

Sustainable Coastal Communities and Ecosystems Program (SUCCESS)

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

Semi-Annual Report #6

July 1 – December 31, 2007



**Integrated Management of Coastal and Freshwater Systems
Leader with Associates Cooperative Agreement for
Sustainable Coastal Communities and Ecosystems (SUCCESS)**

**Semi-Annual Report # 6
July 1 – December 31, 2007**

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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
Conservation International
The Nature Conservancy
World Wildlife Fund
The Sea Grant Network**

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I. INTRODUCTION

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

The Coastal Resources Center (CRC) at URI is the Leader and the Pacific Aquaculture and Coastal Resources Center at the University of Hawaii (PACRC/UHH) is the sub-recipient. Strategic partners include the Sea Grant Association of Universities; the Nature Conservancy (TNC); World Wildlife Fund (WWF); and Conservation International (CI). Regional partners are the Western Indian Ocean Marine Science Association (WIOMSA) in Zanzibar, Tanzania; the Center for Ecosystem Research (CIDEA) at the University of Central America (UCA) in Nicaragua; and EcoCostas, a regional nongovernmental organization (NGO) based in Ecuador.

The SUCCESS Program provides global leadership in integrated coastal management (ICM) through innovative approaches in a participatory, issue-driven and results-oriented process to

- Promote sustainable use of marine resources
- Conserve marine biodiversity
- Improve food and income security

SUCCESS is developing and applying improved practices of global importance: eco-friendly and sustainable nearshore fisheries, mariculture of native and/or long-proven successful mariculture, and livelihoods in biologically significant and/or formally designated protected areas.

The Program is building capacity in effective coastal and marine management that supports biodiversity conservation through: 1) systems to manage and disseminate new knowledge being generated and 2) design of an innovative certification program, which unlike one-off training courses takes a long-term view to building regional networks of professionals with the requisite knowledge and skills to manage coasts and marine protected areas.

1. Biodiversity Conservation and the Sustainable Coastal Communities and Ecosystems (SUCCESS) Program

Coastal ecosystems contain biologically productive habitat, supporting a disproportional amount of economic output per unit of area, through fisheries and other productive activities.¹ Yet, these biodiversity-rich ecosystems are under accelerated threat. Integrated coastal management (ICM) takes a long-term view to addressing many of the root causes behind these threats and as such the ICM-based SUCCESS Program contributes to USAID biodiversity conservation goals.

The SUCCESS emphasis on ICM takes a different approach to biodiversity conservation as compared to most conservation-oriented programs, but aims to achieve similar goals². First, it works both within and outside of formally designated marine and coastal conservation areas. While managing protected areas is an important approach to biodiversity conservation, scientists

¹ USAID. 2005. Biodiversity Conservation: A Guide for USAID Staff and Partners.

² For a discussion of ICM and conservation see: Best, B. 2003. Conservation and Integrated Coastal Management: Looking Beyond Marine Protected Areas. p. 325-342. In: Olsen, S.B. (ed.) Crafting coastal governance in a changing world. Coastal Resources Center, University of Rhode Island. p.376.

have pointed out that in and of itself, this is insufficient unless areas outside of as well as surrounding protected areas are also better managed³. Second, SUCCESS emphasizes USAID-recommended conservation approaches including sustainable use, community-based and cross-sectoral approaches, linking to the fisheries sectors. Third, SUCCESS operates on the premise that stakeholders in sustainable use and conservation efforts must realize tangible benefits if these programs are to be effective and sustainable beyond the life of USAID investments⁴. Therefore, livelihood and enterprise development are featured in SUCCESS interventions and help address poverty issues⁵—a feature of most communities where SUCCESS works. Lastly, SUCCESS incorporates many of the principles identified by USAID for effective biodiversity conservation: 1) adaptive and results-oriented, 2) highly participatory, 3) fosters sustainability, 4) builds in-country capacity, 5) incorporates learning, and 6) complements other conservation initiatives. SUCCESS Program contributions to biodiversity conservation in its primary field sites include:

Tanzania

In the waters around Fumba village, within the Menai Bay conservation zone on Zanzibar Island of Tanzania, SUCCESS is introducing a zoning scheme—e.g., designating selected areas as “no-take” zones during certain periods—and introducing shellfish farming and half-pearl aquaculture as a more eco-friendly alternative source of food protein (oyster) and income (sale of pearls).

Ecuador

SUCCESS and local partners are tackling accelerating threats to biodiversity of the Cojimies estuary by introducing eco-friendly livelihoods (revived culture of the native fish *chame*, home gardening, and beekeeping/honey production) and working with the local communities to create a longer term vision that includes conserving the estuary’s remaining resources and biodiversity.

Nicaragua

SUCCESS conducted biodiversity threats assessment to identify environmental, social and economic issues affecting biodiversity at the Aserradores, Padre Ramos and Puerto Morazan sites—all of which are either ecological reserves or areas of recognized biological importance; is promoting adoption of best management practices; and is introducing alternative livelihoods and management systems that will effect positive environmental changes.

³ For discussion of the need to look beyond protected areas to fully achieve marine biodiversity conservation see: Allison, G.A. J. Lubchenco, and M. Carr. 1998. Marine reserves are necessary but not sufficient for marine conservation. *Ecological Applications Supplement* 8(1) S79-S92. and; Jameson, S.J. M.H. Tupper, and J.M. Ridley. 2002. Three screen doors: can marine “protected” areas be effective? *Marine Pollution Bulletin* 44: 1177-1183.

⁴ For a discussion of ICM sustainability factors see: Christie, P., K. Lowry, A.T. White, E.G. Oracion, L. Sievanen, R.S. Pomeroy, R.B. Pollnac, J.M. Patlis, R.V. Eisma. 2005. Key findings from a multidisciplinary examination of integrated coastal management process sustainability. *Ocean & Coastal Management* 48(3-6):468-483. and; Pollnac, R.B., and R.S. Pomeroy. 2005. Factors influencing the sustainability of integrated coastal management projects in the Philippines and Indonesia. *Ocean & Coastal Management* 48(3-6):233-251.

⁵ For a discussion of the links between poverty and biodiversity conservation see: Adams, W.M., R. Aveling, D. Brockington, B. Dickson, J. Elliot, J. Mutton, D. Roe, B. Vira and W. Wolmer. 2004. Biodiversity conservation and the eradication of poverty. *Science*. 306(5699):1146-1149.

2. Overview and Executive Summary of Accomplishments

This report covers activities from July 1 to December 31, 2007. The following is a summary of Program achievements to date and for this reporting period. Subsequent sections list by SUCCESS Program element the current highlights, activities, “success” stories and priorities for the upcoming quarter. Later sections outline key management issues, challenges and constraints, summarize highlights from Associate Awards, overviews of other activities being implemented by the Leader (CRC/URI) that are relevant to SUCCESS. Appendix 1 provides a summary of Performance Management Plan results.

2.1 Cumulative Program Accomplishments (October 1, 2004 – December 31, 2007)

- Over 220,000 hectares in areas of biological significance under improved management (150,000 marine and 70,000 terrestrial)
- Over US \$430,000 leveraged in support of regional and site-based program activities
- 470 persons and 210 enterprises benefiting from equitable and sustainable natural resource based enterprises
- Individual capacity built for 654 persons, through implementation of 32 training courses that support better ICM enabling conditions and best practices
- Nine US volunteer professionals fielded in support of Program activities, with a time commitment valued at over \$44,000
- Approximately 2,500 individuals participated in coastal resources and conservation planning meetings– 47% were female, achieving a more equitable participation for this traditionally disadvantaged group
- 62% of sustainable enterprise beneficiaries are female, achieving more equitable distribution of benefits for this traditionally disadvantaged group
- One national policy, one large estuary management plan, and one management plan for intertidal resources are now approved at the national government level in Nicaragua and Tanzania.

2.2 Program Highlights Current Reporting Period (July 1 – December 31, 2007)

- 11,687 hectares in areas of biological significance showing improved biophysical conditions for selected parameters (cockle abundance) in Nicaragua
- Management plan for intertidal resources, including no-take zones, adopted on the Fumba Peninsula, Zanzibar.
- Alternative livelihoods involving poor coastal fisheries now producing eco-friendly products (e.g. shell jewelry and half-pearls in Tanzania; bread in Nicaragua; *Chame* fish, passion fruit, trees and plants in Ecuador)
- US \$18,561 leveraged for local and regional activities.
- 477 persons (41% women) participated in ICM-related planning meetings in sites
- Two training courses held (one regional and one local) in Latin America
- Mariculture network launched in East Africa with 66 members (35% women).
- Four US volunteer professionals spent over 100 days supporting Program activities in Ecuador and Nicaragua. Their time commitment is valued at almost \$16,000

II. PROGRESS IN MEETING PLANNED OUTCOMES OF WORKPLAN PROGRAM ELEMENTS

3. Regional Capacity Building: Certification Programs and Training

Certification

East Africa

Lawrence Sisitka, a South African consultant experienced in certification initiatives, drafted versions of both the process for the Marine Protected Area (MPA) Professionals Certification Program and the core competencies and standards that provide its programmatic foundation. The Western Indian Ocean Marine Science Association (WIOMSA) and CRC have and continue to actively provide input to and the vetting of these documents, a more finalized version of which were presented to the WIOMSA Secretariat and CRC in late December 2007. These documents will be presented at a January 2008 workshop in Nairobi, attended by a subgroup of regional stakeholders that has supported the Certification Program initiative to date. Once the reports are final, conversations will be undertaken with the U.S. National Oceanic and Atmospheric Administration in efforts to both update them on the initiative and seek their potential support.

In tandem, WIOMSA and CRC have been identifying: 1) the type of Board needed for the Program and its ideal members; potential candidates for the first course (to focus on level 2, or the equivalent of someone at the level of a marine protected area manager); and a plan for the marketing and administration of the certification program. After an active advertising process, the hiring of an Education Specialist at WIOMSA is imminent. This individual will hold primary responsibility for the administration, marketing, and operational level implementation of this Program.

Conversations continued with Dr. Winfried Wiedemeyer, the coastal zone management expert with the European Union-funded ReCoMap project as regards the commitment to provide US\$30,000 in support to the MPA Certification Program. Meanwhile, a proposal was also submitted to ReCoMap by WIOMSA in response to its issuance of a Request for Proposals. Successful proposals may receive awards up to \$100,000.

The goal is to have a first class enrolled by June/July 2008 and possibly “graduated”/certified by the end of SUCCESS Year 4 after having completed a five-day seminar followed by a six or eight weeks practicum on-the-job/in the field, followed by the final five-day seminar.

Tasks and Milestones	Date	Status	Challenges/Comments/Constraints
<i>Certification Leadership, Management, Financial Structures</i>			
Education Specialist to manage certification program in place	December 2007	Delayed Revised date: January 2008	Weak 1 st applicant pool delayed process; qualified candidate now identified and accepted position
Design “blueprint” for systems needed for program management: administrative, fiscal, marketing, alumni	November 2007	Ongoing	

tracking, etc.			
<i>Program Structure and Content Developed and Approved by Board</i>			
Submission of consultant report (L. Sisitka)	November 2007	Completed	To be further vetted at January 2008 Nairobi Workshop
Hire consultant to prepare business plan and Board statutes	November 2007	Cancelled	This task now assigned to CRC and WIOMSA
Review and approve consultant report (WIOMSA, CRC, then the Board, then others review)	November-December 2007	Delayed Revised date: December/January 2008	See note in box 2 above
Construct website for marketing of Program and database for information input and tracking	November/December 2007	Delayed Revised date: March 2008	Again, all tasks dates delayed due to delay in signing consultant contract
Identify and secure MPA Certification Program Board	December 2007	Delayed Revised date: February/March 2008	
Business plan and Board statutes completed	January 2008	Revised date: February/March 2008	
Board approves business plan and preparation of fundraising plan (below)	February 2008	Revised date: March 2008	
Board develops statement of Ethics	February 2008	Revised date: March 2008	
Fundraising strategy and plan prepared based on business plan scenarios	March 2008	On target	
Conduct second Board meeting	August 2008	On target	
<i>Marketing and Recruitment</i>			
Marketing brochure in hard- and electronic-copy prepared	December 2007	Delayed Revised date: March/April 2008	
Identify and recruit first class	December 2007-February 2008	Delayed: Revised date: February-March 2008	
MPA Certification <i>marketing</i> website goes live	January 2008	Revised date March/April 2008	
Enroll and orient first class	April – May 2008	On target	
Identify and recruit second class	June – August 2008	On target	
<i>Course Design and Delivery</i>			

Identify and secure commitment of trainers	January – March 2008	Revised date: February – April 2008	
Conduct training of trainers refresher course	April 2008	Revised date: May 2008	
Finalize course overview and schedule, modules, session plans, materials	May-June 2008	On target	
Identify, secure and ready the training venue	June 2008	On target	
Conduct first course* (likely a “sandwich” model with course work interspersed with practicum and spanning several months)	July – September 2008	On target	
Knowledge Management			
Design architecture of an MPA theme web page/site (WIOMSA will then take over the task of populating and going live)	April – May 2008	On target	

Priorities for Next Quarter (January 1 – March 31, 2008)

- Orient new Education Specialist based at WIOMSA offices to manage Certification Program
- Review, provide comment on, and finalize consultant documents at Nairobi workshop
- Draft business plan for WIO MPA Certification Program
- Identify and recruit first class
- Develop marketing materials
- Continue working with RECOMAP project to identify certification components to fund
- Continue conversations with ReCoMap, WWF, WCPA-Marine, WWF, TNC, NOAA, etc.
- Identify Board members

Latin America

The first training/workshop, *Programa de Certificación de Manejadores de Ecosistemas Costeros en América Latina y El Caribe*, was held from November 27 to December 2, 2007 in Guayaquil, Ecuador and was co-sponsored by Avina, LOICZ, IAI/IHDP and USAID. The six-day workshop was well received, with 24 (14 female, 10 male) participants—exceeding the number originally planned. The training team included CRC and EcoCostas staff and European colleague Stella Vallejo, who has extensive experience in training, most recently in the Train SeaCoast program. Participants brought a variety of experiences to the workshop and represented both municipal level and ecosystem level programs. In terms of expertise, the workshop included both senior and junior level practitioners, which provided an opportunity for mentoring of the junior practitioners.

Response to the course was positive, resulting in 13 field-based projects that will be the focus of the “experience” section of the certification, with participants evaluating governance mechanisms and developing action plans for the future. Participants completed workbook assignments and provided relevant feedback on the methodology used for governance assessments. They agreed upon a series of deliverables for their projects which will then be fed into the Knowledge

Management (KM) system, and available for participants to review before the next course in April.

Materials associated with the Certification program have been drafted and translated into Spanish. This includes a preliminary draft of the Code of Conduct, and a revised draft of the Governance Workbook. The latter includes a set of worksheets to be used in “looking to the past”. A demonstrative example of the technique and worksheets has been developed, based on an evaluation of Cuba, which was initially developed by EcoCostas, CRC and the World Bank.

The KM design has been completed and the final prototype in its initial stages of testing. This includes a protocol that allows users to make content-based searches through a web interface related to the database of projects. The EcoCostas Blog was developed to facilitate communication among members of the Network (www.ecocostas.org/kms/wp). This BLOG was used for electing the new members of EcoCostas, voting on the organization’s new logo and implementing a poll on the satisfaction of the KM system.

The Strategic/Business Feasibility Plan effort was initiated with the hiring of Glenn Page, a consultant with significant expertise in strategic planning in marine related organizations. Glenn worked with a small working group from EcoCostas and CRC throughout the Fall to initiate the plan, with meetings held in Miami and Rhode Island. Participants at the first workshop/training reviewed and validated the proposed principles for the Strategic/Business Feasibility Plan, and provided valuable input that has been incorporated into the draft submitted at the end of December.

Although not completed and ready for the first training/workshop, progress was made on establishing certification standards (education, experience, ethics, and examination) that will be finalized before the second training/workshop in April 2008.

All activities related to this certification program have to this point been jointly developed and implemented by EcoCostas and CRC. This meant that the new EcoCostas Executive Director, Paola Garzon, who started work in September faced a steep learning curve to “catch up” on not only what has been accomplished/designed to date for this program, but in assimilating to her responsibilities in this new position of leading the still somewhat fledgling organization of EcoCostas. These responsibilities include the development of the certification training events as well as drafting of the certification program strategic/business plan.

Another challenge was to ensure that participants were fully motivated to complete governance baselines, which would then contribute to their certification requirements for “experience” and provide a knowledge base for peer exchange.

One workshop activity was to report on the progress of the strategic plan for the Latin America Certification Program. After a presentation on the draft plan, the Network participants requested time to fully engage in review and providing comments on its goals. They divided into working groups, met and provided substantive input. This was a positive step towards securing their buy-in and to their recommendation that the Network be included as a key component of the plan.

There emerged in the members’ meeting, a strong interest to link capacity building in coastal ecosystem governance to the challenges of climate change. This recommendation will be acted upon and the April 2008 workshop/training curriculum will reflect this. It will build upon the coastal adaptation partnership that has been initiated with USAID EGAT, USAID Global Climate Change and URI-CRC.

The workshop/training included both senior and junior level practitioners, which provided an opportunity for mentoring of the latter. This has prompted consideration of whether the first cohort to be certified should include two levels of managers—as opposed to certifying only at the most senior level, as originally conceived.

Tasks and Milestones	Date	Status	Comments/Challenges/Constraints
<i>Design Certification Program for senior practitioners.</i>			
Certification and Curriculum Design work session (for first event).	October 2007	Complete	Activity advanced at Miami's Certification Workshop in Aug 2007.
Develop certification standards, determine program hours, experience requirements, design of exams and their scoring	March 2008	Initiated	Stella Vallejo to co-lead this effort for an advanced version of standards of good practices code
<i>Development and Delivery of Curriculum for Educational Standards</i>			
Conduct first Event: Essential features of coastal ecosystem governance and application to a project or program through the preparation of a governance baseline	November 2007	Complete	24 participants; workbook and worksheets drafted on governance baseline s
Conduct Second Event (4 days)	April 2008	Initiated	Workshop overview outlined
<i>Make Operational the Certification Program</i>			
Complete EcoCostas Strategic/Business Feasibility Plan	December 2007(draft) May 08 (final)	Draft completed	Preliminary draft developed by staff and reviewed/ validated by Network members; Draft completed and submitted by Glenn Page
Provide logistical support for events	November 2007 – May 2008	In process	Despite recent EcoCostas staff turnover, logistics for Nov event went extremely well
<i>Develop Governance Baselines as a tool for Experience Exchange</i>			
Complete governance baselines (use model baseline as training tool and work with practitioners to complete their baselines, as part of experience standard)	September 2008	Initiated	Training Event #1 provided clear process and initiated baselines for 13 study sites
Refine web-based system at EcoCostas for sharing information case study materials as part of the certification curriculum effort (increase functionality, utility, access)	September 2008		EcoCostas blog, (www.ecocostas.org/kms/wp) is operational; Design developed for matching tool to consult database information

Priorities for Next Quarter (January 1 – March 31, 2008)

- Governance baselines representing 13 projects; completed worksheets “Looking to the Past” (includes completing data charts, map, contextual information; project management and project actors; and case information, stakeholders, and case cycles in essay form)
- Governance baseline information incorporated into the web-based system
- Certification standards developed by working group (Stella Vallejo, co-lead)
- Revised version of strategic plan (based on inputs of November 2007 workshop) ready for approval by EcoCostas Network meeting April 2008
- Early implementation of the strategic/business feasibility plan—including participation of EcoCostas staff and Network members in ESTA fundraising event in RI; visits to Network sites to generate visual and digital images that support communications strategy and fundraising efforts of EcoCostas

Other Regional Training Courses

Tanzania

The third East African training program on mariculture and mariculture extension was held July 3-7, 2007 in Bagamoyo. The goal was to train participants on commercial pond milkfish farming and floating line system of seaweed farming. Trainees ranged from academicians, fisheries officers, saltpan owners, and seaweed buyers. They hailed from universities and research institutions, mangrove management programs, district fisheries offices, department of fisheries, TCMP, SEMMA, saltpan associations, Kwetu Training Centre, seaweed farmers, milkfish farmers and a journalist. Trainers included milkfish, seaweed and prawn farming experts in biology, management, construction and economics. The training attracted 26 males and four females and included one participant each from Mozambique and Kenya. A number of relevant publications were disseminated during the course, including the milkfish farming manual for the WIO region, the milkfish farming economic report, pond management brochure, seaweed farming economic report and pearl farming manual. These are useful resource tools for participants after they have left the course.

Latin America

See above as part of Certification

4. Regional Networks, Knowledge Management, Learning, Communications & Outreach

Regional Networks and Knowledge Management

SUCCESS launched a regional network in the Eastern Africa region in cooperation with the Western Indian Ocean Marine Science Association (WIOMSA). The new Western Indian Ocean (WIO) Mariculture Network, hosted by WIOMSA, is an outcome of the 2005 WIOMSA Science Symposium held in Mauritius. The Network is supported by two Internet tools built by SUCCESS to enhance communication among the network members spanning nine countries in the region. The WIO Mariculture Network Forum is online at <http://www.wiomsa.org/mariculture/forum/>. The second tool, a web enabled data system

containing an inventory of mariculture project sites in the region, a directory of regional mariculture experts, and an online publication library was designed and data collection begun. The concept for these two tools was presented at a workshop during the 10th WIOMSA Science Symposium and discussions with network members helped shape the tools.

This reporting period, it is the WIO Mariculture Network that has provided the greatest challenge. While technical components of the support tools were relatively easy to design and construct, there was difficulty in getting partners to provide content. And, while the online forum has a good structure and functions well, network members have been somewhat slow to utilize it. This may require more effort in socializing the forum amongst the network members. As for the web enabled data system, the data structure has been customized and the data entry system is online and functional however SUCCESS partners are not actively populating the system with data. Additionally, the tools are hosted on the WIOMSA website, which is on a server located in Sweden, and there is a connectivity problem with the administrative package used to configure the server when in the CRC office. This needs resolution at the Swedish ISP.

On the positive side, the WIOMSA Science Symposium provided an opportunity to discuss the WIO Mariculture Network with interested parties—some interested in mariculture and aquaculture *per se* in the region and others interested in the design and operation of regional networks on other topics. Specifically, the European Union-funded ReCoMAP program based in Mauritius, expressed interest in potential collaboration.

Learning

The development of Cross Portfolio Learning Topics (CPLTs) on mariculture, while launched in this reporting period, requires changes. In this reporting period, there was continued analysis of the data from the Tanzania and Thailand livelihood studies and selected new reports drafted for Tanzania. The Tanzania study found evidence of increased interest in conservation, raised income and empowerment among women on the Fumba Peninsula. For example, in the Bweleo village the most entrepreneurial women have earned between \$US 40-\$50 per month from selling jewelry they learned to craft through support from SUCCESS. Meanwhile, *mabe* cultivation has the potential to further increase their income as high quality pearls can sell for \$US 40 - \$50 dollars per piece. When asked how women see the pearl farming and jewelry making one woman, Safia Hashim, maintained that the undertakings have helped empower women. “It is different from the former days when only husbands worked to support the family. Today men and women share the responsibility of earning money to support their families. My husband has even helped pay for me to go to trade fairs in Mombasa and Nairobi, Kenya to sell my jewelry.” Safia, who is now building a house for her husband and six children, adds “Coastal community lives have greatly improved. We can afford better housing, education, food, clothing, and other necessities.”

Planning began for a SUCCESS Program learning workshop to be held the end of July/beginning of August 2008. The workshop will focus on lessons lying at the nexus of natural resource management—including biodiversity conservation—mariculture extension, and microenterprise development as well as on our regional initiatives of certification and knowledge management.

Communications and Outreach

The SUCCESS/IMCAFS program launched two new issues of the *Basins and Coasts* newsletter. Issue 3.1 on the theme of Biodiversity was launched in September 2007 with four articles on biodiversity within the context of river basin and coastal management. Issue 2.1 was launched in

December 2007 on the theme of Climate Change Vulnerability and Adaptation, again in the context of river basin and coastal management. The latter issue raises the bar for this online newsletter. It increased the number and topical focus of the articles and provided a more robust mix of social and natural science perspectives.

A human interest story on the impact of half-pearl (*mabe*) farming, a SUCCESS activity in Zanzibar, was submitted to USAID Washington as a potential candidate for a USAID *Frontlines* magazine article. As well, raw materials were collected during the visit of Bowen, Haws, and Torell to the Zanzibar field sites and these will be crafted into a variety of stories and multi-media that will be posted to the web.

Initial contacts were made with high-end jewelers in Newport RI and the likelihood is high that they will support in a variety of ways this mabe initiative, including providing some active marketing of the sale of the “set” pieces.

Tasks and Milestones	Due Date	Status	Comments /Constraints /Challenges
<i>Improve and Help Build WIOMSA Web-based Network Systems</i>			
Complete mariculture data collection from WIO countries	October 2007	Ongoing	Task is ongoing with WIOMSA and mariculture country coordinators
Design web-based system for WIO	November 2007	Completed	Website and database online, in internal mode for inputting of regional data
WIO-Mariculture Network website designed and online	December 2007	Ongoing	Externally viewable website not yet online. Awaiting content generation by WIOMSA and IMS staff
Mariculture discussion forum on WIOMSA web-site goes live	November 2007	Completed	
<i>Cross Portfolio Learning Topics</i>			
Open Water Mariculture	December 2007	Completed	
Pond-based Mariculture	December 2007	Completed	
<i>Analyze, document, share applied research findings on SUCCESS livelihoods learning topic</i>			
Complete Tanzania and Thailand case studies	December 2007	Delayed Revised date: April 2008	Data analysis for Tanzania and Thailand ongoing.
<i>Enhance dissemination of SUCCESS results, programmatic news, events, stories from the field</i>			
Basins and Coasts Newsletter			
Issue 2.1	December 2007	Completed	On recommendation of RVolk, may delay public launching until after first of year, however
<i>Generate and Disseminate Communications and Outreach Materials</i>			
1 SUCCESS story/brief/article every month	October 2007- Sept 2008	On target	Several articles in December 2007 B&C issue

Candidate article for <i>Frontlines</i>	Oct 2007, Jan, May, Sept 08	On target	One article has been submitted to Frontlines
Bi-monthly contact with field to solicit raw material for stories (see above)	Oct, Dec 2007; Feb, April, June, Aug 08	On target	
Request monthly updates on articles, releases from field	October 2007 – Sept 2008	On target	

Priorities for Next Quarter (January 1 – March 31, 2008)

- Complete updates to the SUCCESS and IMCAFS websites
- Develop additional content with the WIO Mariculture Network and bring the web-based data system online for the network
- Complete Tanzania and Thailand case studies
- Conduct surveys and qualitative case studies around livelihoods in Nicaragua
- Plan learning workshop
- Generate additional stories from the field for web, stand-alone articles, Frontlines, etc.

5. Global Leadership

With approximately \$84,000 in support from the USAID Global Climate Change (GCC) Program, CRC is playing an active role in assessing how GCC specifically affects developing country coasts and how coastal management must adapt actions and plans to be ready to mitigate the impacts. USAID will use this information to inform its own program staff in the need for and the “how to” of including GCC considerations in USAID-funded program design and implementation. CRC is also hosting a GCC and coasts workshop (see under conferences).

Discussions are underway with the USAID West Africa Regional Bureau regarding their potential interest in an Associate Award focused on small-scale fisheries issues. A scoping trip is tentatively scheduled in late February 2008 to assess the condition of small scale nearshore fisheries in West Africa with an eye to determining potential opportunities for USAID to implement program activities to address the problems.

CRC is drafting the publication, *Sustainable Fisheries and Aquaculture: A Guide for USAID Staff and Partners*. Similar to USAID’s guide on biodiversity conservation, this publication will cover a range of topics ranging from the underlying principles of sustainable fisheries and aquaculture to approaches, best practices, and current status and trends. A detailed outline was prepared in December with inputs provided by several USAID EGAT staff.

Other Conferences, Committees, Publications, Key Leverage Points

CRC have been invited to design and host a half-day workshop as a precursor to the 4th Global Conference on Oceans, Coasts, and Islands: *Advancing Ecosystem Management and Integrated Coastal and Ocean Management by 2010 in the Context of Climate Change*, which will be held April 7-11, 2007 in Hanoi, Vietnam. Planning for this workshop got underway this period. The workshop will serve as a short training and feedback session on the methods CRC is developing for mainstreaming coastal climate change adaptation into coastal development projects, planning and policy and coasts.

The Walton Family Foundation (WFF) has contracted CRC to test the CRC Orders of Outcomes framework as a tool to track progress and assess program effectiveness of the Foundation's grantees. CRC is applying the tool to marine biodiversity conservation programs funded by WFF. The Orders of Outcomes tool has been refined over the years—as part of the USAID-funded work that CRC has designed and implemented.

Stephen Olsen, CRC Director, was a keynote speaker at the Fifth WIOMSA Scientific Symposium, 22-26 October 2007, Durban, South Africa, with his presentation focusing on: “*Practicing Integrated Coastal Management in the 21st Century: What needs to change.*”

6. On-the-Ground Results

Tanzania

Shellfish and pearl farming

Development of half-pearl (mabe) farming techniques continued in the Menai Bay conservation area. The first mabe was harvested in May 2007 when it was also noted that the species used (*Pteria penguin*) takes longer than the nine months anticipated for black lip pearl oysters (*Pinctada margaritifera*). A second batch of pearls were harvested in November 2007, producing 28 good-quality pieces. The shells were cut open in a joint meeting of the villagers from Bweleo, Fumba and Nyamanzi from November 14-17. The pieces are currently being set and readied for auction during a pearl exhibition meeting planned for January 2008. The next harvest, originally scheduled for December, has been re-scheduled to February 2008 after discovering the nacre cover needs additional thickening. This SUCCESS initiated technology is starting to spread beyond Zanzibar. About 50 black lip pearl oysters each seeded with one button will be harvested at Tawalani Tanga. These will also be the first pearls from Tanga. Also, 100 seeded black lip pearl oysters are being farmed in Nyamanzi, 150 in Bweleo and 200 in Tawalani—a total of 450 scheduled for harvest in May-June 2008.

Individuals at Bweleo are now collecting animals for seeding. There are a total of 82 *Pteria penguin* from three different people scheduled for seeding in January. The establishment and testing of long line for pearl farming which was originally scheduled for October has been pushed back to January due to delays caused by preparations for the Durban WIOMSA symposium.

Approximately 80 of the black lip pearl oyster spats collected in June-September 2006 in Bweleo have grown to 8-9 cm. Once they reach 10 cm, they can be seeded for pearl production. In August, SUCCESS set lines (5m horizontal lines each with 30 one-meter vertical lines) in Bweleo, Nyamanzi Zanzibar, and Tawalani Tanga with coconut shells as substrate in order to collect spat. Each vertical line holds 30 pieces of coconut shells. In two months, 180 spats were collected in Bweleo, 80 in Tawalani and none in Nyamanzi. By comparison, four basket spat collectors set in Tawalani collected 120 spats in the same length of time. This new emphasis on spat collection is a progression of skills development among farmers and as a means to avoid dependence on wild harvests of adults.

Shell polishing marketing and development of micro-enterprises

These sales are reasonably well recorded and a simple system of debit and credit bookkeeping is in place. For example, Ms Rahma in Fumba Chaleni made total sales of 132,000 Tsh in two

months having spent 37,700 Tsh while Safia in Bweleo earned 199,500 Tsh in one month after spending 83,900 Tsh. This is in addition to sales of \$US 210 which Rahma and Ikiwa Abdalah of Fumba Bondeni made from selling their polished shells at the Durban WIOMSA symposium. While these sales amounts and profits may seem small, it should be noted that our learning agenda livelihood surveys show that coastal households in Tanzania earn approximately \$1,000 per annum. Therefore, profits of approximately \$100/month represent a doubling of their income.

Community based management of cockles

Bylaws for no take zones for cockles in Bweleo, Fumba and Nyamanzi were signed in October 2007 and are now operational. Markers have been set and signboards for the three villages are currently being installed. While the bylaws are operational at the district level the SUCCESS partners are submitting them as well to the Zanzibar Chief Justice Office in an attempt to provide the bylaws with additional impact. Currently it is the West District that is custodian of the bylaws. However, if the Zanzibar Chief Justice Office agrees, it could prosecute offences (those who break the bylaws) outside the purely local jurisdiction. The third bi-annual monitoring for cockle community structure was conducted in November, 2007 and the report is being prepared. Village meetings have disseminated the monitoring results.

Milkfish farming

While on-the-ground milkfish farming activities concluded in 2006, work continues on improving fingerling collection methods and on conducting zonal extension meetings. The fingerling collection studies originally scheduled for October – November were rescheduled to the long rains period (March to May 2008) and the second in October November 2008. The Results of the on-the-ground activities and the associated training and extension meetings has sensitized the government to the wealth of information available on milkfish farming. Meanwhile, the Institute of Marine Sciences is developing and implementing a national aquaculture strategic plan funded by FAO and a national mariculture strategic plan funded by World Bank. Policy issues, including environmental sustainability guidelines, first articulated by the SUCCESS program, are being incorporated into this strategy. The mariculture plan includes zoning of the coastal areas for different mariculture activities and streamlining the permitting process by submitting a digitized map of each district showing the different mariculture activities for endorsement. If endorsed, the prospective mariculturists will receive permits from the Fisheries Office in the village, district or ministry—depending on the type of mariculture and its intensity. Since the policy work and national strategic plan are of prime importance, we have decided to reduce the amount of extension and outreach workshops on milkfish farming in order to concentrate efforts on the national planning and also to divert more resources to the pearl farming activities in Fumba.

Zoning plans for seaweed farming in Mlingotini Bay

Arrangements for launching the zoning plans in Mlingotini Bay are associated with launching the seaweed farming bylaws now being processed for approval at the district level. According to the Bagamoyo District Natural Resources Officer and also the ICM facilitator for the district, this is now slated for January 2008. In the interim, SUCCESS is installing marker buoys and signboards in preparation for the launching.

Task and Milestones	Date Due	Status	Comments/Challenges/Constraints
Piloting of sustainable low cost techniques for milkfish and seaweed farming in East Africa			
Policy development on mariculture: contribute to Department of Fisheries activities on mariculture policy development	Ongoing	On target	
Report on fry/fingerling collection program	August 2008	On target	
Conduct study on fry and fingerling abundance and seasonality (leveraged funds from MASMA)	On-going	On target	
Develop marketing strategy for milkfish	July 2008	On target	
Mariculture policy development through the DoF national aquaculture strategy	On-going	On target	
Conduct Regional and National Outreach on Milkfish Farming Conduct 4 zonal milkfish and floating line seaweed farming dissemination workshops/trainings at Farmer centers (Rufiji workshop dependent on co-sponsorship by WWF) —Tanga —Pemba —Rufiji	January - March 2008	On target	
Launch and implement mariculture discussion forum	October 2007	Completed	Launched and underway; need for greater marketing to improve exchanges
Shellfish, pearl farming and development of capacity for entrepreneurship for women groups in the Menai Bay			
<i>Pearl Floating Farms</i>			
Monitor survival and nacre production in pearl oysters	On-going	On target	
Establish and test the use of long lines for half pearl farming	October 2007	Delayed Revised date: early 2008	Activity was delayed until after first harvest of pearls in November 2007
Continue collection and seeding of adult Pteria and Pinctada both on floating systems and long lines	August 2007-July 2008	On target, ongoing	
Check oysters to determine if they are ready for harvesting	September 2007	Completed	Oysters checked and harvested in November
Harvest pearls (tentative)	November 2007	Completed	Successful harvest described in main text of this report

Second harvest for Pinctada	June 2008	On target	
Second harvest for Pteria	October 2008	On target	
Work with Menai Bay and Fisheries Department, Zanzibar to develop guidelines for oyster collection and pearl production	May 2008	On target	
<i>Mabe and shell polishing and marketing</i>			
Public sale of pearls in festival in 2007/8 to include politicians, traders and USAID Tanzania	To be decided	On target	After successful harvest in November 2007, festival now planned for early 2008
Develop marketing plan for pearls and other polished shells	Ongoing	On target	
Produce and market shell handicrafts	Ongoing	On target	
Develop product packaging and advertisements	November 2007	On target; and on-going	Some women have developed packaging and labels for their jewelry; this will be ongoing
Develop and implement marketing strategy for pearls and shell artifacts	December 2007	On target; and ongoing	First discussions held with Newport RI jewelers; more discussions and strategizing ongoing
Conduct the third pearl farming and processing workshop	October – November 2007	Completed	An informal workshop held during the harvesting.
Development of a cooperative or SACCO depending on which is most appropriate; to be conducted by extension officers of Agriculture Department	January 2008	On target	
Develop methods and conduct spat collection experiments	August 2007 – July 2008	On target; and ongoing	Spat is being collected
Zoning plan for seaweed farming in Mlingotini Bay			
Discuss zonation scheme at district level: one meeting	October 2007	completed	
Conduct combined district/village zoning meeting: one meeting	TBD if needed		
Submit zoning plan to district council for endorsement	November 2007	completed	Plan now being considered by the district; approval expected in January 2008
Install marker buoys and signboards	December 2007		
Launch the bylaws	January 2008	On target	
Establishment of improved harvest practices (no-take zones) for cockles in Menai Bay			
Continue monitoring of the cockle no take zones	Ongoing		

Put up signboards to indicate the presence and use of the no-take zones	November 2007	Delayed Revised date: February 2008	Signboards to be installed next quarter
Put markers and signboards to show the no take zones	Ongoing		
Bi-annual monitoring of the cockle community structure in the no take zones, collection areas and control sites	October 2007; May 2008	Ongoing	October monitoring completed; results being analyzed
Approve map and incorporate no-take areas into the MBCA draft management plan	September 2007	Delayed Revised date: at discretion of MBCA	MBCA has endorsed the no-take areas and management plan for cockles, but has not yet incorporated this into the MBCA management plan
Launch the management plans and the bylaws	November 2007	Delayed	Official launch is yet to be held (see above)
Expand communication and outreach			
News paper articles in the local news papers one every 3 months	December 2007 March, June, September 2008	On target	Articles were published in local media on the half pearl harvest
One article in each issue of quarterly WIOMSA newsletter and WIOMSA magazine	October 2007 February, May, August 2008	On target	WIOMSA magazine featured SUCCESS in several articles
Launching of the Western Indian Ocean mariculture discussion forum	October 2007	On target	Forum launched
Four zonal training programs to disseminate milkfish and floating line seaweed farming methods	January February, March 2007 (2 in March)	On target	
Press release re launch of sale of half-pearls produced in Zanzibar	November 2007; March 2008	On target	Half pearl harvest covered in local media

Priorities for Next Quarter (January 1 - March 31, 2008)

- Install the signboards in the 6 villages 3 each in Fumba Peninsular and Mlingotini Bay
- Launch the zoning map for Mlingotini Bay
- Conduct the pearl exhibition and auction the pearls

- Install the long line for pearl farming
- Increase the number of seeded oysters
- Improve the mariculture forum
- Input more information in the network
- Develop market studies for the sell of the pearls
- Develop plans for setting of pearls

Nicaragua On-the-Ground Results

CIDEA/UCA planned and organized the SUCCESS annual partners' meeting (July 9-13) during which the field sites were visited.

Two research efforts that were part of the SUCCESS science for management component were completed—the water quality monitoring and testing of shellfish tissues for human pathogens (*E. coli*, *Hepatitis A*) in the most important cockle (*Anadara tuberculosa* and *A. similis*) gathering areas. These studies support improved management of this threatened fishery. Results indicate a high risk of Hepatitis A contagion if raw shellfish are consumed. The water quality component of this work will continue under funding from the AquaFish CRSP awarded in October 2007 in conjunction with UHH. It should be noted that another waterborne illness was present in epidemic levels in the last quarter. A leptospirosis outbreak possibly provoked by flooding affected thousands of coastal residents, particularly fishers who work in contaminated waters.

Work on alternative fisheries management for black cockles continued successfully with the Aserradores community. No-take zones have been in effect for 14 months. Monitoring of the no-take zones was conducted and meetings held with the community.

Work with the Felicita bakery at FincaMar continued with weekly visits to improve production. Efforts with development of ecotourism in the same protected area continued with short extension events held to build capacity among community members for customer service, development of local tour guides, and language and communication. Studies were also completed for assessing the carrying capacity for tourism on the aquatic and terrestrial trails and results were presented to the community.

SUCCESS provided the cooperative shrimp farms Rosita and FincaMar with technical assistance for implementation and monitoring of Best Management Practices (BMPs). An evaluation of the effectiveness of implementing social, environmental and economic BMPs was conducted and this evaluation showed that the use of BMPs resulted in improvements in all areas.

Participatory research to assess an alternative fisheries management regime for the black cockle (*Anadara tuberculosa* and *A. similis*) in Aserradores and El Realejo, Chinandega

During the July-December period, two follow-up visits were made to the cockle fishing communities to listen to their concerns, identify problems with the new management system, discuss the level of compliance with the no-take zones, re-install markers, execute the first yearly monitoring, and present the monitoring results. Additional outreach on other environmental matters and activities for the community's children was also conducted. Three community members were elected by the cockle gathers to attend the workshop, "Interchange of Experiences for the Protection and Recuperation of Mangroves".

In September, CIDEA researchers and community members sampled the three no-take zones and nearby areas where cockle gathering is allowed. Table 1 shows that cockle counts were higher in the no-take zones only 12 months after establishing them. In two of the three no-take zones, counts had increased over the initial numbers. A presentation of the results was to be made to the community in October, but was postponed until December as heavy rains made access to the community difficult and provoked a coast-wide epidemic of Leptospirosis, which struck the community hard. In November a short event provided information to the community on the basic biology of cockles and their relevance to fisheries management to dispel misconceptions.

Table 1. Population counts for black cockles after six months of establishing no-take fishing areas.

Site	Area sampled	Number of sample replicates	Cockles counted	Density after 12 months (cockles/m ²)	Initial density (cockles/m ²)
Rio Viejo no-take zone	4 m ²	4	125	7.81	3.06
Ri6 Viejo open area	4 m ²	3	67	5.25	
Los Tornos no-take zone	4 m ²	3	157	12.83	3.65
Los Tornos open area	4 m ²	10	135	3.37	
Castepe no-take zone	4 m ²	4	54	3.37	3.25
Castepe open area	4 m ²	7	75	2.67	

SUCCESS Nicaragua submitted completed data and analysis to URI and UHH. An abstract that summarizes results of this and the microbiological analysis for shellfish sanitation were submitted for presentation at the World Aquaculture Conference (no cost incurred to SUCCESS).

The results of the alternative cockle fisheries management were presented at the Workshop for Exchange of Experiences for Protection and Recuperation of Mangroves. Representatives from the Tonalá and El Viejo Municipalities, Peace Corps, Natural Resource Manager for the Millennium Challenge Corporation, Regional Coordinator for AFE-COHDEFOR Honduras (Agriculture and Forestry), OIKOS, Asseradores cockle gathers and biologists from three shrimp farms attended. Three members of the Asseradores were also able to participate in the “Mangrove Event 2007” which is designed to promote reforestation in Asseradores.

Improved Management Practices for the Estero Real

Monthly water quality monitoring of the Estero Real protected area continues with financing from the Nicaragua Association of Aquaculturists (ANDA) with support from SUCCESS personnel. An analysis of the first six years of results (2001-2006) was completed which allow identification of priorities for future monitoring (freshwater flows, productivity levels, pesticides, etc.) which will continue with the support of ANDA.

Good Management Practices in Shrimp Mariculture

To date, the Rosita and FincaMar two cooperative shrimp farms have received technical assistance over three production cycles. This has included recovering historical production data (baseline), record keeping, use of water quality monitoring equipment, identification and mitigation of problems and implementation of Best Management Practices. On both farms significant improvements have been made, including continuous water quality monitoring, which

has improved water quality. In spite of problems with infrastructure or damage due to weather, overall improvements have been made in survival, use of fertilizers and feed, and cost controls.

In cooperation with CYTED (Science and Technology for Development) a chapter on shrimp BMPs was written and is being incorporated into a book which will be distributed throughout Latin America. A separate publication on shrimp best management practices was also completed. Parts of this work were conducted in collaboration with funding from the EU and OIKOS.

Alternative Livelihoods and Small Business Creation

Ecotourism: Two short technical events were conducted in customer service and tour guiding to build community capacity in these areas. One event (hygiene) was postponed when the instructor became unavailable. Ten life jackets were donated to the FincaMar association for use with tours on the aquatic trail. A study of carrying capacity was conducted in September with results presented to the community in November. Tourism students helped collect information needed for signage and interpretation materials for both the aquatic and terrestrial trails. Final work with a landscape architect for the trails including some small bridges and improvements to the foot paths using locally available materials will conclude in December.

Bakeries: Work continued with the women’s group to identify problems with production, with a focus on improving profitability. One recommendation was to improve practices that were negatively impacting profitability, e.g., inaccurate measuring. Additional technical visits were postponed due to flooding and epidemics in the coastal areas. In December, work began with the feasibility studies for the new or re-activated bakeries in Puerto Morzan and El Realejo.

Tilapia: A brackish water tilapia culture manual was published and distributed to shrimp and tilapia producers and government agencies. This manual was developed with Japanese Aid funds based on SUCCESS tilapia trials. One student thesis was also produced from this work.

Science for Management

Water quality monitoring was conducted in three sites (Padre Ramos, Asserradores, El Realejo)—sites of intensive cockle gathering—to determine the bacteriological levels as a precursor to developing shellfish sanitation plans to help avoid shellfish borne diseases. Cockle tissues were analyzed. Results indicate that consuming raw shellfish from certain areas and during certain seasons carries a high risk of contracting Hepatitis A or being affected by E. coli. Additional funding to continue the monitoring for 30 months, develop the shellfish sanitation plans and conduct overseas training in shellfish culture and sanitation was awarded by the AquaFish CRSP in October (\$39,000). The need for further work improving community sanitation is indicated.

<i>Tasks and Milestones</i>	<i>Due Date</i>	<i>Status</i>	<i>Comments/Challenges/Constraints</i>
<i>Continue technical assistance to the women's group producing bread</i>			
Short event in accounting and costs	October 2007; January and May 2008	Delayed Revised date: early 2008	Event planned for October postponed due to flooding and leptospirosis outbreaks in coastal communities
<i>Reactivate the bakery in Alemania Federal, El Realejo and start two new ones</i>			
Infrastructure	October	Delayed	Delays due to flooding and

preparation	2007	Revised date: early 2008	leptospirosis outbreak followed by holidays
Feasibility study of bread production for each site	October – November 2007	Completed	
Short events in process of bread production	November – December 2007 Feb-May 2008	Start delayed Revised start date: February 2008	Delayed by coastal flooding and leptospirosis epidemic
Short events (entrepreneurial motivation, book-keeping)	September – December 2007; February 2008	Delayed start Revised start date: March 2008	Delayed by coastal flooding and leptospirosis epidemic
Learning exchange between bakeries of FincaMar and Alemania Federal	November 2007, June 2008	Delayed Revised date: June 2008	Due to the cancellation of events due to the flooding and leptospirosis outbreak; November and June events will be combined into one “Bread Festival”
Learning exchange between bakeries of FincaMar and Puerto Morazan.	November 2007, June 2008	Delayed	Due to flooding and leptospirosis outbreak
Learning exchange between bakeries of FincaMar and El Congo	November 2007, June 2008	Delayed start	Due to flooding and leptospirosis outbreak; November and June events will be combined into one “Bread Festival”
Monitoring and pursuit by project personnel (6 per site)	October 2007-September 2008	On track	Regular visits made to conduct feasibility studies and organize learning event now scheduled for June 2008
Follow-up by project personnel	October 2007, September 2008	Delayed Revised start date: early 2008 pending activation of new bakeries.	In spite of delay, project personnel have visited existing and planned bakery sites
<i>Promote ecotourism in FincaMar as a way to generate income through non-extractive uses of natural resources and promote awareness and conservation of the area's biodiversity</i>			
Conduct monitoring and follow-up	October 2007 – September 2008	On track	Follow-up visits made to plan for improving trails
Identify birds (volunteers for the prosperity) and train community guides	November 2007	Completed	Volunteers worked on local guide development and bird interpretive materials

Post signage and interpretation materials for tourist trail at Rosita farm	November 2007 - March 2008	On track	Preliminary stages completed, final installation of foot bridge and other refinements planned for early 2008
Post signage and interpretation materials for aquatic tourist trail	November 2007 - March 2008	On track	Preliminary stages completed, final installation of signage planned for early 2008
<i>Continue supporting and monitoring co-management of the black cockle fishery in the Aserradores community and disseminate preliminary results</i>			
Meet with community to evaluate results of samplings	October 2007- April 2008	On track	Meetings held with community to discuss results of last sampling.
Raise awareness with neighboring communities that extract black cockles	October 2007 March 2008	On track	
Continue monitoring and follow-up by project personnel	October 2007- September 2008	On track	
Conduct follow-up by project personnel	October 2007- September 2008	On track	
Visits to collect information on commercialization of black cockle	November 2007	On track Monitoring will continue in 2008	
<i>Expand Communications and Outreach</i>			
Write two articles for UCA magazine	December 2007, March 2008	Delayed Revised start date: January 2008	First article will be published in January after the holiday period.

Priorities for Next Quarter (January 1 – March 31, 2008)

- Work with FINCAR members to put the final touches on improvements to tourist trails
- Work with FINCAMAR members to provide signage for the dry tropical forest area that is part of the terrestrial tourist trail
- Continue with feasibility studies for bakeries in Puerto Morazan, El Realejo and El Congo
- Continue with support to the cockle gatherers in Aserradores for maintaining and monitoring the alternative fisheries management scheme for fisheries

Ecuador On-the-Ground Results

The September 25, 2007 meeting of nine honey producers resulted in a rich discussion of the experiences and practices of the beekeepers. They developed operation and maintenance plans that would assist them in improving their practices. As a practical exercise, the group extracted honey with the use of a centrifuge and bottled honey for the market locally and in Pedemales. In addition, the four SUCCESS-sponsored participants agreed to implement a strategy of weekly monitoring of each other's hives, which was implemented from October to December, in coordination with the Peace Corps volunteer Ryan Fitzgerald.

A local expert provided on-site technical assistance to three new bee keepers, and provided follow-up with Freddy Loor, the teenager who has realized significant advances in beekeeping during the first part of the year (see story at end of this section). The expert observed the condition of the hives and made specific recommendations for improved hive health, approaches to minimize damage from pests, and provided tangible advice for harvesting methods that would increase the hive productivity, the production of the next batch of honey, and greater profit. Soon thereafter, Freddy harvested his first 10 liters of honey (40 jars of .25 liter each) and marketed them under the new "Cojimiel" label, and sold them for \$2.50 each.



Mr. Randy Lher, a college professor in natural resources from Washington State, joined the SUCCESS Volunteer for Prosperity program for six weeks, working with community groups in Chamanga to develop a Water Quality Monitoring Plan. This will be an excellent starting point for the Cojimies working group which will begin to review baseline information for the estuary.

Small scale gardens continued to benefit community members with relatively high benefits compared with the investment in training, capacity building and seed purchase. Following an inventory of local medicinal plants, a group of women in *Nuevo Milenio's Asociación de Mache* established home gardens to grow a few varieties of these. Members of the *EcoClub Guayacanes* also established their medicinal garden, with twenty species. Motivated by their success, the student group developed a nursery with trees that will be used for wood after harvest. Five residents (4 women, 1 man) of the Bolivar community also adopted family gardens—as an alternative nature-friendly activity providing both a balanced diet and income for the family.

SUCCESS continues to engage school children in environmental education. There was a competition among 10 EcoClubs on the Scholar's Network (*Red Escolar de Chamanga*), which included a training in how to make compost beds with earth worms. One hundred eleven students (54 boys, 57 girls) participated. The groups were then evaluated for their compost beds and the effectiveness of turning organic waste into humus, with one group winning the final competition.

Efforts to promote low-impact tourism and improve community conservation ethic has advanced in several ways. The Mompiche Committee for Tourism Development has arranged for twice-weekly trash collection along the public street. This has engaged many households who want to ensure that they have their trash ready for collection. Residents are realizing the benefits of organizing in groups and putting ideas into action. In light of this, Artisanal Fisherman of Mompiche have organized themselves as a "pre-association" and have begun to collect trash on the Mompiche beach. They



envision future activities that would help develop a beach ordinance to secure areas for boats and fisheries activities. These two committees effectively joined together to participate in the International Beach Cleanup in September, in collaboration with the Municipality and the National Coastal Management Program (PMRC). Finally, an extension workshop was given to ten small business owners (4 women and 6 men) from Mompiche, Bolivar and Chindul, on administration of small tourist enterprises. This activity builds upon capacity building advances made by SUCCESS in Year 3, and was well received by participants.

Coordinating the zoning initiative, “Cojimies- Cañaveral”, has great support from individuals at the Pedernales Municipality. This being said, there are varied opinions from different staff and elected officials on the process and the engagement of different stakeholders. Discussions have delayed implementation of planned meetings. However, given the interest, it is expected that activities can resume early in 2008.

There were challenges faced by SUCCESS Ecuador this period, yet in most cases the challenges also embraced some form of opportunity as well. For example, because the *Chame* producers have limited resources, they continue to be challenged with difficulties in buying fish fry. However, Fernando Carofilis, a shrimp farmer in Sálima, and one of the producers in the Cojimies estuary who applies good practices, discovered there were *Chame* fry in his water canal. He then allowed 10 farmers of *Nuevo Milenio* to capture the fry and transplant them to a fish pond and implement a policulture pilot project of shrimp and *Chame* (1092 *Chame* fry and 200,000 shrimp postlarva). Both the shrimp and the *Chame* were harvested in November—earlier than planned. The *Chame* were sold locally for US \$90—helping to partially offset the cost for pump repair.

In an effort to promote *Chame* experience exchange and commercial market linkages, a workshop was held in Pedemales on September 18, 2007. The 19 participants (16 men and 3 women) included *Chame* farmers, researchers, cultivators, restaurant owners and buyers. Much of the discussion focused on the challenges of effective management of their fish farms, given the lack of funds available for capital investment and operation of their facilities. Even though loans have been difficult to secure from the bank, and it is hoped that a government program can provide loans for *Chame* production. The president of the Pedernales Restaurant Association stressed his support for *Chame* cultivation project in the area and agreed to discuss the opportunities and challenges with his member restaurant owners, and discussed the opportunity to offer *Chame* dishes on their menu, if the producers could guarantee having fish a half pound or greater.

Given that many of the *Nuevo Milenio* farmers are busy with multiple activities, they have decided not to develop and plant a nursery for reforestation trees. Instead, they have decided to plant commercial trees using tree seedlings provided by CEDERENA (Corporation for the Development of Natural Resources), and increase their earnings in the medium term. They will do some reforestation along the Pedernales-Esmeraldas road in La Siberia using seedlings provided by the community nursery, which was supported by USAID and EcoCostas last year.

Tasks and milestones	Date	Status	Comments/Challenges/Constraints
<i>Increase understanding of estuary and watershed issues, and create new possibilities for dialog</i>			
Design and preparation of comic and brochure	October 2007	Completed	Local language and characters were used to communicate with key audience
Drafting of text and art work	November 2007	Delayed	Designers and cartoon specialists not submitted draft due to overload of

		Revised date: January 2008	other work assignments. Anticipate early January submittal
Printing of materials	December 2007	Delayed	Will be completed one month after draft and art work is finalized
<i>Distribute the publications (see above) and the scientific and economic studies</i>			
Conduct planning meeting with Pedernales Municipal authorities	December 2007	Completed	List of key actors and institutions developed and strategy initiated for events in early 2008
<i>Support a zoning initiative for the beach and tourism development for the beach between Cojimies and Cañaveral village</i>			
Meet with the Tourism Department of Pedernales Municipality to coordinate the zoning initiative, "Cojimies- Cañaveral"	October 2007	Completed	
Identify key stakeholders for this process	October 2007	Completed	
Hold meeting for socialization of the initiative with stakeholders	November 2007	Delayed	Discussions underway among local staff and politicians to determine level of participation and technical aspects going into design of ordinance
Conduct workshop for rapid participatory assessment of the state of "Cojimies- Cañaveral"	December 2007	Delayed	
<i>Conserve and restore the REMACH forest and specific areas in or near the Reserve buffer zones</i>			
Hold planning meeting with the Mache Association (<i>Nuevo Milenio</i>) for field activities for reforestation	October 2007	Completed	Ten farmers of <i>Nuevo Milenio</i> to grow out seedlings provided by CEDERENA for commercial use.
Collect tree seeds for germination in tree nursery at <i>Nuevo Milenio</i>	October 2007	Delayed	Farmers involved in many activities, and uncertain if they can take on this activity; one option is to reforest one area with small trees provided by community nursery
Germinate and tend young trees in nursery	November 2007	Delayed Revised date: 1 st Quarter 2008	Ten farmers have prepared their nurseries to germinate Balsa y Teca seedlings; these will be planted in first quarter of 2008.
Transplant young trees to critical areas in <i>Nuevo Milenio</i>	December 2007	Delayed	Anticipated that 200 small trees, including bread fruit and neem, will be planted
<i>Continue and stabilize the alternative livelihood activities, strengthen the local promoters group and finalize the documentation of lessons learned</i>			
Follow-up activities with groups participating in alternative livelihoods	October 2007	Completed	
Conduct visits for follow-up and documentation of productive activities	Nov 2007 – Sept 2008	In progress	

Technical assistance visit by beekeeping and organic agriculture specialist	Dec 2007 – Sept 2008	In progress	Peer to peer visits of beekeepers have been very successful
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Priorities for Next Quarter (January – March 31, 2008)

- Presentation of outreach materials in Pedernales and Muisne through media and local interviews with leaders
- Event featuring outreach materials in Pedernales and Muisne
- Planning and coordination of stakeholder working groups with the Municipal Environment Department of Pedernales related to salinization and sedimentation of the estuary
- Worksessions with key actors to advance in the development of the ordinance for the coastline between Cojimíes and Cañaveral
- Followup on reforestation efforts in Siberia (*Nuevo Milenio*)
- Technical assistance visits of beekeeper and agricultural engineer

SUCCESS STORY

Freddy Loor Panchana, a teenager born in village near Pedernales has ambition beyond his 18 years.

Freddy is in charge of the family farm, working side by side with his father, from whom he learned to till the soil to grow bananas, cacao, watermelon, cucumber and other local crops. But money from the farm was seldom enough to make ends meet. Recognizing that not only his family but others in the community needed new ways to generate income, he banded together with the SUCCESS Program to introduce beekeeping!

Since childhood, Freddy was curious about bees—watching the small winged insects fly from flower to flower carrying a very fine yellow dust. So, when he learned that SUCCESS was helping farmers with beekeeping, he knew what he wanted to do. In April, 2007, Freddy joined a workshop where he met Mr. Polibio Morillo, a beekeeper with over three decades of experience. Morillo and who soon became Freddy’s teacher and mentor.



The workshop helped Freddy with the basics—understanding the lifecycle of bees and providing him the skills to tend beehives for honey production—and Mr. Morillo filled in the gaps. In June 2007 Freddy received two hives. From there it is all history. Freddy began caring for and monitoring his hives and in November 2007—just five short months after getting his hives—he had a honey harvest in hand.

Using a centrifuge borrowed from another beekeeper, Freddy extracted 10 liters of sweet honey, packaged them into 40 bottles (each 250cc) branded with the new “Cojimiel” label, and sold his fine, sweet product for US\$ 100.

What now for Freddy? Using money from his first harvest, Freddy is buying equipment to divide his hives and increase production. Given this year’s favorable climate, the laurel flowers will

flourish in February and March. And come next April, store shelves should be ready for Freddy’s next harvest of Cojimiel!

7. Volunteers

Following its long tradition of using volunteers in its international work, CRC through the SUCCESS Program has successfully assigned Volunteers for Prosperity (VfP) in Thailand, Tanzania, Nicaragua and Ecuador.

Four United States Professional volunteers completed assignments in Nicaragua and Ecuador during this period—of these, half paid personally for up to 75% of their expenses. The one challenge this period was obtaining the volunteer deliverables in the agreed time frame and the timely writing of the volunteer stories.

Priorities for Next Quarter (January 1 - March 31, 2008)

- Write and post volunteer stories on CRC web site
- Forward above to Volunteers for Prosperity
- Rewrite Global Giving web page to obtain funding for volunteer for assignment to Tanzania (to assist in marketing and to train women’s groups on business and marketing techniques for the *mabe* pearls)

8. Monitoring, Evaluation and Reporting

The monitoring, evaluation, and reporting system has functioned normally during the reporting period. Partners have continued feeding performance data through the web based system, where the electronic web-based reporting function has been improved. A review of the evidence files, conducted in the first quarter of FY 08, revealed that some reported data lacked adequate evidence. Field partners have since updated the evidence library and as of December, 2007, the evidence library is over 95% complete.

Initial planning for the final learning workshop is underway. This workshop will likely be held at the URI Graduate School of Oceanography in July 2008.

Tasks and Milestones	Date	Status	Comments/Challenges/Constraints
Collect PMP data	Quarterly	Ongoing	Many evidence files were missing, but have been
Prepare and submit quarterly and semiannual reports to USAID	Quarterly	Ongoing	
Develop additional indicators to reflect regional KM and learning work	October 2007	Completed	A decision was made not to add new quantitative indicators, but to use qualitative measures to describe progress instead.

Refine electronic web-based report generation function	December 2007	Completed	
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Priorities for Next Quarter (January 1 - March 31, 2008)

- Revise PMP indicators by incorporating one or two new indicators to reflect regional KM and learning work
- Continue preparations for SUCCESS field partner workshop in July/August 2008
- Continue quarterly PMP data collection and reporting

III. MANAGEMENT

At the Year 3 annual partners meeting held in Nicaragua, a considerable amount of time was devoted to in-depth thinking on Program direction, including critical thinking about what SUCCESS is doing and achieving and how this links to biodiversity conservation and the broader ICM practice and learning at national, regional, and global scales. This included looking to the longer term, through to and past the SUCCESS life-of-Program. It was also decided that the level of effort and budget for field activities would be reduced and increasing resources focused on regional and global initiatives including certification, knowledge generation and outreach.

The annual partners meeting was also used as a time to set priorities for each program element for Year 4 work planning. Developing the Year 4 workplan and budgets went smoothly based on a considerable amount of thought, as well as preliminary planning and budgeting prior to the partners meeting. Contract amendments to local, regional and US partners also went smoothly indicating that administrative and financial operations have become relatively efficient and routine. The same can be said for the PMP systems.

IV. UPCOMING CHALLENGES, CONSTRAINTS, AND OPPORTUNITIES

SUCCESS initiatives in Year 4 have now incorporated two new global leadership activities. The USAID Global Climate Change Program has contributed a US \$84,000 “add-on” to the SUCCESS Leader Award to address global climate change as part of USAID program planning and how it specifically affects developing country coasts and how coastal management must adapt actions and plans to be ready to mitigate the impacts. Additional resources are being sought for a pre-conference workshop to the International Oceans and Coasts Symposium scheduled for April 2008. The second addition builds in part from the fisheries opportunities assessment completed in Year 3. SUCCESS is working with USAID EGAT to develop a programming guide for fisheries and aquaculture initiatives. AS part of this work, SUCCESS has tapped into the URI Sea Grant Program and brought on board a fisheries management and extension specialist to assist with this effort.

Discussions are also underway with the USAID West Africa Regional Bureau regarding their potential interest in an Associate Award focused on small-scale fisheries issues. Meanwhile, very preliminary discussions are underway regarding potential opportunities and ideas for work on a sustainable and certified blue crab initiative in Southeast Asia. SUCCESS has been engaged in a dialogue with Phillips seafood and major exporter of crab meat from Southeast Asia to the U.S and with the MSC.

V. ASSOCIATE AWARDS

Thailand

In July, the RDMA and USAID Washington gave final approval for a six-month no-cost extension of three project elements (Learning Center, microfinance, and learning-exchange program). This extension will help enhance quality, impacts, and sustainability of project efforts.

A few selected highlights of activities and accomplishments in this reporting period follow.

The Kamphuan Community Learning Center (KCLC)

With the hiring of its director, the Center received a surge of leadership and energy. The local governing board was formed, the KCLC Foundation was established, and with assistance from the CRC Business Manager, a draft business and marketing plan was begun. Further, the Center was formally turned over to the Community in September. Unfortunately, it was confirmed that the original goal of providing the Center with either an endowment or a grant that could support its continued post-Project business operations was not possible. However, progress was made in identifying other capital expenditures which would expand the Center's revenue-generating base. This includes the purchase of additional computers for "rent" by those using the Center and the construction of a guest house, which will generate rental fees to support the Center.

Regional Capacity Building and Networking

URI-CRC and AIT faculty partnered to design and deliver a three-week certificate level course July 23-August 10 on "Integrated Coastal Ecosystem Management". The course was held at AIT and drew participants from 12 countries in Asia, Africa, and North America. Alumni from that course have expressed interest in attending the URI-CRC Summer Institute in Coastal Management Advanced as well.

Also, AIT and CRC are partnering on a joint proposal to the World Conservation Union in response to their request for a proposal aimed at capacity needs assessment and capacity building in six tsunami-affected countries in the region. This proposal, which draws heavily upon the experience and relationships that emerged from the SUCCESS Project, was submitted in December.

Livelihoods

In September, Dr. Kevin Hopkins from the University of Hawaii-Hilo conducted a two-day training in Ranong with aquaculture livelihood groups from five Kamphuan communities on best management practices in how to increase aquaculture production without increasing effluents. With the official departure of program staff in September, active Project support for the newly established or revived livelihoods in the community has concluded. However, the Project has left behind a successful number of strengthened livelihood endeavors—many of which were made possible by the establishment of microenterprise groups which later transitioned into a formal cooperative credit union.

Community-Based Disaster Management

The National Disaster Warning Center and the DDPM used lessons learned from the SUCCESS project's efforts in community-based disaster management and adapted them to provide training materials for us in preparing 403 villages in the six southern provinces for an evacuation drill in July. In August, three-day training in first aid, cardio-pulmonary resuscitation and mass-casualty

situation management was provided to 28 members of the TAO Kamphuan Community Disaster Management Volunteer Team.

VI. CONTACTS WITH USAID MISSIONS

Thailand

The SUCCESS Thailand Chief of Party (COP) made several routine visits to the Thailand regional development agency (RDMA) to provide periodic program updates, discuss the no-cost extension and closeout activities, and options to assist the Learning Center's sustainable operations.

APPENDIX 1. SUCCESS PERFORMANCE MANAGEMENT REPORT

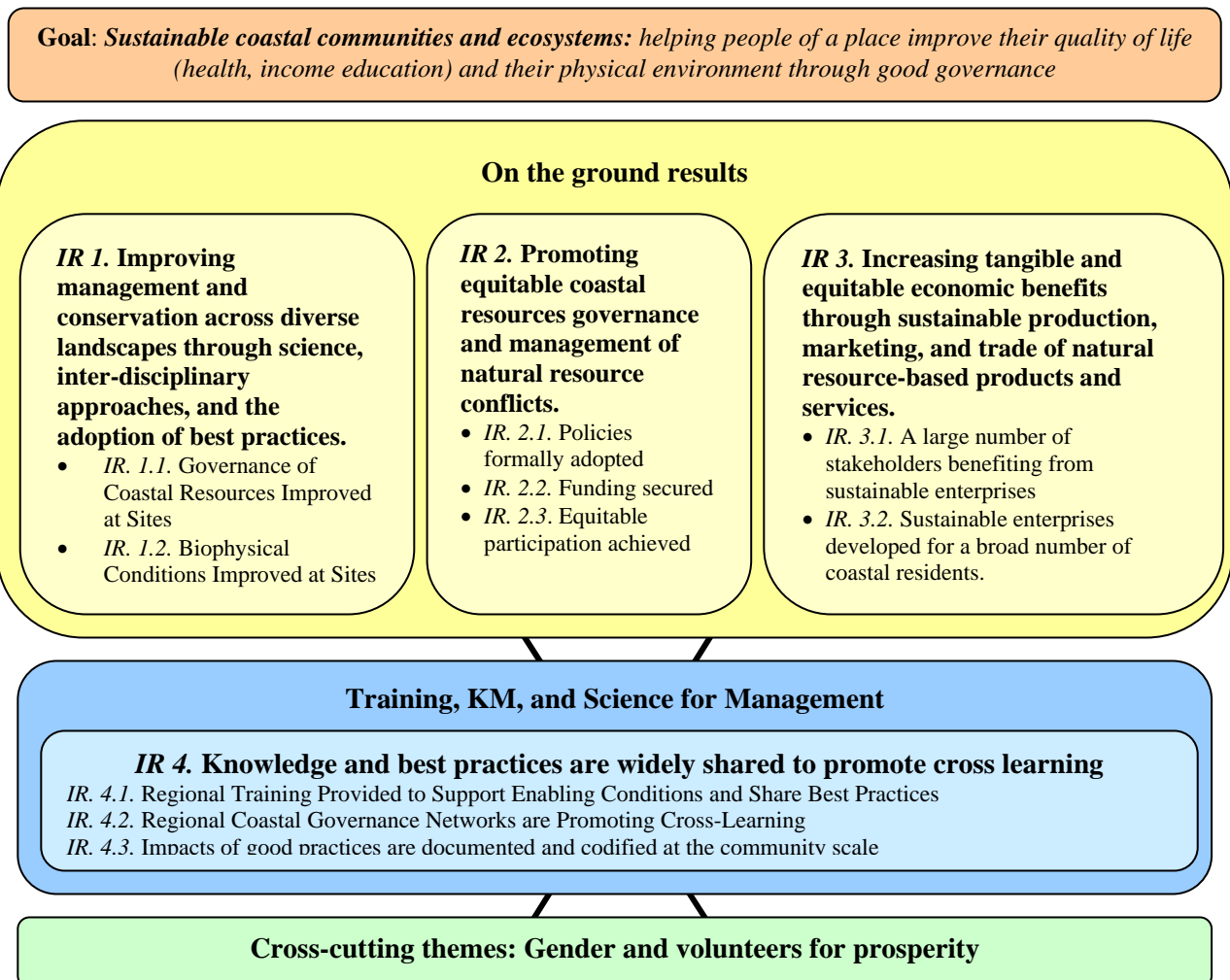
This Performance Management (PMP) Report shows the progress that the SUCCESS program has made towards its targets to date. The report is based on the Performance Monitoring Plan, which was revised in January 2007. This reflects recent changes in USAID’s indicators and definitions.

The SUCCESS program’s goal is to provide global leadership in integrated coastal management through innovative approaches in a participatory, issue-driven and results-oriented process to:

- Promote sustainable use of marine resources
- Conserve marine biodiversity
- Improve food and income security

This is a long-term objective (a third order outcome) that the project will contribute to over the life of the project. To achieve this goal, the program has established four Program Elements with underlying Intermediate Results (IRs) shown in Figure 1. These reflect the regional and global elements of the program as well as actions in three countries that are implementing innovative practices, adaptations, and learning across the place-based portfolio.

Figure 1. The SUCCESS Program Results Framework



Overview of the Results for the SUCCESS Program to Date and the Current Reporting Period

This table gives an overview of the “rolled-up” results for SUCCESS to date, including the current reporting period. Detailed results per indicator and/or field site and quarter can be provided upon request.

Indicator	FY 05-07 Targets	FY 05-07 Results	FY 08 Targets	FY 08 Q1 Results	LOP Targets	Cumulative Results	FY 07 Q4+ FY 08 Q1 Results	Comments
Number of biologically significant hectares	158,187	150,921	11,619	70,380	240,173	221,301	76,162	After this reporting period we have almost reached our LOP target for this indicator. We don't expect to expand our efforts much further geographically and the only additional hectares expected are from Menai Bay, Zanzibar.
<i>Marine hectares</i>	135,570	133,365	8,827	17,439	183,286	150,804	21,304	
<i>Terrestrial hectares</i>	22,617	17,556	2,792	52,941	56,888	70,497	54,859	
Number of hectares in areas of biological significance showing improved biophysical conditions for selected parameter(s)	no target	0	no target	11,687	no target	11,687	11,687	These hectares include the Aserradores Estuary where monitoring of the no-take zones are showing promising results. A monitoring report from the Fumba no-take zones is currently being prepared and we expect to report the hectares from that area in the next reporting period.
Number of policies, laws, agreements, or regulations promoting sustainable natural resource management and conservation implemented	3	3	2	0	7	3	1	The management plan and no-take zones for cockles on Fumba Peninsula were reported in FY 07 Q4.

Indicator	FY 05-07 Targets	FY 05-07 Results	FY 08 Targets	FY 08 Q1 Results	LOP Targets	Cumulative Results	FY 07 Q4+ FY 08 Q1 Results	Comments
Leveraged funding (site level)	no target	201,587	no target	6,000	no target	207,587	9,700	We are currently undertaking a review of the leveraged funding reported by the field sites and it is likely that the figures will be slightly adjusted in the next reporting period
Leveraged funding (regional)	no target	224,897	no target	0	no target	224,897	8,861	It is possible that Q1 FY08 should include additional leveraged funding from Avina and LOICS (contributing to the Latin America certification program). We are investigating this matter.
Number of persons participating in coastal resources and conservation planning initiatives	1,498	2,286	245	211	1356	2,497	477	
Number of people with increased economic benefits derived from sustainable natural resource management and conservation.	614	437	60	33	709	470	45	A PMP review discovered that some field sites had underreported the number of beneficiaries. These beneficiaries are reported under FY08 Q1.
Number of new or improved enterprises developed	178	201	4	9	182	210	10	See previous comment
Number of people trained	325	654	100	0	500	654	32	There were two trainings in FY08 Q1, but the number of attendees has not yet been reported.

Indicator	FY 05-07 Targets	FY 05-07 Results	FY 08 Targets	FY 08 Q1 Results	LOP Targets	Cumulative Results	FY 07 Q4+ FY 08 Q1 Results	Comments
Number of training courses implemented	16	30	5	2	22	32	3	
Number of active participants in web-based regional networks (gender disaggregated)	25	21	23	66	48	87	66	The WIOMSA mariculture network was launched during this reporting period. There are 66 members in the network, with 15 individuals actively posting comments on the website.
Publications documenting impacts of best practices	no target	26	no target	1	no target	27	4	
Number of American volunteers	6	7	2	2	10	9	4	
Volunteer person days	72	202	24	34	120	236	106	
Value of volunteer time (\$)	29,219	39,112	3,722	5,105	18,166	44,217	15,916	
% females participating in coastal resources and conservation planning initiatives	50%	47%	48%	44%	42%	47%	41%	
% females with increased economic benefits derived from sustainable natural resource management and conservation.	30%	66%	20%	6%	27%	62%	18%	

Indicator	FY 05-07 Targets	FY 05-07 Results	FY 08 Targets	FY 08 Q1 Results	LOP Targets	Cumulative Results	FY 07 Q4+ FY 08 Q1 Results	Comments
% females trained	30%	43%	30%	0%	30%	43%	19%	
% female participants in web-based regional networks	38%	40%	33%	35%	38%	38%	35%	
% female American volunteers	50%	29%	50%	50%	50%	33%	25%	