



UNEP East Asian Seas Regional Coordinating Unit



Coordinating Body on the Seas of East Asia (COBSEA)

Case-Studies of Coral Reef Monitoring and Management Projects (2004 - 2005)

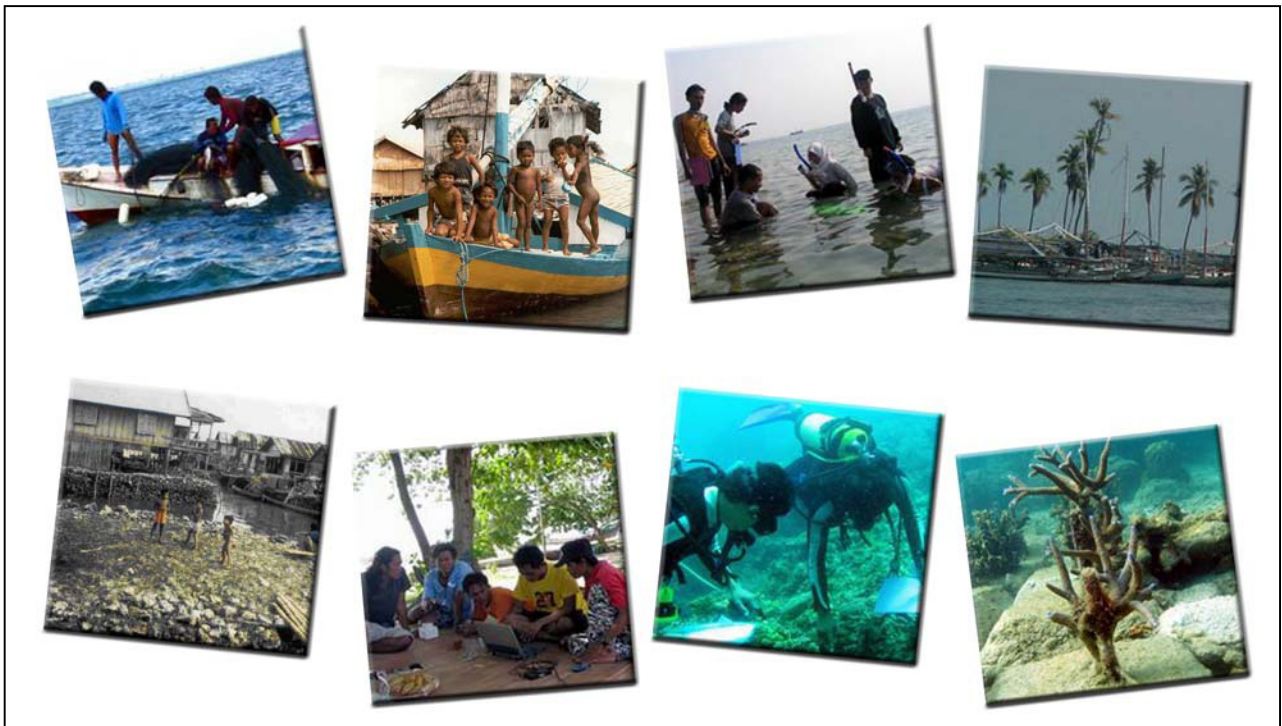


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Introduction

The East Asian Seas region supports significant richness in marine biodiversity where notably 34% of the world's total area of corals are located in Southeast Asia alone. However, it is unfortunate that even though this is such a rich marine region it is also an area with the most threatened and damaged reefs due to high and widespread anthropogenic pressures.

It was, therefore, most appropriate for the **Coordinating Body on the Seas of East Asia (COBSEA)** to initiate a number of projects that would address and arrest the decline in coral reefs, particularly through community-based efforts. The primary aim of these projects was to develop mitigating measures to overcome the issues and problems which are at the source of the destruction. These would also consider the major importance which coral reefs play in the livelihoods of communities that live along the coasts of the surrounding seas.

These projects have had varying degrees of success in getting local communities involved in coral reef management. It has, however, enhanced capacity building of communities in monitoring, facilitated formulation of legislation, introduced alternative means of livelihoods, and has provided training in managing marine parks and ecotourism. One of the projects also initiated the establishment of a network of environmentally-friendly dive operators who are contributing towards sustainable tourism efforts in the region.

Through this initiative, COBSEA intends to show-case some of the projects that have been implemented in order that the experiences and lessons-learned can be effectively shared with others who are going to implement, or who are already implementing, projects of a similar nature. It is envisaged that the sharing of knowledge stemming from these coral reef projects will in one way or another contribute to the better and improved management of coral reefs in the region.

COBSEA's ability to initiate these pilot projects was made possible by the financial support generously provided by International Coral Reef Action Network (ICRAN), United Nations Foundation, International Coral Reef Initiative (ICRI) and the Government of United States of America (USA).

Developing Community-Based Sanctuary for Coral Reefs in Wangkolabu Village

Introduction

The project “*Developing Community-based Sanctuary for Coral Reefs in Wangkolabu Village, Indonesia*” is a biodiversity conservation project implemented by Lembaga Konservasi dan Pembangunan (Conservation and Development Institute). The primary purpose of the project was to develop a community-based sanctuary (CBS) in order to conserve biodiversity while developing sustainable rural economies. The duration of the project was one year.

A Look at Wangkolabu Villaae



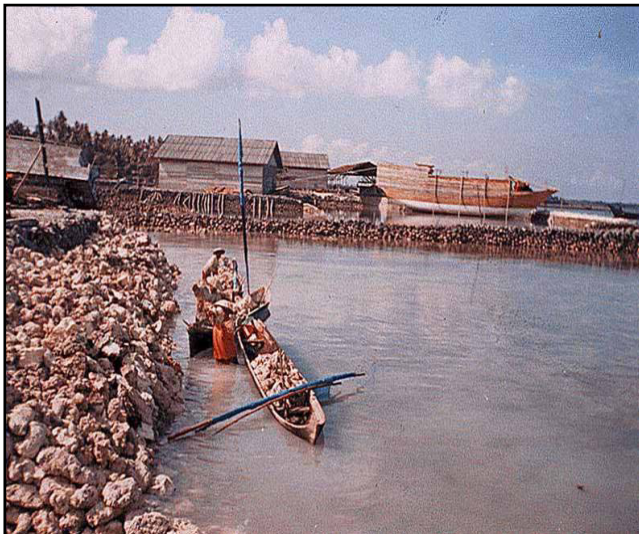
Wangkolabu is one of five coastal villages on the Great Toba Island, Southeast Sulawesi Province, in east Indonesia.

The village covers an area of about 6 km², and is home to a population of about 378 indigenous Bajo people, who depend heavily on the 16 ha of fringing reefs adjacent to the village thereby causing biodiversity degradation.

The Bajo community at Wangkolabu Village suffers from extreme poverty. The people live in simple houses on the beaches and around the various outlying islands, and maintain their traditional way of life. They make their livelihood by artisanal fishing around coastal ecosystems, namely mangroves, sea-grasses, and coral reefs.

Wangkolabu's fringing coral reefs are home to over 100 marine vertebrates and invertebrates.

Project Objectives



Local people mine coral rocks for construction of houses and buildings in Wangkolabu

The main objective of the project was to develop a community-based sanctuary in order to conserve biodiversity while concurrently developing sustainable rural economies. This was implemented through several targeted activities, namely:

1. Aquarium fish collection as an alternative livelihood to reduce fishing pressure ;
2. Crown of thorns (CoTs) removal to halt the decline of coral reefs;
3. Establishment of a community-based sanctuary for coral conservation in Wangkolabu; and
4. Establishment of a CBS monitoring program to monitor the implementation and track the effectiveness of the sanctuary.

The main outcome envisioned through the implementation of the project was the protection and natural restoration of a significant portion of coral reefs in Wangkolabu, improved fishery yields and the development of sustainable livelihoods of the local communities through better resource management and the development of alternative sources of income

The 5 Steps to Successful Project Implementation

“The project was implemented through the application of participatory methods in which all stakeholders —both supporters and opponents— were fully involved in all aspects of the project.”

The project implementation team realised the importance of engaging the local community stakeholders in the planning and implementation of the project. The project was divided into five key steps, namely:

1. **Stakeholder engagement** - to bring all stakeholders within the community to the table to discuss issues related to the coral reef environment at Wangkolabu Village;
2. **Problem identification** - to identify the causes and effects of problems;
3. **Formulation of the project strategies and priorities** - to enable effective use of resources;
4. **Formulation of the project framework** - to provide structure and ensure long-term project implementation and sustainability; and
5. **Project implementation, monitoring and evaluation** - to assess the success of the project.

Step 1: Stakeholders Engagement



Community stakeholders discussing issues related to the coral reef environment of Wangkolabu

It is not easy to introduce new approaches of doing things within a local community with a long history of traditional practices.

In addition, it is important to engage the various community stakeholder groups so that a common consensus can be established from the start.

The main focus of Step 1 was to build mutual understanding and trust within the three key stakeholder groups, namely:

1. General civil society (primarily indigenous peoples and local communities);
2. The business community; and
3. The government (primarily the policy-makers).

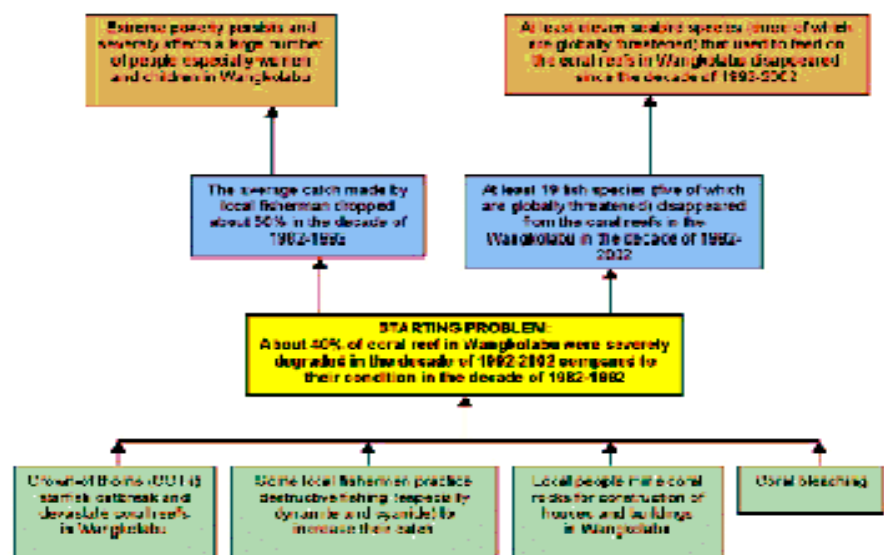
The instrument used in this step was the Participatory Rapid Appraisal (PRA).

Step 2: Problem Identification

The causes and effects of coral reef problems in Wangkolabu were complex.

A week-long strategic planning workshop involving 30 essential local stakeholders, including local community leaders, fishermen representatives, leaders of local institutions (including local women's groups), local policy-makers, and marine scientists conducting research in Wangkolabu, was held to identify and discuss the issues related to the coral reefs of Wangkolabu.

The workshop participants debated and discussed on a wide range of environmental issues, and developed a problem tree for the coral reefs in Wangkolabu which was used to formulate project objectives, strategies and priorities.



The Problem Tree developed during the stakeholders workshop that identified the main problem at Wangkolabu, its causes and its effects

Step 3: Formulation of Project Strategies and Priorities

From the problem tree, an objective tree was developed, which identified the main objectives that the stakeholders wanted to achieve. A total of seven project strategies were formulated:

1. COT population controlled to normal density (<30 individuals per ha);
2. Causes of over-fishing minimized ;
3. Permanent eradication of destructive fishing (especially dynamite and cyanide);
4. Permanent eradication of coral mining;
5. Permanent eradication of both destructive fishing and coral mining;
6. Causes of global warming minimized; and
7. **Causes of poverty minimized.**

In order to facilitate the stakeholders in making priorities and strategic options for implementation, the seven project strategies were evaluated and prioritized using the decision matrix, with strategies 2, 1 and 5 emerging as priorities 1, 2 and 3 respectively.

Given the limited project funds and duration, only project strategy 1 and a small component of project strategy 2 were chosen for implementation.

Step 4: Formulation of Project Framework

Based on the prioritised project strategies, the project was developed within the following framework.

Project purpose:

Community-based sanctuary (CBS) for coral conservation in Wangkolabu established and managed well.

Guiding principles:

1. To increase involvement of local communities in coral reef management;
2. To develop and implement training programmes, strategies, and tools to strengthen the capacities of local communities to manage coral resources;

3. To act as a catalyst to leverage future funds for addressing coral reef related issues; and
4. To promote “best community-based, monitored and managed” coral reef sites to serve as demonstration examples for community-based management.

Overall goal:

A significant portion of coral reefs in Wangkolabu well - protected.

Step 5: Project Implementation, Monitoring and Evaluation

This project was implemented over a period of one year, from 1 April 2004 to 31 March 2005.

A total of four activities were designed and implemented as part of the project, namely:

1. **Aquarium fish collection as alternative livelihood** - Design curriculum for aquarium fish collection training and training workshop in fish collecting for residents of Wangkolabu;
2. **Crown of thorns (CoTs) removal** - Training course on CoT removal for local fishermen/women;
1. **Establish a Community-Based Sanctuary** - To officially legislate a CBS at Wangkolabu with the support of all stakeholders, and to establish a CBS implementation plan; and
2. **Establish a CBS monitoring program** - Produce a monitoring strategy for CBS and its natural resources; establish baseline coral data before CBS establishment; and conduct training for residents of Wangkolabu on coral monitoring using Manta Tow method.

Activity 1: Workshop on Aquarium Fish Collection as Alternative Livelihood

This activity was carried out in two parts - the development of an aquarium fish collection training curriculum, followed by a training workshop on aquarium fish collection for 24 residents, who were selected based on a defined selection criteria.

The training involved theoretical and practical sessions. The theoretical sessions covered topics on the state of coastal resources in Wangkolabu; degradation of coral reefs in Wangkolabu; the need for their conservation; and aquarium fish collection as a sustainable solution.

The practical sessions focused on making barrier nets, scoop nets, poker sticks, storage and decompression buckets, and proper technique in aquarium fish collection.

Following the training workshop, the project team provided a revolving fund facility to the participants, who were allowed to repay the loan in installments for six months at an interest rate of 3% per month.

Activity 2: Crown of Thorns Removal Programme



CoT starfish population at Wangkolabu was reduced to a density of <30 individuals per ha following the CoT

A training programme was conducted for twenty residents, most of whom were traditional fishers, who were selected based on a defined selection criteria.

The training involved both theoretical and practical sessions. The theoretical sessions covered topics on CoT morphology, behaviors, feeding habits, self-defense, life cycle, predators and the acceptable levels of CoT population on a coral reef.

The practical sessions focused on methods to control over-population of CoTs, CoT removal and the planning and implementation of a CoT removal programme.

Following the training programme, a team of 30 people (the 20 trainees plus 10 local fisherwomen/men) were mobilised to remove the CoTs from the reefs at Wangkolabu, and to monitor and maintain the population at an acceptable density of <30 individuals per ha.

Activity 3: Establishing a Community Based-Sanctuary (CBS)

This activity was carried out in three parts - A CBS management training workshop for the local community and policy makers, legislation of the CBS by the policy-makers and government officials, and the development of the CBS implementation plan.

Ten participants were selected for the management training based on a defined selection criteria, and were composed of key members of the Wangkolabu community.

The CBS was legislated following intensive lobbying and stakeholder consultation, which saw some opposition from the business community, but with strong support from a majority of the stakeholders. The CBS implementation plan was then developed by the stakeholder-appointed CBS Management Authority.

The "CBS for Coral Reefs of Wangkolabu" was legislated on September 30, 2004, with a total area of 16 ha comprising 6 ha as a Protection Zone and 10 ha as a Sustainable Exploitation Zone.

"The CBS will provide a significant contribution towards the achievement of the Wangkolabu Biodiversity Strategies and Action Plans."

Activity 4: Establishing a CBS Monitoring Programme

This activity was carried out in three parts - the development of a monitoring strategy for the Wangkolabu CBS and its natural resources, coral reef monitoring training using the Manta Tow method for Wangkolabu residents and the establishment of baseline coral data for the Wangkolabu CBS.

The CBS monitoring programme was developed based on the following variables and associated indicators:

1. Biological and ecological indicators (both in the Protection Zone and Sustainable Exploitation Zone);
2. Socio-economic indicators (in the Sustainable Exploitation Zone only); and
3. Governance indicators.

A total of ten Wangkolabu residents and ten university students were trained in coral reef monitoring and participated in a seven week monitoring programme to collect baseline coral reef data for Wangkolabu.

Building on the Project's Success

Despite the short timeline for the project, preliminary results indicate that the CBS has already produced positive outcomes. These include:

1. Control of CoT populations to an acceptable density (<30 individuals per ha);
2. Reduction in over-fishing through strict legislation inside the CBS Protection Zone;
3. Permanent eradication of destructive fishing (dynamite and cyanide); initiation of controlled aquarium fish collection as an alternative livelihood option; and

4. Permanent eradication of coral mining within CBS Protection Zone.

The CBS will provide a significant contribution towards the achievement of the Wangkolabu Biodiversity Strategies and Action Plans and biodiversity conservation in Southeast Sulawesi in general.

Due to the success of the CBS development in Wangkolabu Village through the support of COBSEA, there has been increasing interest from potential donor agencies to provide grants to LKP for funding new CBS projects and other biodiversity conservation projects.

Experiences and Lessons-Learned

1. **Participation** - The participation of local community stakeholders such as the civil society, business community and policy-makers in the planning and implementation of a community-based sanctuary (CBS) was important at an early stage of implementation. Consensus among all stakeholders was established and this encouraged more active and long-term participation.
2. **Capacity building** - Capacity building programmes such as trainings for alternative livelihoods in aquarium fish collection, Crown of Thorns removal and coral monitoring was an important component in strengthening the capacities of local communities and empowering them to take responsibility and ownership of their coral reef resources. It also highlights the commitment of NGOs in transferring knowledge and capacity to the local communities.
3. **Strategy** - Formulation of legislation to establish a CBS through consultations with stakeholders involvement, feedback and consensus was an important step in ensuring that the CBS is managed and maintained by the local community.
4. **Issue of Concern** - As the price of aquarium fish at the local market was low (just about 5% of the national price) and with no access to the national market, the farmers resorted to over-fishing practices to increase their income, causing problems. Through the project, aquarium fish was offered to national buyers but there was a condition to meet a minimum quota per shipment in order to reach the economies of scale. Satisfying this minimum quota was a constraint. A solution was found to increase production by involving non-beneficiary farmers that increased aquarium fish production but also resulted in over-fishing (though it was claimed to be in the sustainable level).

About LKP

LKP (formerly Yayasan Lestari or Foundation for Sustainability) is a non-governmental organization (NGO) dedicated to the promotion of biodiversity conservation whilst reducing poverty in Indonesia. It was formed in Southeast Sulawesi, eastern Indonesia, in 1984 by a group of people representing conservationists, indigenous peoples, civil society groups, and scientists in response to the widespread concern about biodiversity degradation occurring in all parts of Indonesia.

LKP is registered as a not-for-profit, tax-exempt organization under the Indonesian legal system with the registration number: 341/II/10/2005.

For more information about LKP and its projects, please contact Mr Alimaturahim, Executive Director (lkp@telcom.net) or visit website at <http://www.geocities.com/lkpindo/01.html>



Community Resource Center for Better Management of Karimunjawa National Park

Introduction

The project “**Community Resource Center for Better Management of Karimunjawa National Park**” is a capacity building and community development project implemented by Taka Foundation in collaboration with the Karimunjawa National Park Authority (KJNPA).

Taka Foundation acknowledged that local communities should play a more prominent role in the management of the marine resources they depend on, and it is important to encourage and facilitate their participation in the entire management process .

In Karimunjawa, local communities were historically not involved in the management of the National Park and their marine resources and lacked the ability and capacity needed to actively participate in it.

The main purpose of the project was to initiate and facilitate local community participation in the overall National Park management process through the creation of community groups and through targeted community development programmes, especially the development of a strong knowledge and information base. This was achieved through the establishment of a Community Resources Center (CRC), which is managed and maintained by local community groups with the support and assistance of the local government authorities and NGOs .

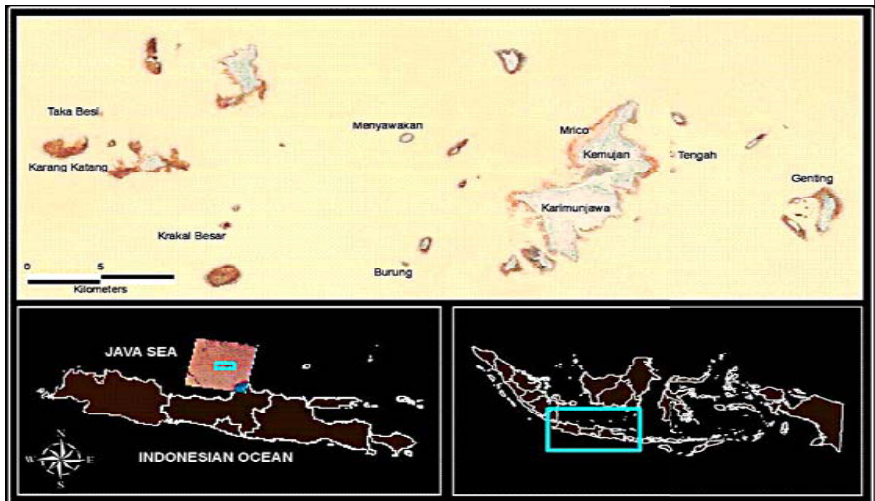
A Look at Karimunjawa Islands

Karimunjawa islands is situated in the Java Sea, central north of the main island of Java and consists of a group of twenty-seven islands. Of these, only five are inhabited with a population of around 9000.

The island group occupies an area of 115 ha, with 94% (107 ha) of this being marine environment.

The marine environment is a vital resource for the local communities, where over 60% of population are fishermen.

Twenty-two of the islands in Karimunjawa are administered as a Marine National Park in which fisheries, tourism, research and activities of coastal communities are regulated via a zonation and park management plan.



Location of Karimunjawa islands within the Karimunjawa National Park

Project Objectives



Local community involvement and participation in the management of Karimunjawa was the main focus of the project

The objectives of the project were to:

1. Initiate the formation of local community groups with the capacity and capability to assist the KJNPA in managing the National Park;
2. Enhance the capacity of local community groups to develop, populate, manage and utilize a database for the coral reefs of Karimunjawa;
3. Involve local communities in the development of management policy using information for the Karimunjawa coral reef database; and
4. Improve internal and external communication among the stakeholders on issues related to the coral reefs of Karimunjawa through the use of the Karimunjawa coral reefs database.

Addressing the Issues

Marine environmental degradation is a serious concern for the long-term sustainability of marine resources at Karimunjawa National Park, with destructive fishing and over exploitation of marine resources standing out as the main threats.

In order to enhance the management of the park area, Karimunjawa National Park Authority (KJNPA) initiated a revision of old zonation plans and the development of the Karimunjawa National Park Management Plan, in partnership with TAKA Foundation.

In developing the management plan, community involvement in the overall process, together with policy and management support from KJNPA and scientific support from NGOs was recognised as an important factor to bring about better management of the Park. This is illustrated in the schematic diagramme below.

Prior to the project, there were no channels or opportunities through which the community could get involved in the management process. The solution was identified as the development of a community resources centre that would serve as a focal point for planning and implementing activities related to the Park management involving the local communities.

Three main activities were targeted for the community resources centre:

1. Capacity building;
2. Database development; and
3. Media and communication development

SOLUTION

Planning and management enforcement through National Park Management Plan

**Policy and Management
by
Karimunjawa National
Park Agency**

**Scientific support
by
Taka Foundation and
Wildlife Conservation
Society**

**Community involvement
through
Community Resource
Center?**

Activity 1: Capacity Building

One of main activities within the community development strategy was capacity building, where local communities were encouraged to be actively involved in the local resources management.

Specific activities conducted by Taka Foundation in capacity building were:

1. The initiation and formation of three community groups within the three villages of the Karimunjawa sub-district;
2. Training in organisational management and institutional building;
3. Training on fisheries management;
4. Training on coral reef survey and monitoring using the Manta Tow method;
5. Facilitating participatory land-use mapping for potential tourism development; and
6. Training and facilitation for mangrove tree planting.



The three local community groups were trained in various areas, including coral reef survey and monitoring

Activity 1: Capacity Building (Continued)

In addition to Taka initiated activities, the three community groups were also encouraged to implement specific activities, with the support of Taka Foundation. These activities included:

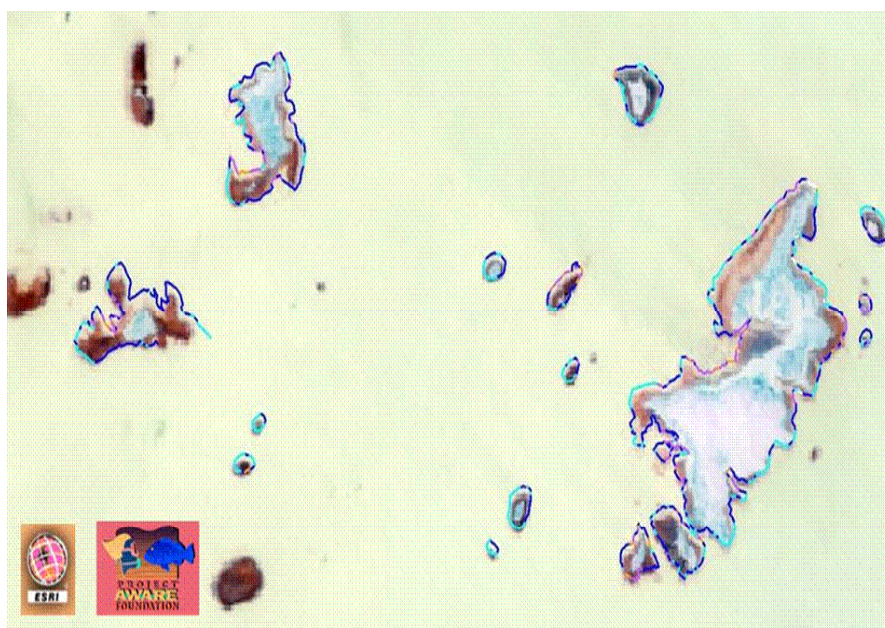
1. The development of individual Village Strategic Plans;
 2. Initiation of the Community Forum of Karimunjaya Community (FKMK);
 3. Participation in the re-zoning plan for Karimunjaya National Park with partnership with KJNPA;
 4. Initiation and facilitation of local government aid;
 5. Presentation of the proposed re-zoning plan to the district level government;
1. The development of Forum profile in the form of an information booklet;
 2. Initiation of community activities like drawing and poetry competitions on the marine environment;
 3. The development of a fish landing monitoring programme;
 4. Facilitating consultations with the Tourism Department on the potential of developing ecotourism in KJNP as an alternative livelihood option; and
 5. Facilitating the organisation of the Central Java Tourism Workshop.

Activity 2: Development of Community Group Databases

The development of the community group databases was considered as an important step in empowering the communities and increasing their awareness on the status and management of the marine resources.

The activities in the community database development programme were:

1. The distribution of a computer to each community group for use by the communities and the local government;
2. The organisation of computer operation training to community group members;
3. The organisation of data entry, data management and GIS training workshops; and
4. Populating the database with marine resource data through surveys and monitoring.



Community Participatory GIS Map (as a result of Coral Reef Manta Tow survey) of Karimunjaya National Park

Activity 3: Media and Communication Development



Posters entitled "Paint out Dreams", based on local children drawings, were produced and distributed throughout the Karimunjaya

Media and communication development was the third activity for the community resource center. The aim of media and communication development was to increase the awareness and knowledge of local communities in Karimunjaya through the use of relevant media developed by the resource center.

The activities in media and communication development were:

1. The production of conservation posters from winners of the drawing competition; and
2. The production of a conservation cartoon video that reflects local conditions.

Building on the Project's Success

The project highlighted the importance of integrating the community into management of the marine resources - through the creation of community resources centres and the empowerment of the community groups, the entire community benefited from the resulting activities and initiatives.

The ability of the community groups in lobbying local and regional support had given the communities a strong bargaining position in managing the National Park.

The future activities planned by the community groups include the development on economic activities through diversification and investor involvement.

The community groups also plan to maintain the resource database by establishing a monitoring programme to continue with the marine ecosystem condition assessment.



The three community groups have developed independent identities

Experiences and Lessons-Learned

1. **Participation** - Local communities working with the management authorities of the National Park and NGOs provided scientific support which contributed to the entire management process.
2. **Capacity building** - Capacity building activities for the local communities were implemented by the local NGO. This was important in supporting resource and information management within the communities, including the establishment and management of a local database on coral reef resources.
3. **Strategy** - The establishment of a community resources centre allowed more effective use of media and communication tools to increase the awareness and knowledge of the local communities.
4. **Issue of Concern** - The Karimunjawa Islands have five different ethnic groups and this heterogeneity can result in conflicts. This needs to be managed and can be achieved with the NGO working in partnership with the groups to monitor and assist them.

About TAKA Foundation

TAKA Foundation strives to play an active role in marine resources management through local community empowerment. The Foundation is currently focused on working within Karimunjawa National Park, situated along the northern coast Java island. The activities are largely centered towards addressing issues of marine resources utilization, and to bridge the gap between the local government authorities and the coral communities.

For more information about TAKA Foundation and its projects, please contact Mr Abdullah Habibi, Director (yayasan_taka@yahoo.com) or visit the LKP website at <http://yayasan-taka.8m.net/>



Raising Awareness and Capacity of Grassroots Organisations on Coral Reef Ecology and Coral Reef Monitoring in Panggang Island

Introduction

The project "*Raising Awareness and Capacity of Grassroots Organisations on Coral Reef Ecology and Coral Reef Monitoring in Panggang Island, Indonesia*" is a participatory monitoring and ecotourism development project implemented by the Indonesian Coral Reef Foundation (TERANGI).

The primary purpose of the project was to develop a community-based ecotourism framework in Panggang Village by enhancing the capacity of the local grassroot organisation, Elang Ekowisata in organisation and human resources development, market and network development and natural resources management.

By focusing on these three key areas, Elang Ekowisata was able to establish a comprehensive management system that incorporated ecotourism activities for the benefit of the local communities.

A Look at Panggang Village, Seribu Islands

The Seribu Islands, which literally translated means "Thousand Islands", are located north of Jakarta, and consists of 105 islands supporting a population of around 18,000 (as of 2000) distributed across eleven populated islands.

Although the island group is subjected to increasing anthropogenic pressure due to its proximity to Jakarta, the area still has a huge potential for sustainable natural resources for the local communities that depend on it.

Since 2001, the Seribu Islands has been designated as a new district with decentralized management. This has encouraged the development of community-based programs and community initiated activities to support the management of the resources of the island group.

Panggang Village is located to the south of the Seribu Island group, and comprises a population of around 4,000, spread across thirteen islands (three for local residents, two for resorts, nine unpopulated islands).

The local community in Panggang Village identified ecotourism as a potential alternative livelihood source for the village, and initiated a local grassroot organisation called Elang Ekowisata (Eagle Ecotourism) with the aim of managing the ecotourism interest of the village. This organisation was however not able to develop due to the lack of experience and support in developing ecotourism related activities.



Location of Panggang Village in the Seribu Islands

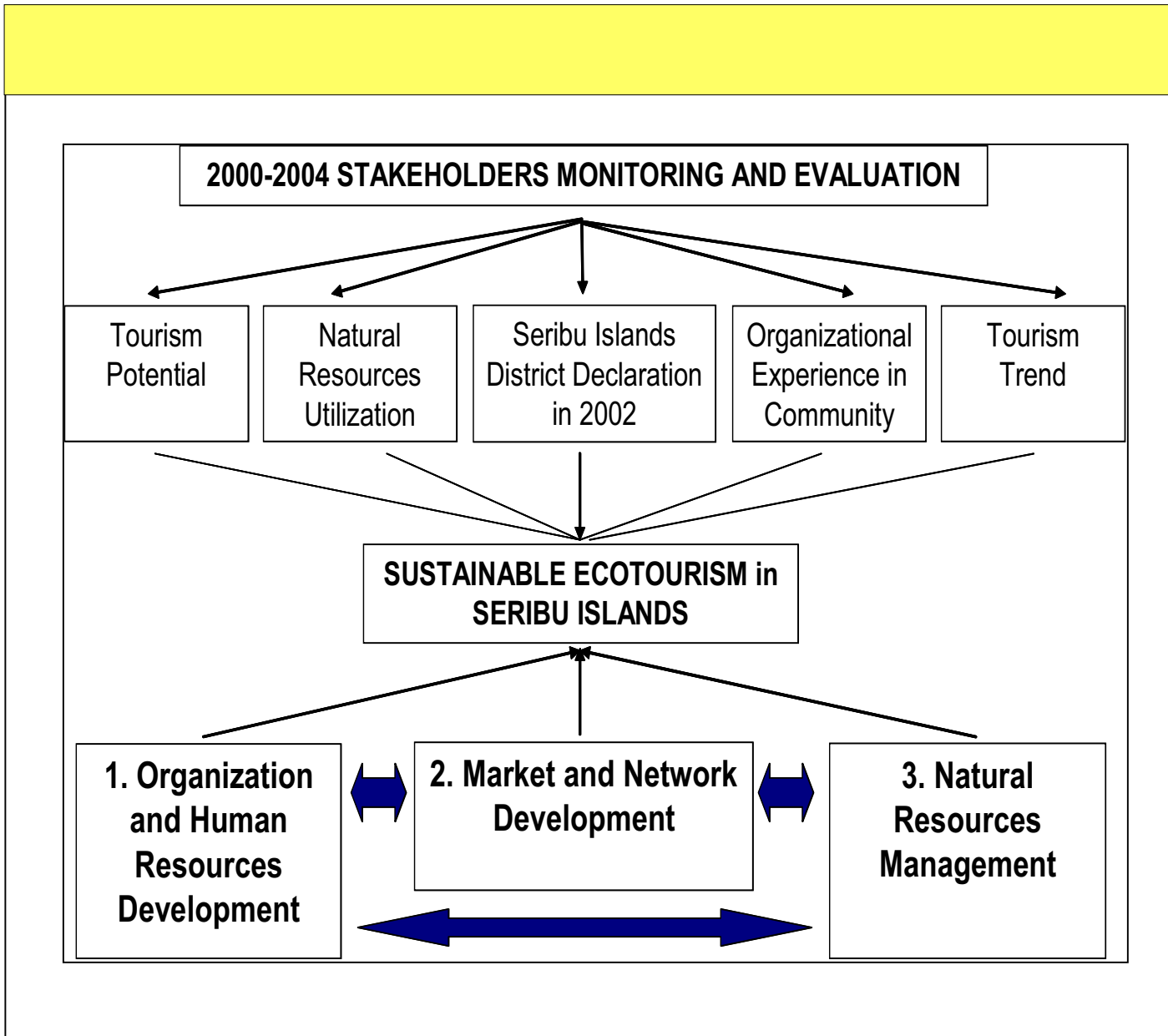
Development of the Community-Based Ecotourism Framework



Numerous discussions and forums were held to get inputs from stakeholders

The development of the community-based ecotourism framework was the key factor in effective project planning and implementation.

Between 2000 and 2004, numerous discussions and forums were held with various stakeholders to address the concerns and issues related to the natural resource utilization, conservation and management in Panggang Village, and to discuss the potential of ecotourism development in the area. The outcomes from the discussions and forum were formulated into the Community-based Ecotourism Framework illustrated in the schematic diagram below, which formed the backbone of the project.



Project Objectives

The project focused on three key areas for enhancing the capacity of Elang Ekowisata -

1. Organisational and human resource development
2. Market and network development
3. Natural resource management

The short term objectives focused on:

1. Assisting Elang Ekowisata in developing a formal organisational structure and framework;
2. Enhancing the knowledge of Elang Ekowisata in ecology and conservation issues, and improving their capacity in conducting coral reef surveys; and
3. Facilitating Elang Ekowisata in promoting the establishment and legislation of marine protected areas adjacent

to Panggang Island, for marine conservation and community-based ecotourism purposes

The long-term objectives focused on:

1. Supporting Elang Ekowisata in establishing a long-term coral reef monitoring programme, data analysis and training in coral and fish identification;
2. Assisting Elang Ekowisata in ecotourism market and network development; and
3. Supporting Elang Ekowisata in managing and maintaining the marine protected areas for marine conservation and ecotourism purposes

Organisational and Human Resource Development

Organisational and human resource development was the first area of focus for the project.

This was viewed as of primary importance as the success of Elang Ekowisata as an organisation will depend greatly on it having a clear and formal organisational structure and framework, with trained and skilled members to plan and facilitate ecotourism activities in the village.

The main objectives of this area of focus were to:

1. Develop a well established and independent organisation with a clear and formal organisational structure and framework that can facilitate the role of local communities in tourism activities;
2. Develop good communication and coordination channels between government institutions and to maintain good relationship with other ecotourism partner institution;
3. Provide financial management training for Elang Ekowisata members;
4. Improve the diving proficiency and guiding skills of Elang Ekowisata members; and
5. Educate Elang Ekowisata members on coral reef ecology in relation to guiding, and coral reef survey and monitoring.

These objectives were achieved through outreach programme, meetings, discussions and training workshops.

The outcomes of the above activities include:

1. Support by village, district and National Parks representatives to participate as advisors and members of Elang Ekowisata;
2. The development of a formal Elang Ekowisata organizational structure and framework;
3. The formation of a financial department in Elang Ekowisata;
4. One Star and Two Star diving certification for 14 members of Elang Ekowisata;
5. Five Elang Ekowisata members trained in the Line Intercept method for coral reef surveys, and nine trained in the Manta Tow method; and
6. The establishment of a data processing and analysis team in Elang Ekowisata to process and analyse data from the coral reef monitoring programme.

Market and Network Development

The influx of tourists to Panggang Village and the Seribu Islands has been increasing and is projected to increase in the coming years as infrastructure and tourist facilities are added or improved. To ensure that the local communities at Panggang Village do not "lose out" to the bigger tourist operators operating outside of Panggang Village, the prominence of Elang Ekowisata as the community's ecotourism organization had to be raised.

The second part of the project focused on enhancing the capacity of Elang Ekowisata in developing the ecotourism market and establishing a network of ecotourism partners.

The main objectives of this area of focus were to:

1. Assist Elang Ekowisata in preparing a database of services owned by community that are ranked according to service quality and publicised through the ecotourism network;
2. Establish a network of partners that include district and local governments, National Park agencies, the private sector, the local communities, donors and investors;

3. Identify potential talents from schools around the island to act as tourist guides; and
4. Develop ecotourism activities with Elang Ekowisata providing ecotourism packages and tourist guides.

These objectives were achieved through research, discussions, outreach and training programmes.

The outcomes of the above activities include:

1. The development of a database of tourism services provided by local community;
2. The procurement of additional equipments and facilities for Elang Ekowisata through partnerships with the government and the private investors;
3. The establishment of an internship programme in tourism services for final year and fresh graduates from high school with Elang Ekowisata; and
4. The promotion of ecotourism in Panggang Village and Seribu Islands and the ecotourism packages offered by Elang Ekowisata.

Natural Resource Management

Panggang Village is part of the Seribu Islands Marine National Park, and the 13 islands that make up the village are categorized as "inhabitant zone" and "traditional use zone", which are essentially open-access zones.

Despite the increasing interest in ecotourism within the community, the majority are still fishermen, and depend directly on the fisheries resources of the area for their livelihood.

To ensure sustainable long-term coral reef resource utilization at Panggang Village, the interest of both the fishing and ecotourism communities have to be met.

The third part of the project focused on establishing specific protected areas within Panggang Village to support resource management.

The main objectives of this area of focus were to:

1. Generate tourism usage maps of Panggang Village, and the status of coral reefs within locations frequented by tourists;
2. Establish specific areas for specific ecotourism activities;
3. Facilitate the formulation of policies and regulations on Panggang Village resources management; and
4. Engage stakeholders in promoting the marine ecotourism areas at Panggang Village.

These objectives were achieved through participatory coral reef surveys, meetings, workshops and discussions.

The outcomes of the above activities include:

1. The production of tourism usage maps of Panggang Village and data on the coral reef condition within certain locations frequented by tourists;
2. The establishment of a no-take community-based Marine Protected Area for biodiversity conservation;
3. The establishment of an educational tourism area (area for coral transplantation activity and school education programmes); and
4. The establishment of eight eco-tourism areas (for diving and snorkeling).

Monitoring, Evaluation and Long-Term Management

A measure of success of the project is not just the quantification of the immediate outcomes but the long-term sustenance and management of the activities and programmes.

To ensure the long-term success of Elang Ekowisata in promoting and managing ecotourism activities in Panggang Village, the following steps were taken:

1. The establishment of a formal organisational structure with a Board of Trustees headed by a Board Head;
 2. The appointment of key Elang Ekowisata office bearers, including the Chairman, Secretary, Finance Officer, Public Relation Coordinator, Equipment Coordinator, Human Resources Coordinator and Marketing Manager;
 3. The ability for Elang Ekowisata to be self-financing through revenue generated from ecotourism activities and from support from partners and donors;
 4. The adoption of a member renewal system to continually introduce new members and office bearers; and
 5. The establishment of a programme monitoring and evaluation exercise through.
- Weekly meeting: to evaluate the daily guest services and related activities;
 - Monthly meeting: to evaluate the administration and financial progress;.
 - Tri-monthly meeting: to evaluate the program progress with board of trustees
 - Six-monthly meeting: to prepare the natural resources monitoring
 - Annual meeting: to evaluate the yearly program and to plan the next one year program

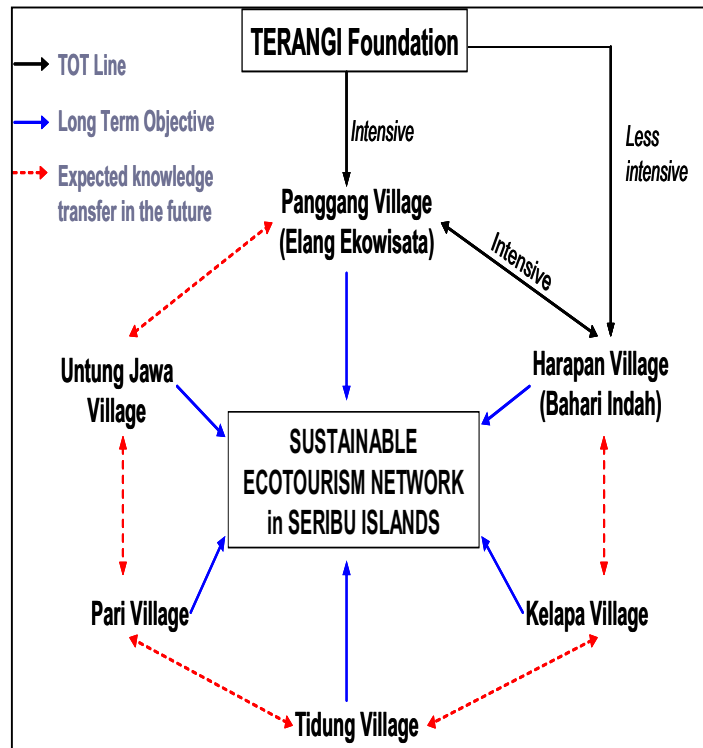


Elang Ekowisata members conduct regular meetings to discuss and assess their programmes

Building on the Project's Success

This project saw the successful development of a community-based ecotourism framework in Panggang Village and the enhancement in the capacity of the Elang Ekowisata in organisation and human resource development, market and network development and natural resource management. The success of the project can be measured in the increasing ecotourism visitors, increasing opportunities for local communities in the ecotourism industry, the establishment and management of locally created Marine Protected Areas, and the overall support of all the stakeholders in the ecotourism initiative at Panggang Village.

Building on this, TERANGI Foundation is looking to expand the initiative to other villages, using members of Elang Ekowisata as trainers to assist in developing the initiative in the other villages. The ultimate vision is the creation of a "Sustainable Ecotourism Network in Seribu Islands", as illustrated in this diagramme.



Experiences and Lessons-Learned

1. **Participation** - Market and network development for ecotourism through the establishment of wide network of partners such as local governments, National Park agencies, private sector, local communities, donors and investors was an important tool for involving all stakeholders within the community.
2. **Capacity Building** - Organizational and human resources development formed the basis for capacity building of the local communities. In addition, the involvement of trained and skilled members of the NGO was useful in planning and facilitating ecotourism activities.
3. **Strategy** - Goals were achieved through various means such as outreach programmes, meetings, discussions and workshops for the communities. In addition, potential talents from local schools were identified and trained in in ecotourism related activities such as guiding. The establishment of a formal organizational structure with membership and office bearers allowed the local ecotourism organisation to continue implementing self-financing ecotourism activities.

About TERANGI Foundation

TERANGI (Terumbu karang Indonesia), The Indonesian Coral Reef Foundation, is a non-profit organization established in 1999. It is the first non-governmental organization in Indonesia to focus exclusively on coral reef conservation issues.

The vision of TERANGI is **"To manage Indonesian coral reefs in an integrated and sustainable way in order to prevent lost, waste and damage of the reef resources resulting from over-exploitation, destructive use, and neglect"**.

For more information about TERANGI and its projects, please contact terangi@cbn.net.id or visit the TERANGI website at <http://www.terangi.or.id/>



Community-Based Monitoring and Evaluation of Coral Reef Resources in Taka Bonerate Marine National Park

Introduction

The project "Community-Based Monitoring and Evaluation of Coral Reef Resources in Taka Bonerate Marine National Park, Indonesia" is a capacity building and community empowerment programme implemented by the House of Taka Bonerate (TBR) Marine National Park.

The main purpose of the project was to enhance the capacity, participation and contribution of the local community in assessing the status of the coral reef resources at TBR Marine National Park .

This was achieved through various activities, including participatory rural appraisals, capacity building workshops, awareness and education programmes, and community workshops to plan, monitor and assess the project.

Through the project, a better understanding of the marine resources at TBR was achieved, with greater community involvement in the management and monitoring of the resources

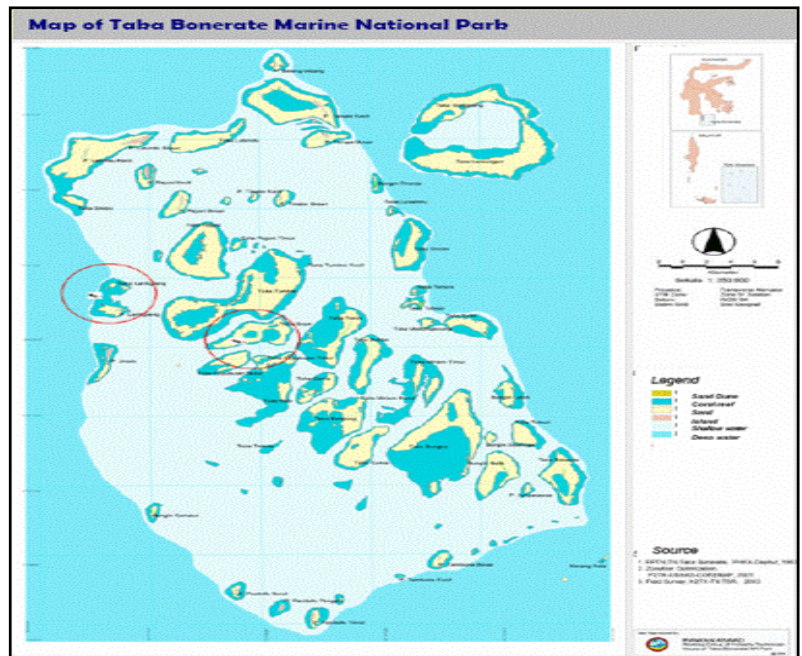
A Look at Taka Bonerate Marine National Park

Taka Bonerate is the largest atoll in Indonesia and the third largest in the world, and is situated within the Flores Sea, between the islands of Sulawesi in the north and Flores in the south.

Three types of coral reefs are found within TBR - fringing reefs, a barrier reef and atolls.

Accessibility to and from TBR is limited, with only small local boats able to ply the waters between the islands.

Taka Bonerate has a diverse and resource-rich marine environment, supporting a local population of around 5400, distributed across several of the larger islands within the atoll chain. Through the decades, resource exploitation had increased to meet the growing needs of the community, resulting in the adoption of various unsustainable and destructive fishing practices. Education, healthcare and infrastructure facilities within TBR are poor, with limited community education and awareness programmes to spread the message of sustainable resources use and management.



Taka Bonerate Marine National Park lies within the largest atoll in Indonesia

Project Objectives



The overarching goal of the project was to enhance the participation and contribution of local communities in evaluating the status of their coral reef resources and in implementing a participatory community-based monitoring programme in Taka Bonerate National Park.

The main objectives of the projects were to:

1. Identify data on recent condition of resources (coral reef, fishes, and other biota associated with resources) in Taka Bonerate National Park;
2. Enhance local capacity in coral reef survey and monitoring techniques;
3. Implement participatory techniques into monitoring and evaluation of coral reef resource status in Taka Bonerate;
4. Collecting, processing and compiling an up-dateble coral reef database to support the management activities of primary stakeholders; and
5. Enhance awareness among the local community on the importance of sustainable coral reef resources for their long term benefit.

The Project Implementation Process

“Local wisdom on natural resource management is useful in developing project activities, but one needs to be conscious of the fact that not all local wisdom is conservative and beneficial to the environment.”

Working with remote communities can be challenging, and the project implementation team acknowledged the importance of integrating the community in all aspects of the project implementation so that the community will develop a sense of ownership of the project from the onset of the programme.

To ensure effective project implementation with maximum impact, the project was divided into five key steps, namely:

1. **Social Preparation** - to establish trust and initiate community participation through the efforts of a dedicated project facilitator;
2. **Participatory Rural Appraisal (PRA)** - to assist in project development and planning through a better understanding of local needs;
3. **Capacity Building** - to enhance the capacity of local communities in areas that will help support the project;
4. **Participatory Community-based Resource Assessment** - to collect information on local marine resources by community members; and
5. **Project Monitoring and Evaluation and Community Workshops**- to assess the success or failure of the project in achieving its objectives, and to continually engage the community throughout the duration of the project.

Step 1: Social Preparation



The project facilitator conducting regular meeting with the community

Social preparation is an important first step in laying down the groundwork for effective project planning and implementation.

The main purpose of social preparation was to establish a good rapport and trust between the project team and the local community stakeholders, and to initiate effective channels of communication between all stakeholders.

This was achieved through the appointment of a dedicated facilitator who could speak the local language and work with the community throughout the duration of the project.

The facilitator's role was to engage all community stakeholders through informal discussions and meetings so as to get a better understanding of the local situation, the socio-economic status and the needs of the community, and to get the support of all the stakeholders.

Step 2: Participatory Rural Appraisal (PRA)

Participatory Rural Appraisal (PRA) is essentially a targeted information gathering process that serves as an effective tool for gathering specific information to aid in the planning and development of project activities.

PRA at TBR was conducted by the project facilitator over two months, with the aim to:

1. Explore and identify issues and problems in Taka Bonerate National Park;
2. Conduct a study on local needs;
3. Identify existing local capacity and potential; and
4. Conduct participatory resource mapping.

Through the PRA process, a better understanding of the local resource status was achieved. These included a better understanding of local fishing and nesting grounds, the types of fishing gear used by the community, the composition and distribution of various stakeholders, and the threats to the reefs of TBR.

The strength of the PRA was due to the fact that it reflected the knowledge, opinions and aspirations of the local community stakeholders. These were used to develop the project activities that considered the local situation, the existing community capacity and support for the activities, the potential for development of the atoll group and the threats that may contribute to constrain it.

Step 3: Capacity Building

One of the main objectives of the capacity building component of the programme was to encourage and pave the way for the establishment of community-based management of the marine resources at TBR through enhancing the capacity and capability of the community stakeholders to efficiently and effectively manage their resources in a sustainable way.

This was achieved through activities that focused on increasing the general awareness and knowledge of the community through education and awareness activities, and through technical capacity building workshops.

Under the project, the following activities were organised:

1. **Dive training** - for fifteen local community members and management staff of TBR Marine National Park;
2. **Coral reef survey and monitoring training** - for the fifteen dive trainees; and
3. **Conducting marine species inventory for economically important and rare species** - for all community members to highlight the importance and the need to protect and conserve certain species, especially those protected by national law.

Step 4: Participatory Community-Based Resource Assessment

Timely and up-to-date information on the status of coral reefs is important for enhancing the effective management of TBR Marine National Park.

Through the project, trained local community stakeholders were assisted in conducting participatory community-based resource assessments under the coordination and supervision of the team scientist. The main objectives of the resource assessment programme were to:

1. Collect data on the status and condition of the coral reefs within Taka Bonerate;
2. Introduce to the community the reef check method as one method to monitor coral reef condition; and
3. Encourage the community to focus more attention on the marine environment through active participation.

A total of three representative areas within TBR were surveyed and assessed under the project. In addition, a regular participatory monitoring and evaluation programme was established.



Local community members were trained to conduct basic coral reef resource assessments

Step 5: Project Monitoring and Evaluation and Community Workshops

It is important to keep the channels of communication open between the various stakeholders, especially to facilitate the effective communication of project activities and outcomes.

Monitoring the successful implementation of the project was facilitated through regular quarterly meeting between the project implementation agency and the community stakeholders.

The meetings allowed project activities and methods to be assessed and reviewed using pre-determined success indicators, the results of which served as a references for subsequent activities.

The project was evaluated at the end of all the activities using pre-determined achievement indicator, which enabled the success of the various project activities and programme to be estimated.

The project evaluation process also highlighted the strengths, weaknesses and obstacles faced during the implementation of the project, allowing for lessons learned to be distilled and used as a reference for other similar programmes.



Community workshops allowed the various stakeholders to discuss the project activities, the problems encountered and plan for subsequent activities.

Assessing the Project Impact

“This project involving the community in participatory community-based monitoring hopes to become a model for collaborative management of a conservation site.”

This was a short term project spanning only one year, thus limiting the assessment of the project impacts to short term outcomes and outputs.

Activities involving the environment and the socio-economic needs of the community can result in both positive and negative impacts, some of which are immediately visible while some not showing an impact till some time later.

Based on the short term assessment of the project's outcomes, the project activities were assessed to have some impact at three levels:

1. **The individual** - reflected by the degree of awareness of each member of the community on the importance of

managing their coral reef resources in relation to their socio-economic needs, and the degree of spontaneity and assertiveness of community members in policing and managing the marine resources

2. **The community** - reflected by the degree of public awareness and involvement in conservation and management activities, and the degree of local capacity enhancement and empowerment

3. **The environment** - reflected by the degree of improvement and conservation of the marine resources at TBR, and the success in establishing a long term participatory community-based monitoring programme

Building on the Projects Success

The project was planned to be a short-term project implemented in one year, with no concrete plans outlined for developing the project further. This, however, does not diminish the fact that the project has immense potential for development by building on the groundwork established under the project.

Some programmes and activities that can be developed further include:

1. Continuation of the participatory community-based monitoring and assessment of the marine resources at TBR;
2. Training workshops to increase technical capacity of decision-makers, local managers and local divers in data analysis and management;
3. Establishing a community dive support unit with sufficient field equipment to continue long term monitoring efforts;

4. Training on basic field equipment maintenance; and
5. Additional PRA to assess the feasibility of introducing eco-tourism activities at TBR, with more active local stakeholder participation.

Maintaining a long-term working relationship between the project implementation team and the local community is important in ensuring sustained interest, participation and support. This can be achieved by pacing or staggering the implementation of projects and programmes. For example, a break of between one to two years can be implemented between subsequent projects, with the community tasked to continue some activities and implement new activities of their own. In the interim periods between activities, regular visits and meeting with the community can be maintained to discuss ongoing activities, identify problems and needs, and discuss possible future activities.



The key factor for the successful implementation of the project was community support and involvement. By empowering the community with skills and knowledge and encouraging them to take a more proactive role in managing their marine resources, the sense of community ownership is enhanced.

Experiences and Lessons-Learned

Through the process of project implementation, various problems and obstacles were encountered and tackled by the team, resulting in valuable experiences and lessons-learned. These can be summarised into the following categories:

1. **Project implementation team** - Having the right mix of personnel within the project implementation team can have a significant impact on the project outcome. In this project, the team comprised of people from the implementing agency whose main role was to conceptualise and manage the project, a dedicated project facilitator appointed to work with the community and serve as a communication link between the various stakeholders, and key community members who were able to rally the community and encourage them to participate more actively in the project activities
2. **Social preparation** - This was an important first step for successful project implementation. By involving the community from the onset of the project and addressing the local situation and socio-economic needs of the community, project activities could be effectively planned and implemented. The facilitator plays an important role in this process, bridging the gap between the community and the project team
3. **Methods employed** - Successful project implementation require cooperation, commitment and communication between all stakeholders. This should be reflected in the selection of methods for various project activities, which should take into consideration such factors like the prevailing environmental conditions, the cultural background and capabilities of the local community and local knowledge and traditional practices, so that activities can be designed to meet the project objectives and the desired outputs and outcomes. A degree of flexibility in implementing the various activities is also important to allow for unplanned or unforeseen circumstances
4. **Participation** - Integrating the community in all aspects of the project implementation allowed them to develop a sense of ownership for the programme from the onset till the end of project.
5. **Capacity building** - Capacity building programmes need to take into consideration the local situation, the existing community capacity and support for the activities, the potential for further development and the threats that can disrupt the programme, and need to include activities that increase the general awareness and knowledge of the local communities to manage their resources in a sustainable way.
6. **Strategy** - Identifying a facilitator with good understanding of the local situation, the socio-economic status of the community and its immediate needs is important as the facilitator has to act to bridge the gap between the community and the project team.
7. **Issue of concern** - The role of the facilitator would be important to the success of the project so identifying a competent facilitator for the team is critical.

About House of Taka Bonerate

The House of Taka Bonerate is an Indonesian NGO with a mission to promote ecosystem sustainability of coral reefs. It is a small NGO that operates within Taka Bonerate.

For more information about the House of Taka Bonerate and their activities, please contact either the director, Mr Harianto, or the programme coordinator, Mr Irawan Assad, at info@takabonerate.go.id or takabonerate@telkom.net.

The “Green Fins” Programme in Southeast Asia

Introduction

The “*Green Fins Programme in Southeast Asia*” is a diving community awareness project initiated by COBSEA and implemented in Thailand by the Phuket Marine Biological Centre, in the Philippines by Ocean Adventure and in Indonesia by Biology Club.

The main aim of the project is to promote coral reef monitoring and public awareness through the creation of a network of environmentally-friendly dive operators that adopt sustainable tourism practices.

The Green Fins programme has two main components - the implementation of environmentally-friendly guidelines and data and information gathering through biophysical and socio-economic monitoring.

The programme aims to garner support from dive operators and diving community by providing incentives that can ultimately benefit their business while protecting the coral reef environment. For dive operators, the incentives include:

1. “Green Fins” certification;

2. Flag or pennant of participation;
3. Certificate of achievement;
4. Membership to the Green Fins network, and promotion of dive operation through the network;
5. Training and workshops for staff on marine biology, survey methods, etc; and
6. International recognition and support.

For the diving community, the incentives include:

1. The services of dive operators that are aware and concerned about the coral reef environment; and
2. The support of a larger network of dive operators that adopt sustainable tourism practices.

The ultimate beneficiary of the Green Fins programme are the coral reefs - through greater awareness and the adoption of more sustainable tourism practices, the demands of the coral reef resources can be better monitored

Background and Objectives

Southeast Asia is acknowledged as the epicentre of coral reef biodiversity, supporting over 30% of the world’s coral reef area. It is also a region under the greatest threat from coastal development and destructive fishing practices, resulting in the loss in diversity and productivity of large areas of reefs. The coral reefs in Southeast Asia are popular tourist destination, with Thailand, the Philippines and Indonesia topping the list.

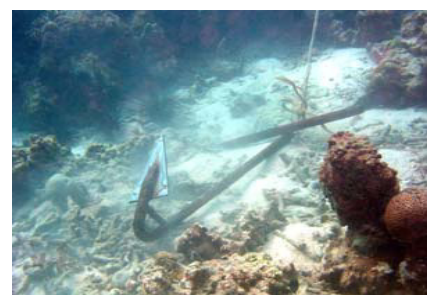
Although the tourism industry traditionally provided indirect protection to the coral reefs, the recent boom in the industry and particularly in the diving sector, has resulted in increasing threats and impacts to reefs due to unsustainable tourism practices. This is often a result of stiff competition between too many dive operators operating in a small area and targeting the same coral reef areas.

These threats and impacts can however be reduced and minimized through programmes that increase public awareness and encourage the adoption of sustainable tourism and appropriate management practices that can benefit the conservation and management of coral reef resources.

The overall aim of the project is to initiate the Green Fins programme in Thailand, the Philippines and Indonesia. The programme will focus on establishing a network of dive operators adopting environmentally-friendly practices.

The project consists of the following three components:

1. The development of guidelines, certificates and surveys to promote public awareness on coral reefs;
2. Introducing dive operators to the Green Fins programme, and encouraging their participation; and
3. The initiation of basic coral reef monitoring and Green Fins programme assessments.



The increasing threats and impacts to coral reef from tourism related activities has led to the initiation of the Green Fins programme

Implementation Strategy and Activities

The Green Fins is a programme under the framework of the coral reef activities initiated by COBSEA and involving three countries - Thailand, the Philippines and Indonesia. To date, only Thailand and the Philippines have been active in implementing the programme.

The Green Fins programme was introduced to local network leaders from these three countries at the "The Planning Workshop for "Green Fins" Local Network Leaders" in July 2004, in Phuket, Thailand. The local network consists of marine scientists, managers and NGOs. At the workshop, network leaders agreed on the contents and framework of the Green Fins code of conduct, mission statement, guidelines for environmentally sustainable diving and snorkeling and guidelines for project assessment and evaluation.

The local networks were tasked with implementing the project in their respective countries, each network being assigned with additional tasks and responsibilities for developing the Green Fins programme.

Each local network is led by one leading agency or organization - In Thailand, the lead agency is the Phuket Marine Biological Center, in the Philippines, Ocean Adventure is the lead agency and in Indonesia, the Biology Club.

This project constituted two phases:

Phase I: The formulation of the mission statement, the development of the code of conduct and the creation of media resources and website.

Phase II: The expansion of the network of dive operators at both the national and regional levels. It would also entail developing more harmonized set of activities such as uniform assessments and programmes as well as the development of strategic partnerships with other groups actively involved in environmentally sustainable diving in order to bring the Green Fins programme to a large diving community.

"The "Green Fins" programme aims to develop a network of environmentally friendly dive operators operating according to eco-friendly principles. Through its various activities, the programme hopes to improve the monitoring of coral reefs and enhanced public awareness."

Phase I of the Green Fins Programme

The primary focus of Phase I of the Green Fins was to lay the groundwork and develop the framework of the programme. This included the formulation of the mission statement, the development of the code of conduct and the creation of media resources and the website.

These outputs were essential in giving the programme its identity - an important 1st step before the programme can be publicised and introduced to the larger diving community.

The Green Fins was structured with a set of core components which were implemented and expanded separately by the local networks in their home countries to suit the local situation and needs. The advantage of this approach was the immediate implementation of the programme without having to conform to a fixed format or framework. The flip side of this approach was the dilution of the overall programme, with each local network forming a separate identity independent of each other.

The outputs of Phase I of the project include:

1. Mission Statement and Code of Conduct;
2. Logo and Certificate;
3. Environmentally Friendly Diving and Snorkeling Guidelines;
4. DVD, folders and posters;
5. Development of a biophysical monitoring method - Reef Watch (Thailand) and Reef Check (Philippines);
6. The development and launching of the Green Fins website;
7. Introducing Green Fins to dive operators;
8. Dive operator assessments; and
9. Various Green Fins related activities including mooring buoy installation at popular dive sites in Thailand and organization numerous meetings among network members and participation in local, regional and international events to publicise the programme in Thailand and the Philippines.

Programme Assessment

A set of three programme assessment survey forms were developed to assess the implementation and success of the programme. The assessment process was designed at three levels:

1. Dive operator self assessment - to be conducted twice a year;
2. Guest assessment of the dive operator - to be completed by diving customers/guests at the end of the dive trip; and
3. Network leader assessment of the dive operator - to be conducted twice a year.

Currently, there are no established indicators for evaluating the outcomes of the programme assessments. In addition, no agency or organisation has been identified to be the data management center for data and information collected under the Green Fins programme. A proactive approach by the network leaders in this regard would greatly help to enhance the viability of the Green Fins programme in the long run .

Activities and outputs from Phase I of the Green Fins Programme

GREEN FINS IN THAILAND

Membership:
43 Diving companies
68 Individual members

Project Area:
Phuket
Krabi
Phang-nga
Suratthani

Activities:

Training – Introduction to Green Fins, coral reef survey (Reef Watch), laws, regulations, on protective areas.

Public Awareness materials – posters, brochures on the Guidelines for environmentally-friendly snorkeling and diving.

Others: Installing mooring buoys, coral reef clean up after Tsunami.

Future Plan:

- Develop Green Fins training modules in English and Thai by transforming the established guidelines.
- Update and expand the Green Fins website to raise awareness on environmentally-friendly diving practices in the region .

GREEN FINS IN PHILIPPINES

Membership:
10 Diving operators

Project Area:
Subic Bay

Activities:

Training – Reef Check survey method

Public Awareness materials – DVD: Introducing Green Fins

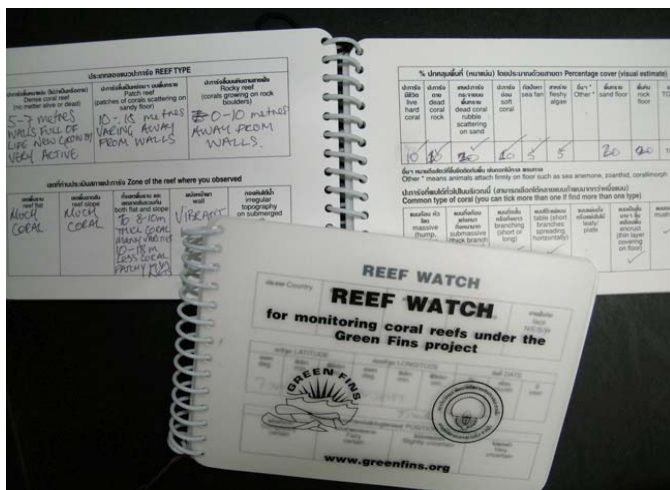
Others – Listing in the “Agreements for Dive Operators” the prohibition of the sale of corals and other marine life at the dive operations.

Future Plan:

- Translate the Green Fins materials to local languages so as to reach a larger local target groups within the country.
- Conduct a Green Fins workshop to determine the means of ensuring the programme’s long-term sustainability to gather support from the government and international reef conservation organisations.



Green Fins brochures and posters are distributed to dive operators to increase their awareness



Reef Watch eco-physical monitoring waterproof notebooks were produced in Thailand to provide a standard template for data collection by network members and participating dive operators

FRIENDLY DIVING AND SNORKELING GUIDELINES

BEGIN WITH YOURSELF

- Choose dive operations that are environmentally-friendly , such as those displaying the "GREEN FINS" certificate.
- Choose environmentally-conscious hotels and dive resorts.
- Strive to improve your diving skills.
- Practice skills away from coral reef areas.
- Learn about coral reefs and other animals that live in the reef.
- Adopt environmentally-friendly practices.

ON THE BOAT

- Choose dive operations that make use of available moorings. Anchors destroy fragile marine life.
- Prevent the introduction of garbage, solid waste and toxic substances into the marine environment by ensuring that all garbage is well-stowed and disposed of responsibly.

IN THE WATER

- Do not touch, stand or rest on corals and other marine life even when wearing gloves or booties. Some are very delicate animals; you may cause them harm and some may hurt you.
- Maintain a comfortable distance from the reefs to avoid contact. Be careful where you enter and exit the water to avoid destroying corals.
- If wearing fins, be aware of where your fins are, and don't stir up sediments or damage corals.
- Do not chase, harass, ride on, feed or handle marine life.
- Take nothing live or dead out of the water.
- Look but do not touch!
- Make sure your equipment is secure at all times.
- Maintain neutral buoyancy; practice good finning to avoid accidental contact with the reef.

TAKING PICTURES

- Photography equipment can affect a snorkeler's mobility and buoyancy in the water. Do not hold onto corals when taking pictures.
- Develop advanced skills to prevent contact with marine life.

ON LAND

- Support conservation projects through paying user fees for recognized programs and areas that support coral conservation, if any.
- Filling out of wildlife sighting forms when available.
- Volunteering your skills in beach cleanups and other marine environmental activities.
- Do not purchase souvenirs made from corals and other marine life - this is usually illegal and environmentally unfriendly.
- Spread the word - tell your dive buddies these simple but important conservation practices.

Sponsored by:

Information posters on friendly diving and snorkelling guidelines are prominently displayed at dive centers to encourage enhance the awareness and knowledge of divers



The Green Fins logo gives the programme an identity

Building on the Project's Success

Phase I of the project proved to be a good testing ground for the Green Fins programme. Throughout the planning, implementation and publicity of the programme, there was strong support from network members, dive operators and other partners.

Phase I of the project also highlighted problems and issues that need to be addressed before Green Fins programme can be further developed. Some of the issues raised by local network members include:

1. **A central coordination body for the Green Fins programme** - there is a need to establish a central Green Fins coordinating body to oversee Green Fins activities in all member countries. This body can be an existing agency that is willing to invest time and effort to coordinate the Green Fins programme;
2. **Extension of the Green Fins programme** - the Green Fins programme is currently implemented in Thailand and the Philippines, through local network teams. A good target will be to extend the programme to other countries in the region, through the coordination of a central coordinating body;
3. **Financing** - this is by far the most crucial aspect for the programme. The seed grant provided to initiate the project will not be sufficient to keep the programme going and to expand it further. Novel ways in attracting financial support and generating income needs to be developed to ensure the long term sustainability of the programme;
4. **Regular network meetings** - It is important to keep the network members constantly in touch with each other and updated. This can be achieved through workshops or meeting, which can be tied in to ongoing regional events like the Asian Dive Expo (ADEX);
5. **Expansion of the Green Fins programme scope** - the current scope of Green Fins programme is too restricted, and may not be able to sustain long term interest and support by network members and programme partners. There is a need to assess the current scope of the programme and consider ways to expand it incrementally over the years; and
6. **Creating a stronger presence in the region** - the Green Fins programme is a new programme with limited publicity. More effort needs to be committed to bring the programme to the larger diving community through strategic partnerships and tie-ins with other existing programmes and activities. There is also a need to enhance the website so that it is more interactive and informative, with exciting content that are constantly updated.

Experiences and Lessons-Learned

1. **Participation** - For successful implementation, the project needs to establish a local network of dive operators and the diving community which includes tourists, network leaders, associations and sponsors.
2. **Capacity building** - The network leaders need to be actively involved in conducting training that focus on environmentally-friendly diving and resource monitoring. Publicity materials such as VCD, brochures, certificates and website on Green Fins are useful tools to spread the Green Fins message.
3. **Strategy** - Establishing communication channels with the public and members of Green Fins is important and can be achieved by advertising through various media, events and the Green Fins website. Incentives like certification and advertisements for Green Fins members that help them improve their business can encourage them to adopt the mission statement, code of conduct and guidelines for diving and snorkeling. and pennant to inform public about environmentally-friendly dive operations. There should be efforts to expand the network both locally and regionally
4. **Issue of Concern** - The assessment of dive operators by Network Leaders is important in ensuring their adherence to the code of conduct, diving and snorkeling guidelines as well as the ethical use of membership incentives for their business.

About the Local Network Team

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Philippines

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About COBSEA

The Coordinating Body on the Seas of East Asia or COBSEA was established in 1981 under the framework of the UNEP Regional Seas Programme with the EAS Action Plan that is basically aimed at establishing a comprehensive strategy to protect the marine and coastal environment of the EAS region and to promote its sustainable development, taking into consideration the environmental and socio-economic challenges faced by the countries.

For more information about COBSEA and the projects it supports, please contact the COBSEA Secretariat or visit the website at www.cobsea.org



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