfolio learning purposes. While the measures and systems developed may not be fully compatible with the M&E, PMP and KM systems for SUCCESS, these partners have been consulted in the development of these SUCCESS systems. As the SUCCESS learning agenda develops, it will be important to continue to tap into their experience and learn from their efforts to develop a cross-portfolio and adaptive management program.

In Year 2, semi-annual and annual reports to USAID will prepared. These will include summary information on the indicators for each Intermediate Result as well as narrative descriptions and stories concerning Program progress and accomplishments. These twice-yearly reports will conform closely to the annual workplan outline.

Year 2 Objectives

The primary objectives for Year 2 are to develop an agenda for cross-site learning and adaptive management, to develop monitoring instruments, and to integrate the M&E system with the web-based knowledge management system. A retreat for SUCCESS field partners will be held at the

end of October 2005. This will include discussions around the learning agenda and input from this workshop will help shape the direction for the SUCCESS learning efforts. During this workshop, targets for each of the indicators in the results framework will be finalized.

In Year 2, the indicators laid out in the results framework will be monitored – this includes a beneficiary survey to measure the revenues and profits generated from new or improved enterprises. This survey, which will be developed early in Year 2, will be the only survey instrument used to measure progress within the results framework (other indicators will be measured using other sources of data and forms of evidence). However, other selected survey tools may be developed and/or implemented as part of the learning agenda.

In Year 3, the M&E system will be integrated with the web-based knowledge management system. This system will allow field sites and regional partners to input data and documentation into the system remotely. All such data then goes through quality control checks by the M&E coordinator at CRC. Once information is cleared and loaded into the database, partners with access to this internal system, including key USAID personnel, can generate summary reports.

Specific tasks for monitoring, evaluation and reporting in Year 2 include the following:

Tasks, Milestones and Schedule

Tasks and Milestones	Date
Organize a SUCCESS field partner meeting in October 2005	October 2005
Develop and apply survey instrument to measure revenues and profits of targeted beneficiaries	November 2005
Finalize governance baselines for each field site	December 2005
Develop a SUCCESS learning agenda	January 2006
Monitor program results semi-annually	March and September 2006
Prepare and submit semiannual report to USAID	April 1 2006
Build the electronic web based KM system for SUCCESS results monitoring, linked to the KM system for regional networks (see Section C.3 under Knowledge Management)	April 2006
Adapt and refine program results framework based on the experience from the first year of monitoring.	Sept. 2006
Prepare and submit Year 2 Workplan	Sept. 30, 2006

VII.   Issues and Challenges

There were a number of management challenges that we faced in Year 1. The first was during start-up of the Program and the transition of CRC and UHH personnel to their roles, responsibilities, and obligations under SUCCESS. This transition his now fully completed. Another issue was the request to develop an Associate Award in Thailand related to Tsunami rehabilitation and reconstruction. Given the emergency nature of this request and the need for a rapid response, the team delayed important travel to field sites in Ecuador and Nicaragua to develop detailed SUCCESS workplans. This resulted in delays in completing country workplans. As a result, work in these countries got underway slowly and only in the later half of the Year 1. We have also instituted procedures to speed up administrative and financial processes concerning sub-agreements for all implementing partners which moved very slowly in Year 1. Communications among all partners has also proven to be a challenge and we have installed free *Skype* software to reduce costs and increase frequency of voice communications. Role clarification exercises were also conducted during the implementing partners meeting, clarifying communications channels within and among each partner. We have also designated Maria Haws, the Program's Deputy Director based at UHH, as primary liaison with Nicaragua and Ecuador given her Spanish language fluency.

Another challenge was developing the Performance Monitoring Plan (PMP), including indicators and Life-of-Program targets. Field sites found setting Life-of-Program targets difficult as the work in each field site is still evolving. The PMP has now been finalized but we still need to test our procedures to ensure that partners can collect data and information necessary, and that the reporting requirements do not overburden field staff and draw too much time and resources away from field activities. Other issues that we have dealt with in Year 1 included setting up reporting procedures for participant training (through the USAID TraiNet system) and use of American professional volunteers for contributions to Volunteers for Prosperity. TraiNet and volunteer reporting systems are up and running smoothly and efficiently requiring a minimal investment of in-country partners' time. Our goal in Year 2 is to build web–based reporting systems – making data entry easier, information flow more rapid and report preparation simpler and faster.

The USAID branding regulations which will take effect in January 2006 and Section 508 compliance requirements (concerning electronic and information technology accessibility) are extensive and create special challenges for our Spanish speaking partners. Compliance with branding regulations was covered extensively during the implementing partners meeting. CRC is investigating – unsuccessfully so far – the existence of the branding requirements in Spanish. The CRC/SUCCESS information technology manager is still awaiting clarification from USAID on questions about the need to brand the USAID-funded project pages on the CRC organizational web-site. Another option we are considering is a stand-alone site for USAID-funded programs including SUCCESS. These discussions are ongoing and to some extent we may not have answers until the co-branding guidelines (due in 2006) are released. Both the branding and 508 compliance requirements draw down the time that staff in the US and the field sites normally allocate to programmatic tasks.

Another challenge we have discovered as part of the first year of implementation is networking between the various regions where we are working. Each site, including the Associate award site in Thailand, is quite different in terms of context and maturity of ICM initiatives. The two Latin American field sites engage in a good deal of networking with each other in South-South dialogue due to similarities in context, language and culture. However, it is difficult to draw in

Tanzania that has a much more developed ICM governance framework, or Thailand, where the issues are different and level of development much higher. An opportunity where we may be able to have synergies between regions is the concept of a certification program for ICM managers.

Lastly, we are working on ways to link the SUCCESS program with the GLOWS Program (Global Water for Sustainability) in an overarching Global IMCAFS (Integrated Management of Coastal and Freshwater Systems) Program. This includes consideration of a joint newsletter and aspects of a common learning agenda. We also desire to work in a common geographic site (currently, none of our Leader or Associate award sites are in a common area) where there can be much more interaction on connecting the upland water and resources management issues with coastal and marine issues. Such an opportunity is likely to come from a future associate award.

VIII. Budget

This section provides details of the annual budget aggregated in several different ways as illustrated in the figures below. The budget assumes a carryover of Year 1 funds of $100,955 by the sub-recipients and $109,397 by CRC.

Figure 4: Budget by Line Item

Item	USAID Share	Cost Share CRC	Cost Share UHH	Total
Salary	190,388	180,504	11,943	382835
Consultants	30,000	-	-	30,000
Fringe benefits	74,425	81,227	2,628	158,280
Other direct costs	28,647	-	-	28,647
Travel	69,836	-	-	69,836
Sub-agreements	433,931	-	-	433,931
Direct Costs	827,227	261,731	14,571	1,103,529
Indirect @32.8%	133,125	85,848	-	218,973
Total	**$960,352**	**$347,579**	**$14,571**	**$1,322,502**

Figure 5: Budget by Program Element

	USAID	Cost-share	Total
On-the-Ground Results	480,952	81,575	562,527
Regional Training	232,073	109,831	341,904
Networking-KM	61,498	54,180	115,678
Science for Management	24,021	9,730	33,751
Global Leadership	9,169	60,313	69,482
Cross Cutting	0	16,444	16,444
Volunteers	24,115	11,074	35,189
Monitoring-Evaluation	61,402	1,457	62,859
Program Management	67,122	17,546	84,668
Total	**$960,352**	**$362,150**	**$1,322,502**

Figure 6 reflects expenses for on-the-ground work in each of the respective countries and international travel to those countries for program work. The total does not equal the entire budget for SUCCESS program activities, as many SUCCESS program activities are not country specific.

Figure 6: Budget by Country

Country	Total
Ecuador	140,928
Nicaragua	161,525
Tanzania	155,974
Total	**$458,427**

Figure 7 provides a summary of the travel budget for all international travel and US based travel. Travel is broken down by program element and by which respective implementing partner initiates the travel under their sub-agreement. Figure 8 identifies the traveler, tentative travel dates, destination and purpose of travel by program element.

Figure 7: International and US Based Travel Budget

Program Element	CRC	UHH	UCA	ECC	WIOMSA
On-the-Ground Results	27,193	14,084			
Regional Training	10,845	10,764	1,200		
Regional Networking and KM	4,237				
Global Leadership	6,850				
Volunteers	11,355				
Monitoring and Evaluation	9,356	7,626	5,670	4,592	6,180
Total	**69,836**	**32,474**	**6,870**	**4,592**	**6,180**

Figure 8: Tentative International and US Travel Schedule[1]

Month	On-the-Ground Results	Regional Training	Regional Networks/KM	Global Leadership	Volunteers	M&E, Reporting
Oct 05						Mmochi, Soborio, Ochoa-Reg partners/ Haws-UHH (Rhode Island)
Nov 05						
Dec 05		Requintina, Fong-CRC/ Haws-UHH (Tanzania)			Torres-CRC (Ecuador)	Crawford,Torell-CRC (IMCAFS DC)
Jan 06				Olsen, Crawford-CRC (Ocean & Coasts, France)		
Feb 06	Crawford-CRC/ Haws-UHH (Ecuador/ Nicaragua)		Bowen-CRC (Tanzania)			
March 06	Crawford-CRC/ Haws-UHH (Tanzania)					Crawford-CRC/ Haws-UHH (USAID Brownbag DC)
April 06	Requintina-CRC (Tanzania)	Fong and Corderio-UHH (Nicaragua)				Luga or Derek-UCA (Nicaragua)
May 06	Torell-CRC (Tanzania)	Squillante-CRC (Tanzania)/ 2 travelers-UCA (Ecuador)				
June 06	Olsen-CRC (Tanzania)				Volunteer-CRC (Nicaragua)	Torell-CRC/ 2 Travelers-UCA (Ecuador); Tobey-CRC (Nicaragua)
July 06	Haws-UHH (Ecuador/Nicaragua)				Volunteer-CRC (Tanzania)	Crawford-CRC/ Haws-UHH (IMCAFS Miami)
August 06						Mmochi,Soborio, Ochoa-Reg partners/ Haws-UHH (Rhode Island)
Sept 06						

---

[1] Dates, traveler and purpose are estimates based on the work plan activities. All travel assumes a multi-purpose agenda with an emphasis of each trip on one of the program elements. Traveler name and primary trip purpose may change based on work plan schedule and progress.

Figure 9 lists leveraged funds that have contributed to the overall program objectives in Year 1 and additional leveraged funds we expect to obtain in Year 2. No targets are set for leveraged funds but the estimated amounts are tracked and reported.

Figure 9: Leveraged Funds

Year One			
Funding source	**Recipient**	**Description**	**Estimated Contribution**
USAID/Ecuador	EcoCostas	Galapagos workshop and assessments/mapping for Cojimies, Ecuador	30,000
CosTech, Tanzania	Tilapia farmers, Mkuranga	Windmill for water pumping from CosTech for Tilapia ponds in Tanzania	500
Private citizens from South Africa	Fumba Village	For work on bivalve farm and kiosk construction	100
WWF	SUCCESS Leader -Regional Training	Travel for 3 participants/staff from WWF Mafia Marine Park project	540
USAID SEEGAAD Project ADCI/VOCA	SUCCESS Leader -Regional Training	2 training resource persons for 2 person days and local travel of 1 participant	260
Aquaculture CRSP Project (USAID), Oregon State University	SUCCESS Leader	Travel costs for Tanzanian training participant from Univ. of Arkansas (Post Doctoral)	2,000
Kwetu Training Centre, Kenya	SUCCESS Leader	Regional training participant from Kenya	500
University of Rhode Island	SUCCESS Leader -Regional Training and on-the-ground results	Expertise for training on bivalve culture and on-the-ground results -URI Associate Professor Michael Rice	6,318
Private citizen	SUCCESS Leader -Regional Training and On-the-ground results	Expertise on milkfish farming for training and on-the-ground results- Edwin Requintina	6,318
Year One total			$ 46,536

Figure 9: Leveraged Funds (continued)

Year Two (projected)			
Funding source	**Recipient**	**Description**	**Estimated Contribution**
AVINA	EcoCostas-CRC Learning network	Latin America SUCCESS countries Regional Networking	180,000
AVINA	EcoCostas Director	Regional Networking and On-the-ground Results	24,500
AVINA	SUCCESS Regional Training	Ecuador Regional training course in Cojimies bringing participants from Ecuador and Nicaragua together	25,000
NOAA	Coastal Resources Center	International Sea Grant Latin American Network Development	30,000
Peace Corp Volunteers	EcoCostas	3 Peace Corp Volunteers assigned to Cojimies, Ecuador	20,000
Government of Sweden	Regional Networking	Deliver short course highlighting Tanzania livelihoods and gender -- cross cutting themes	1,940
Year Two total			**$ 279,500**

Annex A: Performance Monitoring Plan

Forwarded to the USAID SUCCESS Program CTO under separate cover.