

Thailand Post-Tsunami Sustainable Coastal Livelihoods Program

FINAL REPORT

MARCH 15, 2005 – MARCH 31, 2008

A Program of the Leader with Associates Cooperative Agreement on Sustainable Coastal Communities and Ecosystems (SUCCESS)

Cooperative Agreement No. 486-A-00-05-00004-00









Key Contacts

Amrit Bart Chief of Party

Email: bart@ait.ac.th Phone: (662) 092121806

Winston Bowman

Director

Regional Environment Office

Regional Development Mission/Asia

Email: wbowman@usaid.gov Phone: (662) 263-7469

Brian Crawford

CRC SUCCESS Program Director

Email: brian@crc.uri.edu Phone: (401) 874-6225

Monica Maghini

CRC Financial Administrator Email: mmaghini@crc.uri.edu

Phone: (401) 874-6146

Samruay Meenakarn

Senior Advisor, Microfinance and Small

Business Development

Email: chanchanat@yahoo.com

Phone: (66-77) 844-286

Cindy Moreau

CRC Business Manager Email: cindo@gso.uri.edu

Phone: (401) 874-6488

William Murray

Learning Exchange Coordinator Asian Institute of Technology Email: murray@ait.ac.th

Phanuwachr Phatthadhol

Director, Kamphuan Learning Center Suk Samran sub-District, Ranong Province

Email: pphatthadhol@gmail.com

Phone: 02-524-5471

Saengroaj Srisawaskraisorn Cognizant Technical Officer USAID Regional Development

Mission/Asia

Email: ssrisawas@usaid.gov Phone: (662) 263-7464

Lucia Sukhanenya AIT Office Manager Email: luciavs@ait.ac.th Phone: (662) 524-5221

James Tobey

CRC Program Leader, Thailand Email: tobey@crc.uri.edu
Phone: (401) 874-6411

Richard Volk

USAID Water Team

SUCCESS Cognizant Technical Officer

Email: rvolk@usaid.gov Phone: (202) 712-5373

Table of Contents

	<u>I</u>	<u>Page</u>
EX	ECUTIVE SUMMARY	iii
1.	INTRODUCTION	1
2.	PROGRAM RESULTS	2
3.	THE RANONG DEMONSTRATION	3
4.	REGIONAL OUTREACH AND NETWORKING	9
5.	RECOMMENDATIONS	11
	nex 1: MAJOR ACCOMPLISHMENTS FOR THE PERIOD OCTOBER 1, 2 MARCH 31, 2008	
	nex 2: LIFE OF PROJECT ACCOMPLISHMENTS BY PROGRAM JECTIVE	14
Anr	nex 3: LIFE-OF-PROJECT (LoP) RESULTS IN RELATION TO PMP	16

Acronyms

AIT Asian Institute of Technology ADPC Asian Disaster Preparedness Center

CBDRR Community Based Disaster Risk Reduction

CULT Credit Union League of Thailand

DDPM Department of Disaster Preparedness and Management

ICM Integrated Coastal Management

LWA Leader with Associates Cooperative Agreement for Sustainable Coastal

Communities and Ecosystems

NDWC National Disaster Warning Center PMP Performance Monitoring Plan

RDM/A USAID Regional Development Mission/Asia REAL Rural Entrepreneurship through Action Learning

SCL Sustainable Coastal Livelihoods

SUCCESS Sustainable Coastal Communities and Ecosystems Cooperative Agreement

TAO Tambon Administration Organization

UHH University of Hawaii-Hilo

USAID United States Agency for International Development USEPA United States Environmental Protection Agency

EXECUTIVE SUMMARY

The tsunami of December 24, 2004 was one of the deadliest natural disasters in history, killing more than 225,000 people in eleven countries. It resulted in billions of dollars in property and infrastructure lost and damaged, and millions of livelihoods disrupted. The USAID Regional Development Mission/Asia responded to the disaster with the creation of the Post-Tsunami Sustainable Coastal Livelihoods (SCL) project.

The project was designed as a field demonstration and a regional lessons learned program in partnership with the countries most severely affected: India, Maldives, Indonesia, Thailand and Sri Lanka. Both the field demonstration and regional exchange were grounded on the tenet of building back better through a holistic approach to community resilience. The holistic approach involved an inclusive and on-going process with communities and local authorities to strengthen ecosystem stewardship, livelihood development, and disaster risk management. Recognizing that marine fisheries are overexploited, the project resisted the donor drive to recapitalize the fishery with boats, gear and engines. One of the headlines for coastal management after the disaster is that an opportunity to alter the path of overfishing was missed. The SCL demonstration project can be used as a model for future donor initiatives that want to change poorly conceived strategies of recapitalizing the fishery to building fisheries alternatives and long-term coastal resilience.

This report highlights the operational hypotheses on which the project was founded, key achievements, problems encountered, sustainability strategies implemented, and lessons learned. It also makes recommendations for the future. It is hoped that the lessons learned and experience from the project will continue to live and help guide the design and implementation of future USAID supported coastal initiatives in disaster risk reduction and community resilience.

The project's major accomplishments were in the areas of capacity building, microfinance mechanisms to build community resilience, community based disaster risk reduction, and regional lesson drawing. A long-term capacity building initiative, and one of the major features of the project, is the Kamphuan Community Learning Center. The Center survives the project as a demonstration of green technology, as well as a venue for training, education and community activities related to community resilience to future natural disasters. Key lessons include how to build local and national constituencies for such an innovative and major new institution (such as public ceremonies and committee development), and the sequence of actions and timeframe needed to build a sustainable program.

The work in village banking demonstrated that community-owned savings and credit mechanisms can be a successful and important element to post-disaster recovery in rural communities in southern Thailand. The five village banks created by the project helped to restart 235 family livelihoods and create dozens of new livelihoods. The microfinance project element is also one of the demonstrations of sustainability. One of the village banks was converted to a Cooperative Savings and Loan institution under the Cooperative Union League of Thailand. This Cooperative holds its office at the Learning Center. Not all the village banks were equally successful. One of the lessons learned is the importance of local leadership and trust in village banking.

These and other lessons learned are brought forward in this synthesis report. A comprehensive listing of project materials and descriptions of project components is available on cd-rom by request and can be accessed from the website of the Coastal Resources Center; www.crc.uri.edu.

1. INTRODUCTION

The USAID Regional Development Mission/Asia responded to the December 2004 tsunami with the creation of the Post-Tsunami Sustainable Coastal Livelihoods (SCL) project. The three year, US\$3.26 million project began in March 2005 and was implemented by the University of Rhode Island's (URI) Coastal Resources Center (CRC) and the Asian Institute of Technology (AIT) through the USAID-URI Leader with Associates Cooperative Agreement for Sustainable Coastal Communities and Ecosystems (LWA-SUCCESS).

The project was designed as a place-based demonstration and a regional lessons learned program. The field demonstration targeted five tsunami-affected villages in Ranong Province. Located within Laem Son National Park, these villages have a population of approximately 5,000 and are primarily dependent on fishing and agriculture for their livelihoods. The SCL project sought to build coastal community resilience with a focus on rebuilding the economic basis of livelihoods and on giving people the skills and resources for self-recovery. Key project elements included sustaining vital coastal ecosystems and environmental stewardship, livelihood development, and disaster preparedness.

The project also promoted the transfer of best practices and lessons learned throughout the region through regional workshops, study tours and exchanges, and small grants to test innovations. The project also built regional capacity through its training-of-trainer workshops and a three-week long regional training for professionals in coastal management, disaster planning and coastal community resilience.

The initiative was grounded on several key tenets:

- 1. *Build back better*. The tsunami was a tragedy of historic proportions, but it also presented an opportunity to start fresh and avoid coastal development mistakes of the past. We focused mainly on the soft aspects of building back better (institutions, policies, plans and capacity), rather than hard, structural aspects (buildings and infrastructure).
- 2. *Holistic approach*. We believed that a holistic approach to tsunami recovery with a combined emphasis on sustaining vital coastal ecosystems and environmental stewardship, livelihood development and disaster preparedness was/is necessary for building community resilience in the long-term.
- 3. **Demonstration**. The Ranong Province field activity was designed as a demonstration of holistic best practices for coastal rehabilitation—drawn from the best and proven practices of coastal management and hazards management. The intent was these best practices could be then transferred to other places.
- 4. *Fishing sector should not return to pre-disaster level of overcapitalization*. We promoted sustainable fishing practices, co-management and diversified fisheries livelihoods outside of the capture fisheries sector.
- 5. **Regional transfer of best practices**. The project used national and regional exchanges and workshops to share with others in Thailand and the region lessons learned and best practices about tsunami rehabilitation that emerged from the Ranong demonstration and other projects

The SCL project implementation focused on several inter-related components:

Build a common vision for action. The project worked closely with local government authorities and community leaders to build local ownership and establish a common vision for rehabilitation. The project's activities are accomplished by community partnerships and collaboration.

Reestablish and diversify environmentally sustainable livelihoods. Microfinance, livelihood training, demonstration of new livelihood practices, small grants, and cash-for-work were strategies to reestablish and diversify livelihoods. Environmental sustainability was supported through training and capacity building in marine resource co-management, cash-for-work conservation projects, 'green design' Learning Center, solid waste management, environmental screening of new livelihood options, and water quality monitoring.

Enhance community readiness and resilience to coastal hazards. The project built readiness and resilience to natural hazards in coastal communities through mapping of areas at risk to inundation, delineation of evacuation routes, village disaster management planning, evacuation drills, and First Aid training.

Build capacity for planning and decision-making in the coastal zone. The project provided training and facilitates planning with local and national partners in areas such as co-management, tourism development, watershed monitoring, waste management, and disaster management.

Share experience and best practices. The project used regional learning workshops and study tours to share lessons learned with other initiatives in tsunami rehabilitation and disaster preparedness.

2. PROGRAM RESULTS

A listing of progress achieved in the last quarter, life of project (LOP) accomplishments, and results in relation to the PMP are included in Annexes 1-3. We met or exceeded all project LoP targets. Key results include:

- Over 5,600 person days of back-at-work opportunities provided (50% F)
- 235 businesses restarted and 44 new businesses created
- Over \$250,000 in loans dispersed to small-scale enterprises (63% F)
- 82 buildings repaired and 21 rebuilt
- Over 1,400 persons trained in disaster preparedness
- 36 agencies received technical support and strengthened capacity

Key project documents in English are available on a project CD on request and can be accessed from the CRC website: www.crc.uri.edu.

3. THE RANONG DEMONSTRATION

Key achievements in the Ranong demonstration are described below as are problems encountered, sustainability strategies implemented, and lessons learned.

Achievement 1: A vibrant and sustainable community Learning Center serving southern Thailand

Hypothesis: A "green" community learning center will provide a venue for continued delivery of benefits to people in the demonstration communities and southern Thailand after the project ends.

The Kampung Community Learning Center (KCLC) was created through a process of building local authority's awareness and support for the Center, partnership with Coca–Cola (Limited) Thailand, and formation of advisory committees. The Center is sited on land owned by the Kamphuan Tambon Administrative Organization (TAO) and design and construction was completed with TAO agreement. Major public ceremonies and celebrations increased public

awareness of the Center and its objectives, not only in the local community, but also within the wider Ranong Province and national ministries. By developing and nurturing a local Governing Board and establishing a legally registered KCLC Foundation, we built constituencies of influential groups with an interest in the long-term success of the Center. A Center Director was recruited and hired and is committed to seeing the Center succeed. Meanwhile, the Center's administrative assistant is a Village Volunteer Coordinator from the SCL project who has an excellent relationship with the local communities and Tambon office. The private sector has provided funding for the next few years of transition. The construction of guest houses gives the Center an additional source of revenue and allows it to attract people coming from outside the Kamphuan area.

Key achievements

- Siting, design, construction and landscaping of "green" Learning Center; opening of tsunami museum and computer room; and construction of two guest houses
- Incorporation of the Kamphuan Community Learning Center Foundation with approval of the Provincial Governor provides for transparent financial management of the Center and for fund raising
- Establishment of Local Governing Board under the leadership of the District Governor
- Three major public ceremonies bringing together the community and high-level guests from the local, provincial and national levels
- Recruitment and hiring of Center Director
- Operational business plan, marketing plan, and standard operating procedures for the Center
- Opening of the first Cooperative Savings and Loan office in Ranong at the Center
- Designation of the Center by the Ministry of Information and Communication Technology (MICT) as the first Information Communication Technology (ICT) Center in the Andaman coast of Thailand

Strategy for sustainability. The strategy for sustaining the Learning Center includes the formation of local committee structures, grant making and revenue generation strategies, and the financial support of local authorities and the private sector. A set of standard operating procedures defines the decision-making and management roles and responsibilities of the Center

Director, Local Governing Board, and KCLC Foundation, while a business plan identifies the services offered by the Center and projects the revenue and expense streams over a six year period. Coca-Cola (Limited) Thailand has generously agreed to provide continued financial support in what are the critical start-up years of the Center. This includes funding to help cover operational costs of the Center and to provide continued mentoring of the Center—through AIT—for a period of six years. The Center Director, hired by the project, is committed to seeing the Center succeed and grow and will continue directing and providing leadership to the Center now that the SCL project has ended. Business plan projections of revenues show that three years from now the Center will operate in the black. The TAO has agreed to support maintenance costs for the buildings. Other elements that will help ensure the Center is viable and sustainable include: grant making (the Rufford Mangrove Conservation Project is being managed through the Center); locating the offices of the local Community

Additional Lesson Learned: Community Engagement is Essential

Early in the project, each village was asked to nominate two people from the village who would act as coordinators and links between the village and project activities. This approach has been used by CRC in the past (in Indonesia) and proven effective. It proved just as true for the SCL project—playing an important role in the success and sustainability of the field efforts. Coordinators become advocates for project activities, they help increase local awareness and support for project goals, and they become the best trained resource people through engagement in project activities over an extended period of time.

Savings and Loan at the Center; construction of guest houses on the grounds of the Learning Center to encourage out of town use of the Center and to generate revenues from lodging fees; and links between the Center and the Ministry of Information and Communication Technology (MICT) and its program of Information Communication Technology (ICT) Centers in Thailand. Finally, a website is part of the sustainability strategy and the Kamphuan in Action newsletter continues to be produced as a mechanism for communicating activities and services of the Center and events in the community.

Problems encountered. Problems in identifying a builder lead to construction delays. While the Learning Center was built in a partnership with the Tambon leadership so as to ensure local ownership and buy-in, that process of shared decision making in the design and contracting slowed the process—reducing the time available to pilot the activities in the completed structure.

Lessons learned. Three years is a relatively short time period for ensuring sustainability. Five years is a better timeframe in which to design, build, institutionalize, and pilot a Learning Center from the point of initial inspiration to the point of sustainable operations in a relatively remote location.

Achievement 2: Model demonstration of community-based disaster risk reduction

Hypothesis: A concerted and systematic capacity building effort in relatively small communities will raise the preparedness of the communities to future natural hazards and provide a demonstration for others in the region on community-based disaster risk management.

Capacity building for community-based disaster risk reduction (CBDRR) involved engagement over an extended period of time with a group of people selected by their respective villages to be the focal point on this theme, and who participated in a series of focused training events. Training built on the experience and knowledge of experts in this field from CRC/URI, AIT's Asia

Disaster Preparedness Center (ADPC) and University of Hawaii-Hilo. Key activities were mock evacuation drills, creation of village maps, village walkthroughs, filming of survivor stories, first-responders training, and disaster planning. One of the biggest accomplishments was the building of self-reliance. Over the timeframe of the project we witnessed a significant paradigm shift toward local problem solving and self-reliance as new skills were learned and confidence grew. General templates were modified and adapted to local cultural and geographic conditions.

Strategy for sustainability.

Strategies for sustainability include the formation of village CBDRR Committees, continuation of CBDRR through the permanent presence of the tsunami museum at the Learning Center and visits of local school children and people from outside the communities. Disaster management is one of the themes of the Learning Center and the Center will host meetings, workshops, and visitors, drawing

Key achievements

- In each of seven villages: prepared and approved disaster response plans, created disaster response committees, and community-prepared hazard and evacuation maps
- Over 1,000 community members and local leaders participate in disaster preparedness and tsunami evacuation procedures
- Tsunami museum and informational kiosk with survivor stories installed and publicly launched at Kamphuan Community Learning Center
- Replication of survivor story methodology and tsunami educational kiosk in India
- National and international recognition of the demonstration efforts in CBDRR in Ranong:
 - International Tsunami Training Institute course held at AIT in March 2008 used the USAID demonstration project site to learn from the communities' experience and knowledge
 - The National Disaster Warning Center (NDWC) and Department of Disaster Preparedness and Management (DDPM) used lessons learned from the SCL project efforts and adapted them to provide training materials for use in a July 2007 drill conducted in 403 villages in the six southern provinces
 - Organizations and leaders from other communities frequently visit the Kamphuan villages and Learning Center to learn from local experience in CBDRR

on people from the local communities who have been trained through the experience of the SCL project. AIT now has a graduate program in disaster preparedness and the Kamphuan communities and Learning Center will be a field demonstration—in this way continuing to keep fresh in the community's minds the importance of CBDRR.

Problems encountered. Scheduling of training events was difficult because other agencies were competing for similar training with our training partners. In some cases, the people selected by the TAO and by the villages to be engaged in the capacity building activities did not have appropriate interest and education.

Lessons learned. Formal presentations are not an effective training vehicle to build CBDRR. Hands-on learning, studying the problems first-hand, and discussing solutions on-site were/are far more effective. Recognizing this early on in the project, a change was made to a more participatory and hands-on approach. Another lesson is that the tsunami museum and survivor stories proved very effective in generating lasting public awareness and education on disaster preparedness. The tsunami memorial kiosk developed as part of the SCL project was replicated in India.

Transferability to other communities

"I continue to be impressed with the value of the experiences we brought away. I learned lessons from my experiences that I continue to share with those in other regions of the world. For example, the ready acceptance of the Buddy System in the villages is now being presented as a readily-adaptable component to tsunami readiness for any community. The experience in Ranong is being used as an example by the COMET Program (a U.S. and international university education and outreach effort). From my perspective, the work executed has produced some of the best prepared communities anywhere in the Indian Ocean region. I am constantly lauding the accomplishments of the program to any and all who will listen." Walter Dudley, University of Hawaii at Hilo

Achievement 3: Establishment of small business saving and loan institutions

Hypothesis: Community managed and owned credit and savings mechanisms are an important source of self-help to restart livelihoods after a disaster. When designed and established properly they can provide a long-term benefit to the community, reaching many more people than the initial loan capital could through reinvestment.

Village banks were the centerpiece of the livelihood development efforts. The strategy was to partner with SiriConsult, a local nongovernmental organization (NGO) that provided a series of trainings and oversight and mentoring activities to members of the village banks. The banks were started with 50 members each and each established by-laws and committee structures. Local ownership was emphasized. Revolving funds of this type have come and gone in the past and mostly failed in terms of loan pay back. So, what was done differently to avoid failure as in the past? The crucial difference was that this time around, members were educated and trained in how village banks operate and in the social and household benefits they can provide. Also, all villages were granted start-up capital at the outset, but subsequent capital grants were made based on good performance and need.

Strategy for sustainability. The village microfinance committee structures and lending will continue as long as the groups remain strong with sound leadership and member interest. The training, meetings, oversight, and financial support dedicated to the groups over the life-of-theproject were designed to build the knowledge and capacity for the microfinance schemes to continue to serve the community's needs. One of the village microfinance schemes was particularly successful and the project sponsored study tours and assisted

Key achievements

- Three hundred community members trained in village banking and five village banks established in five villages. US\$153,000 in initial capital provided to five communities, resulting in US\$257,211 in loans for livelihood activities to 367 members (63 percent female)
- One of the village banks was so successful with high pay-back rates that it applied for and was formally approved to be the first cooperative and savings institution in Ranong under the Cooperative Union League of Thailand (CULT)
- 235 livelihood activities restarted primarily as a result of small loans

the group to apply for and become accepted as a formal Cooperative Savings and Loan institution under the Cooperative Union League of Thailand. This Cooperative holds its office at the Learning Center and is a living demonstration of sustainability—it shows how institutional capacities in the community were strengthened sufficiently for activities to be sustained and provide continued benefits after project assistance ends.

Problems encountered. Poor leadership and mistrust are primary reasons why some village banks fared less well in terms of loan repayment and growth in membership. Some individuals saw the loans as political giveaways, with the expectation that no one would care about repayment. In addition, because many other donors provided "free" grants, people found it difficult to accept "loans"—even though repayment was to their community-owned village bank, a scheme that would generate on-going benefits to the banking members well beyond the initial loan.

Lessons learned. The success of community-owned microfinance schemes depends very much on the behavior and actions of the leaders of the schemes. If the village bank chairman and other administrative leaders do not follow the rules, others will lose trust and loans will not be repaid. Also, successful microfinance schemes require well executed training and continued monitoring and oversight over an extended period of time. This builds a foundation of awareness that is needed for members to understand how the schemes operate, what benefits they can expect if it is successful, and to start creating a "culture of savings". Finally, it is important to keep loans small and payback periods relatively short, especially at the beginning.

Achievement 4: New livelihood development

Hypothesis: Once new and environmentally sound livelihoods are piloted and shown to be profitable, the innovation will be adopted in the community and spread—increasing community resilience and providing alternatives to fishing.

The livelihood development process involved evaluating potential new livelihood activities; identifying interested entrepreneurs; providing start up grants for materials and equipment; and offering vocational training, study tours, and field extension to take entrepreneurs through the value chain.

Strategy for sustainability. The Learning Center may host entrepreneur training in the future using the acquired knowledge of those who participated in the Kenan Institute's Rural Entrepreneurship through Action Learning (REAL) methodology. As of the end of the SCL project, many of the new livelihood activities have proven both feasible and profitable, and those involved have the motivation and interest to continue to operate and grow in the future. Access to credit mechanisms introduced by the SCL project, computer and internet technologies at the

Key achievements

- Introduction of integrated family operated aquaculture (Muscogee duck-tilapia-vegetable integrated aquaculture)
- Successful Muslim head scarf business initiated and growing with markets in Ranong, Phuket and Songkla Provinces
- Bead jewelry handicrafts introduced with a group of 11 women with products sold locally and in the Ranong provincial capital
- Food catering service operated by a group of women formed and successful
- Yellow ginger crop cultivation introduced to the area with a group of 10 interested entrepreneurs
- Catfish aquaculture and hatchery operations

Learning Center, opportunities for business advertising through the Kamphuan in Action newsletter, as well as linking project beneficiaries to existing local government extension services, all increase the sustainability of livelihood efforts initiated by the project.

Problems encountered. Many people express interest in starting something new, especially if it costs only a small amount of their time and they stand to receive training and equipment. Once the activity starts, however, they may realize the new activity is not of true interest to them or requires too much work to justify the benefit streams. This was the SCL experience. Some activities never got off the ground—for example a group of seven catfish farmers who initially expressed great interest in a hatchery production effort that was unsuccessful because: 1) the technology took too time to successfully demonstrate, 2) farmers were in conflict over land and water issues, and 3) none of the farmers could commit the time needed to manage the hatchery and often preferred to go fishing for days or weeks at a time.

Lessons learned. Introducing new livelihoods and products is difficult because local capabilities and markets for new products are unchartered. New livelihoods require start up assistance, including purchase of equipment and materials, technical assistance and vocational skill building to demonstrate production techniques, and assistance in marketing and sales. The livelihood being piloted also needs to go through the production cycle to demonstrate feasibility. In some activities, such as agriculture or aquaculture, the production cycle can be relatively long—making it difficult to maintain interest and demonstrate feasibility. Given these challenges of demonstrating new livelihoods, our expectations for what could be achieved within the project time frame were overly ambitious. A lesson is

Additional Lesson Learned: There are many unknowns in post disaster projects.

It is the nature of natural disasters that assistance is needed quickly and projects seek to get on the ground and implement as rapidly as possible. Because of these circumstances, the process of field site location and identification of local partners is more compressed than is normally the case. Normally, field site activities are selected through longer term relationships and presence. What this meant for our project was that this creates a higher level of uncertainty in the field demonstration because there are more unknowns. It also meant putting substantial effort over the life of the project, but especially in the first year, in clear communications and awareness raising with local authorities and community leaders.

that new livelihood development may not be appropriate in post disaster situations. Many more people will benefit from efforts to restore and strengthen existing livelihoods. With that said, new livelihood development **is** a good mechanism to empower marginalized groups, especially women who have fewer income generating opportunities with existing livelihoods and socially constructed gender roles. Most of the successful new livelihoods that were established involved groups of women (e.g. Muslim headdress tailoring, bead crafts, and food catering).

Achievement 5: Solid waste management and recycling

Hypothesis: Solid waste management and community recycling will reduce the waste load, make communities cleaner, increase environmental awareness, and build community spirit.

Outreach in waste management included a needs assessment, feasibility study, awareness-building campaign, and skills development. Analyzing the waste stream was an important first step in deciding what the community has to recycle and which of it is the most beneficial to recycle. This is also an excellent outreach tool. It lets villagers get the full picture of the waste

they produce each day. Community committees were set up to lead the planning, management and implementation. Waste banks were developed that collected waste materials from members and sold them to the market. Payment for recyclables was made in cash or in household items, such as eggs and cooking oil.

Strategy for sustainability. By conducting study tours, practical exercises, community expositions, and through mentoring, and the forming of waste and recycling committees, the expectation is that the leadership and interest in recycling will continue. Another strategy for sustainability was to

Key achievements

- Over 100 people are members of village wastebank where villagers can exchange recyclable materials for cash and household items like eggs, cooking oil and dish detergent
- Less waste going to the local dump site and the communities are cleaner
- Over 50 households are composting using household food waste to make liquid compost used as a fertilizer for agriculture
- Two solid waste and recycling community committees created
- "Waste Expo" increases awareness and celebrates achievements

involve children and create a waste bank so youth could see the financial rewards of recycling. The Learning Center will maintain solid waste management and recycling as one of the learning themes and make outreach materials available to visitors.

Problems encountered. Village 4 and 2 had the most severe problems with solid waste and were the most engaged in the project. Internal politics in the communities were a challenge since this was a viable business opportunity. There were some conflicts among individuals who wanted to take over the recycling effort. There was an initial expectation that the other three project villages would become engaged with the project in recycling. This did not occur, but was more a positive change in circumstances than a problem. Some of the other villages were cleaned up within a year of the tsunami, and other organizations became involved in waste management and recycling in the other villages as well (TAO, Thailand Environment Institute, and North Andaman Tsunami Relief).

Lessons learned. Recycling is a good 'early action' or pilot-scale experiment that engages people in the community, tests ideas and builds enthusiasm for improved coastal stewardship. In the SCL communities, it produced concrete and visible results helping send a powerful message that the project was serious about making measurable improvements in the community.

4. REGIONAL OUTREACH AND NETWORKING

Achievement 6: Creating a regional "community of practice"

Hypothesis: Lessons learned and best practices in tsunami rehabilitation from the Ranong demonstration and from other projects can be shared and transferred to other locations in Thailand and throughout the region through regional peer exchanges, small grants and workshops.

The Study Tour and Exchange Program (STEP) identified effective post-tsunami practices with the potential for transfer between countries. The first phase in STEP involved reconnaissance trips to India, Indonesia, Maldives, Sri Lanka, and Thailand with the goal of identifying effective projects and practices in these countries. The team was also attempting to ascertain gaps and weaknesses in one country that could be addressed by the 'good' practices of other countries. The

reconnaissance team sought out appropriate participants that had on-the ground experience with implementing new programs and who also had societal influence within their communities to reach out and spread these practices. Following the reconnaissance trips, the project organized five study tours in Thailand, Indonesia and the Maldives and then provided selected participants from India, Sri Lanka, Maldives and Indonesia (Banda Aceh) with small grants to help them replicate and promote these practices back in their own communities.

Two regional workshops brought together tsunami rehabilitation and coastal

Key achievements

- Five study tours benefit 20 selected participants from the Indian Ocean region on the themes of:
 - Linking Effective Microfinance Practices with Microenterprise Support in Thailand
 - Horticulture and Efficient Post-Harvest Techniques in Thailand
 - Seaweed Culture in Banda Aceh
 - Integrated Seaweed and Grouper Culture in Bali, Indonesia
 - Full Cycle Hatchery Operation Methods for Grouper Culture in the Maldives
- Eight small grants delivered for replication of best practices
- Professionals from eight countries participate in regional lesson drawing workshops
- Two workshop proceeding reports completed

management professionals to discuss lessons learned and best practices. The project team also participated in and contributed to numerous workshops held by other USAID projects and regional and international organizations.

Problems encountered. The challenges of regional exchanges and learning were underestimated. In particular is the challenge of the time needed to organize study tours and the difficulty in ascertaining effective projects and practices in a variety of countries that would be useful to specific practitioners and projects in other countries. As a consequence of these factors, the small grants program got a late start, leaving less time to assess and learn from experience in the transfer of good practices.

Lessons learned. Alternative strategies to regional exchange might have increased efficiency and effectiveness of the regional exchange process. For example, one suggestion would be for future regional exchange activities to first identify the group of practitioners interested in regional exchange and learning and bring them together to define a common set of learning objectives. In this way, a 'community of practice' can be created more quickly and common interests and opportunities for exchanging best practices can be clarified early on. A second lesson learned is that the primary value of the regional workshops sponsored by the project was network building, validation of good practices, and interactive sharing of experience and knowledge among participants. There was an initial expectation that the workshops would be an opportunity to contribute significantly novel and new perspectives to the larger community of practice, but this turned out to be quite difficult given the proliferation of tsunami learning workshops, many hosted by regional and international organizations.

5. RECOMMENDATIONS

Carefully assess the fishery context before deciding whether to provide direct support for replacement of fishing vessels and gear as part of future disaster relief and reconstruction efforts. Our decision not to invest significantly in fishing boats, gear, and engines in the Ranong communities proved the right one. National government and other donors replaced so many boats that after the tsunami the fishing fleet was larger than it was before the tsunami. This is unfortunate. As stewards of the Earth's coastal zone, the combined efforts of all donors undermined the health and resilience of the marine environment. The Andaman sea was heavily overfished before the tsunami, and an opportunity was lost to avoid or reduce overfishing after the tsunami. In the future, we recommend that the USAID should not support boat replacement initiatives unless there are carefully designed and coordinated strategies to reduce overall effort in situations where the fishery is overfished and ensure that even more economically and environmentally damaging overfishing does not occur. In such circumstances, initiatives at rebuilding livelihoods should explicitly offer opportunities and sustained support (grants, training, follow-up extension) for fishers willing to exit the fishery. Especially if boats are provided, it should be with a condition and additional resources to establish more sustainable fisheries management plans for the area.

Increase support for disaster management and coastal adaptation. We do not know when or where, but sometime in the future another natural disaster will strike the coastal zone of Asia. In addition, we now have the reality of global climate change which is increasing the frequency and severity of natural disasters. These are all good reasons for USAID to continue supporting disaster risk reduction, preparedness and coastal adaptation to moderate potential damages or to benefit from opportunities associated with climate change. In the long term, these up front investments will result in reduced economic costs and expenditures on future disaster relief and reconstruction initiatives.

Continue to support human resource development in a variety of topics related to disaster preparedness and management, improved coastal development planning and community resilience. The Sustainable Coastal Livelihoods project showed clearly the need for and demand for professional capacity building in the related areas of coastal management, disaster management and community resilience. We recommend that RDM/A build on the training capacity that the SCL project has helped to strengthen at the Asian Institute of Technology and use this regional institute for continued professional capacity building.

Support and mentor the Khampuan Learning Center over the next several years. Bricks and mortar initiatives take considerable effort and long term commitments to ensure that such projects are institutionalized. We believe the KCLC is already on a strong path to being a local program that continues to contribute to the long-term development and sustainable growth of the area. While AIT sits on the KCLC board and continues to provide support and mentoring, continuing to support the KCLC in small ways will be a motivating factor and appreciated gesture of goodwill in the communities supported.

Ensure improved donor coordination. Poor donor coordination locally and at the national level was counterproductive to fully achieving all of the results expected at the demonstration site. In future disaster situations, USAID needs to show leadership in advising and supporting effective donor coordination mechanisms by the governments concerned.

Annex 1: MAJOR ACCOMPLISHMENTS FOR THE PERIOD OCTOBER 1, 2007 TO MARCH 31, 2008

Regional learning

- Five new small grants for replication of good practices were made to projects in the Maldives, Sri Lanka, and India
- Regional Workshop organized and held at AIT (February 18-21, 2008). Workshop report produced, printed and distributed
- On October 14-20, 2007, a tsunami rehabilitation study tour was sponsored to demonstrate and share Thailand's expertise in horticulture, agriculture and post-harvest processing techniques. Participants came from tsunami-affected areas in India, Sri Lanka and Thailand

Learning Center

- KCLC named by the Ministry of Information and Communication Technology (MICT)
 as one of the Information Communication Technology (ICT) Centers in Thailand and the
 only one of its kind in the Andaman coastal region. Director of KCLC nominated to
 Chair the ICT program for 2008
- On October 27, 2007 the KCLC hosted a successful soccer competition day for youths under 13. Eight teams of 7 participated
- Local police officers trained in computer use the week of October 29, and certificates of basic computer proficiency awarded
- Meetings of the Local Governing Board (LGB) and the KCLC Foundation in October, 2007 and March, 2008
- Agreement with Coca–Cola (Limited) Thailand to disburse remaining funds provided to the project for operational costs of the KCLC over a 6 year period
- Learning Center Foundation formally incorporated as of January 31st, 2008
- Preparation of business plan and marketing plan for KCLC
- Standard operating procedures (SOP) prepared for KCLC
- KCLC high-level ceremony held March 4, 2008 to inaugurate 1) opening of Cooperative Union office at KCLC, 2) incorporation of KCLC Foundation, and 3) designation of KCLC as the 21st Information Communication Technology (ICT) center in Thailand
- Two guest houses sited, installed and furnished at the Learning Center compound in March 2008

Sustainable livelihoods

- Entrepreneur training held from December 12-14, delivered by Kenan Institute, Asia to 42 participants using the Rural Entrepreneurship through Action Learning (REAL) methodology
- Incorporation of Kamphuan Cooperative and Savings to the Cooperative Union League of Thailand (CULT)
- US\$42,500 in small business loans released to 41 beneficiaries (12 M and 29 F)

Capacity building

- A two-day workshop on "Leadership, Conflict and Conflict Resolution Training for Tambon Administration and Village Leaders" was held at the KCLC from October 31-November 1, 2007, delivered by the Office of Peace and Governance at King Prajadhipok's Institute (KPI) in Thailand
- National Roundtable held (February 5, 2008). Meeting report produced.

• Participation in tsunami lessons learning meeting of CNSCRN (Consortium to Restore Shattered Livelihoods in Tsunami-Devastated Nations), January 14, 2008

Outreach

- Outreach materials prepared and printed:
 - Theme paper on regional exchange
 - Theme paper on CBDM
 - Theme paper on KCLC
 - Theme paper on microfinance and microenterprise
 - Outreach document on solid waste management and recycling
 - KCLC brochure
 - KCLC prospectus
 - Interactive cd-rom with life of project reports for global sharing of experience
 - Regional workshop proceedings

Annex 2: LIFE OF PROJECT ACCOMPLISHMENTS BY PROGRAM OBJECTIVE

Objective 1: Assess impact and negotiate with local authorities and with the communities themselves, a unified approach to rehabilitation

- Participatory rapid appraisal of tsunami impacts and needs completed
- Baseline and follow-up socioeconomic surveys and empirical analyses conducted
- Ten village volunteer coordinators mentored over a period of 3 years become community leaders and trainers in rehabilitation and sustainable livelihood approaches
- Formal institutional mechanisms with membership from local government and community leaders established to advance community development: Kamphuan Community Learning Center Foundation, Board of Governors of the KCLC, and Cooperative Savings and Loan
- Major public celebrations sponsored that increase community self-esteem and unity (e.g. Learning Center groundbreaking and opening ceremonies; waste expo; community sports events; inauguration of CULT, KCLC Foundation and designation of KCLC as the 21st Information Communication Technology (ICT) center in Thailand; and microfinance grants)

Objective 2: Reestablish sustainable livelihoods through training, grants and microfinance

- Three hundred community members trained in village banking and five village banks established in five villages. US\$153,000 in initial capital provided to 5 communities, resulting in US\$257,211 in loans for livelihood activities to 367 members (63 percent female)
- One of the village banks was so successful with high pay-back rates that it applied for and was formally approved to be the first cooperative and savings institution in Ranong Province under the Cooperative Union League of Thailand (CULT). The cooperative and savings holds it's office at the Kamphuan Community Learning Center
- 235 livelihood activities restarted as a result of loans and vocational training, and 5,643 person days of community members benefit being back at work through cash-for-work program (51% female)
- Over 400 small business operators have been recipients of extension and training
- KCLC designated by the Ministry of Information and Communication Technology (MICT) as the 21st Information Communication Technology (ICT) center in Thailand
- Computer room with internet connection and computer training used by village banks to maintain records and by entrepreneurs to market products and search for business information

Objective 3: Promote alternative coastal livelihoods and micro enterprises that are viable and environmentally sustainable

- 44 new businesses are created through project loans, start-up grants, and field extension and training
- Laemson Marine Park Advisory Committee received training on co-management of marine protected areas and learned from successful experience in study tour to Indonesia
- Thousands of community members have gained heightened environmental awareness through participation in environmental protection and conservation activities through cash-for-work program
- Small-scale fishers trained in best fishing practices
- Solid waste recycling planning, training and study tours raise environmental awareness, clean the villages and generate alternative income. Solid waste management plans adopted in two villages and recycling committees formed. Over 100 people are members of village waste-bank. Over 50 households compost using household food waste to make fertilizer for agriculture

Objective 4: Build capacity at village, Tambon and provincial levels for disaster prevention and preparedness

- Seven disaster risk management plans in seven Kamphuan villages prepared and adopted by local leaders through community-based processes (including hazard and evacuation maps, and disaster risk management committee structures)
- Over 1,400 community members and local leaders trained in disaster preparedness
- "Green design" Learning Center constructed, landscaped and outfitted in partnership with local authorities and Coca–Cola (Limited) Thailand
- Tsunami museum and informational kiosk with inspirational first-hand tsunami stories installed and publicly launched at Kamphuan Community Learning Center

Objective 5: Promote learning and exchange of techniques and experience in tsunami rehabilitation in Thailand and other tsunami-affected countries

- Three-week certificate level course on "Integrated Coastal Ecosystem Management" trained 27 participants representing 12 countries from Asia, Africa and North America
- Three scoping missions and two peer-to-peer regional exchanges have strengthened knowledge sharing across tsunami rehabilitation efforts and trained over 20 participants
- Thirty-six government agencies in Thailand and around the region have received technical support from the sustainable coastal livelihoods project
- Two regional workshops brought together peers from rehabilitation efforts to network, share best practices and lessons learned

Annex 3: LIFE-OF-PROJECT (LoP) RESULTS IN RELATION TO PMP

Planned targets and actual results from this project that contribute to USAID's Results Framework for the Regional Tsunami Reconstruction Special Objective (SpO) 498-045 are shown in the Table below. In all cases, the project met (within 10%) its LoP targets and in many cases substantially exceeded targets. This illustrates the difficulties in attempting to establish LoP targets in such disaster situations. This was especially difficult given the nature of this project design which was dependent on participatory needs assessments, a highly diverse, integrated and adaptive management approach to service delivery.

Results for FY2008 exceeded targets except for the number of old businesses restarted and new businesses created. Our target for small businesses restarted was based on trends in the past two years. This trend changed this year. Given the size of the communities and the number of businesses that have already restarted after the tsunami, there are very few opportunities for restarting additional small businesses. Instead, the program is now building community resilience by strengthening businesses that have already been restarted.

Performance Monitoring Plan -- Post-Tsunami Livelihood Rehabilitation Program

reflormance wonttoring rian rost-i sunami Livennood Renabilitation riogram					
USAID Tsunami Reconstruction SpO Results	Indicator	FY	Planned (*)	Actual	
S.O. Level Indicators	Number of persons back at work, including cash-for-work-programs, measured by number of people (M/F) and person days	05	-	1,447 person days (40% M, 60% F)	
To Save lives, help individuals rejoin the workforce and return to communities, and support host		06	500 person days	2,935 person days (48% M, 52% F)	
		07	400 person days	1,073 person days (65% M, 35% F)	
government led reconstruction and early warning/disaster		08	0	188 person days (58%M, 42% F)	
preparedness		TOTAL	900	5,643 person days of back at work	
	New businesses created (including services) as a result of a loan, grant or vocational training, measured by number and total number of people employed	05	-	1	
		06	25	21	
		07	20	21	
		08	5	1	
		TOTAL	50	44 new businesses created	

USAID Tsunami	Indicator	FY	Planned (*)	Actual
Reconstruction SpO Results	Old businesses restarted	05		20
	(including services) as a		Ī.	
	result of loan, grant or vocational training, measured by number and total number of people employed	06	75	164
		07	20	51
		08	20	0 (**)
		TOTAL	115	235 old businesses restarted
IR 1 Transition from Camps to Communities	Number and value of loans to micro and small	05	-	0
	enterprises	06	US\$70,000 in loans to 100 beneficiaries	US\$157,368 in loans (US\$131,579 initial capital disbursement plus US\$25,789 in loans repaid and relent) to 296 beneficiaries (110M, 186F)
		07	US\$75,000 in loans to 50 beneficiaries	US\$57,343 in loans (US\$21,875 in additional capital plus US\$35,468 repaid and relent) to 30 beneficiaries (13 M, 17 F)
		08	US\$18,000 in loans to 15 beneficiaries	US\$42,500 in loans released to 41 beneficiaries (12 M and 29 F)
		TOTAL	US\$ 163,000	US\$ 257,211 in loans dispersed
	Number of micro and small enterprise recipients receiving grant packages (e.g. assets, grants,	05	-	403 entrepreneurs (161M, 110F) receive training 12 (1M, 11F) entrepreneurs receive grant packages
	training)	06	250 recipients of financial assistance and/or training	367 entrepreneurs (178M, 169F) receive training 497 entrepreneurs receive grant packages
		07	100	92 entrepreneurs receive training and/or grant packages (30M, 62F)
		08	20 recipients of entrepreneurial training	42 recipients of entrepreneurial training (30M, 13W)
		TOTAL	370	1,413 recipients of grant packages

USAID Tsunami	Indicator	FY	Planned (*)	Actual
Reconstruction SpO Results				12504442
IR 2 Rebuild Infrastructure	Number of community buildings and infrastructure repaired (defined as work done on buildings in disrepair from the tsunami)	05	-	1
		06	2	81 buildings and infrastructures repaired
		07	5	0
		08	0	0
		TOTAL	7	82 community buildings repaired
	Number of community buildings and	05	-	20 (fishing boats rebuilt)
	infrastructure rebuilt (defined as buildings that	06	0	0
	no longer exist or are beyond repair because of	07	1	1 (catfish pond at local school)
	the tsunami)	08	0	0
		TOTAL	1	21 new community buildings rebuilt
IR 3 Early Warning System installed	Number of government officials, community	05		0
	leaders, and community members trained in	06	Five communities and 1,000 people trained	Five communities and 384 people trained (134M, 250F)
	disaster preparedness	07	500	1,057
		08	0	0
		TOTAL	1500	1441 trained
IR 4 The capacity of governments to plan and	nments to plan and received technical support take reconstruction	05	-	1 (TAO)
undertake reconstruction strengthened		06	5	5 government agencies
S. Singmone.		07	3	7 government agencies
		08	15	23 government agencies (***)
		TOTAL	23	36 government agencies receive technical support

- (*) Life of project targets were not set in the initial Program Statement or FY05 Work Plan as the USAID Tsunami Reconstruction SpO Results had not yet been defined by USAID. Targets were fixed in the FY06 Work Plan in September 2005.
- (**) There were no old businesses restarted in FY2008. All businesses affected by the tsunami had already been restarted. However, 41 businesses were expanded under the project through microfinance loans.
- (***) This counts both Thai agencies involved in Ranong activities and representatives of governmental and regional agencies from Thailand and other tsunami affected countries that participated in the regional workshop.