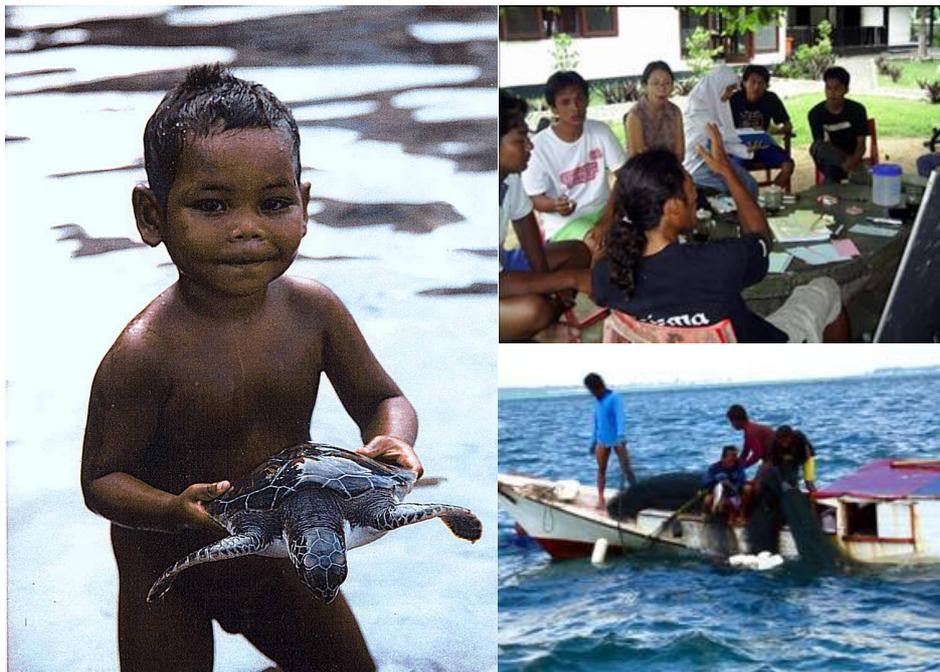




REVIEW OF PROJECTS ON CORAL REEF MANAGEMENT IMPLEMENTED BY COBSEA, THROUGH THE EAST ASIAN SEAS REGIONAL COORDINATING UNIT (EAS/RCU)



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June 2006

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1. UNEP/ICRAN Small Grants Fund Programme 2002-2003

2. UNEP Coral Reef Mapping Project in Vietnam

3. UNEP Greens Fins Project

4. UNEP/ICRAN Project on Demonstration Sites – Target Sites

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1 EXECUTIVE SUMMARY

This project review outlines the success, strengths, weaknesses, achievements, sustainability and potential of four regional projects initiated and implemented by the EAS/RCU, which were primarily focused on coral reef monitoring and data management, namely; 1) UNEP/ICRAN Small Grants Fund Programme 2002-2003; 2) UNEP Coral Reef Mapping Project in Vietnam; 3) UNEP Greens Fins Project and 4) ICRAN Demonstration Site – Target Site Project.

The projects under review differed vastly in scope and scale. To allow for a standardized framework for project assessments without biases, a “Project Evaluation Index” was designed and applied to the projects. The project evaluation index is essentially a simple scoring system that allows projects to be assessed on the same scale using defined assessment criteria for evaluating the projects based on their individual outcomes. The project evaluation index was designed to reflect both the objectives of the review as well as the 3 components of COBSEA’s new strategic direction.

Projects funded under the four regional projects were all assessed to be either largely effective or completely effective in achieving their individual objectives agreed upon between COBSEA/ICRAN and the implementation agencies, thus reflecting the effectiveness of the implementation agencies in managing and executing the projects. The effectiveness of the projects in enhancing knowledge and increasing capacity were also high, with the projects paving the way for potential follow-up activities and opportunities for using projects outcomes in developing management strategies for the project areas.

2 INTRODUCTION

2.1 Background on Coral Reef Management Programme by COBSEA, Trough the EAS/RCU

The East Asia seas, encompassing the regions of Southeast Asia and Northeast Asia, are home to about 34% of the world's coral reef. It is also the region with the highest coral reef biodiversity in the world, with large coastal populations depending directly and indirectly on the reef resources for their everyday survival.

Over 34% of the reefs in Southeast Asia and over 14% in Northeast Asia have already been destroyed over the last few decades, with an ever larger percentage in critical or threatened conditions. There have been heightened concerns about the resilience and long term survival of the coral reefs in East Asia, with the proper and wise management of these systems standing out as the top priority in many national, regional and global agendas.

The East Asian Seas Regional Coordinating Unit (EAS/RCU), as the secretariat of the Coordinating Body of the Seas of East Asia (COBSEA), is tasked with the responsibility for the implementation of the Action Plan for the Protection and Sustainable Development of the Marine and Coastal Areas of the East Asian Seas Region through the coordination of activities by governments, NGOs, UN, donor agencies, and individuals. COBSEA was established in 1981, and through its activities, has been successful in raising the profile of marine and coastal environmental issues in COBSEA member countries.

Apart from the activities undertaken at national level by the COBSEA member countries, several regional projects have been initiated by EAS/RCU to enhance the implementation of the Action Plan, including activities on coral reef monitoring and data management that included the projects "Establishment of an Effective Coral Reef Monitoring Network in the East Asian Seas Region" and "International Coral Reef Action Network (ICRAN)".

Through these projects there has been an enhanced awareness of coral reef conservation and management in certain countries of this region. As part of the programme, training opportunities have been provided for capacity building, public awareness raising materials have been developed to disseminate information about the importance of coral reefs and studies to know the status of coral reef ecosystem have been implemented in some areas. These projects have been implemented since 2002, and the main purpose of this report is to review all the projects under the programme by assessing their success, strengths, weaknesses, achievements, sustainability and their potential for follow-up activities.

The projects reviewed in this document were from the following projects:

1. UNEP/ICRAN Small Grants Fund Programme 2002-2003
2. UNEP Coral Reef Mapping Project in Vietnam
3. UNEP Greens Fins Project
4. ICRAN Demonstration Site – Target Site Project

2.2 New Strategic Directions of COBSEA

After more than 20 years of successful operations and interventions in the Seas of East Asia, COBSEA is realigning itself to meet future challenges by refocusing its priorities and redefining its strategic direction. In the initial stages, COBSEA activities were largely project-oriented. The move now is to focus on broader regional coordination, which would include measures to strengthen national capacities to better manage regional marine programs, to enhance post-project sustainability and to assist governments to maximize opportunities inherent in the strategic marine-related policy issues that face governments in the region today.

At the 18th COBSEA Meeting held in Sanya, China from 23-25 January 2006, COBSEA member countries agreed to support the following 3 components of the proposed White Paper on New Strategic Directions of COBSEA:

- 1) **Enhancing capacity**– by serving as a one-stop-shop for governments on all regional initiatives, and national capacity building measures;
- 2) **Information management** – to reduce information and knowledge management gaps through education, information and communication; and
- 3) **Project implementation** – by completing on-going projects, and developing new projects that support COBSEA’s regional policy and systems approach.

2.3 Background on the Various Projects Under Review

2.3.1 UNEP/ICRAN Small Grants Fund Programme

The UNEP/ICRAN Small Grants Fund Programme was established in 2002 as part of a collaborative activity between two coral reef projects implemented by COBSEA on data acquisition and monitoring, and an ICRAN project focusing on improving management of coral reefs. The Small Grants project were short term projects running from June 2002 to May 2003, with the following goals:

1. To carry out coral reef monitoring to detect changes in coral reef status, within the framework of the “International Coral Reef Action Network” (ICRAN) and “Establishment of an Effective Coral Reef Monitoring Network in the East Asian Seas Region” projects;
2. To use the results of monitoring to strengthen the management capability of marine protected areas (MPAs)/national marine park managers in the East Asian Seas Region;
3. To strengthen the capacities of institutions managing MPAs;

4. To increase involvement of stakeholders in MPA management;
5. To develop and implement training programmes, strategies, and tools to improve management of coral resources in MPAs;
6. To act as a catalyst to leverage future funds from additional initiatives and institutions for addressing coral reef related issues; and
7. To promote “best monitored and managed” MPA sites to serve as demonstration examples for other sites.

A call for proposals was made in early 2002 for projects focused in the East Asian Seas region.

Projects that included the following criteria were encouraged:

1. A specific research activity component
2. Monitoring and workshop activities
3. Capacity building activities
4. Existing projects with funding from other sources
5. Proposed activities that could fit into the on-going projects currently coordinated by UNEP EAS/RCU (e.g. ICRAN, Coral Reef Monitoring Network)
6. Proposed activities within established MPAs or national marine parks

2.3.2 UNEP Coral Mapping Project in Vietnam

The UNEP coral mapping project in Nha Trang, Vietnam, is collaboration between UNEP and Institute of Oceanography to establish a coral reef mapping and GIS database project for the coastal waters of Ninh Thuan. Main objectives of this project were:

1. To experiment with remote sensing and GIS tools in coral reef mapping in Ninh Thuan coastal waters and to create adequate premises for establishing coral reefs distribution map (large scale) for all coastal waters of Vietnam in future;
2. To establish preliminary methodology and to develop an interpretive tool for coral reef habitats in specific conditions in Vietnam coastal zones. In the future, this tool will better support coral experts in designing surveys and projects on coral and marine biology studies to supplement traditional methods; and
3. To establish a GIS database on distribution of coral reefs and other ecosystems in Ninh Thuan coastal waters. The GIS database will be included GIS maps and layers such as environmental parameters, biodiversity characteristics, physical and socio-economic conditions of coastal areas of Ninh Thuan. In addition, the GIS database will focus on metadata and investigated data from field trips.

2.3.3 UNEP Green Fins Project

The Green Fins project was initiated and coordinated by the United Nations Environment Program (UNEP), East Asian Seas Regional Coordinating Unit (EAS/RCU) as part of the effort to increase public awareness and management practices that have the potential to benefit the conservation of coral reefs and reduce unsustainable tourism practices. "Green Fins" was introduced to local dive

network leaders from Thailand, Philippines and Indonesia at the "The Planning Workshop for "Green Fins" Local Network Leaders" in 2004. The participants agreed on the "Green Fins" membership Code of Conduct and Mission Statement as well as guidelines for environmentally sustainable diving and snorkeling.

The ultimate goal of the "Green Fins" project is to develop a network of environmentally friendly dive operators which operate according to eco-friendly principles, as well as to support improved monitoring of coral reefs and to enhance public awareness through the various activities of the project.

2.3.4 ICRAN Project on Demonstration Sites–Target Sites

The primary mission of ICRAN (International Coral Reef Action Network) is to reverse the global decline of coral reefs through the facilitation of projects that highlight good practices for coral reef management and conservation which are implemented through a network of partners and sites.

The ICRAN program is divided into 3 main components: Management Action; Assessment and Monitoring; and Communication. Of these, the ICRAN project on Demonstration Sites – Target Sites (ICRAN Project), which is assessed under this review falls under the component of Management Action. The main objective of the ICRAN Project was to halt and reverse the decline of the world's coral reefs through:

- improving capacity to manage coral resources,
- increasing public awareness,
- exchanging information and experiences with well-managed MPAs

The ICRAN sites were selected in the context of three focal areas – marine protected areas, community-based management, and sustainable tourism. Two sets of sites were selected: (1) **Demonstration Sites** - where a reasonable level of successful coral reef management had been achieved, and where these practices could be translated to less successful sites, and (2) **Target Sites** – where there is a clear need for urgent management action to prevent further degradation of coral resources.

Demonstration sites are areas selected as good working examples of effective management addressing one or more issues, and the responsibilities of the selected demonstration sites should include:

- Continuation of good reef management;
- Preparation materials for training on management issues, lessons learned, and recommendations;
- Making presentations about the site experiences; and
- Hosting visits to the site and preparing visits to target sites as appropriate.

Target sites are areas identified with a:

- Clear management need;
- Preparedness to address the need for management;
- Capacity to develop a partnership of community members, planners, managers, and visiting advisors; and
- Preparedness to address social and economic factors needed to achieve sustainable management and conservation.

To facilitate the ICRAN Project, the “First Meeting of the Regional Group of Experts on ICRAN” was held in Phuket, Thailand, from 28–30 January 2002, with the main objective of identifying and selecting the demonstration and target sites for implementation in the East Asian Seas Region.

Four demonstration and target sites were selected for the ICRAN Project, and were paired up in working groups by themes (MPA, community-based management, sustainable tourism) at “The First ICRAN Regional Workshop on Experience Sharing between Demonstration and Target Sites in the East Asian Seas”, held in Phuket, Thailand, 26–27 August 2002. The purpose of the workshop was to provide a forum for site partners to exchange experiences in management, such as successes and failures, and to discuss how successful practices that could be transferred to target sites.

2.4 Objectives of the EAS/RCU Coral Reef Management Project Review

The main objectives of the review are:

- i) To study the outcome of the various projects, to determine if any can be self-sustaining after UNEP assistance ends, and to propose follow-up activities that can augment coral reef management;
- ii) to develop a Handbook that can be a management tool for coral reef management; and
- iii) to develop recommendations for coral reef management in the region that fall in line with the new strategic directions of COBSEA.

The terms of reference of the review were grouped into the following 5 tasks:

Task 1: Review the “Green Fins” project for establishing a network of environmentally friendly dive operations that will assist in the monitoring of coral reefs and enhancing public awareness.

Task 2: Review the project on coral reef and seagrass data collection and mapping activity to fulfil the objectives of the “Coral Reef Data Acquisition and Monitoring” that was implemented in Ninh Thuan Province, Vietnam.

Task 3: Review Small Grants Fund Programme 2002 – 2003 for Monitoring Coral Reefs for Better Management Schemes, Small Grants Community-based projects and any other projects for coral reef conservation that were implemented by EAS/RCU in the region.

Task 4: Based on the foregoing activities, develop a Handbook that can be a management tool for implementation of the 'Green Fins' and the Community-based projects. Then in consultation with the Coordinator and support of the Regional Coordinating Unit conduct a regional level workshop on the use of the Handbook as a management tool for decision-makers and also brainstorm to identify follow-up activities that can be implemented to further enhance the status of coral reefs in the region.

Task 5: Perform any other related duties as and when required by the Coordinator.

The projects under review In Tasks 1-3 fall under 4 activity categories of the theme "Management of Coral Reefs", namely the "UNEP Small Grants Fund Programme 2002-2003", the "UNEP Green Fins Project" , the "Coral Reef Mapping Project in Veitnam" and the "ICRAN Demonstration Site-Target Site Project".

As part of the review process, COBSEA's new strategic directions will be considered.

2.5 Defining the Process

2.5.1 The Project Evaluation Index

The projects under review differ in scope and scale, making it difficult to assess them an on a common platform without a proper framework for assessment. To allow for a standardized framework for project assessments without biases, a "Project Evaluation Index" was designed and applied.

The project evaluation index is essentially a simple scoring system that allows projects to be assessed on the same scale using defined assessment criteria for evaluating the projects based on their individual outcomes. Applying the index will allow for some degree of standardization, thus enabling comparison between projects.

The project evaluation index was designed to reflect both the objectives of the review as well as the 3 components of COBSEA's new strategic direction. Projects outcomes were grouped and assessed based on 3 components:

- | | |
|---|--|
| 1) Assessing Outcomes: | The ability of the projects in meeting their defined objectives |
| 2) Determining Effectiveness: | The effectiveness of the projects in: <ul style="list-style-type: none">a. Enhancing capacityb. Community involvementc. Information management |
| 3) Identifying Potential for Project Development: | The potential of the projects for: |

- a. Formulating new policies and strategies
- b. Self-sustenance
- c. Follow-up activities

For the ICRAN Project on Demonstration Sites – Target Sites, the components were modified to better reflect assessments for “Within Demonstration Sites”, “Within Target Sites” and “Between Paired Demonstration Sites-Target Sites”. This is illustrated in Table 1.

Table 1. The three components used for ICRAN Project review

Component	Within Demonstration Site	Within Target Site	Between Paired Demonstration Site-Target Site
Assessing Outcomes	The ability of the demonstration site to meet its objectives	The ability of the target site to meet its objectives	The ability of the paired demonstration site-target site to meet their objectives
Determining Project Effectiveness	The effectiveness of demonstration sites in continuing good reef management, enhancing capacity and achieving effective information and knowledge transfer at the target site	The effectiveness of target sites in initiating management plan, increasing technical capacity and implementing effective information and knowledge dissemination to stakeholders	The effectiveness of the paired sites in undertaking joint activities that address knowledge transfer and lessons learned
Identifying Potential for Project Development	Potential to conduct follow-up activities at the demonstration site to continue good management actions	Potential to conduct follow-up activities at the target site to implement and monitor good management actions	(Not considered)

Each project was assessed independently based on their individual objectives and outcomes and scored using a 5-point scale, with 1 being lowest and 5 being highest. The criteria used for assigning points for each component and the indicators for determining each criterion were separated into 2 sets – Set 1 criteria was used to assess the UNEP Small Grants Fund Programme 2002-2003, the UNEP Green Fins Project and the Coral Reef Mapping Project in Vietnam, and Set 2 criteria was used to assess the ICRAN Project on Demonstration Sites – Target Sites. Set 1 criteria is presented in Table 2 and Set 2 criteria in Table 3.

Table 2. Set 1 - Criteria used for assigning point scores for project outcomes for the UNEP Small Grants Fund Programme 2002-2003, the UNEP Green Fins Project and the Coral Reef Mapping Project in Vietnam

Components		Criteria				
		1	2	3	4	5
Assessing Outcomes		Outcome did not meet objective	Outcome met at least 25% of objective	Outcome met at least 50% of objective	Outcome met at least 75% of objective	Outcome met over 75% of objective
Determining effectiveness in:	Enhancing Capacity	<i>Indicators for determining effectiveness in enhancing capacity:</i> 1) <i>Training activities were conducted</i> 2) <i>Technical capacity for coral reef survey and monitoring increased within community and other agencies by:</i> a. <i>At least 3 individuals</i> b. <i>At least 6 individuals</i> c. <i>At least 9 individuals</i> d. <i>10 or more individuals</i>				

		None of the indicators were achieved	Indicator 1 and 2a were achieved	Indicators 1 and 2b were achieved	Indicators 1 and 2c were achieved	Indicators 1 and 2d were achieved
	Involving Community**	<i>Indicators for determining effectiveness in involving community:</i> 1) <i>Members of community were involved in the decision making process</i> 2) <i>Awareness for coral reef conservation and management increased in:</i> a. <i>Less than 25% of the community</i> b. <i>At least 25% of the community</i> c. <i>At least 50% of the community</i> d. <i>At least 75% of the community</i> e. <i>More than 75% of the community</i> 3) <i>Active participation in community-based monitoring and management of coral reef by:</i> e. <i>At least 3 community members</i> f. <i>At least 6 community members</i> g. <i>At least 9 community members</i> a. <i>10 or more community members</i>				
		None of the indicators were achieved	Indicators 1, 2a and 3a were achieved	Indicators 1, 2b and 3b were achieved	Indicators 1, 2c and 3c were achieved	Indicators 1, 2d and 3d were achieved
	Information Management	<i>Indicators for determining effectiveness in information management:</i> 1) <i>Information was disseminated to the community through various channels</i> 2) <i>Data and information collected is presented in reports, which are publicly available</i> 3) <i>Data and information collected has been submitted to relevant national, regional or global agencies (eg, Reef Check, ReefBase, MPA Global, GCRMN, etc)</i>				
		None of the indicators were achieved	Indicator 1 was achieved	Indicators 1 or 2 were achieved	Indicators 1 and 2 were achieved	At least indicators 1, 2 and 3 were achieved
Identifying potential for:	Formulation of New Policies/ Strategies	<i>Indicators for identifying potential for formulation of new policies and strategies:</i> 1) <i>Collection of relevant biological and socio-economic data</i> 2) <i>Capacity for community members to analyze or interpret data</i> 3) <i>Community group or organization formed to represent community needs and interest Agency or organization present to act as facilitator</i> 4) <i>Government agency involvement in project activities</i> 5) <i>Formulation of community forums or feedback sessions</i>				
		None of the indicators were achieved	At least 1 of the indicators was achieved	At least 2 of the indicators was achieved	At least 3 of the indicators was achieved	At least 4 of the indicators was achieved
	Self-Sustenance	<i>Indicators for identifying potential for self sustenance:</i> 1) <i>Other projects currently ongoing that can incorporate:</i> a. <i>At least 25% of project activities</i> b. <i>At least 50% of project activities</i> c. <i>At least 75% of project activities</i> d. <i>More than 75% of project activities</i> 2) <i>Agencies or organizations active at project site and able to develop future project proposals for funding</i>				
		None of the indicators were achieved	Indicator 1a and 3 were achieved	Indicator 1b and 2 were achieved	Indicator 1c and 2 were achieved	Indicator 1d and 2 were achieved
	Follow-Up Activities	<i>Indicators for identifying potential for follow-up activities:</i> 1) <i>Strong community support and willingness to participate in future activities</i> 2) <i>Monitoring programme established for possible long-term monitoring of sites</i> 3) <i>Documentation for activities sufficient to sustain follow-up activities</i> 4) <i>Expansion of activities possible through other related activities – eg, activities related to management of seagrass and mangroves, waste management, continued community awareness and outreach programmes, etc.</i>				
		None of the indicators were achieved	At least 1 of the indicators was achieved	At least 2 of the indicators was achieved	At least 3 of the indicators was achieved	All 4 the indicators was achieved

** This component was only applied to the Sub-theme 2 of the UNEP Small Grants Programme “Community-Based Monitoring and Management of Coral Reefs”

Table 3. Set 2 - Criteria used for assigning point scores for project outcomes for the ICRAN Project on Demonstration Sites – Target Sites

Components	Criteria				
	1	2	3	4	5
Assessing Outcomes	Outcome did not meet objective	Outcome met at least 25% of objective	Outcome met at least 50% of objective	Outcome met at least 75% of objective	Outcome met over 75% of objective
Determining Effectiveness: Within Demonstration Site	<i>Indicators for determining effectiveness for Demonstration Site:</i> 1) Prepare report on assessment of demonstration site management schemes and needs for improvement 2) Conduct workshop/training at demonstration site to enhance knowledge of stakeholders 3) Continue good reef management at demonstration site 4) Develop resource and educational materials				
	No indicators were achieved	At least 1 indicator was achieved	At least 2 indicators were achieved	At least 3 indicators were achieved	All indicators were achieved
Determining Effectiveness: Within Target Site	<i>Indicators for determining effectiveness for Target Site:</i> 1) Prepare report on assessment of target site management schemes and needs for improvement 2) Conduct management needs assessment for Target Site and socio-economic assessment of stakeholders 3) Conduct workshop/training at target site to enhance knowledge of stakeholders 4) Develop draft management plan for target site based on recommendations				
	No indicators were achieved	At least 1 indicator was achieved	At least 2 indicators were achieved	At least 3 indicators were achieved	All indicators were achieved
Determining Effectiveness: Between Paired Demonstration Site - Target Site	<i>Indicators for determining effectiveness between paired Demonstration Site-Target Site:</i> 1) Conduct joint discussions on successful management schemes at demonstration site and mechanisms to implement them at the target site 2) Conduct reciprocal site visits to share experiences and develop recommendations 3) Conduct joint workshop/training between paired sites to enhance knowledge can capacity of target site 4) Maintain strong and continued links between paired sites throughout the duration of the ICRAN Project				
	No indicators were achieved	At least 1 indicator was achieved	At least 2 indicators were achieved	At least 3 indicators were achieved	All indicators were achieved
Identifying Potential: Within Demonstration Site	<i>Indicators for identifying potential for follow-up activities within Demonstration Site:</i> 5) Strong institutional, governmental and/or non-governmental involvement within community and Site 6) Strong stakeholder support and willingness to participate in future activities 7) Sufficient technical capacity to sustain follow-up of existing activities 8) Strong potential for securing funding to conduct follow-up or implement new activities				
	No indicators were achieved	At least 1 indicator was achieved	At least 2 indicators were achieved	At least 3 indicators were achieved	All indicators were achieved
Identifying Potential: Within Target Site	<i>Indicators for identifying potential for follow-up activities within Target Site:</i> 1) Strong institutional, governmental and/or non-governmental involvement within community and Site 2) Strong stakeholder support and willingness to participate in future activities 3) Sufficient or increasing technical capacity to sustain follow-up of existing activities 4) Strong potential for securing funding to conduct follow-up or implement new activities				
	No indicators were achieved	At least 1 indicator was achieved	At least 2 indicators were achieved	At least 3 indicators were achieved	All indicators were achieved

Of the three components used to assess the projects, the category with the greatest relevance in contributing to the new strategic directions of COBSEA is the component on “Identifying Potential”, in particular the assessment on the potential of the projects in contributing to the formulation of new policies and strategies, and the scope for follow-up activities.

As indicated in Tables 2 & 3 above, the criteria used for assigning point scores for the component “Identifying Potential” is largely qualitative. To enable fair assessment across projects, specific indicators were used to identify the criteria related to the relevance of project outcomes for the formulation of new policies and strategies, the specific mechanisms present to allow for the formulation of new policies and strategies, and the scope for similar and additional follow-up activities.

2.5.2 Project Assessment Process

Each project assessment was based on the author's evaluation of the information presented in the final project reports.

In order to conduct the analysis, project objectives and outcomes were extracted from the reports and grouped into the 3 components - Matching Outcomes against Objectives, Determining Effectiveness and Identifying Potential - in the form of summary tables.

For "Matching Outcomes against Objectives" component, project outcomes were summarized and matched against the project objectives outlined in available project implementation document, and scored using the pre-defined category criteria. Each outcome was scored independently, and the scores averaged to give an overall score for the category.

For the other 2 components, overall scores was given to each category sub-components after assessing their reported outcomes against the pre-defined category criteria.

Once all the components were assessed and scored, the overall project effectiveness index (PEI) was calculated by averaging all the category scores to give a PEI of between 1 and 5. The corresponding interpretation of each PEI value is presented in Table 4.

Table 4. Project Effective Index scores and the corresponding interpretation

Project Effectiveness Index	Project Effectiveness Interpretation
$1 \leq PEI < 2$	Largely ineffective
$2 \leq PEI < 3$	Partially effective
$3 \leq PEI < 4$	Largely effective
$4 \leq PEI \leq 5$	Completely effective

2 Project Descriptions

The projects under review are part of the “Establishment of an Effective Coral Reef Monitoring Network in the East Asian Seas Region” and “International Coral Reef Action Network (ICRAN)” projects, which together, fall under COBSEA’s activity on “Coral Reef Monitoring”.

A total of 19 projects grouped into 4 main categories were reviewed in this exercise. These projects were:

- 1) Category: **UNEP/COBSEA Small Grants Fund Programme 2002-2003** (5+4 projects)
 - a. ***Sub-theme 1: Monitoring Coral Reefs for Better Management***
 - i. Danjungan Island Marine Reserve and Sanctuaries (DIMRS) Reef monitoring program
 - ii. Coral reef monitoring for sustainable uses of resources around the islands groups in the coastal waters of Southwest Viet Nam
 - iii. Coral reef monitoring and coral campaign by REEFCHECK program in Karimunjawa Marine National Park
 - iv. Coral reef survey & monitoring for management in central Sulawesi, Indonesia
 - v. Status of monitoring and management strategy research of Luhuitou Fringing Reef of the Sanya Reserve
 - b. ***Sub-theme 2: Community-Based Monitoring and Management of Coral Reefs***
 - i. Developing community-based sanctuary for coral reefs in Wangkolabu Village, Indonesia
 - ii. Community based monitoring and evaluation of coral reef condition at Taka Bonerate Marine National Park
 - iii. Community resources centre for better management of Karimunjawa National Park
 - iv. Raising awareness & capacity of grassroots organisations on coral reef ecology and in monitoring by Yayasan Terangi in Panggang Island, Indonesia
- 2) Category: **UNEP Coral Reef Mapping Project in Vietnam** (1 project)
 - a. Mapping coral reefs for management in Ninh Thuan province, Vietnam
- 3) Category: **UNEP Green Fins Project** (1 project)
 - a. UNEP Green Fins in Thailand, Philippines and Indonesia
- 4) Category: **ICRAN Project Demonstration Sites – Target Sites** (8 Projects)
 - a. Demonstration Site – Apo Island Marine Reserve, Philippines
 - b. Demonstration Site - Mu Koh Surin Marine Park, Thailand

- c. Demonstration Site - Komodo National Park, Indonesia
- d. Demonstration Site - Bunaken National Park, Indonesia
- e. Target Site - Nha Trang Province, Vietnam
- f. Target Site - Koh Rong Province, Cambodia
- g. Target Site - Sanya National Coral Reef Nature Reserve, China
- h. Target Site - Gili Matra Marine Natural Recreation Park, Indonesia

Descriptions of the projects, including their duration, costs, project summary, outcomes, etc. for the first 3 project categories are listed in the following tables. Description for the projects under category 4, ICRAN Project on Demonstration Sites – Target Sites were not compiled due to the unavailability of relevant project description documents.

UNEP/ICRAN Small Grants Fund Programme 2002-2003

Sub-theme 1: Monitoring Coral Reefs for Better Management

Project	Duration	Year	Funding		Project Summary	Key Outcomes	Project Strengths	Project Weaknesses	Possible Improvements	COBSEA's Contribution
			COBSEA	Others						
Danjungan Island Marine Reserve and Sanctuaries (DIMRS) Reef Monitoring Program	1 year	2002 – 2003	Yes ≤US\$10k	Yes Unspecified	<ul style="list-style-type: none"> - Conduct fish and benthic surveys - Conduct fish catch and landing monitoring - Increase local community and local government unit capacity and knowledge in underwater fish and benthic surveys and fish catch and landing monitoring - Package information on reef resources and fisheries for the community to use in planning their reserve and sanctuaries 	<ul style="list-style-type: none"> - 4th year of coral reef data and information collected - Initiated 1st collection of fish catch and landing monitoring data - Increase local community and local government capacity in coral reef monitoring and data analysis and management - Expansion of programme through Inclusion of adjacent local government units in capacity building 	<ul style="list-style-type: none"> - Strong NGO presence and involvement - Strong scientific support - Collection of long term monitoring data - Strong community support and involvement - Data analysis and management capabilities increased in local community - Transfer of expertise from community to other reserves 	<ul style="list-style-type: none"> - Adoption of non-standardized monitoring methodologies 	<ul style="list-style-type: none"> - Continue training to increase technical capacity of local community in data analysis and management - Establish community dive support unit with sufficient field equipment to continue long term monitoring and provide basic field equipment maintenance training - Establish more vigorous data submission requirements 	<ul style="list-style-type: none"> - Funding for data collection and capacity building
Coral reef monitoring for sustainable uses of resources around the islands groups in the coastal waters of Southwest Viet Nam	1 year	2003	Yes ≤US\$10k	Yes Unspecified	<ul style="list-style-type: none"> - Conduct fish and benthic surveys - Establish biophysical monitoring system to determine the impacts of the changes in the management regime within the islands - Increase local community and local government unit capacity and knowledge in underwater fish and benthic surveys 	<ul style="list-style-type: none"> - Coral reef baseline data and information collected - Increase in local community and local government capacity in coral reef monitoring 	<ul style="list-style-type: none"> - Strong scientific support - Collection of baseline data - Strong connections with other agencies (like WWF) operating in the sites 	<ul style="list-style-type: none"> - Data analysis and management capabilities limited to scientific staff - Negligible community awareness activities 	<ul style="list-style-type: none"> - Develop longer term monitoring and management strategies for sites - Encourage formulation of community interest groups - Increase technical capacity of local community in data analysis and management - Establish more vigorous data submission requirements 	<ul style="list-style-type: none"> - Funding for data collection and capacity building

Sub-theme 1: Monitoring Coral Reefs for Better Management

Project	Duration	Year	Funding		Project Summary	Key Outcomes	Project Strengths	Project Weaknesses	Possible Improvements	COBSEA's Contribution
			COBSEA	Others						
Coral reef monitoring and coral campaign by REEFCHECK program in Karimunjawa Marine National Park	1 year	2002 – 2003	Yes ≤US\$10k	Yes Unspecified	<ul style="list-style-type: none"> - Conduct fish and benthic surveys - Conduct socio-economic surveys - Increase local community and local government unit capacity and knowledge in underwater fish and benthic surveys - Conduct public awareness and outreach activities 	<ul style="list-style-type: none"> - Coral reef baseline data and information collected - Socio-economic data and information collected - Increase in local community and local government capacity in coral reef monitoring - Increased awareness in local community through information boards and leaflets, seminars, distribution of t-shirts and coloring competition 	<ul style="list-style-type: none"> - Strong NGO presence and involvement - Strong scientific support - Collection of baseline coral reef data - Strong community support and involvement - Extensive awareness activities for coral reef campaign - Recommendations made to local government for coral reef management 	<ul style="list-style-type: none"> - Data analysis and management capabilities limited to scientific staff 	<ul style="list-style-type: none"> - Develop longer term monitoring and management strategies for sites - Increase technical capacity of local community in data analysis and management - Establish more vigorous data submission requirements 	<ul style="list-style-type: none"> - Funding for data collection and capacity building
Coral reef survey & monitoring for management in central Sulawesi, Indonesia	1 year	2002 – 2003	Yes ≤US\$10k	Yes Unspecified	<ul style="list-style-type: none"> - Conduct fish and benthic surveys - Increase local community and NGO capacity and knowledge in underwater fish and benthic surveys - Conduct public awareness and outreach activities for stakeholders, site managers, media and decision makers 	<ul style="list-style-type: none"> - Coral reef baseline data and information collected - Increase in local community and NGO capacity in coral reef monitoring - Results presented at seminars, meetings and website - Data being used to initiate establishment of 2 MPAs 	<ul style="list-style-type: none"> - Strong NGO presence and involvement - Resource sharing with other projects - Strong scientific support - Collection of baseline coral reef data - Effective use and distribution to stakeholders - Recommendations made to local government establishment of 2 MPAs 	<ul style="list-style-type: none"> - Data analysis and management capabilities limited to scientific staff 	<ul style="list-style-type: none"> - Expansion of programme to other areas - Establish community dive support unit with sufficient field equipment to continue long term monitoring and provide basic field equipment maintenance training - Increase data analysis and management capacity of local communities - Establish more vigorous data submission requirements 	<ul style="list-style-type: none"> - Funding for data collection and capacity building

Sub-theme 1: Monitoring Coral Reefs for Better Management

Project	Duration	Year	Funding		Project Summary	Key Outcomes	Project Strengths	Project Weaknesses	Possible Improvements	COBSEA's Contribution
			COBSEA	Others						
Status of monitoring and management strategy research of Luhuitou Fringing Reef of the Sanya Reserve	1 year	2002 – 2003	Yes ≤US\$10k	Yes Unspecified	<ul style="list-style-type: none"> - Conduct fish and benthic surveys - Increase decision makers, local managers, local divers and research institute staff capacity and knowledge in underwater fish and benthic surveys - Conduct stakeholder workshop for Sanya Reserve managers and present results of the survey at workshop 	<ul style="list-style-type: none"> - Coral reef data and information collected - Increase in decision makers, local managers, local divers and research institute staff capacity in coral reef monitoring - Results presented at stakeholders workshop to representatives of Sanya National Coral Reef Reserve, Sanya Huanqiu Diving Company, Luhuitou Village Committee, Tropical Marine Biological Research Station in Hainan and South China Sea Institute of Oceanology - Management suggestions for Luhuitou fringing reef was presented and accepted by the Sanya National Coral Reef Reserve 	<ul style="list-style-type: none"> - Strong academic presence and involvement - Strong scientific support - Collection of coral reef data - Strong stakeholder representation - Management suggestions accepted by the Sanya National Coral Reef Reserve 	<ul style="list-style-type: none"> - Data analysis and management capabilities limited to scientific staff - No indication for plans for continued monitoring at the site - Despite the acceptance of the management suggestions, there was no indication if any of the suggestions were implemented by the Reserve 	<ul style="list-style-type: none"> - Increase number of monitoring sites - Develop longer term monitoring and management strategies for sites - Increase technical capacity of decision makers, local managers and local divers in data analysis and management - Establish more vigorous data submission requirements 	<ul style="list-style-type: none"> - Funding for data collection and capacity building

UNEP/ICRAN Small Grants Fund Programme 2002-2003

Sub-theme 2: Community-Based Monitoring and Management of Coral Reefs

Project	Duration	Year	Funding		Project Summary	Key Outcomes	Project Strengths	Project Weaknesses	Possible Improvements	COBSEA's Contribution
			COBSEA	Others						
Developing community-based sanctuary for coral reefs in Wangkolabu Village, Indonesia	1 year	2004 – 2005	Yes ≤US\$10k	Yes Unspecified	<ul style="list-style-type: none"> - Establish program on aquarium fish collection as an alternative livelihood - Establish program on CoT population removal - Establish a community-based sanctuary (CBS) for coral conservation in Wangkolabu - Establish a CBS implementation plan, and Increase local community capacity and knowledge in underwater fish and benthic surveys - Establish a CBD monitoring programme 	<ul style="list-style-type: none"> - Curriculum developed for aquarium fish collection for local community - Training course developed for CoT removal for local community - Increase in local community and local institution capacity in coral reef monitoring - CBS, CBS implementation plan and CBS monitoring programme established 	<ul style="list-style-type: none"> - Strong NGO presence and involvement - Strong scientific support - Strong community and local government support and involvement - Collection of baseline coral reef data - Extensive awareness activities for CBS - Well structured project design, management and execution 	- Nil	<ul style="list-style-type: none"> - Expansion of programme in other areas - Establish community dive support unit with sufficient field equipment to continue long term monitoring and provide basic field equipment maintenance training - Increase technical capacity of decision makers, local managers and local divers in data analysis and management - Establish more vigorous data submission requirements 	<ul style="list-style-type: none"> - Funding for data collection, capacity building and the establishment of a CBS
Community based monitoring and evaluation of coral reef condition at Taka Bonerate Marine National Park	1 year	2004 – 2005	Yes ≤US\$10k	Yes Unspecified	<ul style="list-style-type: none"> - Existing resource data on collection for Taka Bonerate National Park - Increase local community capacity and knowledge on coral reefs and in underwater fish and benthic surveys - Establish coral reef database to support management activities 	<ul style="list-style-type: none"> - Participatory rural appraisal (PRA) were conducted - Increase in local community capacity in coral reef monitoring - Coral reef data and information collected - Meetings between project team and local community held to discuss the results and plan for subsequent activities 	<ul style="list-style-type: none"> - Strong NGO presence and involvement - Strong scientific support - Strong community and local government support and involvement - Collection of baseline coral reef data - Well structured project design, planning, management and execution 	- Data analysis and management capabilities limited to scientific staff	<ul style="list-style-type: none"> - Increase technical capacity of decision makers, local managers and local divers in data analysis and management - Establish community dive support unit with sufficient field equipment to continue long term monitoring and provide basic field equipment maintenance training - Establish more vigorous data submission requirements 	<ul style="list-style-type: none"> - Funding for data collection and capacity building

Sub-theme 2: Community-Based Monitoring and Management of Coral Reefs

Project	Duration	Year	Funding		Project Summary	Key Outcomes	Project Strengths	Project Weaknesses	Possible Improvements	COBSEA's Contribution
			COBSEA	Others						
Community resources centre for better management of Karimunjawa National Park	1 year	2004 – 2005	Yes ≤US\$10k	Yes Unspecified	<ul style="list-style-type: none"> - Initiate local community groups to work with KJNPA to manage the national park area - Increase local community capacity and knowledge on fisheries management and coral reef surveys - Integrate local community inputs and ideas in management policies - Facilitate communication through the Karimunjawa Coral Reefs Database 	<ul style="list-style-type: none"> - Coral reef data and information collected - Increase in local community capacity in coral reef monitoring - 3 village community groups established and provided management training on organizational structure and strategic workplan - Village management strategic plans developed by community groups - A communication forum formed to facilitate communication and action between the 3 community groups - Village management strategic plans published and distributed - A drawing and poetry competition was held - Computers were distributed to each community group and training programmes on computer usage and data entry were conducted - Community awareness posters and videos were developed 	<ul style="list-style-type: none"> - Strong NGO presence and involvement - Strong scientific support - Strong community and local government support and involvement - Collection of baseline coral reef data - Well structured project design, planning, management and execution 	<ul style="list-style-type: none"> - Data analysis and management capabilities limited to scientific staff 	<ul style="list-style-type: none"> - Increase technical capacity of decision makers, local managers and local divers in data analysis and management - Establish community dive support unit with sufficient field equipment to continue long term monitoring and provide basic field equipment maintenance training - Establish more vigorous data submission requirements 	<ul style="list-style-type: none"> - Funding for data collection and capacity building

Sub-theme 2: Community-Based Monitoring and Management of Coral Reefs

Project	Duration	Year	Funding		Project Summary	Key Outcomes	Project Strengths	Project Weaknesses	Possible Improvements	COBSEA's Contribution
			COBSEA	Others						
Raising awareness & capacity of grassroots organisations on coral reef ecology and in monitoring by Yayasan Terangi in Panggang Island, Indonesia	1 year	2004 – 2005	Yes ≤US\$10k	Yes Unspecified	<ul style="list-style-type: none"> - Improve capacity of the grassroots organization Elang Ekowisata in participatory survey and monitoring - Facilitate the setting up of a community-based ecotourism organization - Facilitate the establishment of ecotourism areas in Panggang Village - Increase local community capacity and knowledge on coral reef surveys - Identify operational support services owned by islanders and develop partnerships with government, private sectors, school, and service provider owned by community 	<ul style="list-style-type: none"> - Coral reef data and information collected - Increase in local community capacity in coral reef monitoring - Organisational structure for community-based ecotourism organization formed - A financial management training and market network development workshop was held - One coral reef area was declared as a protected zone for biodiversity resource, with no extractive activities allowed in the zone - Database of tourism services was established - SCUBA equipments and facilities were procured for Elang Ekowisata to provide ecotourism services - Potential ecotourism guides were identified to work as interns for Elang Ekowisata in tourism services - Elang Ekowisata brochure was produced and distributed during an ecotourism awareness activity 	<ul style="list-style-type: none"> - Strong NGO presence and involvement - Strong scientific support - Strong community and local government support and involvement - Collection of baseline coral reef data - Well structured project design, planning, management and execution 	<ul style="list-style-type: none"> - Data analysis and management capabilities limited to scientific staff 	<ul style="list-style-type: none"> - Increase technical capacity of decision makers, local managers and local divers in data analysis and management - Provide basic field equipment maintenance training - Establish more vigorous data submission requirements 	<ul style="list-style-type: none"> - Funding for data collection and capacity building

Coral Reef Mapping Project in Vietnam

Project	Duration	Year	Funding		Project Summary	Key Outcomes	Project Strengths	Project Weaknesses	Possible Improvements	COBSEA's Contribution
			COBSEA	Others						
Mapping coral reefs for management in Ninh Thuan province, Vietnam	1 year	2003 – 2004	Yes Unspecified	Unspecified	<ul style="list-style-type: none"> - Establish working group and enhance capacity of working group members in remote sensing image interpretation - Compile existing data and information into a GIS database for coral reefs in Coastal Ninh Thuan province - Conduct preliminary data processing and to develop a tool for interpretation of coral reef habitat in specific conditions of Vietnam coastal zones - To establish a GIS database on distribution of coral reefs and other ecosystem in Ninh Thuan coastal waters, which will include GIS maps and layers on environmental parameters, biodiversity characteristics, physical and socio-economic conditions of coastal areas of Ninh Thuan - Develop management strategies for ecosystem and biodiversity of Ninh Thuan coastal areas using GIS maps 	<ul style="list-style-type: none"> - A working group of 8 was formed - Workshop in remote sensing and image interpretation was conducted - Existing and additional socio-economic, political, habitat and resource use information data and information was collected to produce the GIS database and maps of coral reefs in Ninh Thuan Province - Maps were zoned and ground-truthed to verify distribution of coral reefs - Workshop to present results to technical managers was conducted and strategies for management using the GIS maps were discussed 	<ul style="list-style-type: none"> - Strong scientific and academic support - Strong support and involvement by key government agencies - Project scope was small and easy to manage 	<ul style="list-style-type: none"> - Project highly technical in nature and not easily replicated - High dependence on technology and access to technology 	<ul style="list-style-type: none"> - To make the GIS system accessible, eg, online GIS - Integration with other global GIS databases on coral reefs, like Reef Base 	<ul style="list-style-type: none"> - Funding for establishment of coral reef maps for Ninh Thuan province

UNEP Green Fins Project

Project	Duration	Year	Funding		Project Summary	Key Outcomes	Project Strengths	Project Weaknesses	Possible Improvements	COBSEA's Contribution
			COBSEA	Others						
UNEP Green Fins in Thailand, Philippines and Indonesia	2 years?	2004 – 2005	Yes Unspecified	Unspecified	<ul style="list-style-type: none"> - To establish Green Fins local network group between Thailand, Philippines and Indonesia - To develop Green Fins mandate - Prepare Green Fins publicity materials, including VCD, brochures, certification, website, etc - Establish contact with dive operators, dive associations and sponsors - Prepare training programmes and education and awareness materials 	<ul style="list-style-type: none"> - Green Fins coordinating teams formed - In Philippines, Green Fins established a network of dive operators within Subic Bay - Green Fins materials produced are: <ol style="list-style-type: none"> 1) Green Fins DVD 2) Certificate of Participation 3) Green Fins Flag & Banners 4) Mission Statement 5) Agreement for Dive Operators 6) Green Fins Poster with Mission Statement 7) Minimum Discharge Policy 8) Friendly Diving and Snorkeling Guidelines Poster 9) Use Only Mooring Buoy Sign 10) Website - Collaborations with Reef Check and PADI established - Wreck Check initiative established in the Philippines 	<ul style="list-style-type: none"> - Strong involvement and support by diving industry - Strong scientific support through PMBC and Reef Check - Well structured project design, planning, management and execution 	<ul style="list-style-type: none"> - Little evidence of integration between Green Fins from Thailand, Philippines and Indonesia - Green Fins programme are not at the same level in all three countries 	<ul style="list-style-type: none"> - Better integration between countries - Establish more vigorous data submission requirements - Increase prominence through media and dive magazines 	<ul style="list-style-type: none"> - Funding for establishing the Green Fins programme

ICRAN Project on Demonstration Sites – Target Sites pairings and their overall pairing objectives

Demonstration Site Location	Target Site Location	Theme and Pairing Objective/s
Apo Island Marine Reserve, Philippines	Ninh Thuan Province, Vietnam	Theme: Community-Based Management
Mu Koh Surin Marine Park, Thailand*	Sanya National Coral Reef Nature* Reserve, China (originally paired with Koh Rong, Cambodia in 2002, but repaired with Sanya, China in 2003)	Theme: Multiple Use of MPAs
Komodo National Park, Indonesia*	Koh Rong Province, Cambodia* (originally paired with Sanya, China in 2002, but repaired with Koh Rong, Cambodia in 2003)	Theme: Multiple Use of MPAs
Bunaken National Park, Indonesia	Gili Matra Marine Natural Recreation Park, Indonesia	Theme: Sustainable Tourism

* Due to political tensions that developed between Cambodia and Thailand in early 2003, ICRAN site pairings were reassessed, resulting in new pairings between **Koh Rong, Cambodia & Komodo, Indonesia** and **Mu Koh Surin, Thailand & Sanya, China**.

3 Project Evaluation Overviews

3.1 Overall Summary

The projects funded under the “UNEP/ICRAN Small Grants Programme 2002-2003”, the “Coral Reef Mapping Project in Veitnam”, the “UNEP Green Fins Project” and the “ICRAN Project on Demonstration Sites-Target Sites” were all assessed to be either largely effective or completely effective in achieving their individual objectives agreed upon between COBSEA/ICRAN and the implementation agencies. This reflected the effectiveness of the implementation agencies in managing and executing the projects.

The effectiveness of the projects in enhancing knowledge and increasing capacity were also high, with the projects paving the way for potential follow-up activities and opportunities for using projects outcomes in developing management strategies for the project areas.

As part of the project review process, the outcome and lessons learned from the projects will be compiled into a reference resource book that will act as a guide for supporting and implementing similar activities in future.

3.2 UNEP/ICRAN Small Grants Fund Programme 2002–2003 Summaries

The 9 projects selected for funding under the UNEP Small Grants Fund Programme 2002-2003 (henceforth referred to as The Fund) were short-term moderate-level funded projects not exceeding US\$10,000, with the aim of supporting activities that focused on detecting changes in coral reef status through monitoring, and to use the results to strengthen the management capabilities of resource managers.

The Fund serves an important role in providing opportunities for small organizations and agencies with active on-the-ground involvement to implement small, focused activities that would otherwise not qualify for individual funding externally. By providing seed funding for key monitoring-related activities, The Fund can act as a catalyst to leverage future funds from additional initiatives and institutions for addressing coral reef related issues.

For the purpose of this review, the 9 projects were divided into two sub-themes to better represent the projects objectives.

Sub-Theme 1: “Monitoring Coral Reefs for Better Management”

1. Danjungan Island Marine Reserve and Sanctuaries (DIMRS) Reef Monitoring Program
2. Coral Reef Monitoring for Sustainable Uses of Resources Around the Islands Groups in the Coastal Waters of Southwest Viet Nam
3. Coral Reef Monitoring and Coral Campaign by REEFCHECK Program in Karimunjawa Marine National Park
4. Coral Reef Survey & Monitoring for Management in Central Sulawesi, Indonesia
5. Status of Monitoring and Management Strategy Research of Luhuitou Fringing Reef of the Sanya Reserve

Sub-theme 2: “Community-Based Monitoring and Management of Coral Reefs”

6. Developing Community-based Sanctuary for Coral Reefs in Wangkolabu Village, Indonesia
7. Community Based Monitoring and Evaluation of Coral Reef Condition at Taka Bonerate Marine National Park
8. Community Resources Centre for Better Management of Karimunjawa National Park
9. Raising Awareness and Capacity of Grassroots Organisations on Coral Reef Ecology and in Monitoring Coral Resources by Yayasan Terangi in Panggang Island, Indonesia

The 9 projects were predominantly capacity building projects in coral reef monitoring. All the projects were able to address the over-arching objective of monitoring changes of coral reefs effectively, but were not able to effectively illustrate the link between monitoring information and management options. There were no clear indication on how monitoring data was or can be used to aid management decisions – eg, how percent hard coral cover or fish counts of key indicator species relates to specific management action.

Projects under sub-theme 2 were assessed to be overall more effective in meeting their project objectives, both in terms of outcomes and project execution. All the project sites were characterised by the presence of local communities that are dependent on the coastal resources for their livelihoods. Projects that included comprehensive community programmes that complemented community monitoring efforts showed greater impact in terms of overall effectiveness and potential for follow-up activities.

Project Effectiveness Index for Sub-Theme 1: “Monitoring Coral Reefs for Better Management”

Project	Outcomes vs Objectives	Effectiveness:		Potential for:			Average Overall Score
		Spreading Knowledge	Enhancing Capacity	Formulation of Management Policies/ Strategies	Self Sustenance	Related Follow-up Activities	
Danjungan Island Marine Reserve and Sanctuaries (DIMRS) Reef monitoring program	4.6	5	5	4	3	5	4.43
Coral reef monitoring for sustainable uses of resources around the islands groups in the	3.75	3	4	3	4	5	3.79

coastal waters of Southwest Viet Nam							
Coral reef monitoring and coral campaign by REEFCHECK program in Karimunjawa Marine National Park	4.4	5	5	4	4	5	4.57
Coral reef survey & monitoring for management in central Sulawesi, Indonesia	5	5	5	4	4	5	4.67
Status of monitoring and management strategy research of Luhuitou Fringing Reef of the Sanya Reserve	3.67	3	4	4	4	4	3.78

Project Effectiveness Index for Sub-theme 2: “Community-Based Monitoring and Management of Coral Reefs”

Project	Outcomes vs Objectives	Effectiveness:			Potential for:			Average Overall Score
		Spreading Knowledge	Enhancing Capacity	Involving Community	Formulation of Management Policies/ Strategies	Self Sustenance	Related Follow-up Activities	
Developing community-based sanctuary for coral reefs in Wangkolabu Village, Indonesia	5	5	5	5	5	5	5	5
Community based monitoring and evaluation of coral reef condition at Taka Bonerate Marine National Park	4.5	5	5	5	3	3	5	4.35
Community resources centre for better management of Karimunjawa National Park	5	5	5	5	5	4	5	4.86
Raising awareness & capacity of grassroots organisations on coral reef ecology and in monitoring by Yayasan Terangi in Panggang Island, Indonesia	4.6	5	5	5	5	5	5	4.94

3.3 Coral Reef Mapping Project in Vietnam

The coral reef mapping project was highly technical in nature, with the main aim of investigating the possibility of using remote sensing and GIS in mapping coral reef areas in Ninh Thuan province, and exploring the possibility of expanding the project cover the entire coastal area of Vietnam in future. The project was assessed to have been completely effective in achieving its objectives.

Working with local partners, the project team was able to establish preliminary methodologies and interpretative tools for classifying coral reef habitats within specific environmental conditions. The project has good potential to become a useful management tool in coastal resource management, but needs further refinement to make it more robust and applicable on a larger scale.

Project Effectiveness Index for Coral Reef Mapping Project in Vietnam

Project	Outcomes vs Objectives	Effectiveness:		Potential for:			Average Overall Score
		Spreading Knowledge	Enhancing Capacity	Formulation of Management Policies/ Strategies	Self Sustenance	Related Follow-up Activities	
Mapping coral reefs for management in Ninh Thuan province, Vietnam	4.6	5	5	5	4	5	4.77

3.4 UNEP Green Fins Project

The Green Fins project is the only project under review that has not been completely implemented. The preparatory Phase I of the project has been completed, but the success of the project will depend on Phase II of the project – the implementation of the project on a national and regional scale and to garner sufficient support for the project. The project is assessed to be completely effective up to Phase I of the project.

If the project is implemented well and managed effectively and efficiently, the Green Fins project has the potential of having the greatest impact on a large scale and the potential to develop into a fully operational unit.

Project Effectiveness Index for UNEP Green Fins Project

Project	Outcomes vs Objectives	Effectiveness:		Potential for:			Average Overall Score
		Spreading Knowledge	Enhancing Capacity	Formulation of Management Policies/ Strategies	Self Sustenance	Related Follow-up Activities	
UNEP Green Fins project	4.66	Not assessed for this phase	Not assessed for this phase	5	5	5	4.91

3.5 ICRAN Project on Demonstration Sites-Target Sites

The main objective of the ICRAN Project was the transfer of knowledge and capacity in coral reef management within the context of the three focal areas – marine protected areas, community-based management, and sustainable tourism – from the four demonstration sites to the paired target sites. In addition to paired site activities, individual site activities were also conducted within the framework of the project.

The approach of the ICRAN Project was as simple as it was practical – by pairing sites with reasonably successful management together with sites in need of management, the transfer of knowledge, experiences and lessons learned can be more effectively facilitated in a focused and targeted manner.

The 4 paired demonstration sites and target sites were well selected to highlight the three themes of Marine protected areas (MPAs), community-based management and sustainable tourism. Despite the

inherent potential of the ICRAN Project to serve as exemplary case studies for the Management Action component of ICRAN's program, the overall outcome of the Project was did not fulfill this potential for all the 4 demonstration site-target site pairs.

It is the opinion of the reviewer that the ICRAN Project fell short of its potential and deliverables mainly due to shortcomings in project management and coordination, which saw several changes in project managers and coordinators during the duration of the project life. One of the main shortcomings noted was the general lack in proper project documentation and reporting. Project implementation documents, MOU agreements, regular project updates and final project reports were largely not available, thus preventing the smooth and efficient tracking of the project implementation, progress and outcomes. Also lacking was a post-project overview report, detailing the administrative management of the projects as well as summaries of individual site outcomes.

Despite the shortcomings in project documentation and reporting, the ICRAN Project was assessed to be either largely or completely effective in achieving its objectives.

The overall Project Effective Index and the corresponding project effectiveness status for the demonstration sites and target sites are presented in Tables 5 and 6.

The overall Project Effective Index and the corresponding project effectiveness status at the four Demonstration Sites

Project Site Location	Outcomes vs Objectives	Determining Effectiveness	Identifying Potential for Project Development	Overall Project Effectiveness Index	Project Effectiveness Status
Apo Island Marine Reserve, Philippines	4.5	4.5	5	4.67	Completely Effective
Mu Koh Surin Marine Park, Thailand	2.2	2	5	3.07	Largely Effective
Komodo National Park, Indonesia	3.6	3	5	3.86	Largely Effective
Bunaken National Park, Indonesia	4.6	4.5	5	4.70	Completely Effective

The overall Project Effective Index and the corresponding project effectiveness status at the four Target Sites

Project Site Location	Outcomes vs Objectives	Determining Effectiveness	Identifying Potential for Project Development	Overall Project Effectiveness Index	Project Effectiveness Status
Nha Trang Province, Vietnam	5	4.5	5	4.83	Completely Effective
Koh Rong Province, Cambodia	3.4	3.5	3	3.30	Largely Effective
Sanya National Coral Reef Nature Reserve, China	2.6	3	4	3.20	Largely Effective
Gili Matra Marine Natural Recreation Park, Indonesia	3.4	3.5	3	3.30	Largely Effective

4 Recommendations for Future Considerations

4.1 UNEP/ICRAN Small Grants Fund Programme 2002-2003

The United Nations Environment Programme East Asian Seas Regional Coordinating Unit (UNEP EAS/RCU), as the lead agency for coordinating activities concerning the protection and management of coral reefs in the East Asian Region, has done a good job in initiating small-scale coral reef monitoring projects through the Small Grants Fund Programme. The limited funding available for each project essentially means that the projects can only ensure long-term effectiveness if they are linked to existing projects with funding from other sources. This is a good strategy for small budget funds – by supporting projects that are part of and contribute of other projects, it ensures longer term viability in implementing project outcomes.

The Small Grants Fund Programme should continue to support projects in the same capacity. The efficacy of future projects could be further strengthened by adopting a selection criterion that better reflects connectivity between the projects. The appointment of an expert consultation group to advise the selection process should also be considered to aid in the selection process.

UNEP EAS/RCU can further strengthen its role as a coordinating unit by playing a more active role in data coordination efforts. One tangible outcome of the projects in addition to capacity building, awareness raising and increased community involvement is the actual production of coral reef data. Data is an expensive commodity whose value in contributing to national, regional and global assessments is seldom harnessed at the end of a project lifespan.

In many instances, data collected through survey and monitoring exercises are presented as summary reports, and often not used for much else outside the project area. Data collected using the Reef Check method is perhaps the only kind of data that is submitted to a global repository and used for larger scale assessments. Even then, not all data collected using Reef Check is submitted.

The issue of establishing a regional database on living resources has been widely discussed and extensively debated, but with no concrete outcomes resulting from all the discussions. The first regional database was established during the ASEAN-Australia LCR activities ceased to function after the lifespan of the project as there was no viable mechanism to sustain the database. Since then, there has been little in the way of reestablishing the creation of a regional database.

It has been recommended that efforts to create a regional database should be made in parallel with efforts to strengthen individual country capacity to formulate and maintain their own databases, which would serve to feed into the regional database. This suggestion has plenty of merit, and if coordinated effectively, can serve as a powerful platform for information management on a regional scale.

A possible follow-up to the UNEP Small Grants Fund Programme is to refocus its attention on data and information management, starting with coral reef data. This can be done as a multi-pronged approach – working with countries to build their own national databases while working with regional partner agencies with the ability, facility and political neutrality to serve as data repository for a regional database, and to start consolidating all the data collected from past UNEP funded projects that will feed directly into the regional database.

This would require effective coordination between countries and regional partner agencies, a task in which UNEP EAS/RCU is best positioned to take the lead in. Possible iterations for the planning process can include:

- 1 The formulation of a structured planning framework for a data and information management initiative;
- 2 The appointment of a fact finding mission to review the current status and the need for information management systems by participating countries in the region;
- 3 The coordination of a series of technical workshops to initiate the establishment of national coral reef databases within the vision and framework of a regional database (the workshops can include discussions on data ownership and data usage guidelines);
- 4 Discussions with regional partner agencies on the technical feasibility of establishing and hosting an active regional database (Reef Base, Reef Check and GCRMN for example); and
- 5 The consolidation of coral reef data collected through all past projects funded by UNEP.

4.2 Coral Reef Mapping Project in Vietnam

Coral reef mapping is an excellent tool for resource managers, and has the potential for addressing coral reef issues on a local, national and regional scale. The backbone of the coral reef mapping project is data, and monitoring data a key component in the mapping database.

The entire framework within which UNEP EAS/RCU projects are being funded and coordinated provides an excellent opportunity for cross-project link-ups. Data collected through the monitoring

projects under the Small Grant Fund Programme can feed directly into the coral mapping project. This would however require a level of connectivity between the projects and project sites, an issue which can be addressed in the selection of future projects.

The outcomes from the project “Mapping coral reefs for management in Ninh Thuan province, Vietnam” indicate that the product requires further refinement before it can be realistically used and applied as a management tool.

The question of whether the coral reef mapping project should be further developed and refined depends largely on how the product will be used. Two key issues need to be addressed to assess the relevance and feasibility for continuing the project, namely:

- 1 Who is the product targeted for?
- 2 How will the product be used in addressing management issues?

4.3 UNEP Green Fins Project

The UNEP Green Fins Project is an exciting project in its potential to become a strong initiative with a wide regional scope and potential for self-sustenance and longevity. In principal, the project is simple and practical, but will require some creative maneuvering to steer the project implementation successfully.

Phase I of the project, funded by UNEP, has been completed – the formulation of the mission and vision, the development of the code of conduct and the creation of media resources and the website. Phase II of the project, which is yet to start, is the implementation of the project at the national and regional level. Phase II is essentially a marketing exercise that will require the application of pragmatic marketing strategies that borrow from the business world. The Green Fins project is not a commercial project, and does not have the financial backing for a full marketing campaign. It therefore needs to plan and focus its marketing strategies to reflect its operational framework.

The current framework of Green Fins project consists of 3 country network leaders working in a loose arrangement with UNEP acting as the coordinator. This worked well for Phase I of the project, but will not be effective in implementing Phase II of the project.

A possible strategy for Phase II of the project can include:

- 1 Establishing a Green Fins project steering committee and appointing several key positions.
 - These should include at a minimum, a chairperson, vice-chair, secretary, marketing and business relations coordinator, a media relations coordinator and a scientific network coordinator. Other positions can be added as necessary.
 - The first outputs of the steering committee can be the formulation of a business and marketing plan that will best reflect the mission, vision and objectives of the project.
- 2 Formalizing the network into a legal entity.

- This is essential for fund-raising efforts and the management of funds. There are 2 ways to go about this – by setting up a new stand-alone entity, or by partnering with existing organizations with complementary objectives such as Reef Check Foundation. The strength and weakness of both approach should be discussed.
- 3 Establish local and regional support network.
- The support network should consist of groups whose activities or businesses can best support the project.
 - At the local level, these can include dive operators, dive clubs, NGOs with an interest in coral reef and conservations, and businesses that support conservation causes.
 - At a regional level, these can include dive certification organizations, regional NGOs or institutions, regional dive magazines and businesses that support conservation causes at a regional level.
- 4 Plan and conduct local and regional media publicity events and awareness and education programmes.
- At the local level, they can include diving and diver related activities that can highlight and publicize Green Fins – coinciding this with key events in the diving calendar will give the events more leverage, for example organizing reef clean up activities with dive operators to coincide with the International Coastal Cleanup day.
 - At the regional level, they can include tying in with regional underwater photography competitions, regional meetings, conferences and trade fairs like ADEX, Celebrate the Sea Carnival, etc.

4.4 ICRAN Project on Demonstration Sites-Target Sites

Of the four demonstration site-target site pairs, the pairing between Apo Island Marine Reserve and Nha Trang Province showed the most successful effective partnership. The three main reasons attributed to the success of the pairing are:

1. The appointment of appropriate project implementation institutions/agencies for both project sites
2. Prompt action by both site partners in organizing activities to address project objectives
3. Diligent reporting and documentation of the project activities and outcomes

The ICRAN Project in the Seas of East Asia has the potential to be expanded further within the region. Lessons learned from individual site management experiences and the process of knowledge and capacity transfer between paired sites can be applied to areas and sites that require management.

A suggested post-ICRAN Project output is the synthesis of a summary project report detailing the administrative management of the projects as well as summaries of individual site outcomes that incorporate all aspects of the project, including objectives, implementation, execution, tracking, outcomes and reporting.

To achieve this, a standard template for reporting should be developed which can be completed by all project site partners to provide missing or unreported information required to complete the project summary report.

5 Individual Project Reviews

5.1 UNEP/ICRAN Small Grants Program 2002-2003

5.1.1 Danjungan Island Marine Reserve and Sanctuaries (DIMRS) Reef Monitoring Program

5.1.1.1 Implementing Institution

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5.1.1.2 Project Assessment and Evaluation

Project Effectiveness Status: **COMPLETELY EFFECTIVE**
 Project Effective Index: **4.43**

This project was completely effective in achieving the agreed objectives.

Matching Outcomes to Objectives

Objectives	Outcomes	Remarks	Score
Collect information on the fish stocks and benthic life in the reserve to improve existing management options.	<p>Quarterly reef monitoring surveys were conducted within DIMRS and neighbouring reefs at 6m and 12m depths.</p> <p>A total of 11 sites were surveyed, with a total of 44 surveys with 220 transects carried out during the duration of the project.</p> <p>93 Fish Catch Monitoring responses were collected from 3 coastal Barangays located adjacent to the DIMRS.</p>	<p>In terms of collecting data to complement and supplement the existing monitoring program, the project achieved its purpose.</p> <p>Relationship between data collected and management options not clearly established or explained. There were no clear indication how survey data is used and translated into management options – eg, what do percent hard coral cover or fish counts of key indicator species mean and how are they used to direct specific management actions?</p>	4
Data from fish catch and landing monitoring will be used to assess indirectly the impacts of the marine reserve upon the local fishing community.	<p>93 survey responses were collected from 3 barangays. Mid-progress meeting between fisher group respondents and volunteer coordinators was conducted in Dec 2002.</p> <p>Respondents were awarded points for completing fish catch monitoring forms and were rewarded with incentives, in the form of goods, depending on the points they had earned.</p>	<p>Criteria for assessing impact using data collected not detailed or explained.</p> <p>Relationship between fish catch information and impacts on the marine reserve not clearly established or explained.</p>	4
Increased local manpower and knowledge by training the local fisher folk to conduct surveys for both underwater surveys and fish catch and landing monitoring.	6 local coastal community participants were trained in fish and benthic surveys; 8 participants were trained in data management and analysis reef monitoring and 6 participants were trained in data management and analysis for fish catch monitoring.	<p>Number of local persons trained under project was sufficient.</p> <p>Half-yearly to yearly updates and refreshers should also be initiated to ensure that knowledge gained through the training is retained.</p>	5
Additional training of the Local Government Unit personnel and fisheries students in baseline survey and reef monitoring.	8 government personnel from the Local Government Units were trained in fish and benthic surveys and 3 non-government personnel and a dive instructor volunteer were trained in fish and benthic surveys.	Number of LGU persons trained under project was also sufficient.	5

Objectives	Outcomes	Remarks	Score
<p>Packaged information on reef resources and fisheries for the community to use in planning their reserve and sanctuaries.</p>	<p>“Danjugan Island Marine Reserve & Sanctuaries Coral Reef Monitoring Manual” was developed for use in future training and surveys.</p> <p>Semi-annual results of fish catch landing monitoring and fish visual census and benthic surveys were posted on 7 fish catch monitoring billboards constructed and installed within the 3 participating barangays in the form of graphs, with the purpose of give the respondents easy access to a map of the fishing grounds.</p>	<p>The training and survey manual is a good initiative to ensure continued access to the training resources by the local community.</p> <p>It will be a good idea for the implementing agency to submit a copy of the training and survey manual to UNEP to assess the relevance and applicability of the manual for wider distribution.</p> <p>The updating of the billboards semi-annually with data collected from the surveys is a good way to increase interest and participation of local communities in understanding and managing their reserve and sanctuaries.</p> <p>Efforts should also be made to include socio-economic monitoring to understand the needs and concerns of the local communities.</p>	5
Average Score			4.6

Effectiveness and Potential of the Project

Effectiveness In:		Potential For:		
Spreading Knowledge	Enhancing Capacity	Formulation of New Policies/Strategies	Self Sustenance	Follow Up Activities
<p>Training programs were conducted in basic coral reef biology, coral reef survey and monitoring, and data management and analysis.</p> <p>Besides local communities, local government unit officers were also LGU included in the training programs.</p> <p>The construction on half-yearly updated fish-catch billboards will ensure the some level of interest and involvement in the communities.</p> <p>The development of the “Danjugan Island Marine Reserve & Sanctuaries Coral Reef Monitoring Manual” will provide continued local communities access to the training materials for future reference.</p>	<p>17 volunteers were trained in fish and benthic surveys and 14 people trained in data analysis and management.</p> <p>6 volunteers were trained to conduct fish catch monitoring.</p> <p>The development of the DIMRS Coral Reef Monitoring Manual and the construction of the information billboards will ensure a level of continued awareness.</p>	<p>The initiation of the fish catch monitoring has the potential to aid in the formulation of strategies for the management of the marine reserve by the community. To achieve this, proper analysis and interpretation of the fish catch data need to be conducted which can be used for fishing management of the reserve.</p> <p>The outcomes of the fish catch monitoring programme can potentially be applied in other small locally managed sanctuaries.</p>	<p>The project indicated that the long term sustenance of the project is highly dependent on project funding from LGU’s or external funding sources, which may not be easily available.</p> <p>Since the DIMRS is not a tourist area, there are no opportunities to generate tourism-related income for self-sustenance.</p>	<p>This project has the potential for generating several follow-up activities, including yearly monitoring exercises by the trained participants, ongoing community awareness programs and collaborations with neighbouring reserves and sanctuaries. Funding again, is the only issue for conducting follow-up activities.</p>
5	5	4	3	5

5.1.2 Coral Reef Monitoring for Sustainable Uses of Resources around the Islands Groups in the Coastal Waters of Southwest Viet Nam

5.1.2.1 Implementing Institution

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5.1.2.2 Overall Assessment and Evaluation of Project

Project Effectiveness Status: **LAGELY EFFECTIVE**

Project Effective Index: **3.79**

This project was largely effective in achieving the agreed objectives. The project was not very effective in spreading knowledge to local community.

Matching Outcomes to Objectives

Objectives	Outcomes	Remarks	Score
To conduct baseline coral reef assessments and to determine the status of coral reefs in Southwest Viet Nam island groups.	3 areas were surveyed: -Nam Du islands (4 new sites) -Tho Chu islands (4 new sites) -Phu Quoc islands (6 existing sites) The surveys at Nam Du and Tho Chu were baseline surveys, while the surveys at Phu Quoc were part of an existing monitoring programme.	In terms of collecting data to complement and supplement the existing monitoring program, the project achieved its purpose. Relationship between data collected and management options not clearly established or explained. There were no clear indication how survey data is used and translated into management options – eg, what do percent hard coral cover or fish counts of key indicator species mean and how are they used to direct specific management actions?	5
To develop a system for monitoring changes in ecosystem health and marine resources.	This was done for data collected at Phu Quoc islands. Trends in benthos cover and fish densities were used to monitor change.	Patterns and trends were noticeable from the data collected. There was no indication that the trainees were trained in data management and analysis, besides the reef survey training.	4
To establish a biophysical monitoring system to determine the impacts of the changes in the management regime within the islands.	Permanent monitoring sites were established at the Nam Du and Tho Chu islands.	The groundwork for establishing a biophysical monitoring system was established, but there were no indication that an actual system was established at any of the sites as an outcome of the project.	3
To promote awareness of local communities on the status and need for marine conservation of coral reefs and related ecosystems.	9 people were trained in the Reef Check coral reef survey technique, 4 of whom were local community members and 5 government officers. Reef education lectures were conducted for the trainees.	Besides the 4 local community trainees, there were no additional reef education and awareness programs conducted for the local communities. Efforts should also be made to include socio-economic monitoring to understand the needs and concerns of the local communities.	3
Average Score			3.75

Effectiveness and Potential of the Project

Effectiveness In:		Potential For:		
Spreading Knowledge	Enhancing Capacity	Formulation of New Policies/Strategies	Self Sustenance	Follow Up Activities
<p>Training programs were conducted in basic coral reef biology, coral reef survey and monitoring, and data management and analysis for the 9 trainees – 4 local community members and 5 government officials.</p> <p>Trainees were predominantly from Phu Quoc district (7 out of 9), although the project involved 3 groups of islands.</p> <p>Do awareness and education activities were conducted for local community members.</p>	<p>9 persons were trained in fish and benthic surveys.</p> <p>No training for data management and analysis was provided to the trainees (not indicated in the report).</p>	<p>There is a potential for the coral reef data to be used in establishing specific management policies or strategies for the island groups.</p> <p>However, without the ability of the local community to analyse and interpret the data collected from monitoring, it will be difficult to translate the data into new policies and strategies.</p>	<p>There is a possibility of self-sustenance for coral reef monitoring at Phu Quoc as there are several funded projects ongoing at Phu Quoc.</p> <p>Phu Quoc is fast becoming a tourist destination. There is a potential of developing tourism-related programmes that can generate revenue for the management of the area.</p> <p>Self-sustenance of the project at the other 2 island groups will depend on the ability to attract government or outside funding. This can only be achieved if there is continued involvement of government agencies or NGO's to assist the communities in establishing a proper biophysical monitoring program.</p>	<p>This project has the potential for generating several follow-up activities, including the initiation of a yearly biophysical monitoring program by the trained participants, initiation of socio-economic monitoring to assess the needs of the community and initiation more structured community awareness and education programs.</p>
3	4	3	4	5

5.1.3 Coral Reef Monitoring and Coral Campaign by REEFCHECK Program in Karimunjawa Marine National Park

5.1.3.1 Implementing Institution

¹Marine Diving Club and ²ReefCheck Indonesia

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5.1.3.2 Project Assessment and Evaluation

Project Effectiveness Status: **COMPLETELY EFFECTIVE**

Project Effective Index: **4.57**

This project was completely effective in achieving the agreed objectives.

Matching Outcomes to Objectives

Objectives	Outcomes	Remarks	Score
Increase local capacity in SCUBA diving and Reef Check surveys.	20 participants from diving clubs (6), Government Search and Rescue Team (2), university (5) and local community of Karimunjawa (7) were trained in SCUBA diving. Lectures on coral reef biology and conservation were conducted for the participants, who were also trained in the Reef Check method for coral reef survey and monitoring.	The number of participants trained was sufficient and represented a good cross section of the community.	5
Conduct monitoring of coral reefs in Karimunjawa.	6 sites were surveyed, 2 locations at each site, and 2 depths at each location - Burung Island, Cemara Kecil Island, Geleang Island, Menjangan Besar Island, Menjangan Kechil Island and Menyawakan Island.	In terms of collecting data to complement and supplement the existing monitoring program, the project achieved its purpose. Link between data collected and management options not clearly defined. There were no clear indication how survey data is used to aid management – what do percent hard coral cover or fish counts of key indicator species mean and how are they used to direct specific management actions?	4
Conduct public awareness and outreach activities.	A drawing competition for 50 students was conducted in Karimunjawa Island, together with a coral reef quiz. A coral reef campaign was initiated by installing 9 coral reef awareness notice boards and distributing leaflets at the university, schools and public places (book store, swimming pool, travel agency). Coral reef awareness t-shirts were distributed to local fisherman, tour boat operators and diving guides.	Involving school children is a good way to involve the community as a whole, and it helps to increase awareness about coral reefs from a young age. Notice boards and information leaflets are a good way to reaching out to the community.	5
Conduct socio-economic surveys.	200 socio-economic surveys were conducted at Karimunjawa.	A sample size of 200 is a good representation for a small community and will provide useful information on the needs of the community. Socio-economic information should be used in conjunction with coral monitoring data in management of the National Park.	4

Objectives	Outcomes	Remarks	Score
Provide information that can be used by local government and National Park Authority to make decision, rules and policies for the management of Karimunjawa National Park.	<p>A stakeholder seminar was conducted to present the results of the monitoring activities to government agencies (Marine and Fisheries, Environment, National Park Authorities), Diponegoro University, NGOs and News Media, (Kompas, Kedaulatan Rakyat).</p> <p>At this seminar, all stakeholders signed an agreement to support monitoring activity and coral reef management.</p>	<p>A stakeholder seminar involving various representatives of the community is a good way to present the results of monitoring, and it achieved the support of the stakeholders for continued monitoring and management activities.</p> <p>No indication was given on how the monitoring and management activities will be organised and funded.</p>	4
Average Score			4.4

Effectiveness and Potential of the Project

Effectiveness In:		Potential For:		
Spreading Knowledge	Enhancing Capacity	Formulation of New Policies/Strategies	Self Sustenance	Follow Up Activities
<p>Training programs were conducted in basic coral reef biology and conservation, and coral reef survey and monitoring.</p> <p>A good cross-section of the community was selected for training.</p> <p>The installation of coral reef awareness notice boards and the distribution of leaflets helped to increase awareness within the entire community.</p>	<p>20 participants were trained in SCUBA diving and Reef Check fish and benthic surveys.</p>	<p>Presentation of results to the stakeholders and getting the stakeholders to agree to support monitoring and management activity has the potential to pave the way for the formulation of new policies and strategies in coral reef management for the National Park.</p>	<p>Stakeholder support can help in securing funds to continue the monitoring and management activities in the National Park.</p> <p>Karimunjawa is a tourist destination, and there is a potential to implement tourism-related programmes that can generate revenue for the management of the Park.</p>	<p>This project has the potential for generating several follow-up activities, including yearly monitoring exercises by the trained participants, ongoing community awareness programs and the initiation of tourism-related programmes.</p>
5	5	4	4	5

5.1.4 Coral Reef Survey & Monitoring for Management in Central Sulawesi, Indonesia

5.1.4.1 Implementing Institution

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5.1.4.2 Project Assessment and Evaluation

Project Effectiveness Status: **COMPLETELY EFFECTIVE**

Project Effective Index: **4.67**

This project was completely effective in achieving the agreed objectives.

Matching Outcomes to Objectives

Objectives	Outcomes	Remarks	Score
Training to improve the skills of the existing survey team members, and to train additional members.	14 people were trained in either manta tow, Reef Check or LIT methods, with a few trained in all methods. Local community members were only trained in the manta tow method, while YACL team/volunteers were trained in Reef Check and LIT in addition to manta tow.	The number of local persons trained under project was sufficient, and effort has to be made to encourage the trainees to continue monitoring the reefs. Capacity in monitoring was enhanced by including LIT into the monitoring programme.	5
Continue monitoring at existing sites.	4 existing sites were monitored using the manta tow and Reef Check methods, with additional LIT surveys conducted at the sites.	In terms of collecting data to complement and supplement the existing monitoring program, the project achieved its objective. More detailed data was collected at the 4 existing sites using the LIT method.	5
Establish at least 4 new monitoring sites.	2 new sites were surveyed under the project but permanent markers were laid at only 1 site. 15 other new sites were surveyed in collaboration with other programs.	In terms of establishing new monitoring sites, the project partially achieved its objective. By working in collaboration with other programmes, the project was able to survey more sites than was planned.	5
Present results to stakeholders, site managers, media and decision makers.	Results were presented on several occasions, including at an exhibition (Fisheries Expo 2003 at Alkhairat University, Palu), through participation in seminars, specific events and group meetings. Results will also be presented on the YACL website. Programmes to address some of the threats to coral reef and related ecosystems are being drawn up. Data obtained through the project and in conjunction with other programmes have contributed to the initiating of the Pulau Pasoso MPA initiative, and are being used in the processes of establishing status, regulations and management systems for two MPAs (Pulau Pasoso and the Togean Islands).	The project illustrated how scientific information can be used to assist management options, although details of the process were not presented. Information presented to the stakeholders has been made available through print, CD and on the YACL website.	5
Average Score			5

Effectiveness and Potential of the Project

Effectiveness In:		Potential For:		
Spreading Knowledge	Enhancing Capacity	Formulation of New Policies/Strategies	Self Sustenance	Follow Up Activities
<p>Training programmes were conducted in basic coral reef biology and coral reef survey and monitoring.</p> <p>Different training programmes were conducted for different community groups to match their abilities.</p> <p>Outreach activities were targeted at decision makers and government officials rather than local community members as sufficient activities have been conducted under other programmes.</p>	<p>14 people were trained in either manta tow, Reef Check or LIT methods, with a few trained in all methods.</p>	<p>The project was able to contribute to the initiating of the Pulau Pasoso MPA initiative.</p> <p>The project has the potential to contribute in the formulation of additional new policies and strategies.</p>	<p>There are several other funded programmes being managed by the implementing institution, which will be able to continue the monitoring programmes at some of the sites.</p> <p>By working with local government agencies and NGOs, there is potential for securing more funding in future for self-sustenance.</p>	<p>This project has the potential for generating several follow-up activities, including yearly monitoring exercises by the trained participants, ongoing community awareness and education programs and tie-ups with other programmes.</p>
5	5	4	4	5

5.1.5 Status of Monitoring and Management Strategy Research of Luhuitou Fringing Reef of the Sanya Reserve

5.1.5.1 Implementing Institution

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5.1.5.2 Project Assessment and Evaluation

Project Effectiveness Status: **LARGELY EFFECTIVE**

Project Effective Index: **3.78**

This project was largely effective in achieving the agreed objectives. The project was not very effective in spreading knowledge or involving the local community.

Matching Outcomes to Objectives

Objectives	Outcomes	Remarks	Score
Conduct training in coral reef survey and monitoring for decision makers, local managers, local divers, and staff of research institute.	14 participants were trained - 3 decision makers, 6 local managers, 2 local divers and 3 staff of research institute.	Number of trainees was sufficient. Although training was provided for survey methods, participants were not trained in data management and analysis. Link between data collected and management options not clearly defined. There were no clear indication how survey data is used to aid management – what do percent hard coral cover or fish counts of key indicator species mean and how are they used to direct specific management actions?	4
Conduct surveys at existing monitoring sites at Luhuitou fringing reef, Sanya.	LIT, manta tow and fish visual census surveys were conducted at 1 site.	Data was only collected at 1 site, which may not be entirely representative of the area. There was no indication for plans for continued monitoring at the site.	3
Organize and present results of the survey at stakeholder workshop for Sanya Reserve managers.	Stakeholder workshop was attended by representatives of Sanya National Coral Reef Reserve, Sanya Huanqiu Diving Company, Luhuitou Village Committee, Tropical Marine Biological Research Station in Hainan and South China Sea Institute of Oceanology. Management suggestions for Luhuitou fringing reef was presented and accepted by the Sanya National Coral Reef Reserve.	Despite the acceptance of the management suggestions, there was no indication if any of the suggestions were implemented by the Reserve.	4
Average Score			3.67

Effectiveness and Potential of the Project

Effectiveness In:		Potential For:		
Spreading Knowledge	Enhancing Capacity	Formulation of New Policies/Strategies	Self Sustenance	Follow Up Activities
<p>Training programs were conducted in basic coral reef biology, coral reef survey and monitoring, and data management and analysis for the 14 trainees – 3 decision makers, 6 local managers, 2 local divers and young staff of the research institute.</p>	<p>Training in manta tow, LIT and fish visual census was conducted.</p> <p>No training for data management and analysis was provided to the trainees (not indicated in the report).</p>	<p>Management suggestions for Luhuitou fringing reef was presented to stakeholders, and has the potential to be implemented.</p>	<p>With support from Sanya National Coral Reef Reserve and government agencies, there is a possibility of self-sustenance for coral reef monitoring Luhuitou fringing reef.</p> <p>Sanya Reserve is a tourist destination. There is therefore a potential of developing tourism-related programmes that can generate revenue for the management of the area.</p>	<p>This project has the potential for generating several follow-up activities, including yearly monitoring exercises by the trained participants and implementation of management suggestions at Luhuitou fringing reef.</p>
3	4	4	4	4

5.1.6 Developing Community-based Sanctuary for Coastal Reefs in Wangkolabu Village, Indonesia

5.1.6.1 Implementing Institution

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5.1.6.2 Project Assessment and Evaluation

Project Effectiveness Status: **COMPLETELY EFFECTIVE**

Project Effective Index: **5**

This project was completely effective in achieving the agreed objectives. This project impressed a lot in the way activities were structured and executed.

Matching Outcomes to Objectives

Objectives	Outcomes	Remarks	Score
Establish program on aquarium fish collection as an alternative livelihood.	<p>3 senior experts were contracted to design a curriculum for aquarium fish collection, comprising of 30% theoretical and 70% practical sessions.</p> <p>The curriculum was implemented through a training workshop, involving 24 local fishermen and women from Wangkolabu.</p> <p>Following the training workshop, the participants were provided with seed funding to initiate activities in aquarium fish collection, which they had to pay back at an interest over 6 months.</p>	Sustainable aquarium fish collection as an alternative livelihood to address issue of over-fishing is a good strategy for small villagers, but needs to be integrated with providing a market for the fish.	5
Establish program on CoT population removal.	<p>A training course CoT removal was conducted by 3 trained persons, and comprised 10% theoretical and 90% practical sessions.</p> <p>20 local fishermen and women participated in the training course, after which they were involved in CoT removal exercise to reduce numbers to their normal density.</p>	The CoT population programme is a good and simple programme that can be easily maintained by the community with little or no cost.	5
Establish a community-based sanctuary (CBS) for coral conservation in Wangkolabu.	<p>A training workshop on CBS management was conducted for local community and policy makers by 7 resource persons, and comprised 70% theoretical and 30% practical sessions.</p> <p>10 people representing local community and local policy making groups participated in the workshop.</p> <p>A series of activities were conducted to facilitate policy makers and the government of Wangkolabu to legislate the CBS, which resulted in the formulation of a CBS legislation for the coral reefs in Wangkolabu, which comprised a total area of 16 ha, with 6 ha as a Protection Zone and 10 ha as a Sustainable Exploitation Zone.</p>	The approach to setting up a CBS was well planned and executed.	5
Establish a CBS implementation plan.	<p>The CBS Management Authority was formed, and worked with the project team to formulate the CBS management plan.</p> <p>The CBS sanctuary was demarcated using 12 mooring buoys.</p> <p>An information notice board was installed at the beach to provide basic information on the CBS, and outreach programs were conducted to disseminate information on the CBS to local community and organizations, especially concerning which activities are allowed and which ones are forbidden inside the Protection Zone and the Sustainable Exploitation Zone.</p>	The workplan for the implementation of the CBS management plan was effective and can be adapted to as a guide for other areas.	5

Objectives	Outcomes	Remarks	Score
Establish a CBD monitoring programme.	<p>A monitoring strategy for the CBS was designed with the assistance of marine biologist which included biological and ecological, socio-economic and governance indicators.</p> <p>A coral reef monitoring training program using manta tow was conducted for 20 participants from a local university and the local community of Wangkolabu.</p>	A monitoring programme was put in place by the end of the project.	5
Average Score			5

Effectiveness and Potential of the Project

Effectiveness In:			Potential For:		
Spreading Knowledge	Enhancing Capacity	Involving Community	Formulation of New Policies/Strategies	Self Sustenance	Follow Up Activities
<p>Training programs were conducted in basic coral reef biology and coral reef survey and monitoring for university students and local community members.</p> <p>Meetings and awareness programmes to discuss the establishment of CBS were organised to inform the community.</p> <p>The establishment of a CBS management authority will ensure continued exchange of ideas and feedback within the community.</p>	<p>24 local community fishers were trained in aquarium fish collection, and provided with seed financing to start the activity.</p> <p>20 university students and local community members were trained in the manta tow coral reef survey technique.</p> <p>10 local leaders were trained in CBS management.</p>	Local community members were involved in all aspects of the CBS design and implementation.	<p>The establishment of the CBS management plan ensured that proper management strategies could be implemented.</p> <p>There is a good potential for the formulation of new strategies within the community with the establishment of the CBS.</p>	<p>There is potential for self sustenance of some of the programmes as there is local government support for it.</p> <p>There is also a potential for attracting outside funding to continue with existing programmes or to expand CBS activities.</p>	This project has the potential for generating several follow-up activities, including yearly monitoring exercises by the trained participants, ongoing community awareness programs and expansion of CBS activities.
5	5	5	5	5	5

5.1.7 Community Based Monitoring and Evaluation of Coral Reef Condition at Taka Bonerate Marine National Park

5.1.7.1 Implementing Institution

House of Taka Bonerate Marine National Park
 Jl. S. Parman No. 24, Selayar Regency – South Sulawesi Province – Indonesia
 Phone: 62. 414. 21565; Fax: 62.411. 420359
 E-mail: info@takabonerate.go.id; takabonerate@telkom.net

5.1.7.2 Project Assessment and Evaluation

Project Effectiveness Status: **COMPLETELY EFFECTIVE**

Project Effective Index: **4.35**

This project was completely effective in achieving the agreed objectives.

Matching Outcomes to Objectives

Objectives	Outcomes	Remarks	Score
Identify data on recent condition of resources (coral reef, fishes, and other biota associated with resources) in Taka Bonerate National Park.	Existing data was collected from various sources, and through roundtable discussion and brain storming sessions between project team and the local community. Participatory rural appraisal (PRA) activities were conducted to assess the needs and concerns of the local community.	Local community inputs were used to design the training and monitoring programme.	5
Enhance local capacity in coral reef survey and monitoring techniques.	15 local community members were trained in SCUBA diving and coral reef survey using the Reef Check method.	Number of local persons trained under project was sufficient.	5
Implement participatory techniques into monitoring and evaluation of coral reef resource status in Taka Bonerate.	3 local community workshops were conducted to introduce participatory techniques and the monitoring programme. 3 coral reefs areas were monitored twice using the Reef Check method by the trained community members together with the project team.	Frequent meetings and discussions with local community members ensured their involvement and ownership of the programme.	5
Collecting, processing, and compiling an up-datable coral reef database, to support the management activities of primary stakeholder.	Coral reef data collected from the 3 survey sites were analysed and presented to the community.	Coral reef data management and analysis was not well addressed in the project.	3
Enhance awareness among local communities in coral reef awareness and sustainability.	Quarterly meetings between project team and local community members were held to discuss the results of the monitoring programme, and to plan for subsequent activities.	Such meetings should be continued within the community to update and plan for ongoing activities.	5
Average Score			4.6

Effectiveness and Potential of the Project

Effectiveness In:			Potential For:		
Spreading Knowledge	Enhancing Capacity	Involving Community	Formulation of New Policies/Strategies	Self Sustenance	Follow Up Activities
<p>Training programs were conducted in basic coral reef biology and coral reef survey and monitoring for local community members.</p> <p>Quarterly meetings and discussion with the community allowed for the exchange of information and knowledge.</p>	<p>15 local community members were trained in coral reef survey using the Reef Check method.</p>	<p>PRA's, meetings and awareness programmes to discuss the establishment of the monitoring programme were organised to involve the community in the process.</p>	<p>The establishment of the community monitoring programme has the potential for formulation of new policies and strategies for the management of the coral reef resources.</p>	<p>There is potential for self sustenance of some of the programmes as there is local community support for it.</p> <p>There is however, a logistical constraint in terms of SCUBA gear and monitoring equipment, which will need in input of external funds.</p>	<p>This project has the potential for generating several follow-up activities, including yearly monitoring exercises by the trained community members and ongoing community awareness programs.</p>
5	5	5	3	3	5

5.1.8 Community Resources Centre for Better Management of Karimunjawa National Park

5.1.8.1 Implementing Institution

Yayasan Taka

Jl. Tusam Raya L-27 Banyumanik, Semarang – Central Java 50268

Phone/fax: +62 24 7474 209,

E-mail: yayasan_taka@yahoo.com URL: <http://yayasan-taka.8m.net>

5.1.8.2 Project Assessment and Evaluation

Project Effectiveness Status: **COMPLETELY EFFECTIVE**

Project Effective Index: **4.86**

This project was completely effective in achieving the agreed objectives.

Matching Outcomes to Objectives

Objectives	Outcomes	Remarks	Score
Initiate local community groups to work with KJNPA to manage the national park area.	Village community meetings were held to discuss the establishment of community groups, resulting in the establishment of 3 village community groups, which will serve to provide inputs to the local government on resource management and development of regulations for their villages. Management training workshops were conducted with each community groups to develop their organizational structure and strategic workplan.	The formation of community groups within each village with structured mission, vision and strategic management plan enabled active participation in the management of the national park.	5
Enhance local capacity in the development, management and utilization of the Karimunjawa coral reef resources and the establishment of a Karimunjawa Coral Reefs Database.	Fisheries management workshops were conducted for community group members – 20 community fishermen and leaders from each community group were trained. Coral reef survey training workshop using the manta tow method was conducted – 3 members from each community group were trained.	Fisheries management workshops enabled communities to understand and appreciate the importance of fisheries management and gives potential for the development of fisheries management plans for the villages. Number of local persons trained under project is substantial.	5
Integrate local community inputs and ideas in management policies.	Community members from each village were involved in identifying potential land resources and mapping them on the Taka Foundation GIS system. Village management strategic plans were developed by each community group, which helped to identify and analyze the main problems occurring within the village and to develop solutions to the problems based on community inputs. Incorporation of community inputs in the re-zoning development of Karimunjawa National Park was initiated. A communication forum of Karimunjawa community was formed to facilitate communication and action between the 3 community groups and to act as a focal point of the 3 communities.	Complete community involvement was evident in each step in the formulation of local management policies for the coral reef resources.	5

Objectives	Outcomes	Remarks	Score
Facilitate communication between stakeholders on the findings from the fields through the Karimunjava Coral Reefs Database.	<p>Booklets detailing the community forum and community group vision, mission and workplan was developed and distributed at the Stakeholders Workshop on the Final Re-zoning of Karimunjava NP.</p> <p>A drawing and poetry competition was held for elementary school students from the 3 villages to increase conservation awareness.</p> <p>Computers were distributed to each community group and training programmes on computer usage and data entry were conducted.</p> <p>Through the community forum, community awareness posters and videos were developed.</p>	Providing infrastructure facilities like computers is good step in involving the community and opening the doors to communication.	5
Average Score			5

Effectiveness and Potential of the Project

Effectiveness In:			Potential For:		
Spreading Knowledge	Enhancing Capacity	Involving Community	Formulation of New Policies/Strategies	Self Sustenance	Follow Up Activities
<p>Training programs were conducted in basic coral reef biology and coral reef survey and monitoring for local community members.</p> <p>Awareness programmes like drawing and poetry competitions, the production of posters and videos helped to increase community awareness.</p>	<p>60 community members were trained in fisheries management.</p> <p>12 local community members were trained in coral reef survey using the manta tow method.</p>	The setting up of village community groups enabled active community participation in the management of the natural resources in the marine park.	The establishment of the village community groups has the potential in spearheading the formulation of new policies and strategies for the management of the coral reef resources.	<p>There is potential for self sustenance of some of the programmes as there is local community support for it.</p> <p>There is however, a logistical constraint in terms of SCUBA gear and monitoring equipment, which will need in input of external funds.</p>	This project has the potential for generating several follow-up activities, including yearly monitoring exercises by the trained community members and ongoing community awareness programs.
5	5	5	5	4	5

5.1.9 Raising Awareness and Capacity of Grassroots Organisations on Coral Reef Ecology and in Monitoring Coral Resources by Yayasan Terangi in Panggang Island, Indonesia

5.1.9.1 Implementing Institution

Indonesian Coral Reef Foundation (TERANGI)
 Kompleks Ligamas Indah Blok E2 No. 11, Pancoran, Jakarta Selatan
 Tel: +62 21 7994912; Fax: +62 21 7973301
terangi@cbn.net.id ; www.terangi.or.id

5.1.9.2 Project Assessment and Evaluation

Project Effectiveness Status: **COMPLETELY EFFECTIVE**

Project Effective Index: **4.94**

This project was completely effective in achieving the agreed objectives.

Matching Outcomes to Objectives

Objectives	Outcomes	Remarks	Score
Improve capacity of the grassroots organization Elang Ekowisata (Elang Ecotourism) at Panggang Island in maintaining participatory survey and monitoring of their coral reef resources.	10 sites within ecotourism areas were surveyed by trained members of Elang Ekowisata and the Seribu Islands Marine National Park using either LIT and/or manta tow.	Participatory long term monitoring programme was not planned or implemented (not indicated in the report).	5
Facilitate Elang Ekowisata in setting up a community-based ecotourism organization.	Initial discussions and meetings between members of Elang Ekowisata, village and regional governments, and Marine National Park officers were held to discuss the establishment of a community-based ecotourism organization. A financial management training and market network development workshop was held to improve the capacity of Elang Ekowisata in managing ecotourism related activities.	Discussions did not lead to the actual formulation of an ecotourism organisation, but the mechanisms are in place to continue efforts to realise the formation in future. Discussions on financial management are included during regular twice-monthly meeting.	3
Facilitate Elang Ekowisata in the establishing ecotourism areas in Panggang Village.	A workshop to present the results of the coral surveys was conducted, and discussions concerning the establishment of ecotourism area in Panggang Village were held between Elang Ekowisata, village representative, district government and the Seribu Islands Marine National Park. There was mutual agreement to declare one area as a protected zone for biodiversity resource, with no extractive activities allowed in the zone.	The issue of surveillance was addressed as priority for the protected zone.	5
Support Elang Ekowisata in coral reef monitoring, data analysis and coral and fish identification.	14 Elang Ekowisata members were trained in SCUBA diving and coral reef survey using the manta tow method. 4 members were trained in the LIT technique, and 2 members were trained in data management and analysis.	Number of local persons trained under project was sufficient.	5

Objectives	Outcomes	Remarks	Score
Identify operational support services owned by islanders and develop partnerships with government, private sectors, school, and service provider owned by community.	<p>A database of tourism services provided by local community was established.</p> <p>Additional SCUBA equipments and facilities were procured for Elang Ekowisata to provide ecotourism services.</p> <p>Potential ecotourism guides were identified from graduating high school students to work as interns for Elang Ekowisata in tourism services.</p> <p>Elang Ekowisata brochure was produced and distributed during an ecotourism awareness activity.</p>	The tourism services database can serve as a useful tool for formulating management plans and strategies for the area.	5
Average Score			4.6

Effectiveness and Potential of the Project

Effectiveness In:			Potential For:		
Spreading Knowledge	Enhancing Capacity	Involving Community	Formulation of New Policies/Strategies	Self Sustenance	Follow Up Activities
<p>Training programs were conducted in SCUBA diving, basic coral reef biology, coral reef survey and monitoring and financial management and market network development for Elang Ekowisata members.</p> <p>Ecotourism brochures were produced and ecotourism programmes initiated.</p>	<p>14 Elang Ekowisata members were trained in SCUBA diving and coral reef survey using the Reef Check and manta tow method.</p> <p>14 members were trained in financial management training and market network development.</p>	<p>Meetings and discussions to discuss the establishment of a community-based ecotourism organisation and the establishment of a protected zone for ecotourism activities were organised to involve the community in the process.</p> <p>Ecotourism awareness activities were conducted for the community and tourists.</p>	<p>The establishment of an ecotourism organisation working with government agencies and the National Park managers has the potential for formulating new policies and strategies for establishing ecotourism related activities in the area.</p>	<p>There is potential for self sustenance of some of the programmes as there is local community support for it.</p> <p>There is also potential for ecotourism related revenue generation from ecotourism activities.</p>	<p>This project has the potential for generating several follow-up activities, including yearly monitoring exercises by the trained Elang Ekowisata members and ongoing community awareness and ecotourism programs.</p>
5	5	5	5	5	5

5.2 UNEP Green Fins Project

5.2.1 Implementing Institution

Phuket Marine Biological Center
 P.O. Box 60, Phuket 83000, Thailand
 Tel: (66-76) 391-128; Fax: (66-76) 391-127
 Mr. Niphon Phongsuwan; E-mail: niphonp@hotmail.com

5.2.2 Project Assessment and Evaluation

Project Effectiveness Status: **COMPLETELY EFFECTIVE**

Project Effective Index: **4.89**

This project was completely effective in achieving the agreed objectives for Phase I of the project. The project was not assessed for the Phase II implementation stage.

Matching Outcomes to Objectives

Objectives	Outcomes	Remarks	Score
To establish Green Fins local network group between Thailand, Philippines and Indonesia.	Local network group formed and a planning workshop help to discuss and prepare implementation plan.	The network needs to be strengthened and there needs to be more coordination between network members. For example, Indonesia has not been as active in the network as the other 2 countries.	4
To develop Green Fins mandate.	Green Fins mission statement, code of conduct, guidelines for diving and snorkeling and project monitoring and evaluation were prepared.	-	5
Prepare Green Fins publicity materials, including VCD, brochures, certification, website, etc	An action plan for various activities was drafted and project group members assigned tasks to complete the action plan. Most of the groundwork action plans have been completed.	-	5
Establish contact with dive operators, dive associations and sponsors.	This is Phase II of the project.	-	(excluded from assessment)
Prepare training programmes and education and awareness materials.	This is Phase II of the project.	-	(excluded from assessment)
Average Score			4.66

Effectiveness and Potential of the Project

Effectiveness In:		Potential For:		
Spreading Knowledge	Enhancing Capacity	Formulation of New Policies/Strategies	Self Sustenance	Follow Up Activities
Not assessed for this phase	Not assessed for this phase	The project has good potential for the formulation of new policies and strategies that will better manage the leisure diving industry with and aid in the conservation of coral reef areas.	There is good potential for self-sustenance through the establishment of local and regional networks and through the support of the business community.	Phase II of the project offers great potential for initiating various activities related to education and awareness among the leisure diving community.
-	-	5	5	5

5.3 Mapping coral reefs for management in Ninh Thuan province, Vietnam

5.3.1 Implementing Institution

Institute of Oceanography
1, Cau Da, Nha Trang City, Vietnam
Tel: +84-58-590 035; Fax: +84-58-590 034
Nguyen Van Long; Email: nvanlong@dng.vnn.vn

5.3.2 Project Assessment and Evaluation

Project Effectiveness Status: **COMPLETELY EFFECTIVE**

Project Effective Index: **4.77**

This project was completely effective in achieving the agreed objectives.

Matching Outcomes to Objectives

Objectives	Outcomes	Remarks	Score
Establish working group mapping project and enhance capacity of working group members in remote sensing image interpretation.	A working group of 8 from Trang Oceanography Institution and Ninh Thuan Department of Science and Technology was formed. A workshop in remote sensing and image interpretation was conducted and attended by 10 participants.	The number of people trained in remote sensing and image interpretation was sufficient. The workshop included an example of a management plan formulation by Chumphon Marine National Park in Thailand.	5
To compile existing data and information into a GIS database for coral reefs in Coastal Ninh Thuan province.	Meetings were held to discuss existing data and information at each institution and to assign tasks for additional data and information collection to produce the GIS database and maps.	Information was collected and compiled into a GIS database.	5
To conduct preliminary data processing and to develop a tool for interpretation of coral reef habitat in specific conditions of Vietnam coastal zones.	Existing data and remote sensing images were used to produce coral reef maps by box classification. A GIS database of coral reefs in Ninh Thuan Province was developed.	Preliminary coral reef maps were produced.	5
To establish a GIS database on distribution of coral reefs and other ecosystem in Ninh Thuan coastal waters, which will include GIS maps and layers on environmental parameters, biodiversity characteristics, physical and socio-economic conditions of coastal areas of Ninh Thuan.	Socio-economic, political and resource use information from various agencies were collected and integrated into the Coral reefs in Coastal Ninh Thuan Province GIS database and GIS maps. The integrated maps were zoned and ground -truthed to verify distribution of coral reefs.	Additional and more updated Information is still required.	5
Develop management strategies for ecosystem and biodiversity of Ninh Thuan coastal areas using GIS maps.	A workshop to present results to technical managers was conducted and strategies for management using the GIS maps were discussed.	Awareness of the use of GIS and remote sensing in coral reef mapping has increased, but no concrete outcomes were achieved in developing management strategies.	3
Average Score			4.6

Effectiveness and Potential of the Project

Effectiveness In:		Potential For:		
Spreading Knowledge	Enhancing Capacity	Formulation of New Policies/Strategies	Self Sustenance	Follow Up Activities
<p>A training workshop on remote sensing and image interpretation was conducted.</p> <p>A meeting with technical managers was held to present the GIS database and GIS maps.</p>	<p>10 participants from various organisations were trained in remote sensing and image interpretation.</p>	<p>The use of the GIS database and GIS maps for the coral reefs in Coastal Ninh Thuan Province has the potential for formulating new policies and strategies for resource management of the area.</p> <p>The development of similar systems can also be done for other areas.</p>	<p>There is potential for long-term self sustenance of the project with the support for various government agencies and local management agencies.</p>	<p>This project has the potential for generating several follow-up activities, including more in-depth ground truthing, integration of more up to date information on resource use, and expansion of the database to include other areas.</p>
5	5	5	4	5

5.4 ICRAN Project Demonstration Sites – Target Sites

5.4.1 Demonstration Sites - Apo Island Marine Reserve, Philippines

5.4.1.1 Implementing Institution

Silliman University Marine Laboratory
Dumaguete City 6200
Philippines

5.4.1.2 Project Assessment and Evaluation

Project Effectiveness Status: **Completely Effective**

Project Effective Index: **4.78**

The Apo Island ICRAN Demonstration Site was completely effective in achieving its objectives.

Matching Outcomes to Objectives

Objectives		Outcomes	Score
Within Demonstration Site	Continue good management practices through ongoing and additional activities	Reef management activities continued at Apo Island through collaboration between various institutions/ organisations and local community organisations Conducted "Tourist volume and reef damage monitoring workshop" at Siliman University and Apo Island in December 2002 for Apo Island community members Conducted workshop on fish catch monitoring in July 2002 Participated in beach and reef cleanup activities during Dive into Earth Day in April 2003	5
Between paired Demonstration Site-Target Site	Visit paired target site to assess management needs	Visited target site partner in Vietnam in October 2002 Hosted target site partner in the Philippines in October 2002	5
	Provide target site with information and report on management plan and lessons learned	Presented and discussed Apo Island management plan and lessons learned at the First ICRAN Regional Workshop on Experience Sharing Between Demonstration and Target Sites in the East Asian Sea, held in Phuket, Thailand, 26-28 August 2002	5
	Assist target site in the production of posters and other education materials	The production of posters for schools, government offices and communities in English and Vietnamese was proposed for 2003 but completion not reported	3
	Conduct capacity building training workshops for target site	Conducted experiences and lessons-learned workshop for target site delegates on "Community-Based Coastal Resources Management Workshop" at Siliman University, Philippines, in April 2003	5
	Produce regular project update reports throughout duration of project	Produced report on "Community-Based Coastal Resources Management of Apo Island, Negros Oriental, Philippines: History and Lessons Learned" ¹ Produced report on "Final Activity Report, Year 1, Apo-Ninh Thuan Learning Project" in 2002 ² There was no indications of subsequent project report produced after 2002 to highlight project implementation, progress and outcomes	4
Average Score			4.5

¹ Raymundo, L.J., "Community-Based Coastal Resources Management of Apo Island, Negros Oriental, Philippines: History and Lessons Learned". Available at www.COBSEA.org.

² Raymundo, L.J., "Final Activity Report, Year 1, Apo-Ninh Thuan Learning Project". Available on request from COBSEA.

Effectiveness and Potential of the Project

Determining Effectiveness		Potential for Follow-Up Activities Within Demonstration Site
Within Demonstration Site	Between Paired Demonstration Site-Target Site	
<p>Report on "Community-Based Coastal Resources Management of Apo Island, Negros Oriental, Philippines: History and Lessons Learned" highlighted demonstration site management strengths and needs</p> <p>Workshop on "Tourist volume and reef damage monitoring workshop" increased capacity of local stakeholders to better monitor and manage tourism related impacts at the reserve</p> <p>Workshop on fish catch monitoring will help assess the success of reef management on fish stocks</p> <p>Reef management activities continued at Apo Island through collaboration between various institutions/organisations and local community organisations</p> <p>Preliminary step in addressing the health care issue of the community will aid the development of recommendations for improved wastewater treatment and health practices</p> <p>Educational and resource materials and posters were produced for the community</p> <p>Participated in beach and reef cleanup activities during Dive into Earth Day in April 2003</p>	<p>Knowledge of target site representatives was enhanced through the discussions, presentations and site visit exchanges</p> <p>Reciprocal site visits were made between demonstration and target sites</p> <p>Technical capacity of target site representatives was enhanced through the workshop on Community-Based Coastal Resources Management</p> <p>Resource materials on coral reef management translated into Vietnamese language enabled wider dissemination and better access to information</p> <p>There were no reports indicating that links between the paired sites were maintained after the workshop in 2003, and continued throughout the duration of the ICRAN Project</p>	<p>There is continued active involvement by Siliman University and other academic institutions within the community and the reserve</p> <p>There is strong stakeholder support for community-based management activities within the reserve</p> <p>There is increased knowledge and enhanced technical capacity among stakeholders to be involved in follow-up or new activities</p> <p>The long history and global recognition of the reserve in implementing successful community-based management increases its potential to attract and secure funding for follow-up or new activities</p>
5	4	5

5.4.2 Demonstration Sites - Mu Koh Surin National Park, Thailand

5.4.2.1 Implementing Institution

Department of Marine Science, Chulalongkorn University and
Marine Biodiversity Research Group, Ramkhamhaeng University
Bangkok, Thailand

5.4.2.2 Project Assessment and Evaluation

Project Effectiveness Status: **Largely Effective**
Project Effective Index: **3.07**

The Mu Koh Surin National Park ICRAN Demonstration Site was largely effective in achieving its objectives.

Matching Outcomes to Objectives

Objectives		Outcomes	Score
Within Demonstration Site	Continue good management practices through ongoing and additional activities	Management of Mu Koh Surin Marine Park ongoing with continued government support for enhancement in Park infrastructure and facilities Continuous monitoring of coral reef conducted by park rangers in collaboration with research institutions	5
Between paired Demonstration Site-Target Site	Visit paired target site to assess management needs	Reciprocal site visits were not conducted due to change in site pairings between 2002 and 2003, followed by SARS outbreak in 2003	1
	Provide target site with information and report on management plan and lessons learned	Report on Mu Koh Surin Marine National Park Demonstration Site Baseline Assessment made available to target site There were no reports indicating whether meetings, discussions or workshops between demonstration site and target were conducted	2
	Assist target site identify the sources of anthropogenic and natural stresses at the site	There were no reports indicating whether target site was assisted in identify the sources of anthropogenic and natural stresses at the site	1
	Produce regular project update reports throughout duration of project	Produced report "Demonstration Site Baseline Assessment Report-Mu Koh Surin Marine National Park, Thailand" ³ There was no reports indicating or referencing any project progress report that were produced to highlight project implementation, progress and outcomes	2
Average Score			2.2

³ Sudara, S. and T. Yeemin, "Demonstration Site Baseline Assessment Report: Mu Koh Surin Marine National Park, Thailand". Available at www.COBSEA.org.

Effectiveness and Potential of the Project

Determining Effectiveness		Potential for Follow-Up Activities Within Demonstration Site
Within Demonstration Site	Between Paired Demonstration Site-Target Site	
<p>Report on Demonstration Site Baseline Assessment Report-Mu Koh Surin Marine National Park, Thailand” highlighted demonstration site management strengths and needs</p> <p>Reef management activities continued at Mu Koh Surin through collaboration between resource management agencies and various institutions/organisations</p> <p>Research investigations on coral recruitment in algal environments by Chulalongkorn University was conducted in 2003</p> <p>There were no reports indicating whether workshops were organised as part of the ICRAN Project</p> <p>There were no reports indicating whether resource and educational materials being developed as part of the ICRAN Project</p>	<p>Knowledge of target site was enhanced through access to demonstration site baseline assessment report</p> <p>Reciprocal site visits were not conducted due to change in site parings between 2002 and 2003, followed by SARS outbreak in 2003</p> <p>There were no reports indicating whether meetings, discussions or workshops between demonstration site and target were conducted</p> <p>There were no reports indicating that resource materials on coral reef management was produced</p> <p>There were no reports indicating that links between the paired sites were maintained and continued throughout the duration of the ICRAN Project</p>	<p>There is continued active involvement by various institutions/organizations with Mu Koh Surin Marine National Park authorities</p> <p>There is strong support by Park authorities for enhancing management activities within the Park</p> <p>There is increased knowledge and enhanced technical capacity among Park officials to be involved in follow-up or new activities</p> <p>Support for Mu Koh Surin Marine National Park by the government and various institutions/organizations ensures its potential to attract and secure funding for follow-up or new activities</p>
3	1	5

5.4.3 Demonstration Sites - Komodo National Park, Indonesia

5.4.3.1 Implementing Institution

The Nature Conservancy
Komodo Field Office
Kampung Ujung, Labuan Bajo, Manggarai Barat
Flores, NTT, Indonesia

5.4.3.2 Project Assessment and Evaluation

Project Effectiveness Status: **Largely Effective**
Project Effective Index: **3.86**

The Komodo National Park ICRAN Demonstration Site was largely effective in achieving its objectives.

Matching Outcomes to Objectives

Objectives		Outcomes	Score
Within Demonstration Site	Continue good management practices through ongoing and additional activities	Park management activities continued at Komodo National Park through collaboration between The Nature Conservancy-Indonesia Programme (TNC-IP) and Directorate General of Forest Protection and Nature Conservation (PHKA-KNP) Continuous monitoring of coral reef conducted by park management authority in collaboration with various institutions/organisations Participated in beach and reef cleanup activities during Dive into Earth Day in April 2003	5
Between paired Demonstration Site-Target Site	Visit paired target site to assess management needs	Hosted target site partner in May 2003, and conducted visits to the Nature Conservancy activity sites such as fish grow out farms, pelagic fisheries alternative livelihood, mooring buoy program, fish monitoring training, a spawning aggregation site and a seaweed culture project There were no reports on reciprocal visit to target site	3
	Provide target site with information and report on management plan and lessons learned	Report on sustainable management of Komodo National Park made available to target site There were no reports indicating that meetings or discussions were held between demonstration site and target site, but it is assumed discussions were held during the target site partner visit to Komodo	4
	Teach long-term management plan and suggest alternative livelihoods for target site	There were no reports indicating long-term management plan or suggestions for alternative livelihoods was taught to target site, but it is assumed that it was discussed during the target site partner visit to Komodo	4
	Produce regular project update reports throughout duration of project	Produced report "Toward Sustainable Komodo National Park Management: A 2002 Progress Report" ⁴ There was no reports indicating or referencing any project progress report that were produced to highlight project implementation, progress and outcomes	2
Average Score			3.6

⁴ Subijanto, J., "Toward Sustainable Komodo National Park Management: A 2002 Progress Report". Available at www.COBSEA.org.

Effectiveness and Potential of the Project

Determining Effectiveness		Potential for Follow-Up Activities Within Demonstration Site
Within Demonstration Site	Between Paired Demonstration Site-Target Site	
<p>Report on "Toward Sustainable Komodo National Park Management: A 2002 Progress Report" highlighted demonstration site management strengths and needs</p> <p>Reef management activities continued at Komodo National Park through collaboration between TNC-IP and PHKA-KNP</p> <p>Participated in beach and reef cleanup activities during Dive into Earth Day in April 2003</p> <p>There were no reports indicating whether workshops were organised as part of the ICRAN Project</p> <p>There were no reports indicating whether resource and educational materials being developed as part of the ICRAN Project</p>	<p>Knowledge of target site representatives was enhanced through access to demonstration site sustainable park management report, and through the discussions, presentations and site visit exchange by target site</p> <p>Target site representatives were hosted at Komodo</p> <p>There were no reports indicating whether workshops between demonstration site and target were conducted</p> <p>There were no reports indicating that resource materials on coral reef management was produced</p> <p>There were no reports indicating that links between the paired sites were maintained and continued throughout the duration of the ICRAN Project</p>	<p>There is continued active involvement between TNC-IP and various institutions/ organizations with PHKA-KNP</p> <p>There is stakeholder awareness and support for Park management activities</p> <p>There is sufficient knowledge and technical capacity within Park management authorities and stakeholders to be involved in follow-up or new activities</p> <p>Global recognition of the Park's management success increases its potential to attract and secure funding for follow-up or new activities</p>
3	3	5

5.4.4 Demonstration Sites - Bunaken National Park, Indonesia

5.4.4.1 Implementing Institution

Bunaken National Park Office
Kelurahan Meras, PO Box 1202
Manado 95242
North Sulawesi

5.4.4.2 Project Assessment and Evaluation

Project Effectiveness Status: **Completely Effective**
Project Effective Index: **4.70**

The Bunaken National Park ICRAN Demonstration Site was completely effective in achieving its objectives.

Matching Outcomes to Objectives

Objectives		Outcomes	Score
Within Demonstration Site	Continue good management practices through ongoing and additional activities	Park management activities continued at Bunaken National Park by Bunaken National Park Office (BNPO) Continuous monitoring of coral reef conducted by park management authority in collaboration with various institutions/organisations Participated in beach and reef cleanup activities during Dive into Earth Day in April 2003	5
Between paired Demonstration Site-Target Site	Visit paired target site to assess management needs	Hosted target site partner in October 2002, during "Co-management of Bunaken National Park Workshop" Visited target site partner in April 2003, during "Workshop on Sustainable Tourism" in Lombok	5
	Provide target site with information and report on management plan and lessons learned	Report on successful co- management of Bunaken National Park made available to target site There were no reports indicating that meetings or discussions were held between demonstration site and target site, but it is assumed discussions were held during reciprocal site visits	5
	Conduct workshop on co-management	Co-Management workshop was held in 22 October 2002, in Manado	5
	Produce regular project update reports throughout duration of project	Produced report "Successful Management of Bunaken National Park" ⁵ Produced report "Charting a New Course for Co-Management of Bunaken National Park" ⁶ Produced report "Co-management of Bunaken National Park Workshop" ⁷ There was no reports indicating or referencing any project progress report that were produced to highlight project implementation, progress and outcomes	3
Average Score			4.6

⁵ Ir. M. Arief Toengkagie, "Successful Management of Bunaken National Park". Available at www.COBSEA.org

⁶ Ir. M. Arief Toengkagie, "Charting a New Course for Co-Management of Bunaken National Park". Available at www.COBSEA.org

⁷ Bunaken National Park Office, "Co-management of Bunaken National Park Workshop"⁷. Available at www.COBSEA.org

Effectiveness and Potential of the Project

Determining Effectiveness		Potential for Follow-Up Activities Within Demonstration Site
Within Demonstration Site	Between Paired Demonstration Site-Target Site	
<p>Reports on "Successful Management of Bunaken National Park" and "Charting a New Course for Co-Management of Bunaken National Park highlighted demonstration site management strengths and needs</p> <p>Reef management activities continued at Bunaken National Park by Bunaken National Park Office (BNPO)</p> <p>Workshop on "Co-Management of Bunaken National Park" increased knowledge and capacity of local stakeholders on co-management</p> <p>BNPO produced a leaflet on sustainable diving practices</p> <p>Participated in beach and reef cleanup activities during Dive into Earth Day in April 2003</p>	<p>Knowledge of target site representatives was enhanced through the discussions, presentations and site visit exchanges</p> <p>Reciprocal site visits were made</p> <p>Technical capacity of target site representatives was enhanced through the workshop on "Co-Management of Bunaken National Park"</p> <p>Leaflet on sustainable diving practices was made available to target site</p> <p>There were no reports indicating that links between the paired sites were maintained and continued throughout the duration of the ICRAN Project</p>	<p>There is continued active involvement by BNPO and other agencies/organizations within the community and the Park</p> <p>There is stakeholder awareness and support for Park management activities</p> <p>There is sufficient knowledge and technical capacity within BNPO, other associated agencies/organizations and stakeholders to be involved in follow-up or new activities</p> <p>Global recognition of the Park's management success increases its potential to attract and secure funding for follow-up or new activities</p>
5	4	5

5.4.5 Target Sites - Ninh Thuan Province, Vietnam

5.4.5.1 Implementing Institution

Ninh Thuan Department of Science, Technology and Environment (DOSTE) and WWF Indochina

5.4.5.2 Project Assessment and Evaluation

Project Effectiveness Status: **Completely Effective**

Project Effective Index: **4.83**

The Ninh Thuan Province ICRAN Target Site was completely effective in achieving its objectives.

Matching Outcomes to Objectives

Objectives		Outcomes	Score
Within Target Site	Conduct management needs assessment for Target Site and socio-economic assessment of stakeholders	<p>Conducted training workshop on “Identifying and Minimizing the Socio-Economic Impacts on Coral Reef for Local People and Teachers in Secondary School in Ninh Hai District, Ninh Thuan Province” in December 2002</p> <p>Conducted study tour to assess alternative income opportunities in Khanh Hoa, Tay Ninh Province in December 2002</p> <p>Conducted “Training Workshops for Local Communities and Authorities on Protecting and Managing Coral Reefs at Vinh Hai and Nhon Hai communes, Ninh Hai District, Ninh Thuan province” in November 2003</p> <p>Established 2 coral resource self-managed volunteer teams for two protected stations at Hon Do- Nhon Hai and Hang Rai -Vinh Hai in September 2003</p> <p>Organized 10 training workshops on coral conservation at Nhon Hai and Vinh Hai communes with more than 911 key participants in November 2003</p>	5
Between paired Demonstration Site-Target Site	Visit paired target site to assess management needs	<p>Visited demonstration site partner in the Philippines in October 2002</p> <p>Hosted demonstration site partner in Vietnam in October 2002</p>	5
	Work with paired demonstration in the production of posters and other education materials	<p>Designed and produced educational materials (poster, leaflet, pano, cassettes) for children and local community in November 2003</p> <p>Translate the manual, “Coral Reef Monitoring for Management” by Dr. Andre Uychiaoco to Vietnamese for resource managers and local stakeholders</p>	5
	Participate in training workshops by demonstration site	Participated in “Community-Based Coastal Resources Management Workshop” at Siliman University, Philippines, in April 2003	5
	Produce regular project update reports throughout duration of project	<p>Produced report “Review and Assessment of Existing Legislation and Management of Coral Reefs in Ninh Hai district, Ninh Thuan Province, Vietnam”⁸</p> <p>Produced report “Identifying and Minimizing the Socio-Economic Impacts on Coral Reef for Local People and</p>	5

⁸ Ninh Thuan Department of Science, Technology and Environment (DOSTE), “Review and assessment of existing legislation and management of coral reefs in Ninh Hai district, Ninh Thuan Province, Vietnam”. Available at www.COBSEA.org

		<p>Teachers in Secondary School in Ninh Hai District, Ninh Thuan Province⁹</p> <p>Produced report "Training Workshops for Local Communities and Authorities on Protecting and Managing Coral Reefs at Vinh Hai and Nhon Hai communes, Ninh Hai District, Ninh Thuan province"¹⁰</p> <p>Produced report "Study-Tour Report on Income Alternative Opportunity in Khanh Hoa, Tay Ninh Province"¹¹</p> <p>Produced interim report "UNEP/ ICRAN Project in Ninh Thuan - Viet Nam, January 2003"¹²</p> <p>Produced final report "UNEP/ ICRAN Project in Ninh Thuan - Viet Nam, January 2004"¹³</p>	
Average Score			5

Effectiveness and Potential of the Project

Determining Effectiveness		Potential for Follow-Up Activities Within Target Site
Within Target Site	Between Paired Demonstration Site-Target Site	
<p>Report on "Review and Assessment of Existing Legislation and Management of Coral Reefs in Ninh Hai district, Ninh Thuan Province, Vietnam" highlighted target site existing management framework and future needs</p> <p>Conducted management needs and socio-economic assessments of stakeholders at target site to assist in the development of management plan</p> <p>Knowledge and technical capacity of local government agencies and stakeholders enhanced through various training workshops, meetings and discussions</p> <p>Community involvement enhanced through the establishment of 2 coral resource self-managed volunteer teams for two protected stations at Hon Do-Nhon Hai and Hang Rai -Vinh Hai</p>	<p>Knowledge of target site was enhanced through the discussions, presentations and site visit exchanges</p> <p>Reciprocal site visits were made between demonstration and target sites</p> <p>Technical capacity of target site was enhanced through the workshop on Community-Based Coastal Resources Management</p> <p>Resource materials on coral reef management translated into Vietnamese language enabled wider dissemination and better access to information</p> <p>There were no reports indicating that links between the paired sites were maintained after the workshop in 2003, and continued throughout the duration of the ICRAN Project</p>	<p>There is continued active involvement DOSTE and other agencies/institutions within the province</p> <p>There is strong stakeholder support and involvement for community-based management activities within the reserve</p> <p>There is increased knowledge and enhanced technical capacity among stakeholders to be involved in follow-up or new activities</p> <p>The success of projects implemented at the province and the tangible outcomes for implemented projects increases its potential to attract and secure funding for follow-up or new activities</p>
5	4	5

⁹ Ninh Thuan Department of Science, Technology and Environment (DOSTE), "Identifying and Minimizing the Socio-Economic Impacts on Coral Reef for Local People and Teachers in Secondary School in Ninh Hai District, Ninh Thuan Province". Available at www.COBSEA.org

¹⁰ Ninh Thuan Department of Science, Technology and Environment (DOSTE), "Training Workshops for Local Communities and Authorities on Protecting and Managing Coral Reefs at Vinh Hai and Nhon Hai communes, Ninh Hai District, Ninh Thuan province". Available at www.COBSEA.org

¹¹ Ninh Thuan Department of Science, Technology and Environment (DOSTE), "Tour Report on Income Alternative Opportunity in Khanh Hoa, Tay Ninh Province". Available at www.COBSEA.org

¹² Ninh Thuan Department of Science, Technology and Environment (DOSTE), "Final Report on UNEP/ ICRAN Project in Ninh Thuan - Viet Nam, January 2003". Available at www.COBSEA.org

¹³ Ninh Thuan Department of Science, Technology and Environment (DOSTE), "Final Report on UNEP/ ICRAN Project in Ninh Thuan - Viet Nam, January 2004". Available at www.COBSEA.org

5.4.6 Target Sites - Koh Rong, Cambodia

5.4.6.1 Implementing Institution

Marine Working Group
Department of Fisheries, Cambodia

5.4.6.2 Project Assessment and Evaluation

Project Effectiveness Status: **Largely Effective**

Project Effective Index: **3.30**

The Koh Rong ICRAN Target Site was largely effective in achieving its objectives.

Matching Outcomes to Objectives

Objectives		Outcomes	Score
Within Target Site	Conduct management needs assessment for Target Site and socio-economic assessment of stakeholders	<p>Conducted meeting "The Establishment of Fisheries Community in Preaksvay Village of Koh Rong Commune" in November 2003</p> <p>Conducted meeting "The Needs and Planning for Community in Preaksvay" in Sihanoukville, in Koh Rong, in December 2003</p> <p>Conducted workshop "Importance and Management of Coral Reefs" in Sihanoukville, in December 2003</p> <p>Prepared concept proposal for developing a MPA in Koh Rong</p> <p>Participated in Reef Check survey and beach cleanup activities during Dive into Earth Day in April 2003</p>	5
Between paired Demonstration Site-Target Site	Visit paired target site to assess management needs	<p>Visited demonstration site partner in Komodo in May 2003</p> <p>There were no reports indicating that reciprocal visit by demonstration site was made</p>	3
	Work with paired demonstration site to develop long-term management plan and alternative livelihoods for stakeholders	There were no reports indicating that meetings or discussions were held between demonstration site and target site to discuss long-term management plan and alternative livelihoods for stakeholders, but it is assumed discussions were held during visit to demonstration site	3
	Participate in training workshops by demonstration site	<p>Participated in SCUBA diving training and reef monitoring training on Reef Check and LIT organized by UNEP</p> <p>There were no reports indicating attending training workshops organized by demonstration site partner</p>	2
	Produce regular project update reports throughout duration of project	<p>Produced report "Assessing the Existing Information, Legislation, Management Practices and the Needs for Improvement at Koh Rong site, Cambodia"¹⁴</p> <p>Produced report "Importance and Management of Coral Reefs"¹⁵</p> <p>Produced report "The Needs and Planning for Community in Preaksvay"¹⁶</p> <p>Produced report "The Establishment of Fisheries Community in Preaksvay Village of Koh Rong Commune"¹⁷</p>	4

¹⁴ Chheng Touch, "Assessing the Existing Information, Legislation, Management Practices and the Needs for Improvement at Koh Rong site, Cambodia". Available at www.COBSEA.org

¹⁵ Serywath, S., "Importance and Management of Coral Reefs". Available at www.COBSEA.org.

¹⁶ Serywath, S., "The Needs and Planning for Community in Preaksvay". Available at www.COBSEA.org

¹⁷ Serywath, S., "The Establishment of Fisheries Community in Preaksvay Village of Koh Rong Commune". Available at www.COBSEA.org

		There was no reports indicating or referencing any project progress report that were produced to highlight project implementation, progress and outcomes	
Average Score			3.4

Effectiveness and Potential of the Project

Determining Effectiveness		Potential for Follow-Up Activities Within Target Site
Within Target Site	Between Paired Demonstration Site-Target Site	
<p>Report on "Assessing the Existing Information, Legislation, Management Practices and the Needs for Improvement at Koh Rong site, Cambodia" highlighted target site's existing management framework and future needs</p> <p>Community involvement at Preaksvay Village of Koh Rong Commune enhanced through the establishment of an elected fisheries community</p> <p>Knowledge and technical capacity of local government agencies and stakeholders enhanced through workshop emphasizing the importance and management of coral reefs</p> <p>Prepared concept proposal for developing a MPA in Koh Rong</p> <p>Participated in Reef Check survey and beach cleanup activities during Dive into Earth Day in April 2003</p>	<p>Knowledge of target site was enhanced through the discussions, presentations and demonstration site visit</p> <p>Visit to demonstration site was made</p> <p>There were no reports indicating whether workshops between demonstration site and target were conducted</p> <p>There were no reports indicating that resource materials on coral reef management was produced</p> <p>There were no reports indicating that links between the paired sites were maintained and continued throughout the duration of the ICRAN Project</p>	<p>There were no reports indicating continued involvement by the marine working group of the fisheries department in establishing an MPA in Koh Rong</p> <p>There is strong stakeholder support for the establishment of MPA in Koh Rong</p> <p>There is increased knowledge and enhanced technical capacity among stakeholders to be involved in follow-up or new activities</p> <p>The is limited information on the successful continuation of the project or involvement of other agencies/ organizations, thus limiting the potential to attract and secure funding for follow-up or new activities</p>
4	3	3

5.4.7 Target Sites - Sanya National Coral Reef Nature Reserve, China

5.4.7.1 Implementing Institution

Hainan Ocean & Fishery Department and
Hainan Developing, Planning & Designing Institute
Haikou City, China

Project Assessment and Evaluation

Project Effectiveness Status: **Largely Effective**
Project Effective Index: **3.20**

This Sanya National Coral Reef Nature Reserve ICRAN Target Site was largely effective in achieving its objectives.

Matching Outcomes to Objectives

Objectives		Outcomes	Score
Within Target Site	Conduct management needs assessment for Target Site and socio-economic assessment of stakeholders	<p>Conducted meetings and discussions with stakeholders on views towards Sanya</p> <p>Hainan Ocean & Fishery Department, Sanya National Coral Reef Nature Reserve administration and the tourism companies in the reserve held a colloquium on sustainable development both on coral reef and tourism in May 2003</p> <p>Participated in Reef Check survey and beach cleanup activities during Dive into Earth Day in April 2003</p> <p>The manual "Coral Reef Monitoring for Management" by Dr. Andre Uychiaoco was translated into Chinese for local stakeholders</p>	5
Between paired Demonstration Site-Target Site	Visit paired target site to assess management needs	Reciprocal site visits were not conducted due to change in site pairings between 2002 and 2003, followed by SARS outbreak in 2003	1
	Work with demonstration site to identify the sources of anthropogenic and natural stresses	There were no reports indicating whether meetings, discussions or workshops between demonstration site and target were conducted	1
	Draft a strategy for monitoring and improved tourism management	There were no reports indicating whether target site was assisted in identify the sources of anthropogenic and natural stresses at the site	1
	Produce regular project update reports throughout duration of project	<p>Produced report "Baseline assessment of management and existing legislation at Hainan Sanya National Coral Reef Nature Reserve"¹⁸</p> <p>Produced report "Final Report on Sanya National Coral Reef Nature Reserve Concerning Management of Marine Protected Areas and Coral Reefs Under ICRAN in 2002-2003"¹⁹</p>	5
Average Score			2.6

¹⁸ Zhang Jun and Chen Chunhua, "Baseline assessment of management and existing legislation at Hainan Sanya National Coral Reef Nature Reserve". Available at www.COBSEA.org

¹⁹ Hainan Ocean and Fishery Department, "Final Report on Sanya National Coral Reef Nature Reserve Concerning Management of Marine Protected Areas and Coral Reefs Under ICRAN in 2002-2003". Available at www.COBSEA.org

Effectiveness and Potential of the Project

Determining Effectiveness		Potential for Follow-Up Activities Within Target Site
Within Target Site	Between Paired Demonstration Site-Target Site	
<p>Report on “Baseline assessment of management and existing legislation at Hainan Sanya National Coral Reef Nature Reserve” highlighted the target site’s existing management framework and future needs</p> <p>Meetings and discussions with stakeholders helped address their needs and concerns towards Sanya National Coral Reef Nature Reserve</p> <p>A colloquium on sustainable development of coral reefs and tourism helped to identify solutions for better management of Sanya National Coral Reef Nature Reserve</p> <p>Participated in Reef Check survey and beach cleanup activities during Dive into Earth Day in April 2003</p> <p>There were no reports indicating whether workshops were organised as part of the ICRAN Project</p> <p>The manual “Coral Reef Monitoring for Management” by Dr. Andre Uychiaoco was translated into Chinese for local stakeholders</p> <p>There were no reports indicating whether resource and educational materials being developed as part of the ICRAN Project</p>	<p>Knowledge of target site was enhanced through access to demonstration site baseline assessment report</p> <p>Reciprocal site visits were not conducted due to change in site pairings between 2002 and 2003, followed by SARS outbreak in 2003</p> <p>There were no reports indicating whether meetings, discussions or workshops between demonstration site and target were conducted</p> <p>There were no reports indicating that resource materials on coral reef management was produced</p> <p>There were no reports indicating that links between the paired sites were maintained and continued throughout the duration of the ICRAN Project</p>	<p>There is continued active involvement between Hainan Ocean & Fishery Department, Sanya National Coral Reef Nature Reserve administration and tourism companies within the reserve</p> <p>There is stakeholder awareness for the management of Sanya National Coral Reef Nature Reserve</p> <p>There is some knowledge and enhanced technical capacity among stakeholders to be involved in follow-up or new activities</p> <p>There is sufficient interest in the management of Sanya National Coral Reef Nature Reserve by government agencies and other agencies/ organizations, thus increasing the potential to attract and secure funding for follow-up or new activities</p>
4	2	4

5.4.8 Target Sites - Gili Matra Marine Natural Recreation Park, Indonesia

5.4.8.1 Implementing Institution

Natural Resources Conservation Office
West Nusa Tenggara, Indonesia

5.4.8.2 Project Assessment and Evaluation

Project Effectiveness Status: **Largely Effective**

Project Effective Index: **3.30**

This Gili Matra ICRAN Target Site was largely effective in achieving its objectives.

Matching Outcomes to Objectives

Objectives		Outcomes	Score
Within Target Site	Conduct management needs assessment for Target Site and socio-economic assessment of stakeholders	Conducted "Workshop on Sustainable Tourism" in Lombok in April 2003	3
Between paired Demonstration Site-Target Site	Visit paired target site to assess management needs	Hosted demonstration site partner in April 2003, during "Workshop on Sustainable Tourism" in Lombok Visited demonstration site partner in October 2002, during "Co-management of Bunaken National Park Workshop"	5
	Participate in co-management workshop	Participated in co-Management workshop was held in 22 October 2002, in Manado	5
	Adopt demonstration site's management plan	There was no indication that the demonstration site's management plan was adopted	1
	Produce regular project update reports throughout duration of project	Produced report "Gili Matra Marine Natural Recreation Park, West Nusa Tenggara Province - Indonesia" ²⁰ Produced report "Existing Legislation Summaries and Developing Ideas for Alternative Income" ²¹ There was no reports indicating or referencing any project progress report that were produced to highlight project implementation, progress and outcomes	3
Average Score			3.4

²⁰ Djuharsa, E., "Gili Matra Marine Natural Recreation Park, West Nusa Tenggara Province – Indonesia". Available at www.COBSEA.org

²¹ West Nusa Tenggara Natural Resource Conservation Office, "Existing Legislation Summaries and Developing Ideas for Alternative Income". Available at www.COBSEA.org

Effectiveness and Potential of the Project

Determining Effectiveness		Potential for Follow-Up Activities Within Target Site
Within Target Site	Between Paired Demonstration Site-Target Site	
<p>Reports on "Gili Matra Marine Natural Recreation Park, West Nusa Tenggara Province - Indonesia" and "Existing Legislation Summaries and Developing Ideas for Alternative Income" highlighted the target site's existing management framework and future needs</p> <p>Workshop on "Sustainable Tourism" increased capacity of local stakeholders to better monitor and manage tourism related impacts at the Park</p> <p>There were no reports indicating whether resource and educational materials being developed as part of the ICRAN Project</p>	<p>Knowledge of target site was enhanced through the discussions, presentations and site visit exchanges</p> <p>Reciprocal site visits were made between demonstration and target sites</p> <p>Technical capacity of target site was enhanced through the workshops on Sustainable Tourism and Co-Management</p> <p>There were no reports indicating that links between the paired sites were maintained after the workshop in 2003, and continued throughout the duration of the ICRAN Project</p>	<p>There is continued active involvement of the Natural Resources Conservation Office of West Nusa Tenggara In the management of the Park</p> <p>There is stakeholder awareness for the management of Gili Matra Marine Natural Recreational Park</p> <p>There is some knowledge but unknown technical capacity among stakeholders to plan for involvement in follow-up or new activities</p> <p>There is sufficient interest in the management of Gili Matra Marine Natural Recreational Park by government agencies and other agencies/ organizations, thus increasing the potential to attract and secure funding for follow-up or new activities</p>
3	4	3