

*Final*

# **Mid-Term Review**

## **Hon Mun Marine Protected Area Project** *Khanh Hoa Province, Vietnam*

Report Prepared by:

Charles N. Ehler  
Chu Hoi Nguyen  
Le Hoa Nguyen

August 2003

**Authors:**

<p><b>Charles N. Ehler</b> Director International Program Office National Ocean Service National Oceanic &amp; Atmospheric Administration 1305 East-West Highway Silver Spring, MD 20910 USA</p> <p>+1 (301) 713-3080, x181 +1 (301) 713-4263 (fax) charles.ehler@noaa.gov</p>	<p><b>Nguyen Chu Hoi</b> Vice-Director Institute of Fisheries Economics &amp; Planning Ministry of Fisheries 10 Nguyen Cong Street Hanoi, Vietnam</p> <p>+84 4-77-18451 +84 4-7-16054 (fax) nchoih@hn.vnn.vn</p>	<p><b>Nguyen Le Hoa</b> Socio-Economics Specialist SUMA—Support to Brackish Water &amp; Marine Aquaculture Ministry of Fisheries—Danida 10-12 Nguyen Cong Street Hanoi, Vietnam</p> <p>+84 4-77-16516 +84 4-77-16517 (fax) nlhoa.suma@fsps.com.vn</p>
--	--	---

## **Contents**

Abbreviations  
Acknowledgements  
Executive Summary

### **1.0 Background**

- 1.1 Project Description**
- 1.2 Objectives, Indicators, and Outputs of the Project**
- 1.3 The Methodology of the Review Team**

### **2.0 General Observations and Issues**

- 2.1 Awareness and Coordination at the National and Provincial Level**
  - 2.1.1 The National Steering Committee
  - 2.1.2 The Provincial Steering Committee
- 2.2 MPA Management**
  - 2.2.1 Biodiversity Assessment
  - 2.2.2 The Management Plan
  - 2.2.3 The Zoning Plan
  - 2.2.4 Environmental Issues
  - 2.2.5 Moorings and Mooring Buoys
  - 2.2.6 Research and Monitoring
  - 2.2.7 Surveillance and Enforcement
  - 2.2.8 Sustainable Financing
  - 2.2.9 The MPA Authority
  - 2.2.10 Environmental Awareness
  - 2.2.11 Stakeholder Perceptions
- 2.3 Community Involvement**
  - 2.3.1 Alternative Income Generation
  - 2.3.2 The Credit Scheme
  - 2.3.3 Local Participation in Management

### **3.0 Key Actions and Recommendations**

- 3.1 Energize the National Steering Committee**
- 3.2 Implement MPA Management**
  - 3.2.1 Update and Revise the Biodiversity Assessment Database
  - 3.2.2 Complete The Management Plan
  - 3.2.3 Revise the Zoning Plan
  - 3.2.4 Monitor and Assess the Effects of Excess Nutrients
  - 3.2.5 Install Additional Moorings and Mooring Buoys
  - 3.2.6 Coordinate Research and Monitoring
  - 3.2.7 Increase Surveillance and Enforcement
  - 3.2.8 Ensure Sustainable Financing
  - 3.2.9 Implement the MPA Authority
  - 3.2.10 Focus Environmental Awareness Activities

**3.3 Increase Community Involvement**

- 3.3.1 Improve Stakeholder Perception and Understanding
- 3.3.2 Encourage Alternative Income Generation Activities
- 3.3.3 Increase Access to Credit
- 3.3.4 Ensure Sustainable Financing
- 3.3.5 Increase Local Participation in Management
- 3.3.6 Monitor Socio-Economic Effects as a Basis for Adaptive Management

## **Abbreviations**

<b>AIG</b>	Alternative Income Generation
<b>BAP</b>	Biodiversity Action Plan
<b>CBD</b>	Convention on Biodiversity
<b>Danida</b>	Danish International Development Agency
<b>DOF</b>	Department of Fisheries, Khanh Hoa Province
<b>DOSTE</b>	Department of Science, Technology and Environment, Khanh Hoa Province
<b>DOT</b>	Department of Tourism, Khanh Hoa Province
<b>GEF</b>	Global Environment Facility
<b>GIS</b>	Geographic Information System
<b>IUCN</b>	The World Conservation Union
<b>MOF</b>	Ministry of Fisheries, Socialist Republic of Vietnam
<b>MOSTE</b>	Ministry of Science, Technology and Environment, Socialist Republic of Vietnam
<b>MPA</b>	Marine Protected Area
<b>MPI</b>	Ministry of Planning and Investment, Socialist Republic of Vietnam
<b>NIO</b>	Nha Trang Institute of Oceanography
<b>NSC</b>	National Steering Committee
<b>PPC</b>	Provincial People's Committee, Khanh Hoa Province
<b>PRA</b>	Participatory Rural Appraisal
<b>UOF</b>	University of Fisheries
<b>WB</b>	World Bank

## **Acknowledgements**

The Review Team is sincerely grateful to everyone with whom we met in Hanoi and Nha Trang during the mission. We had cordial, open and honest discussions with key people involved with the project at the national, provincial, and local levels. We especially want to thank Nguyen Minh Thong and his staff in the IUCN Vietnam Office in Hanoi and Bernard O'Callaghan and his staff in the Hon Mun MPA Project Office and Truong Kinh, Director, Hon Mun Marine Protected Area Authority, and Vice-Director, Hon Mun MPA Project in Nha Trang, for their hospitality and effective arrangements during the mission.

## **Executive Summary**

The Hon Mun Marine Protected Area, the first of 15 marine protected areas (MPAs) planned for Vietnam, contains coral reefs with some of the highest coral biodiversity recorded in Vietnam, as well as other important marine habitats and resources. Because of its biodiversity values, the Hon Mun site is an “area of highest national priority” for marine conservation. The Hon Mun MPA Project, after a long period of preparatory work, started in June 2001. After 18 months of planning activities, the Project has entered its implementation phase during 2003. The Project is financed by the Global Environmental Facility through The World Bank (WB/GEF), the Royal Danish Government through Danida, IUCN, and the Vietnamese Government.

The Project has four major components: (1) participatory planning and management; (2) alternative income generation (AIG) activities; (3) capacity building; and (4) monitoring and evaluation. It has been particularly successful in involving local communities in the planning phase and building capacity, both in local communities and in the new Hon Mun MPA Authority, for effective participation in planning and management. While challenges remain, the Project has also been particularly innovative in its promotion of AIG activities for members of local communities, primarily fishers, who have been or will be adversely affected by the designation of the Hon Mun MPA. The Project has established access to credit for local residents who might not qualify for loans from traditional lending institutions.

The Project has been well planned and managed. Project documents clearly state objectives, performance measures and indicators, and outputs. Nearly all of the “benchmarks” of Phase 1 of the Project have been achieved, with the exception of the construction of a new office (which has been delayed until the Provincial Department of Fisheries moves to a new location in 2003), the construction of a visitors display at the Nha Trang Institute of Oceanography, and the completion and approval of the Management Plan. However, what has already been accomplished by the Project is significant given the short period of time that it has been at work.

The Project Management Unit and the Hon Mun Management Authority have been staffed. MPA training and capacity building workshops have been held at the local, provincial, and national levels. Surveys of biodiversity, aquaculture, and fishing have been completed and will serve as a solid basis for the Management Plan. A comprehensive socio-economic survey of the six villages within the Hon Mun MPA was completed with special emphasis on characterizing the dependence of these villages on the resources of the MPA. A major workshop for stakeholders has been held to identify issues and identify recommendations for management of the MPA. Numerous consultations with local communities have been undertaken to develop a Temporary Zoning Plan that was approved by the Khanh Hoa PPC in 2002. A Patrol and Enforcement Team has been established to enforce the temporary regulations of the MPA. About 40 mooring buoys have been installed to minimize anchor damage to reef areas. A draft Management Plan has been formulated. All levels of government are committed to the Project.

Previous evaluations by Danida and the World Bank have described the substantial successes of the Phase 1 of the Project. Rather than repeat the findings of the previous evaluations, the current Review Team chose to focus on actions that could improve the outcome of the project during Phase 2, Implementation.

The report summarizes the general observations of the Review Team in three general areas: (1) Awareness and Coordination at the National and Provincial Levels; (2) MPA Management, including the basis for plan development, environmental issues, and critical functions of management such as research and monitoring, surveillance and enforcement, and sustainable financing; and (3) Community Involvement, including AIG activities, access to credit, and local participation in MPA planning and management.

The report then outlines a series of actions and recommendations related to these same topics. Specific recommendations include:

- Energizing the National Steering Committee;
- Completing the Management Plan;
- Coordinating Research and Monitoring;
- Increasing Surveillance and Enforcement;
- Ensuring a Smooth Transition from the Project to the MPA Authority;
- Focusing Environmental Awareness Activities;
- Improving Stakeholder Perceptions and Understanding;
- Increasing Community Access to Credit;
- Ensuring Sustainable Financing; and
- Increasing Local Participation in MPA Management.

The original objective of the Project was “...to enable local island communities to improve their livelihoods and in partnership with other stakeholders to effectively protect and manage the marine biodiversity at Hon Mun as a model for collaborative MPA management in Vietnam.” Through its initial results achieved during Phase 1, the Project is well on its way toward accomplishing that objective. Its innovative approaches to protecting biodiversity, while improving the livelihoods of local people, will serve not only as a model of collaborative management for Vietnam, but for the world.

## **1.0 Background**

### **1.1 Project Description**

The Hon Mun Marine Protected Area Pilot Project (the Project) encompasses marine waters around Hon Mun and eight other islands in Nha Trang Bay within the Khanh Hoa Province of Vietnam. The islands, located up to 10 km off the coast of Nha Trang city, are semiarid and infertile. The MPA supports diverse coastal and marine habitats in a relatively small area (160 km<sup>2</sup> or about 62 mi<sup>2</sup>). These include coral reefs, seagrass beds, mangrove stands, sandy beaches, cobble-boulder beaches and rocky shores, often forming spectacular headlands, particularly on the eastern exposed coasts of Hon Tre and Hon Mun.

The site is an “area of highest national priority” for marine conservation in Vietnam. It has internationally important coral reefs with some of the highest coral biodiversity recorded in Vietnam. The area is representative of Vietnam’s south central biogeographic zone that has 65 hard coral genera and is comparable in biodiversity levels to the global centre of coral diversity of Eastern Indonesia, the Philippines, and the Spratly Islands. A total of 44 coral genera has been recorded at the Hon Mun site, with the possibility that other genera remain to be discovered. Despite the pressure from tourism and illegal fishing, Hon Mun retains some of the very few intact reefs in south central Vietnam.

The Project’s 18 month Set-up Phase that ended in 2002 included completion of a marine biodiversity assessment, community involvement in the preparation of the Marine Protected Area (MPA) management plan, design of alternative income generation (AIG) activities and a Sustainable Financing Strategy, development and commencement of capacity building programs, and development and commencement of monitoring and evaluation programs. The Implementation Phase, which started in January 2003, includes implementation and review of the MPA management plan, AIG activities, implementation of a sustainable financing strategy, continuation of capacity building programs, and continuation of monitoring and evaluation, including a review of the marine biodiversity assessment.

The project will assist Vietnam to implement priority programs under its Biodiversity Action Plan (BAP). The BAP has identified the development of a national system of MPAs and the conservation of the Hon Mun as priority actions for biodiversity conservation. The project will contribute to the preparation of the National System of Marine Protected Areas by the Ministry of Fisheries. Hon Mun is the first of 15 planned MPAs that has been approved. It will serve as a model for the other MPAs in the proposed system. Through the development of a multiple-use marine protected area (MPA) that protects important examples of Vietnam’s best remaining coral reef, mangrove and seagrass ecosystems, the project will enable local island communities to improve their livelihoods and, in partnership with other stakeholders, effectively protect and sustainably manage the marine biodiversity at Hon Mun as a model for collaborative MPA management in Vietnam.

## *Final*

The total budget of the project is USD 2.2 million. The project is financed by the Global Environmental Facility through The World Bank (WB/GEF), Danida, IUCN, and the Vietnamese Government.

The Hon Mun MPA project is establishing an effective provincial-level MPA Authority and a system for co-management with local resource users. Implementation of the project involves four components:

- Participatory planning and management by stakeholders
- Development of alternative income generating (AIG) activities to draw people away from activities associated with excessive resource use
- Capacity building through management training and public education
- Monitoring and evaluation of program success

Fishing is a major activity in the area with about 15,000 fishermen based in the vicinity of Nha Trang city. Most of these are employed on large (10-20 m) boats that conduct purse-seine fishing with lights, squid fishing with light by night, and trawling. Inshore bottom trawling is also common. Inshore fisheries have been significantly depleted over the past 10 years, and the mainland pelagic fishing industry is also experiencing declining catches.

The nine islands within the Hon Mun MPA site contain a population of about 5,300 people, 95% of whom derive their income from fishing activities. The islands are home to poor fishing families that work with small boats limited to shallow and sheltered waters. The poorest of the fishermen mostly subsist on a decreasing catch of squid, anchovies, reef-related species for sale and subsistence, and through supplying the local and international ornamental fish trade and from declining marine habitats. They are responsible for a large proportion of the unsustainable fishing practices near Hon Mun, e.g., dynamite fishing, while one village from within the MPA is well known for its use of cyanide. Aquaculture has recently developed intensely, and nearly 30% of the households within the MPA are practicing some form of aquaculture including grouper and lobster culture. The poor socioeconomic conditions of the island inhabitants are a significant issue and focus of the project.

The project expects to achieve sustainability by placing a strong emphasis on building partnerships among stakeholders, establishing a financially self-sufficient management system and providing long-term socioeconomic benefits to the local communities that rely on the resources of Hon Mun. Strong political and community support for the MPA project already exists.

As one of Vietnam's most popular coastal tourist destinations, considerable potential for tourism to contribute financing for the operations of the MPA over time. Nha Trang has about 80 hotels (with several major hotels under construction in the area), 60 tourism boats, and five dive operators. Provincial and municipal government officials and entrepreneurs view tourism as a key economic development strategy. The number of

## ***Final***

hotel rooms in Nha Trang increased from 1,543 in 1993 to 3,143 in 1998. The estimated number of tourists in Nha Trang fluctuated between 1993 and 1998, ranging from a low of 260,000 in 1994 to a high of 390,000 in 1996. Provincial officials estimate that foreign tourists accounted for 15 percent to one-third of all tourists annually during the six-year period. Citizens of France (28 percent), America (10 percent), and Germany (10 percent) accounted for almost half of the foreign tourists. Officials hope to attract double the number of hotel rooms in Nha Trang by 2020 and to attract 1.2 million and 1.8 million tourists by 2010 and 2020, respectively, primarily by increasing numbers of foreign tourists. Goals for foreign tourists for 2010 and 2020 respectively are 660,000 and 1.14 million.

The Hon Mun MPA is also close to the Nha Trang Institute of Oceanography (NIO), Vietnam's main tropical marine research center, the National Fisheries University, and to other training institutions that can play a vital role in building management capacity.

### **1.2 Objectives, Indicators and Outputs of the Project**

The goal of the project is "...to conserve a representative example of internationally significant and threatened marine biodiversity." The overall objective is "...to enable local island communities to improve their livelihoods and in partnership with other stakeholders to effectively protect and manage the marine biodiversity at Hon Mun as a model for collaborative MPA management in Vietnam."

The environmental indicators of the project are: (1) the recovery of coral reefs (increase in live coral cover in the MPA); (2) no decrease in mangrove and sea grass cover; (3) a statistically significant and important increase in the productivity of target fish and shellfish; and (4) no decrease in threatened species.

The project impact indicators include: (1) effective management of the MPA, e.g., the MPA Management Plan is being highly complied with, including elimination of destructive fishing practices and anchoring on corals; (2) adoption of commercially viable AIG activities that promote the MPA goals and result in increased income among target group community members; (3) the MPA management system is financially self-sustaining; (4) effective stakeholder participation in management; and (5) indicators of improved livelihoods among local island communities (to be defined in collaboration with communities during set-up phase).

The project has identified the following "benchmarks" that will be achieved during Phase 1, i.e., after the first 18 months:

#### **Participatory Planning and Management—**

- *Khanh Hoa Management Authority established and fully staffed;*
- *MPA Office constructed;*
- *Management Plan developed and endorsed by all stakeholders.*

#### **AIG Activities—**

## ***Final***

- *Village micro-credit facilities in place; and*
- *At least 10 pilot AIG projects designed with supporting training courses developed.*

### Capacity Building—

- *MPA Training Program, courses, and materials developed, three courses delivered;*
- *MPA Authority Staff trained in MPA planning and management and community involvement;*
- *Environmental Awareness Program developed and information/publicity materials produced and activities initiated; and*
- *MPA Visitors Display constructed in the Nha Trang Institute of Oceanography.*

### Monitoring and Evaluation—

- *Marine biodiversity assessment conducted;*
- *Community-based monitoring program developed;*
- *Baseline awareness survey completed; and*
- *Project monitoring procedures established.*

## **1.3 The Methodology of the Review Team**

The Review Team used document reviews, including two previous evaluations by the World Bank and Danida, and a two field visits in Nha Trang and the island villages of Nha Trang Bay. The visits were carried out by one international expert on integrated coastal management and MPA management (Charles Ehler) and two Vietnamese experts, a senior marine scientist (Nguyen Chu Hoi), who is an expert on marine protected areas, and a social scientist (Nguyen Le Hoa), who is an expert on community-based development. The team conducted both formal and informal interviews and conversations with about 30 national, provincial, and community stakeholders (see Annex 1).

The Project has been inundated with evaluations that have placed a significant burden on Project staff and resources. Danida, in its report, “Evaluation of Danish Environmental Assistance in Southeast Asia,” said that “...[the Hon Mun Project] largely ‘got it right’ first time around as far as the local communities are concerned.” Previous overview missions by the World Bank have emphasized that Phase I of the project was “highly satisfactory and has met nearly all of the planned goals” (Ron Zweig, World Bank). The current Review Team agrees with these findings. ***Rather than repeat the findings of the two previous evaluations, the Review Team chose to focus on actions that could improve the outcome of the project during Phase 2.***

## **2.0 General Observations and Issues**

The project has made outstanding progress and accomplished most of its benchmarks during Phase 1. The initial outputs and outcomes of Phase 1 are especially remarkable given the ambitious scope of the project, and in particular, its focus on community

## ***Final***

participation, co-management, and alternative income generation. Its initial accomplishments, over a relatively short period of time, are hopeful signs of successful and sustained outcomes over the long term. The Government of Vietnam remains committed to the project, and the Ministry of Finance has allocated US\$78,000 through 2005 to Khanh Hoa Province in direct support of the Hon Mun MPA Authority, and US\$137,000 to the Ministry of Fisheries for its work on broadening the program at the national level.

Key activities that have taken place under the project include: staffing of the Hon Mun project management unit and the Hon Mun Management Authority; the establishment of village-level MPA committees in six villages; completion of marine biodiversity and socio-economic assessments of the area; formulation of interim MPA regulations, the establishment of “core zones” and initial enforcement activities; MPA training workshops at the local, provincial and national levels; evaluation of a wide range of AIG activities, including aquaculture and craft production; installation of about 40 mooring buoys; development of public information and environmental awareness activities; and the initial formulation of a draft management plan.

### **2.1 Awareness and Coordination at the National and Provincial Levels**

#### **2.1.1. National Steering Committee**

- A National Steering Committee has now been established to provide guidance and coordination with the MPA Project. The MOFI Vice-Minister for Fisheries (Dr. Nguyen Viet Thang) chairs the committee and appears to be well briefed on the project and its progress (interview, 13 August 2003). He characterizes the Hon Mun MPA Project as a prototype for the national representative system of MPAs currently planned by MOFI for Vietnam. Other members include Mr. Nguyen Minh Thong, Country Representative of IUCN’s Vietnam Office in Hanoi, and the Project’s National Coordinator, Dr. Chu Tien Vinh, Deputy Director, Research Institute for Marine Fisheries (RIMF), Hai Phong. The National Steering Committee has yet to meet formally, but there have been a number of opportunities for sharing the experience gained by the Project at the national level. These include the two-year review attended by 20 representatives from national government and provincial agencies, and a two-day workshop organized by the Project in Hanoi in November 2002 that attracted over 60 participants to share experiences gained through the Project.
- However, it remains important the an effective National Steering Committee meets regularly to ensure that it is effective in diffusing information about the innovative activities of the Hon Mun MPA Project to other managers and professionals within the Ministry of Fisheries and other national level institutions.

Deleted: h

**2.1.2. Provincial Steering Committee**

- An official provincial steering committee has existed since the inception of the Project. The committee, comprised of representatives of provincial level agencies has contributed to the design and implementation of the project, especially its coordination with the authorities, responsibilities, and activities of other provincial agencies.

**2.2 MPA Management**

**2.2.1. Biodiversity Assessment**

- The Project has organized baseline biodiversity surveys throughout the MPA area by a team of Vietnamese scientists with the technical assistance of international experts from Australia, the United States of America (Reef Check), and others. The surveys focused on marine biodiversity assessment at the habitat and species level of popular corals, seagrass beds and some mangroves, as well as fish biodiversity. These ecosystems and habitats are the basis for sustainable fisheries and ecotourism development in the Hon Mun MPA;
- The biodiversity reports for the Hon Mun MPA have been prepared by expert scientists and information collected from the biodiversity surveys have been integrated into a GIS system. The survey results show that:
  - o Coral reefs are a key ecosystem for the maintenance of the ecological function for the Hon Mun MPA and surrounding areas. Sea grasses and some small mangroves play a supportive role;
  - o The biodiversity of corals in the Hon Mun MPA is the highest (over 340 species) in Viet Nam, but the status of coral reef fish is very poor;
  - o The coral cover varies by coral community type at various surveyed sites or locations;
  - o Some locations, for example Hon Noc, were potential core zone sites, but today there are low coral cover and biodiversity, as well as serious threats to these sites;
  - o Sedimentation has increased and is affecting the coral reefs and sea grasses; and
  - o Exploding Crown of Thorns seastar populations have resulted in the death of reef-building corals.
- The habitat maps developed through the Hon Mun MPA Project geographic information system (GIS) provide layers of information on the above characteristics and other factors related to the environment, both inside and outside the MPA area. So, in this way, the biodiversity surveys are providing a basis not only for development of a monitoring program to evaluate the effectiveness of management activities, but also for implementation of functional zoning of the MPA.

### **2.2.2. The Management Plan**

- Effective MPA management plan development requires the participation of stakeholders and local communities. Understanding the benefits of community-based management, the project has undertaken assessments of the local communities and stakeholders structure and their properties relevant to MPA management. These assessments can contribute to the activities related to participatory management of the MPA in the future;
- Representatives of the stakeholders of the MPA and village communities around the Hon Mun MPA have been involved in a number of specific discussions to seek their ideas about the balance between conservation and exploitation that should be identified in the zoning process; these discussions have included diving fishermen, squid fishermen and MPA Village Committee (MPA VC). More extensive consultation will be required, especially involving other coastal and marine users who may cause negative impacts in the MPA area;
- Comprehensive and intensive participatory rural appraisal (PRA) activities have been conducted and completed in all project villages; these surveys have provided a comprehensive understanding for the development of integrated management strategies incorporating the aspirations of local resource users; and
- A need exists not only to prepare proposals and take them to the local people for comments/discussions, but also to facilitate feedback from local people about their expectations—what they think, what they expect, and how they can contribute to the plan.

### **2.2.3. The Zoning Plan**

- Functional zoning is one of the most important components in the preparation of the Hon Mun MPA management plan. Therefore, based on information collected through the above surveys, a draft zoning plan has been prepared based on the original zoning completed in 2001. The zoning plan seeks to balance the needs of the specific resource user groups with the needs of conservation and protection. The results of the biodiversity and community surveys, as well as the assessment of potential and existing threats to the Hon Mun MPA are very useful inputs to develop and change the zoning plan;
- For the zoning plan, IUCN concepts on MPA categories and zoning have been modified and applied in the local context. Based on available scientific information, core zones were identified around Hon Mun, Hon Noc, Hon Vung, and Hon Cau (Hon Noc was later deleted from the list of core zones). New core zones were later added in other islands in the MPA area based on coral community richness (Bai Bung and Bai Be of Hon Tre and Hon Rom);

- The concepts of a “core zone” and “buffer zone” for protected areas in general, and MPAs in particular, have been discussed by many expert groups. The “core zone” means a no-take zone and strict protection; and the “buffer zone” means limited exploitation (e.g., fishing, tourism activities, shipping/port development), in which there are some specific use areas identified depending up the objectives of users such as habitat protection area, aquaculture areas, and recreation areas. Apart from the core and buffer zones, a “general use zone” is also defined as multiple uses and permitted to traditional fishing gear only. This zone is similar with the “transition zone” of IUCN. The Draft Zoning Plan for the Hon Mun MPA, the core zone, buffer zone, habitat protection zone, aquaculture zone, recreation zone and general use zone have all been identified.

#### **2.2.4. Environmental Issues**

- A number of important environmental impacts on the Hon Mun MPA are the result of external sources more than internal sources (i.e., within the MPA site). These include fishing, marine recreation, shipping, tourism and tourism-related activities, especially from land-based sources of pollution. The marine environment and habitats of the MPA are facing negative and potential impacts from cyanide fishing, coastal development, waste discharges into the sea from island villages and rivers, as well as from Nha Trang city, port and tourism resorts (hotel construction both within and adjacent to the MPA). These development activities cause changing seawater quality, sedimentation on reefs, degradation of marine resources, and destruction of key habitats within the MPA. Therefore, an integrated management approach is required to identify and manage these multiple sources from multiple economic sectors effectively;
- The Hon Mun project has already made many efforts to conduct environmental protection activities:
  - Financial support was provided to the Vinh Nguyen Commune to implement a successful waste management system within the Hon Mun MPA;
  - A boat was chartered to transport rubbish from the Tri Nguyen village to the mainland;
  - Prototype composting toilets were constructed for some villages (6 toilets/village); and
  - Some infrastructure was improved for the island villages;
- Initial efforts have been made to control destructive fishing practices such as dynamite, cyanide, and strong light, and the collection of coral within the MPA;
- Marine aquaculture of common and local species has been encouraged to generate alternative income for local people. Unsustainable aquaculture

## ***Final***

activities have been discouraged with the collaboration of other governmental agencies in the province;

- Two restocking activities have been completed successfully in the Hon Mun MPA, including: (1) about 150 rabbit fish released into the Hon Mun MPA after the aquaculture trials; and (2) about 240 individuals of the sea cucumber, *H. Scabra*, released into the Hon Mun MPA after the conclusion of the aquaculture trials;
- An environmental outreach program was presented to the local communities to strengthen their awareness about the environment and marine resources of the Hon Mun MPA area;
- A monitoring program has been implemented in the MPA area with the cooperation of scientific agencies such as University of Fisheries and Institute of Oceanography, as well as local community participation;
- The Department of Science, Technology and Environment (DOSTE) of the Khanh Hoa Province has important responsibilities regarding land-based pollution outside the MPA. The DOSTE has supported local community involvement in environmental protection and management. It provided resources for the program to collect garbage and solid wastes in the province, including the island villages within MPA site; and
- The DOSTE has also established an environmental monitoring network in Nha Trang Bay, but has no sampling/measuring stations within the Hon Mun MPA. Two monitoring stations located in Cai River, Dong Bo River and Nha Trang beach are being monitored for 10 parameters with a sampling frequency of once every two months. The monitoring results of the Hon Mun MPA project (sedimentation and biodiversity) have also been exchanged with the DOSTE.

### **2.2.5. Moorings and Mooring Buoys**

- With the support of international consultants, a *Mooring Buoys Team (MBT) of the Hon Mun MPA* was established and trained, including a boat technician and four local people. The MBT is responsible for the installation and maintenance of moorings in the future;
- A total of 40 moorings and buoys have been installed within Hon Mun MPA. These moorings have been mainly placed around Hon Mun. A *Mooring Buoy Installation Guide* is currently being prepared, which will be written in Vietnamese and disseminated within Viet Nam in the near future; and
- The U.S. National Oceanic & Atmospheric Administration (NOAA) has donated the mooring installation equipment valued at 20,000 USD to the

project. This equipment has been purchased in the U.S. and was delivered to Nha Trang in August 2003. The MBT was trained during the last project period, and now knows how to use the equipment, and has the ability to maintain the equipment.

**2.2.6. Research and Monitoring**

- Applied research and monitoring should play a critical role in guiding the management of the Hon Mun MPA;
- Excellent research institutions including the Institute of Oceanography, the University of Fisheries, and the Research Center for Aquaculture III, are located in Nha Trang and collectively represent an invaluable resource to the MPA;
- The Water Quality Monitoring, Biodiversity Monitoring and Community Monitoring program should be incorporated into a Comprehensive Research and Monitoring Plan, tailored the needs and requirements of the Hon Mun MPA, with specific objectives and performance indicators; and
- It is vitally important that a Scientific Advisory Board or Committee be established to provide scientific guidance to the MPA Authority for the longer term.

**2.2.7. Surveillance and Enforcement**

- National and provincial regulations related to the resources within the area of the Hon Mun MPA have not been regularly enforced over the past 15 years;
- Dynamite fishing, cyanide fishing, and strong light fishing has been reported historically throughout the Hon Mun MPA;
- A draft Enforcement Strategy was completed in 2002. First patrols were initiated in June 2002, and enforcement activity has begun including arrests for illegal fishing practices; more minor infractions have been dealt with through education and awareness raising;
- A patrol presence was established in the Hon Mun MPA in April 2003. Six enforcement officers recruited from the island villages and four enforcement staff from the MPA Authority represent the current capability. The Authority states that the core zone around Hon Mun is patrolled on a 24 hour/7 days a week basis; other areas are patrolled less frequently; and

## ***Final***

- The Authority has two small boats available for patrolling; only one is capable of serious enforcement activity; neither is adequate for patrols in bad weather .

### **2.2.8. Sustainable Financing**

- Two elements of sustainable financing have been developed—a donation system and a conservation fee. The former has not been successful to date; the latter requires approval from the Ministry of Finance to implement. A user charge (Visitor Service Charge) on divers and other users of the Mon Hun MPA has been discussed.

### **2.2.9 The MPA Authority**

- One of the many innovations of the Hon Mun MPA Project has been the creation of the Hon Mun MPA Authority by the People’s Committee of Khanh Hoa Province in March 2002 and the focus of the Project on building capacity of the MPA Authority. The Project has already provided training on SCUBA diving, first aid and boat-handling skills to Authority staff;
- An organizational structure for the new Hon Mun MPA Authority has been drafted and was discussed with the Review Team. Six divisions have been proposed: Administrative, Financial, Community Development, Science & Research, Enforcement, and Environmental Awareness and Ecotourism. The Review Team suggested an alternative organization with more emphasis on the critical management functions of Planning, Monitoring, and Evaluation (see Actions and Recommendations); and
- The current staff of the Hon Mun MPA Project represents an invaluable set of skills and experiences that will be critical to the future success of the MPA Authority when the Project phase is completed; the Review Team is concerned that many of these personnel resources could be lost in the transition from the Project to the Authority due to salary constraints within the provincial government.

### **2.2.10 Environmental Awareness**

- The project has developed an impressive collection of environmental education and outreach activities that has included: the construction of 30 composting toilets in the island villages of the Hon Mun MPA, well covered by local media; ten lesson plans on the marine environment for schools in the MPA; coral sight-seeing tours for schools; participation in a trade fair celebrating the 350<sup>th</sup> anniversary of Khanh Hoa Province; and publication of a Hon Mun MPA brochure and five issues of a newsletter; and

## *Final*

- The proposal to develop a Visitors Display at the Nha Trang Institute of Oceanography has not been implemented while waiting for the remodeling of the public areas of the aquarium. It is important that this activity is undertaken as soon as possible.

### 2.2.11 Stakeholder Perceptions

- In general, the project has had positive effects on many relevant stakeholders (for example, local authorities, advocacy organizations such as the Farmers Union and the Woman's Union, local communities, relevant provincial departments in Nha Trang such as the Department of Fisheries and DOSTE, as well as the Ministry of Fisheries at the national level) in terms of awareness raising about the concept and objectives of establishing the MPA; and varying degrees of support and cooperation has been provided by these different stakeholders at all levels;
- The project has been successful in mobilizing the involvement and participation of relevant stakeholders in the MPA planning and implementation process;
- Local people and authorities recognized that they have received some benefits (for example, electricity, roads, waste collection system, composting toilets), and they observed some improvement/recovery of natural resources in the area (chairman of Vinh Nguyen CPC reported about 30% increase in the availability of fish);
- One very important message has not reached the local people—***even without the establishment of the MPA, their current livelihood is threatened and cannot be sustained forever.*** The need for alternative income must be recognized sooner or later. This situation is their own need; not that of the project. The local people must take a leading role in this process, not the Hon Mun MPA Project. The Project can only support and facilitate, or play a bridging role between the local people and other supporting sources. (This does not imply that the project should deny a need to support local people, but just to define a relevant role of the project);
- Similarly, some other stakeholders (the commune authority, related departments in province) think that the project should (or has to) do the job which actually their own tasks/responsibilities. In fact, the project can/should only support, not replace them. For example, the commune authority thought that their responsibility was to help the project in explaining MPA principles to local people and establishing the village MPA committees. A better definition of the roles should be exchanged between the project and all stakeholders;

## *Final*

- In the beginning, local people enthusiastically supported the idea of the MPA, perhaps due to their high expectations. However, it seems that their belief in, and support toward, the MPA is now uncertain to some extent since their expectation of AIG activities is now lowered to a more realistic level. Maintaining local support is vital to the long-term future of the MPA. Some of the people who violated the temporary MPA regulations and were fined or punished reacted negatively to the enforcement team and project staff; and
- Some village members are not happy with the composting toilet demonstration project. Mr. Huynh recognized that the technology solved some, but not all, environmental problems. Vietnamese experts had advised the Project against the development of shared, public toilets since they could not be maintained effectively. Therefore, a small demonstration project was designed and implemented as a model for other villages to see. The recipients of the toilets were chosen by a lottery that created a sense of inequality within the village. However, the composting toilet demonstration has the potential to raise additional funds from other donors in the future.

### **2.3. Community Involvement**

#### **2.3.1. Alternative-Income Generation**

The project has been very effective in analyzing AIG activities. Many options have been reviewed and considered. Several were tried and tested.

##### *Aquaculture trials*

- A detailed analysis was conducted of “environmentally friendly” and suitable aquaculture species to be considered for trials within the Hon Mun MPA. The analysis suggested that the culture of seaweeds, filter feeders, and detritus feeders were most suitable, while species such as lobster and grouper that were caught in the wild and fed using trash fish caught from within the Hon Mun MPA were not suitable;
- Detailed designs for aquaculture trials (technical design and economic analysis) have been developed and seven trials implemented for those species considered as “environmentally friendly” and seen as appropriate to be promoted for a sustainable AIG activity. The seaweed culture was shown to be economically viable, while other trials demonstrated that the culture species/technological approach were not suitable for promotion as an AIG activity due to low economic viability, seed supply, and mortality; and
- There is an urgent need for a plan for aquaculture development (where, what, how large, what technology, water use rights) in the MPA to ensure that aquaculture development is sustainable and will not affect MPA negatively. Current development of aquaculture, i.e., over 100% increase in the last three years (in particular, lobster) is largely unplanned and is now leading to

## *Final*

pollution, over-crowding, and related issues. An aquaculture master plan is now being prepared.

### *Other AIG activities*

- Non-water based alternatives have also been investigated. Some options were suggested and planned. However, the main comment from local people was that those options will produce only a modest income compared to fishing and aquaculture;
- The “shell curtain” demonstration appears to be good business for now. It may not create a high income, but it is a suitable job for women and children during their spare time. A small income is better than none. According to Ms. Lam, the Chairwomen of Vinh Nguyen commune, currently there is still a potential for expansion of this business to create jobs for more women in the commune. However, now women often work as individuals. Some form of cooperative or group work could create mutual help and improve their business;
- The potential for mainland jobs for young people was also investigated. However, income from these jobs would be rather low (500,000 to 600,000 VND/month) compared with income from fishing and aquaculture activities (see detailed income analysis in the Social Assessment). Moreover, rents on the mainland cost up to 50% of income, so that net income would be only 250,000 to 300,000/month. However, it is still worth considering as an alternative for the poor since their per capita income was less than 300,000 VND/month (Page 54 – 55, Social Assessment report);
- Agricultural activities have been undertaken by local people as additional income to fishing or aquaculture. They provide income of about 1 million VND/household/year. Some support from the project or from other related departments on credit, technique, skill and marketing can create potential for further expansion of the activities and increase of income;
- Investment in the villages often has been at the level of the individual household. Some poor people expressed that they need some form of group or cooperation for mutual help as they often have limited capital, skill and experience;
- Local people could have been more involved in the construction or development of MPA project-supported infrastructure systems that could have created income for them; and
- Tourism (eco-tourism) has been and could be a promising business in the villages. Additional attention should be focused on exploring possibilities for

involving local people in the operation of both tourism and eco-tourism activities.

### **2.3.2. The Credit Scheme**

- Credit is available from formal banking institutions, including the Bank for the Poor, Bank of Social Policy, Vietnam Bank for Agriculture and Rural Development, and other credit programs. Some banks are even under pressure to disburse loans. However, about 40% of the households in the project area still cannot qualify for credit;
- The reasons that village people are often denied credit are many—the banks find poor people a very risky client; the poor themselves are reluctant to apply for a loan; and some of the richer people of the villages may not need loans. In discussions with the Woman’s Union and some local people, we found that one of the main reasons was because the poor do not have a good investment or business plan. According to Ms. Lam, Chairwomen of the Vinh Nguyen commune, some people do not know what to use the borrowed capital for. They are afraid of going deeply into debt. Another quite common problem in the areas was the case of extended family, where several generations live together and are registered as one family. According to Bank regulations, one family can get only one loan regardless the number of people or number of nuclear families in the extended family. In some cases, extended families are willing to be separated. However, it often takes some time (maybe quite a long time) to get through all the paper work, while the need for investment cannot be delayed;
- Even though a very thorough study has been completed on the issue of developing a credit scheme, providing a lot of valuable information, some information is still missing. This information includes the reasons why some households could not access formal banking credit sources; identification of different causes for different wealth categories; estimation of credit demand based on the business plan of households and communities. This information is very important for the development of the approach/strategy of credit support from the project;
- If the main purpose of setting up a project-supported credit scheme with the Bank of Social Policy (BSP) is to improve local people’s access to credit sources, a 10-year contract seems too long and unnecessary in the context where credit is very available from formal banking sources and policy on credit is changing over time. According to the contract between the project and BSP, the project will provide funds and cover risks (if any). The commission for the group leaders or collaborators will be extracted from the interest earned (0.1%). The Bank received the rest of the interest to cover the cost of administration. The contract appears to be unfair since the BSP does not have to bear any risk (it probably can earn some interest). There is no

pressure or incentive for BSP to work hard on getting high rate of payment. If the purpose is to provide interest - subsidized credit to local people, the project only needs to provide funds to cover the different between the normal interest rate of the bank and the subsidized rate and/or some guarantee fund to cover risk (if any).

- The BSP is providing loans to local people at 0.5% interest per month. This is 0.1% lower than the interest rate of the Project Fund with the Credit Fund. Local people chose to take a loan from the Project because it is seen to be providing more support and assisting those poor families that find it hard to access credit;
- The main purpose of the Project-supported credit scheme with the BSP is to improve access to credit for those people who are affected by the zoning within the Hon Mun MPA; and
- One more responsibility should be added to the Hon Mun MPA Credit Scheme Committee—to facilitate the discussion to make the decision about the use of project funds after the termination of the contract. However, the use of project funds after the contract termination should now be discussed with local people. Some suggestions are discussed under the recommendation section below.

### **2.3.3. Local Participation in MPA Planning and Management**

- The project has adopted a participatory approach and has encouraged the involvement of local people in all steps of the MPA Project. However, local people have been involved actively and directly in the implementation phase as well as in planning and management activities. The participatory approach was applied very well in the social assessment (PRA) that allowed the local people to be directly involved in the research and to better understand their situation. During the PRA some representatives from all villages were trained in the PRA methodology, and local people were also educated to have a common understanding about the objective of the PRA. Local people were actively involved in information collection and analysis, facilitated by project staff. Results of the PRA were shared with local people.
- During the planning process, local people (even local authorities) participated at rather a low level, e.g., providing information and consultation. Interviews with Mr. Huynh, Mr. Phu and Mr. Lam (Vinh Nguyen commune) and some villagers indicated that they participated in the project planning process by attending all workshops/meetings to discuss the proposed plan;
- In fact, mobilization of local participation is always very difficult, time consuming, and costly. There are several reasons: (1) the method is very new to them since they have been used to the top-down planning; (2) some people think that public participation is too time consuming; many are eager to get

project started; and (3) in many cases some local people assume that project staff are highly educated and know better what to do. To get local people involved effectively, they must be prepared well through training on the planning process. Project staff also need excellent facilitation skills. The selection of the project planning tool is also very important. The application of the LFA (Logical Framework Analysis) tool is highly recommended. A proper use of this tool will allow local people to understand what they want, why certain activities need to be done, and what is their responsibility. Using this approach could help to improve the involvement of local people in MPA management. People would participate even more actively if they themselves find the need to meet, to discuss their own problems, and their own ideas for contributing to MPA management; and

- Selection of the planning approach is also an important issue that influences the involvement of local people. Working with every individual in six villages at the same time in every activity is impossible. The project worked with local people through their representatives, i.e., the village MPA committee) and/or community organizations, i.e., the Women's Union or Farmers' Union. In most of the cases, the members of the MPA committees were involved in all events organized by the project. After participating in any activity/event, the MPA committee members were responsible for delivering/sharing the information/guidance to local people. This process would work well if the MPA members really represented the interest and concerns of the local people. The Commune Peoples Committee appointed members of the MPA committees. Some complaints were received from local people on the performance of some MPA committee members, and the Vinh Nguyen CPC is going to review and reconstruct the village MPA committees. Effective representation can only be the result of a democratic election by local people. The election would give the local people a feeling of being respected and well represented. Consequently, local people would support their selected representatives. On the other hand, the elected members would also behave more responsibly to their community. Similarly, the direct involvement of local people in the process of regulation development would help to ensure a higher degree of acceptability and compliance. It would take more time to develop regulations through a participatory process but as compensation, it would save time in making local people aware of the regulations;
- Working in a big group of people also limits the participation of local people since time does not allow everyone to participate in the discussion. It is very common that some people who dominate the discussion and others only listen. This limitation leads to the situation that many people will gradually lose interest to participating in future activities. Working in smaller groups (as the Project has done), people have more chance to participate. In addition, the establishment of working groups will create an arrangement under the village level that can share the work with the village MPA committee. The

*Final*

establishment of groups also helps to increase the sense of belonging to a visible institution so that a higher degree of participation can be expected.

### **3.0. Key Actions and Recommendations**

#### **3.1. Energize the National Steering Committee**

- Lessons learned from the Hon Mun Project can contribute to the national system of MPAs being developed within the Ministry of Fisheries. The National Steering Committee should begin to meet at least twice a year (as specified in the Project Plan) to review progress on the Hon Mun MPA Project, to evaluate successes and failures, and to identify lessons learned and experiences that can be used for the design of the national system of MPAs. The National Project Director, the Chief Technical Advisor, and the Vice-Director of the Hon Mun MPA Project should be asked on a regular basis to report directly to the National Steering Committee.

#### **3.2 MPA Management**

##### **3.2.1. Update and Revise the Biodiversity Assessment Database**

- No new actions proposed except periodic updates and revisions to the biodiversity database and GIS.

##### **3.2.2. Complete the Management Plan**

- The Draft Management Plan, including the Zoning Plan, should be completed as soon as possible and circulated widely for comments.

##### **3.2.3. Revise the Zoning Plan**

- To make the zoning approach more consistent with international practices and appropriate to the local context, a proposed classification should be applied for Viet Nam's MPA system planning as follows:

<i>Functional Zones</i>	<i>Use objectives</i>
Core zone (No-take zone)	Strictly protected area
Buffer zone (Limited exploitation)	Habitat protection area <ul style="list-style-type: none"><li>• aquaculture area</li><li>• recreation area</li><li>• anchoring area</li></ul>

- The zoning system presented in the draft document should be revised based on general principles of the national classification of the MPA zoning system and feedback received from key stakeholders, and should be periodically reviewed to find the best resource uses for local communities and coastal resource

## ***Final***

users. The review should be conducted with the full participation by local communities.

### **3.2.4. Monitor and Assess the Effects of Excess Nutrients**

- Because of the potential severe effects of excess nutrients from agricultural and aquaculture operations transported by riverine discharges and seasonal flooding to the MPA area, high priority should be placed on monitoring and assessing these effects.

### **3.2.5. Install Additional Moorings and Mooring Buoys**

- A plan for additional mooring buoy installations beyond Hon Mun should be developed as part of the Management Plan;
- Operational procedures for maintaining the mooring buoys should be written; and
- Moorings and mooring buoys are a new idea and valuable technical tool in operations of most MPAs, and will be used in other MPAs in Viet Nam. Therefore, the Mooring Buoy Team of the Hon Mun Project must be trained not only to be proficient in equipment use, but also to use their practical experience learned in the Hon Mun MPA to transfer to other MPAs in Vietnam in the near future.

### **3.2.6. Coordinate Research and Monitoring**

- Over the past two years, scientific participation in the Hon Mun MPA Project has been active and effective, but only in seminars/workshops or in the form of the small grants. A Scientific Advisory Group should be established as soon as possible to advise the new MPA Management Authority. This group would assist the authority to review and update information for revisions to the management plan;
- Collaborate with local scientific institutions and the Khanh Hoa DOSTE in environmental impact monitoring/domestic waste management on the island villages; and
- Encourage environmental impact monitoring of pollutants from land-based sources (nutrients, BOD, sediment and other contaminants) as well as inputs from rivers by the DOSTE and other responsible agencies. However, the project should cooperate closely with these agencies in sharing information for making MPA management decisions.

**3.2.7. Increase Surveillance and Enforcement**

- Improve compliance monitoring activities within the Hon Mun MPA, with a focus on habitats, biodiversity, sedimentation and destructive fishing methods through the use of performance indicators; and
- A new fast patrol boat, capable of operating in bad weather, should be acquired by the MPA Authority, and/or a cooperative arrangement with the Border Military should be considered to provide enhanced “on-the-water” enforcement capabilities.

**3.2.8. Ensure Sustainable Financing**

- The MPA Authority should continue to work with the Government of Vietnam and especially the Khanh Hoa Provincial Government to seek substantial, permanent funds to support the operations of the Hon Mun MPA;
- The MPA Authority should continue to plan and obtain appropriate authority to implement its MPA Conservation Fee and Visitor Service Charge to supplement permanent governmental funding; and
- The MPA Authority should consider additional user fees, such as a “room tax” on visitors to Nha Trang, or corporate sponsorships of high-profile MPA activities such as Education and Outreach.

**3.2.9. Implement The MPA Authority**

- Need to identify clearly the functions, tasks, authorities, and activities of every relevant unit within the institutional framework for the MPA, as well as linkages between the MPA Management Authority with other local sectors, with provincial government, and line ministries, starting with MOF as the responsible state manager of MPAs in Vietnam;
- The Project and the Authority need to prepare a joint plan for the transition period immediately for the transfer to the MPA Management Authority after completion of the project in year 2005. The plan should include the proposal for the transition phase, the organization of the new MPA Management Authority, a plan to create sustainable financing (budget sources would include the Central Government, Khanh Hoa province, domestic/international donors, tax/fee systems, and contributions from the local communities), as well as a new tentative management plan; and
- The proposed organizational structure for the MPA Authority should be reconsidered along the following lines: (1) the Administrative and Financial Divisions should be combined; (2) a Planning, Monitoring and Evaluation Division should be created that would focus on producing and organizing the

## ***Final***

information required for adaptive management of the MPA over time (Research and Environmental Assessment functions would also be included in this division); (3) a separate Research or Science Division should not be created; (4) an Education and Outreach Division should be created, as well as a Community Development Division and an Enforcement Division—all along the lines of the proposal of the MPA Authority.

### **3.2.10 Focus Environmental Awareness Activities**

- A long-term and more focused plan or strategy for Environmental Awareness should be developed by the Project; and
- The proposed Regional Centre on Marine Conservation Education and Training project needs to prepare a detailed plan that will identify contributions of the various participants. The province should contribute to the infrastructure of the centre (land, office and local staff...), and the donors should contribute technical assistance to develop human resources and equipment. The Centre should also collaborate closely with the existing academic institutions located in Nha Trang City, as well as the National Network of Marine and Coastal Environmental Education and Training.

## **3.3. Community Involvement**

### **3.3.1. Improve Stakeholder Perception and Understanding**

- Increase training on the MPA concept and objectives for all stakeholders, making sure that everyone has common understanding on the idea. The training should be designed in case study form to create in-depth understanding;
- Involve the local community more effectively in all steps of the management process (i.e., development and implementation of the MPA management plan). To encourage the involvement of the community, develop stronger relationships with political/governmental agencies at different levels. Through them, the community activities of the project will become the decisions of political/governmental agencies first, and then those of the unions/associations, and communities. This means that in the context of Viet Nam, both “top down” and “bottom up” approaches are needed.
- Obtain approval of the PPC for coordinating the cooperation all related departments within the province; and
- Ensure that all stakeholders have an appropriate understanding of the role of project (i.e., to support and facilitate, not to replace existing institutions and their authorities)

**3.3.2. Encourage Alternative Income Generation Activities**

- Develop a plan for aquaculture development in the MPA area as soon as possible;
- Educate the local authorities on the costs of aquaculture development without proper planning and persuade them to stop the expansion of lobster culture;
- Promote the idea of the allocation of water surface area for aquaculture and provide water use rights (permanent or temporary);
- Differentiate aquaculture trials from technology tests that require a special arrangement both in terms of financial support and management to make sure that the trials can be applied by local people, under local conditions;
- Encourage cooperation with research projects from various institutes, the University of Fisheries, and other projects should be encouraged;
- Analyze and design some form of group investment or cooperative arrangement. The first experiment should focus on the “shell curtain” group, and then be expanded to other activities on agriculture. A cooperative for offshore fishing could also be studied and tried;
- Consider arranging a daily boat trip between the mainland and islands as one way to improve access to jobs on mainland;
- Create a mechanism to make sure that local people are involved in and earn some income from the construction of MPA project-supported infrastructure or similar activities that produce income; and
- Eco-tourism is being promoted in the area and will be developed further in the future. Local people should be equipped with the knowledge and skills to be able to participate in this business. The MPA project should provide support to educate local people, especially the young generation about eco-tourism.

**3.3.3. Increase Access to Credit**

- Based on the aquaculture development plan and other income generation plans of local people, estimate a total amount of fund required to support those plans. This will create the basis for a cooperative approach with the BSP.
- Make local people more aware of credit regulations, criteria and procedures for obtaining loans. People should also be educated about the meaning of any interest they have to pay; and

## ***Final***

- Support local people with technical skills and market information to help their investment to be more profitable and also secure the loan.

### **3.3.4. Ensure Sustainable Financing**

- A stakeholder analysis should be conducted in terms of who gains? Who loses? What is gained? What is lost? This analysis could be the basis for negotiation of cooperation between project and different stakeholders and also the basis for establishment of the financing system;
- Prepare a proposal for partial subsidies from the PPC for a transition period (1 or 2 years) after project is finished;
- Involve more local people in MPA management workforce to reduce the cost. The principles of “contribution to gain benefits” or “self management and development” should be applied; and
- Take into account the fact that there will be no aquaculture activities in the Hon Mun MPA area in 10-years time.

### **3.3.5. Increase Local Participation in MPA Management**

- Ensure that both the MPA project staff and local people understand that one of the important roles of project is to create a “safety net” for the local community and expose them to different service sources to ensure sustainable improvement of their livelihood;
- Continue to empower local people so that they will be more confident in their participation in project activities;
- Train local people on planning methods (at household, group and village levels);
- Encourage the commune to help local people make their own community development plans (that would be consistent with the MPA project plan) at different time scales (monthly, quarterly, annual). The community development plans should describe expected futures (objectives) of their village in selected periods of time and all the major activities or fields of activity that should be done to achieve the desired objectives, taking into account the issues of demand/need/interest of villagers, their own capacity and resources available, as well as other external support available (the support of the project should be only one source of external support);
- Set up a planning, management, and evaluation system that allows the local people to participate from the very beginning, and then continuously, in the

management including identification of impact indicators, monitoring and evaluation schedule, methodology, responsibility, etc.;

- Consider reviewing and restructuring the village MPA committees through a democratic election;
- Form sub-committees (either on the basis of proximity or according to their common interests/concerns) and use these subcommittees to share the workload of the village MPA committee. Each member of the MPA committee could manage the work of one sub-committee; and
- Schedule training, meetings, and workshops to ensure that the relevant groups can participate.

### **3.3.6. Monitor and Evaluate Socio-Economic Effects As a Basis for Adaptive**

#### **Management**

As discussed previously, the socio-economic assessment has been thoroughly conducted with very high level of participation from local people. It produced detailed and valuable information. However, it also took a lot of time and was very costly. So, it is impossible to repeat this assessment very often. Meanwhile, development is a process that needs to be monitored, reviewed and evaluated regularly to create basic information for planning, revision, and improvement of the plan. To overcome this constraint, the Project should, together with local people, develop a monitoring and evaluation system (a participatory monitoring and evaluation system) by applying the following steps:

- Help local people develop a list of indicators that can be used to measure changes and impacts;
- Review the output from the PRA to extract baseline information for the developed indicators and collect additional baseline information for new indicators that were not identified in the PRA;
- Decide on the methodology for information collection;
- Decide on a monitoring and evaluation schedule;
- Allocate tasks;
- Implement monitoring and evaluation activities; and
- Review and revise the plan (based on findings from monitoring and evaluation)

## ***Final***

### **Annex 1: Hon Mun MPA Project Interviews**

#### ***Wednesday, 13 August 2003, Hanoi***

- Mr. Nguyen Minh Thong, Country Representative, Vietnam Office, IUCN (World Conservation Union), Hanoi
- Dr. Nguyen Viet Thang, Vice-Minister of Fisheries, Ministry of Fisheries, Hanoi
- Dr. Truong Manh Tien, Director General, Department of Environment, Ministry of Natural Resources and Environment, Hanoi

#### ***Thursday, 14 August 2003, Nha Trang***

- Bernard O'Callaghan, IUCN-Chief Technical Advisor, Hon Mun Marine Protected Area Pilot Project, Nha Trang
- Mr. Truong Kinh, Director, Hon Mun Marine Protected Area Authority, and Vice-Director, Hon Mun MPA Project, Nha Trang
- Dr. Hoang Tung, Aquaculture Specialist, Hon Mun MPA Project, Nha Trang
- Mr. Ho Van Thung Thu, Project Coordinator, and now leading the Community Development Team, Hon Mun MPA Project
- Ms. Nguyen Thi Ha Nguyen, Training, Education and Awareness Officer, Hon Mun MPA Project, Nha Trang

#### ***Friday, 15 August 2003, Nha Trang***

- Mr. Nguyen Si Huynh, Chairman, Peoples Committee, Vinh Nguyen Commune
- Mr. Nguyen Van Phu, Head of Farmers Union, Nha Trang
- Ms. Nguyen Thi Lam, Chairwoman of Woman's Union, Nha Trang
- Mr. Mai Van Thang, Head of Environmental Management Division, Department of Science Technology and Environment (DOSTE) of Khanh Province, Nha Trang

#### ***Saturday, 16 August 2003, Nha Trang***

## ***Final***

- Mr. Vo Ngoc Anh, Bich Dam Village Leader and Village MPA Committee Chairman, and representatives of village who have received credit from the project
- Dr. Chu Tien Vinh, National Project Director, Hon Mun MPA Project and Deputy Director, Research Institute for Marine Fisheries (RIMF), Hai Phong

### ***Monday, 18 August 2003, Nha Trang***

- Mr. Nguyen Van Cuong, Officer, Department of Fisheries, Khanh Hoa Province, Nha Trang
- MPA Committee Chairpersons from Six Villages: Vo Ngoc Anh (Bich Dam village); Ton Nu Thi Ky (Bich Dam); Nguyen Van Hien (Hon Mot); Hoang An (Bai Tru-Vung Me); Nguyen Van No (Bai Tru-Vung Me); Ho Van Chau (Vung Ngan); and Duong Thi Que Thom (Vinh Nguyen)
- Ms. Nguyen Thi Thu Hang, Vice-chair of the People's Committee of Khanh Hoa Province
- Mr. Jeremy P. Stein, Rainbow Divers, Nha Trang

### ***Tuesday, 19 August 2003, Nha Trang***

- Mr. Huynh Quang Chau, Vice-Director, Department of Tourism & Trade Service, Khanh Hoa Province, Nha Trang

### ***Wednesday, 20 August 2003, Nha Trang***

- Dr. Bui Hong Long, Vice-Director, Head of Department of Marine Physics, Institute of Oceanography, Nha Trang
- Dr. Tuan Vo Si, Vice-Director, Department of Marine Living Resources, Institute of Oceanography, Nha Trang
- Ms. Do Minh Thu, Head of International Relations Office, Institute of Oceanography, Nha Trang

## **Annex 2: Terms of Reference**

### **Review Mission Hon Mun Marine Protected Area Pilot Project**

**Reporting to:** Country Representative – IUCN Vietnam  
**Duration:** 12 days  
**Location:** Nha Trang, Khanh Hoa Province, Vietnam, and Hanoi

#### **BACKGROUND**

The Hon Mun MPA Pilot Project is being implemented by IUCN in conjunction with the Ministry of Fisheries and the Khanh Hoa PPC. The Hon Mun MPA Pilot Project is seeking to establish the first comprehensive Marine Protected Area in Vietnam and a model for the development of other Marine Protected Areas.

The total length of the project is 48 months structured in two phases. The first is a Setup Phase for the first 18 months of the project. The second phase is the Implementation Phase covering the next 30 months. Clear aims and objectives have been established for both of these phases. This mission will focus on the evaluation of progress towards meeting the objectives of Set-up Phase of the project.

This review mission is seeking to review the “Set-up” Phase of the project. The project is diverse, with areas activities focusing on the establishment of the MPA, development of zoning, increasing local livelihoods, encouraging local participation in management and a range of capacity building activities.

#### **OBJECTIVES**

Specifically, two of the critical aspects of the project are:

- Development of a comprehensive system for the implementation of the management of the Hon Mun MPA. This includes the establishment of an environmental baseline for habitats with the MPA, development of a management plan, the implementation of specific management activities and the increase in understanding of key policy/decision makers in relation to MPAs. Additionally the identification of a mechanism for the sustainable funding for continued conservation and management activities.
- Local livelihoods and local participation in management. Development of a system to support local livelihoods through the provision of credit, technical advice and environmental management. Additionally, to develop a comprehensive system for the participation of local people in the management of the MPA.

Thus the review mission should focus on these two areas of focus. In particular,

#### **MPA Management**

In light of Project Document describing the Set-up Phase, Inception Reports and Semi-annual Progress Reports and through interviews with staff, stakeholders and through a review of outputs:

## ***Final***

1. Provide a general review of the biodiversity surveys to ensure they provide a useful basis for the development of a monitoring program to measure the impact of MPA Activities
2. Provide review of the strategies and plans developed by the project including management plan, in particular objectives stated in the Plan, key activities and approaches
3. Review the establishment of the MPA Authority and provide recommendations for its future development.
4. Review Impact on relevant stakeholders, in particular local people and key government agencies in their support for the Hon Mun MPA in relation to the understanding of the MPA concept, benefits from MPAs and involvement in planning and management of these areas.
5. Review the mechanism for sustainable financing of the Hon Mun MPA. In particular the system developed for sustainable financing of the Hon Mun MPA.

### **Community involvement**

6. Review of the trials developed for AIG activities, aquaculture and other trials
7. Review of the system for the delivery of credit through systems identified by the project.
8. Review mechanisms and approaches for the involvement of local people in the management of the Hon Mun MPA and provide specific recommendations for enhancing local participation.

### **Composition of Review Mission**

It is proposed that the review mission comprise the following specialists:

- **MPA/Coastal Zone Management Specialist (Team Leader) International – 10 days**– A person experienced in the establishment and operation of a Marine Protected Area. This person would have suitable practical experience in coastal zone / MPA management. The background would include tertiary qualifications in marine environmental management.
- **Coastal Zone Management Specialist (National Consultant) – 10 days** - A person experienced coastal zone management in Vietnam. This person would have suitable practical experience in coastal zone / MPA management. The background would include tertiary qualifications in marine environmental management.
- **Community Development Specialist – (National Consultant) – 8 days** This specialist would be have practical experience in development of mechanisms for community involvement in the management of natural resources, in particular in protected areas. The background would include tertiary qualifications in social/ community development related field.

<b>Location</b>	<b>Agencies to visit</b>
Hanoi	<ul style="list-style-type: none"><li>• Ministry of Fisheries</li><li>• IUCN</li></ul>
Nha Trang	
Provincial Government	<ul style="list-style-type: none"><li>• Provincial People's Committee</li><li>• Dept. of Fisheries</li></ul>

***Final***

	<ul style="list-style-type: none"><li>• Dept. of ST</li></ul>
Commune	<ul style="list-style-type: none"><li>• Women's Union</li><li>• Chair, Commune Peoples Committee</li><li>• Farmers Union</li></ul>
Project Office	<ul style="list-style-type: none"><li>• Project Staff</li></ul>
Villages	<ul style="list-style-type: none"><li>• Village MPA Committees – 6 Committees in MPA</li><li>• Recipients of Credit</li><li>• Trial Operators</li></ul>
Tourism Operators	<ul style="list-style-type: none"><li>• Dive Companies</li></ul>
Other Agencies	<ul style="list-style-type: none"><li>• Nha Trang Institute of Oceanography</li><li>• University of Fisheries</li></ul>