

# MARINE BIODIVERSITY & WETLANDS CONSERVATION IN VIET NAM

EXPERIENCES FROM GEF SMALL PROJECTS

Ha Noi, October 2015



**GLOBAL ENVIRONMENT FACILITY**  
INVESTING IN OUR PLANET



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## FOREWORD

Having recognized the important role that households and communities can play in addressing global environment issues, the United Nations Development Programme (UNDP) initiated the Global Environment Facility Small Grants Programme (GEF SGP) in 1992. The GEF SGP provides community based organizations (CBOs) and local non-government organizations (NGOs) with grants to enable them to tackle local environmental issues (of the GEF's focal areas) on the basis of solutions appropriate to local conditions.

The GEF SGP operation is based on the premise that all local people are capable of protecting the environment through their organized actions and measures to control natural resources use; provided with necessary knowledge and information; and well aware that their socio-economic depend on sustainable natural resource management and use. The GEF SGP is not simply a programme, to provide grants for small projects to improve the quality of local environment. More than that the programme also helps countries create enabling environments to contribute to achieving sustainable development and addressing global environment issues through public awareness raising, development of partnerships and strengthening of policy dialogues.

The GEF SGP Viet Nam started its operation in 1999. Almost all of projects fall into such areas as biodiversity, climate change mitigation and adaptation and prevention of land degradation and desertification. Recipients of these projects are local NGOs and CBOs. All the projects have the same focus: to pilot relevant strategies and techniques for tackling local environmental issues and sustainable natural resource use by adopting the community based approach. The projects attach great importance to the objective of building capacity of local communities and people. Evaluation results indicate that a high proportion of the projects that have achieved their set objectives and disbursement rates. Although resources provided for SGP projects are small (USD 50,000 per project), their results have greater impacts and many of them have been widely replicated through other donor funded initiatives and government programmes. Results produced by the SGP projects' contributions have been evaluated highly by local authorities and agencies. The implementation of the SGP projects has significantly contributed to building the capacity of local civil societies and increasing their profile. Over nearly 17 years of its implementation in Viet Nam, the SGP is one of the few effective funded programmes to provide civil societies and CBOs with resources to enable their implementation of projects/ activities in environmental protection and sustainable livelihood development on the basis of sustainable natural resource management and use. As of October 2015, the SGP Viet Nam has provided grants for a total of 140 projects implemented in 104 communes of 40 provinces throughout the country.

This paper of lessons learnt depicts results gathered from several GEF SGP funded projects on marine and wetlands ecosystem conservation implemented in localities in Viet Nam. The paper intends to present relevant information about biodiversity conservation activities implemented in several typical ecological regions of Viet Nam, such as the Cu Lao Cham - Hoi An Biosphere Reserve (Quang Nam province) and Van Long Nature Reserve (Ninh Binh province). The paper also presents some lessons learnt from the implementation of respective projects in order to improve the effectiveness of the management and implementation of GEF SGP projects in Viet Nam

The GEF SGP expresses its thanks to IAP, particularly Dr. Phan Thi Nguyet Minh, Ms. Dang Thi Thanh Thuy, Dr. Chu Manh Trinh and other experts for their contributions, to the paper.

**Nguyen Thi Thu Huyen**  
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# ACRONYMS

GEF	Global Environment Facility
UNDP	United Nations Development Programme
GEF SGP	Global Environment Facility Small Grants Programme
PC	People's Committee
NR	Nature Reserves
IUCN	International Union for Conservation of Nature and Natural Resources
BD	Biological Diversity
CC	Climate Change
ARD	Agriculture & Rural Development



## COMMUNITY-BASED CONSERVATION AND SUSTAINABLE HARVESTING OF LAND CRAB OF CU LAO CHAM, QUANG NAM VN/SGP/UNEP-SCS/09/01

- **Project Implementation Years:** 2009 - 2012
- **Project Site:** Tan Hiep Commune, Hoi An City, Quang Nam Province
- **Implementing Organization:** Tan Hiep Communal Association of Farmers, Hoi An City, Quang Nam province

- **Beneficiaries:** : Local crab catchers, local people involved in tourism operation in the Cham Island, local communities and tourist operators.
- **Biodiversity Area:** the Cham Island's *Gecarcoidea landanii* Ecosystem

The Cham Islands belong administratively to Hoi An city, Quang Nam province, and is a marine protected area (MPA) with great environmental and marine diversity. The island's rich biodiversity includes a species of large crab locally named "Cua Da" (*Gecarcoidea landanii*) of the Cham Island. While *G.lalandii* is a species associated with marine fauna, individuals mainly occur in terrestrial forests and when carrying eggs, females migrate to the coast where they release the eggs in coastal hollows during their breeding season. The Cham Island's *G.lalandii* is considered a "bridge" connecting terrestrial forests with the marine environment and is a biological indicator of the health of terrestrial and marine ecosystems. This is one of the important resources closely associated with local people's lives as it significantly contributes to their livelihoods. Unfortunately, the Cham Island's *G.lalandii* is prone to be severely depleted due to overharvests and a substantial increase in tourists to the island.

From 2010 to 2013, an initiative of "Community Participation in the Cham Island Nature Rehabilitation and Sustainable *Gecarcoidea. landanii* Crab Harvest" was launched by the Cham Island authority and communities with support given by the GEF SGP Viet Nam and the Hoi An City People's Committee (PC) in order to conserve, manage and use the Cham Island's *G. landanii* in a sustainable manner. A model of the Cham Island's *G.lalandii* co-management was effectively demonstrated and received high support from local communities.

## PROJECT BACKGROUND AND OBJECTIVES

The Cham Islands are in the East Sea, 18 km east of Hoi An City and is administratively managed by Tan Hiep Commune, Hoi An city, Quang Nam province. The Cham Islands MPA has an area of 5.175 ha of marine surface and includes about 311 ha of coral reefs, approx. 277 species of coral from 40 genus and 17 families; 500 ha of sea grass grounds; 270 species of marine fish from 105 genus, 40 families; five (5) species of lobsters; 97 species of mollusk and many other species with ecological, economic and seascape values.

The Cham Islands' *G. landanii* is one of important resources of the MPA. Although *G. landanii* is classified as a species of marine fauna, individuals mainly live in caves in terrestrial forests, and during their breeding season females migrate to the coast and lay the eggs in seawater in rocky hollows.

The Cham Islands' *G. Lalandii* has been closely associated with the local peoples' lives for generations. Unfortunately this species is increasingly threatened with extinction by daily increases of tourists to the Cham Islands.

The Cham Islands *G. Lalandii* management takes place in accordance with the Hoi An City Peoples Committee's Direction No.04 issued in 2009 related to the suspension of the harvest of and trade in the Cham Islands *G. Lalandii* with the goal to rehabilitate this species in the Tan Hiep commune. However, illegal harvest and trade activities continue on the island and this trend appears to be uncontrolled in particular during the tourist season from March to September. This makes it difficult to make accurate predictions about the rehabilitation of the Cham Islands' *G. Lalandii*.

In 2010, in cooperation with the GEF SGP and Hoi An City PC, Farmers' Association of Tan Hiep commune launched the project "Community-based conservation and sustainable harvesting of land crab of Cu Lao Cham, Quang Nam" with the aim to rehabilitate Cham Island's *G. Lalandii* and to help local communities to participate directly in the conservation and harvest of this fauna species.

#### Specific objectives of the project included:

- 1 Rehabilitate the Cham Island's *Gecarcoidea. lalandii* ecosystem;
- 2 Harvest, manage and protect the Cham Island's *Gecarcoidea. lalandii* sustainably;
- 3 Conduct further study and collect information to clarify biological and ecological characteristics of the Cham Island's *Gecarcoidea. lalandii* species;
- 4 Build up a co-management model in order to protect and harvest sustainably local natural resources.

## MAIN ACTIVITIES AND INITIATIVES

1. To establish a working group and provide training measures to work together with local communities to improve the conservation of the Cham Islands' *G.lalandii*; and develop the planning and regulations of rational natural resource management, protection and utilization.
2. To organize workshops involving local communities and stakeholders in the discussion of the planning and regulations of sustainable management, protection and use of the Cham Islands' *G.lalandii*.
3. To establish a group of the Cham Islands' *G.lalandii* guards and catchers and develop its operational rules and a community based monitoring programme to monitor sustainable harvest of the Cham Islands' *G.lalandii*, develop a programme for labeling its products; and develop a programme for the Cham Island's *G.lalandii* ecosystem rehabilitation.
4. To design and produce communication materials; and provide training for, and disseminate information among local communities and stakeholders.
5. To establish monitoring teams including members from the Cham Islands' *G.lalandii* group and work together with the marine conservation patrol team.
6. To collaborate with students and volunteers in carrying out the Cham Island's *G.lalandii* research projects; develop the Cham Islands' *G.lalandii* research programmes through fellowship and traineeship. Design a model for the Cham Islands' *G. lalandii* protection and harvest to be adapted to the Cham Islands.
7. To help local communities to develop a small rough model to pilot the culture of the Cham Islands' *G.lalandii* crabs; monitor their growth in the model, collect and analyze data and make reports.
8. To discuss alternative livelihoods with local communities and reach agreement with them; Design relevant activities and estimate costs of models; credits, result monitoring & evaluation; and consolidation of lessons learnt.



# OUTSTANDING INITIATIVES

A theoretical model of the Cham Island's *G. lalandii* Co-management was developed with the message that: "Species *Gecarcoidea lalandii* must be protected for the benefit of the whole community and the conservation of *Gecarcoidea lalandii* is the responsibility of the entire community"

Fig 1: Model of Sharing of Benefits from *Gecarcoidea lalandii* Resources in the Cham Island

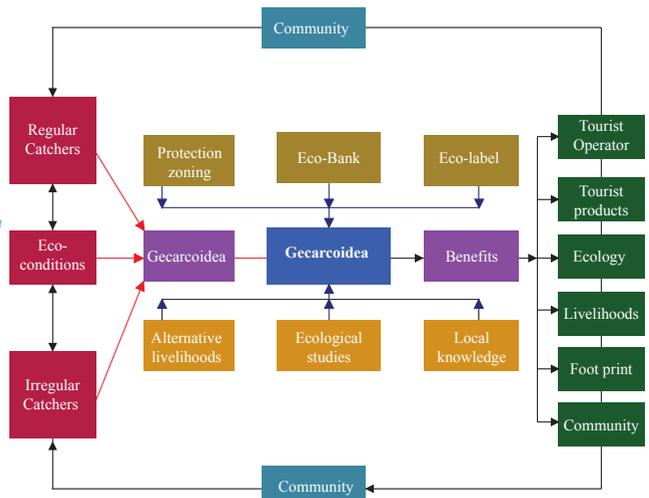
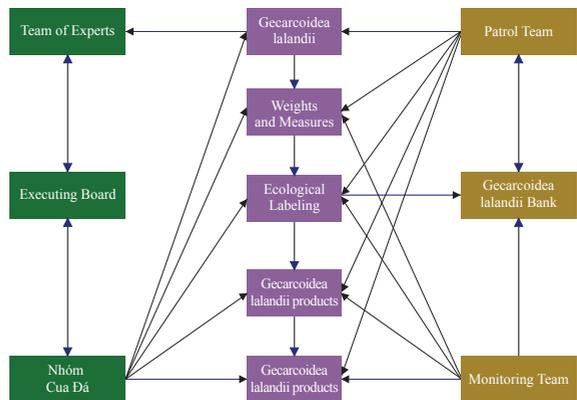


Fig. 2: The Cham Island *Gecarcoidea lalandii* Harvesting Process



## RESULTS AND IMPACTS

### Impact of Biodiversity

#### Conservation of Natural Ecosystems

- The Cham Island's *G. lalandii* is a species that prefers to live in a wet habitat with rich insect and other diverse flora. The sound conservation and harvest of the Cham Islands' *G. lalandii* has contributed to mitigating and adapting to climate change. The Cham Islands' *G. lalandii* conservation activities have enabled local communities to reduce the pressure of marine resource exploitation activities affecting local coral reefs and sea grass grounds – these ecosystems that contribute to reduction in greenhouse gas emissions (through carbon sequestration).

- The community group's activities have strengthened the protection of the Cham Islands' natural forests through their pilot culture of *G. lalandii* crabs at the community level and as the result of the pilot, local people are more aware of the necessity of natural forest protection. Every year, the community group naturally conserves about 75% of the total number of *G. lalandii* individuals through limiting the catching of *G. lalandii* crabs by their size, quantity, season and region.
- The Cham Islands' community group for sustainable *G. lalandii* crab conservation and harvest has managed the harvest by employing an ecological labeling tool. If a crab is harvested in accordance with rules, it will be ecologically labeled and legally sold on the market. Those crabs without ecological labels will be confiscated and returned to forest. The group's members meet in the end of every month to discuss and review their activities and define the quantity of crabs that are allowed to be harvested and the prices for sale for the next month. The *G. lalandii* crabs not carrying eggs are allowed to be harvested according to a fixed quantity, season, size (the width of its shell is not less than 7cm). In three years from 2013 to 2015, there have been 14,486 *G. lalandii* crabs including 9,890 males and 4,596 females harvested and ecologically labeled by the group.

## Socio-economic Impacts

### Social Impacts

- The sound *G. lalandii* crab conservation and harvest in the Cham Islands have contributed to raising awareness of actions among local communities to protect the environment and wildlife at local and national levels.
- The initiative of sustainable *G. lalandii* crab conservation and harvest in the Cham Island represents a proactive approach to protecting the community's right to access to natural resources. The *G. lalandii* crabs is a common asset, and with the model this value is realised and supported. . The Cham Island's *G. lalandii* crab has been well protected and conserved through cooperative conservation and harvest involving various key stakeholders including authorities, businesses, conservationists / scientists and local people.
- For duration of three years, the project involved the participation of local communities and authorities to develop a theoretical framework for mobilizing local people in the protection and sustainable harvest of the Cham Islands' *G. lalandii* crab. Also the project developed a community based model for the Cham Island *G. lalandii* crab protection and harvest through various activities including surveys, communications, workshops and a contest for designing the logo of the *G. lalandii* crab eco-label and a test on its usage, establishment of the community group, development of its convention and provision of equipment and tools for the group.

### Economic Impacts



#### Income Improvement and Market Expansion

- The Cham Islands' *G. lalandii* crab model considers the *G. lalandii* crab group to be its focus. Benefits gained by the group from the harvest of *G. lalandii* crabs are shared with those gained from tourist services. The *G. lalandii* crab is a tourist product that brings in benefits not only for the *G. lalandii* crab group but also for other community groups in the Cham Island.

- The community based model for sustainable the *G. lalandii* crab conservation and harvest has significantly contributed to the conservation of the species in the Cham Island. This is clearly indicated by the fact that 75% of *G. lalandii* crab populations well protected in the island and the income of the group members (43 members) has increased as the price per kilogram of the crab. The price per kilogram has risen from 200,000 VND prior to the establishment of the group to VND 500,000 in 2013, VND 700,000 in 2014 and 850,000 VND in 2015. The *G. lalandii* crabs are harvested from the first of March to the end of July annually with the maximum allowable quantity of 10,000 crabs per year, and the average weight of four to five crabs per kilogram. A fee for eco-labeling charges 40,000 VND for each kilogram of crabs. This revenue will be used by the community group to cover costs of eco-label printing, its management, payment of natural resource tax and other activities.

## Eco-tourism Development

- The initiative of “community group for sustainable *G. lalandii* crab conservation and harvest in the Cham Island” has contributed to local eco-tourism development. The eco-labeling of *G. lalandii* crabs demonstrates the great effort that local community has put into biodiversity conservation and environmental protection. The *G. lalandii* crabs with eco-labels are a tourist product in the Cham Island. Tourists visiting the Cham Island not only enjoy the local natural land/seascapes, culture and so on, but are also being made aware of the local people's sustainable management of the *G. lalandii* crabs. Developed eco-tourism has created opportunities for improving local people's livelihoods and the quality of their lives. In 2013 there were more than 485 people from 169 households among a total number of 560 households, directly involved in eco-tourism activities.
- This model has been and is being learnt and replicated by various marine protected areas in other islands such as Con Co, Ly Son and Phu Quoc.
- Due to local eco-tourism development, the Cham Islands' *G. lalandii* species has been well protected and its commercial value has been increased to better reflect the value of this precious resource and the local community's efforts in undertaking the eco-labeling initiative.

## Policy Impacts

- Upon the completion of the project (Dec.31, 2012), Tan Hiep Communal PC of Hoi An City issued a decision on the establishment of a community group for sustainable *G. lalandii* crab protection and harvest in the Cham Islands on February 2013, and approved its *G. lalandii* crab management regulations and other relevant legal documents in order to ensure all the legalities of the group's operation in the locality as requested by the project. Since then, the group has assumed the responsibility to work together with the local authority and stakeholders to effectively protect the Cham Islands' *G. lalandii* crabs.
- The group has now managed the harvest of *G. lalandii* crabs on the island by employing the eco-labeling tool. *G. lalandii* crabs that are harvested according to the regulations should be eco-labeled and legally traded on the local market while those crabs without eco-labels are confiscated and returned to forest.
- Changes in social resources provided for eco-tourism sector in the Cham Islands are demonstrated by the development, approval and maintenance of community' institutions from October 2003 to October 2013. These institutions have been as the result of common consent to eco-tourism and tourism services among community partners in the island. And the state sector has the responsibility for developing and approving community's commitments to serve as a legal basis to support conservation and eco-tourism development activities in the island.
- The Cham Islands' community model for sustainable *G. lalandii* crab conservation and harvest is now being maintained through coordination between four local partners including authorities, businesses, conservationists/scientists and local people.
- The model has enabled improved effectiveness in the implementation of local environmental and natural resources policies.

## The Sustainability of the Project

- Within three years of its operation after the end of the project (from 2013 to 2015), the initiative assisted local community in conserving more than 75% of the total crab population in the Cham Island while the crab catchers' income continued increasing. The local crab catchers contributed to the local economy by paying harvest fees and tourist numbers have remained high.
- In 2014, the Cham Island's community group for sustainable *G. lalandii* crab conservation and harvest under the supervision and advice of the Tan Hiep Communal Association of Farmers, received financial assistance from the program on Mangroves For Future (MFF) of IUCN to further consolidate the linkage of the four local partners (Authorities, Businesses, Conservationists/Scientist and Local People) based on responsibilities and benefits in order to further enhance the group's capacity to protect and sustainably harvest *G. lalandii* crabs..
- Much research of the *G. lalandii* crabs and models for the Cham Islands' *G.lalandii* crab conservation and harvest has been conducted and developed, and plenty of these studies have been successfully completed by students from various universities (two in Hanoi, two in Hue, and two in Da Nang).

These studies have contributed real results to the local model, including: results gained from ecological research, co-management, benefit conflicts and community awareness.

- Nowadays, the project's outputs including the model for sustainable *G. Lalandii* crab conservation and harvest and the *G. Lalandii* crab with eco-label are of great pride of the locality. Interesting exhibits on the island's conservation and environmental protection are frequently displayed at tourism and environment protection fairs and/or exhibitions organized at local, regional and central levels. Together with other models such as "solid waste sorting at source" and "says no to nylon bags", the model for the Cham Islands' *G. Lalandii* crab eco-labeling is highly regarded by local people, and has earned a positive reputation nationwide.



## LESSONS LEARNT

- 1 Common consent reached by all the stakeholders on sustainable *G. lalandii* crab conservation and harvest in the Cham Islands is crucial and a major determinant of the success of the development and employment of the model.
- 2 Conflicts often arise within the community over local *G.lalandii* crab management. These conflict are on one hand, is a driving force to promote better management processes and is on the other hand, a factor to putting pressure on natural resource conservation and sustainable development. Thus, these conflicts in *G. lalandii* crab resource management need further study to find out appropriate solutions that favor community benefits and sustainable development.
- 3 The *G. lalandii* crab management needs to take the approach of integrated natural resource management, and sharing of benefits among stakeholders in the Cham Island and Hoi An City.
- 4 The Cham Island's *G. Lalandii* species needs further study of its genetic diversity conservation as a flagship species of the island and Hoi An City.

## KEY ACTORS

- Farmers' Association of Tan Hiep Commune, Hoi An City, Quang Nam Province
- Tan Hiep Communal PC, Hoi An City, Quang Nam Province
- Cham Island MPA
- Local Truism Businesses and Services

## SOURCES OF DATA & INFORMATION

- Technical papers, seminar/workshop reports and photos of field activities provided by Tan Hiep Communal Association of Farmers and the Cham Island's Community Group for Sustainable *G. Lalandii* crab Conservation and Harvest.
- Website of the Cham Island MPA and the Cham Island – Hoi An Biosphere Reserve [www.culaochamppa.com.vn](http://www.culaochamppa.com.vn)
- Project's reports.



## REHABILITATION AND CONSERVATION OF NYAPALMS AT CAM THANH COMMUNE, HOI AN CITY, QUANG NAM VN/SGP/UNEP-SCS/09/02

- Project Implementation Years: 2010-2013
- Project Site: Cam Thanh Commune, Hoi An City, Quang Nam Province
- Implementing Organization: Cam Thanh Communal Association of Farmers, Hoi An City, Quang Nam Province

- Beneficiaries: Cam Thanh communal community, and fishermen from Hoi An City and coastal districts in the vicinity of Thu Bon River and local people engaged in tourism services in Hoi An city, Quang Nam province.
- Area of Biodiversity: the Cam Thanh nipa palm ecosystem

Nipa palm is a mangrove species found predominantly in the downstream of Thu Bon River, particularly in Cam Thanh commune, Hoi An City. Nipa palm forest supports a diversity of aquatic organisms and bring in income for local people, who depend on the catching of economically valued species of fish, shrimp and crab. Unfortunately, there is a growing trend in decrease in natural resources due to unsustainable nipa palm harvesting activities taking place in recent years, and this has resulted in the decline of income that local people who depend on fishing in nipa palm forests for their livelihoods.

From 2010 to 2013, Cam Thanh Communal Association of Farmers (of Hoi An city) implemented a project on “*Rehabilitation and conservation of nyapalms at Cam Thanh Commune, Hoi An City, Quang Nam*” with financial assistance provided by the GEF SGP in Viet Nam in order to protect land in the Thu Bon River mouth from erosion caused by waves and winds and contribute to Cam Thanh nipa palm conservation and sustainable natural resources exploitation in this area.

## PROJECT CONTEXT AND OBJECTIVES

Cam Thanh commune is three km south-east of the central Hoi An city. It has a total area of 894, 43 ha and eight villages as its administrative units. Cam Thanh includes an area of wetland of importance and natural resources such as nipa palm forest and sea grass grounds. Cam Thanh nipa palm forest is one of the rich mangrove forest ecosystems found in the downstream of the Thu Bon River and is a rich habitat for species of aquatic fauna in this estuary. Cam Thanh nipa palm forest is also home to various species of aquatic fauna, and it serve as a windbreak and a shelter to protect fishermen and fishing boats along canals from typhoons. Cam Thanh nipa palm forest not only supports the sustainable development of local coastal fishing economy, it also contributes to the development of a community based eco-tourism system.

However, due to unsustainable exploitation activities over recent years, there is a trend in decline in local resources and this has resulted in decrease in incomes from fishing in the nipa palm forest which local people depend on. In 2010, 68.8% of local people's livelihoods depended on fishing in nipa palm forest, by 2013 this figure had reduced to 55.5%.

The GEF SGP funded project on “*the rehabilitation and conservation of Cam Thanh nipa palm forest for eco-tourism and sustainable development*” was implemented from 2010-2013. The objective of the project was to protect and reforest nipa palm forest ecosystems in order to conserve Cam Thanh nipa palm forest, support sustainable use of local natural resources, and contribute to mitigating environmental pollution and contribute to developing eco-tourism.

#### **Specific Objectives of the project included:**

- 1 Rehabilitate Cam Thanh nipa palm forest ecosystem;
- 2 Improve local capacity to manage the nipa palm area effectively;
- 3 Implement sustainable natural resources exploitation in the protected area.

## **MAIN ACTIVITIES AND INITIATIVES**

1. Undertake field surveys and organize community based workshops to discuss about local nipa palm conservation; Organize community based workshops on the planning of local nipa palm zoning and management rules for a working team; and develop regulations on nipa palm management.
2. Mobilize local communities to participate in the rehabilitation of nipa palm forest; develop mechanisms for sharing benefits among communities in land areas where nipa palms are naturally rehabilitated; establish a nursery of nipa palms; and organize the planting of nipa palms over an area of 15ha.
3. Establish a community based network of voluntary watchmen; provide them with facilities and equipment; organize study-tours; launch communication campaigns to raise awareness of benefits from sustainable nipa palm forest protection and harvest.
4. Search for and pilot relevant technical solutions to sustainable nipa palm leaf harvest; launch consultations with local communities about local livelihoods; provide technical and financial supports for local communities to demonstrate alternative income forms.
5. Organize demonstrations and training of community based eco-tourism initiatives; involve local communities in the design of training programs for local eco-tourism development.

## **RESULTS AND IMPACTS**

### **Impacts of Biodiversity**

#### **Natural Ecosystem Conservation**

- The project has contributed to the conservation a native species *Nypa fruticans* Wurmb (or “Bay Mau” in local language) over an area of about 84 ha in Cam Thanh commune.. Nipa palms are now grown along major rivers and small canals in rows of 3-20 meters wide, providing a rich habitat and breeding ground with high biodiversity and economic values.
- The establishment and development of Cam Thanh nipa palm protected area, Hoi An city, in addition to a cluster of Tam Hai coral reef ecosystem protected area in Nui Thanh and the Cham Island’s MPA, has created a network of marine conservation in Quang Nam. This network contributes to conservation and the sustainable harvest of its natural resources offers more sustainable livelihoods for local fishermen.

### **Socio-economic Impacts**

#### **Social Impacts**

- Through the implementation of project’s activities, local people and authorities have become aware of the importance of nipa palm forest and as the result, they have taken active actions to rehabilitate the forest.

- The project has involved all the stakeholders, especially local communities in directly harvesting nipa palms. Through the implementation of project's activities, local communities have realized various values of nipa palm forest and have voluntarily participated in the protection and management of the forest.
- The project has mobilized the participation of local communities in the development of local eco-tourism.

### *Economic Impacts*



#### *Rational Natural Resource Exploitation and Expansion of Production Scale*

- The conservation of Cam Thanh nipa palm forest has efficiently supported local community's livelihoods and local socio-economic development, through nipa palm land/seascapes tourism, fauna and flora resources in the nipa palm forest and harvest of nipa palm leaves. At present, there are 20% of households in Cam Thanh commune rely on harvesting of nipa palm leaves for their livelihoods. Nipa palm leaves are used by local people to make thatched rooves for houses.

- During the project implementation and upon its completion, Cam Thanh has developed and provided the tourist service of homestay in its nipa palm forest (there are about 50 households engaged in this service). Average monthly income from the homestay service accounts from 9 to 12 million VND. Incomes are also earned from other tourist activities such as the rowing of coracles (small traditional boats) in the nipa palm forest provided by the Van Lang village's tourist group (of 27 members), which operates in accordance with rules established by its community. The rowing of coracles is now considered by the villagers a new livelihood that enables the improvement of their daily income. The rowing of coracles has provided another livelihood option for the villagers and increased their income by 21% monthly.



- The income of local people depending on natural materials has increased considerably compared to past years. This can be attributed to the growing demand of customers, stable inputs and outputs, increasing sale prices, and expanding production scales. The highest income of those households engaged in producing products made of bamboo and/or nipa palm accounts from 10 - 15 million VND per month (approximately 23% of the total households). Most of households (46%) earn from 3 - 4 million per month, and 31% earn 6 - 7 million per month. However, the income from the production of products made of bamboo and nipa palm is not enough to cover a household's living costs and therefore many people must do additional jobs to earn more income for their families.



### *Eco-tourism Development*

- In Cam Thanh commune, eco-tourism is based on the principles of nipa palm conservation and sharing of benefits among local people. The local community are important players in the conservation of nipa palm forest that serves as base for maintaining local eco-tourism.
- Products made of bamboo and nipa palm by Cam Thanh craft village now are unique tourist products. The conservation of Cam Thanh nipa palm forest has created a stockpile of these materials for the craft village. Therefore, the planning of the craft village development needs to take into consideration the benefits gained from the conservation of nipa palm forest.

- The rowing of coracles in the Cam Thanh nipa palm forest is a prospective livelihood. In recent years, the number of local households engaged in this tourist service has been increasing and this has resulted increased income from this service. Average monthly income of households engaged in providing coracle rowing service increases to 4.5 million VND from 3.7 million VND they earned before this tourist service was offered.

### **Policy Impacts**

- A community group of 27 tourism operators operate in accordance with rules discussed and agreed to by the local community. The local eco-tourism has been developed based on the principles of nipa palm forest conservation and benefit sharing among local people.
- The project has involved local communities, authorities and businesses participating in the exploitation of resources from the nipa palm forest in a well coordinated manner to support local livelihoods and eco-tourism development.

### **The Sustainability of the Project**

- Upon the completion of the project, there are four community groups established in Cam Thanh commune, which are engaged in aquaculture, bamboo and nipa palm craft, rowing of coracles and tourism service. Every year, the city provides three training courses for local people (about 25-30 participants each of course) in order to improve their capacity in eco-tourism operation. In addition, every year the commune also holds three meetings to provide all members of the community groups and opportunity to exchange their experiences in eco-tourism operation.
- Every year, Cam Thanh receives 10,000 tourists, and most of them are provided with services by local hotels, travel companies, or “homestay” operators. There are few opportunities for local people to earn incomes from these tourists and thus, few or no funds are available to invest in the rehabilitation and conservation of local natural resources and/or land/seascapes as common community assets. The locality has proposed to extend “a system” for charging entrance fee to the Cam Thanh ecological buffer zone in order to diversify financial resources to facilitate the community participation.
- During the project implementation and upon its completion, there were many research projects developed and undertaken. The results produced by the projects are the beginning of eco-tourism development in the Cam Thanh nipa palm area contributing to the improvement of local community’s livelihoods and socio-economic conditions as well as regional biodiversity conservation.

## LESSONS LEARNT

1. It is necessary to integrate benefits of the community groups with the conservation and sustainable utilization of nipa palm forest in Cam Thanh, Hoi An.
2. Further study and analysis of benefits gained from the Cam Thanh nipa palm forest need to be undertaken in order to involve local people, stakeholders and authorities participating in integrated natural resources management of the estuary of Hoi An city.

## KEY ACTORS

- Farmers' Association of Cam Thanh Commune, Hoi An City, Quang Nam Province
- Cam Thanh Communal PC, Hoi An City, Quang Nam Province
- Communities in villages of Cam Thanh Commune, Hoi An City, Quang Nam Province
- Local Tourism Businesses and Services

## SOURCES OF DATA & INFORMATION

- Seminar/workshop documents and reports, videos and photos of project's field activities provided by Cam Thanh Communal Association of Farmers.
- Website of the Cham Island MPA and the Cham Island -Hoi An Biosphere Reserve <http://www.culaochammpa.com.vn>
- Project's reports.



## CONSERVATION AND SUSTAINABLE USE OF CORAL REEF ECOSYSTEMS IN TAM HAI COMMUNE

VN/SGP/UNEP-SCS/09/02

- Project Implementation Years: 2010-2013
- Project Site: Tam Hai commune, Nui Thanh district, Quang Nam province
- Implementing Organization: Women Association of Nui Thanh District, Quang Nam province
- Beneficiaries: Local fishermen, aquaculture households and others in the project area (including poor ones), local authority, sea and fishery management agencies.
- Area of Biodiversity: Marine coral reef ecosystem in Tam Hai

Quang Nam, a coastal province in Central Vietnam, includes diverse ecosystems with a number of coral reefs, mangroves and sea grass grounds. While providing food for the local inhabitants, these ecosystems also help shield the area from possible natural hazards. Nevertheless, due to the pressure exerted from the economic development, population growth and the local people's need for livelihood, it has been estimated that over the past few years, over 85% of coral reefs in the province have been subject to mid-and- high level risk, 50% threatened by over-exploitation, 47% by sedimentation and 40% by coastal developments.

Tam Hai commune, an island commune in Nui Thanh district, Quang Nam province, boasts a lavish marine ecosystem with over 41 seaweed species, 168 fish species. The coral reefs in the Thuan An village are a key breeding grounds for aquatic species in region. Tam Hai commune has been planned by the provincial authority to become a special tourist destination located in a non-trade area of Chu Lai open economic zone.

From 2010 to 2013, the GEF SGP supported the implementation of the project on "*Conservation and sustainable use of coral reef ecosystems in Tam Hai Commune*" in order to preserve and use the coral reef ecosystem sustainably in that area. The establishment of the coral reef ecosystem protection area in Tam Hai in combination with the Cham Islands' MPA and the Cam Thanh nipa palm forest protected area (in Hoi An) constituted a network of marine conservation for Quang Nam province, which contributed to the enrichment of the marine conservation benefits, marine biological resources and the improvement of the local fish resources and local fishermen's living conditions.

## PROJECT CONTEXT AND OBJECTIVES

Thuan An village, Tam Hai commune, Nui Thanh district, Quang Nam province is home to 364 households with 1426 people who mainly depend on the exploitation of marine products in the coral reefs and coastal areas. The fishing hamlets are surrounded by sandbanks each in between rock cliffs along the coast of four km long. These sandbanks are connected to the highly biodiverse coral reefs.

Recent studies showed that there were in the sea area of Thuan An over 90 coral reefs with approximately 100 species which consisted mostly of deer-horn shaped coral reefs and coral reefs in blocks. Within the coral reef ecosystem in Tam Hai, there are 41 seaweed species and 168 fish species including many fish species of high economic value such as grayling, grouper, species of lobster and beautiful snails and aquatic species with potential pharmaceutical applications. Of particular interest was the fact that reefs in Thuan An village could breed well for this seawater. Nevertheless, due to the pressure exerted from the local economic development, population growth and the local people's needs for livelihood, over the past years, the coral reef ecosystem in Tam Hai was seriously threatened by the uncontrolled exploitation of the resources. This has caused damage to coral reefs, a decline in resources due to the off-season catching and catching of premature aqua species and contamination caused by waste and waste water disposal. In the 2006-2008 period in the southeastern part of Hon Dua islet, as a recovery gesture, 1300 coral colonies were planted on artificial shelves on original rock floors lying 2-6 m deep in clear seawater in a surface water area of 500 m<sup>2</sup>, which is protected by a buffer zone of 5ha.

From 2010 to 2013, the Thuan An village community in association with the Women's Association of Nui Thanh district participated in the implementation of the project on "Conservation and sustainable use of coral reef ecosystems in Tam Hai Commune" funded by the GEF SGP Vietnam. The project was designed with the purpose of conservation and sustainable use of the coral reef ecosystem resource in contribution to marine environment protection and eco-tourism development in Thuan An village, Tam Hai commune, Nui Thanh district, Quang Nam province with the adoption of community approach.

### Specific objectives of the project included:

- 1 To promote the role of ownership played by the community in the conservation and sustainable utilization of the coral reef ecosystem in Thuan An village;
- 2 To enhance awareness, understanding and technical capability, and set up a demonstration model for community based coral reef ecosystem conservation and sustainable utilization in Tam Hai;
- 3 To assess the outcomes and withdraw lessons and experiences, to prepare technical manual for the demonstration model in order to widely replicate it to other localities with similar conditions.

## MAIN ACTIVITIES AND INITIATIVES

- To set up working groups that included representatives from various concerned local authority departments to provide guidance to the community in developing plans and drafting the management regulations. To establish the management unit of the Tam Hai coral reef protected area and three community based groups whose duty was to protect the coral reef ecosystem, control the sustainable exploitation of the aqua products and develop the community based eco-tourism. To provide the necessary facilities and equipment for patrol and monitoring boats, community based tourist establishments, glass-bottomed boats, life buoys, diving equipment and sign boards. To provide loans for poor women who worked in the core conservation zone on the reefs to shift into more sustainable livelihood options. .

### **Main activities carried out:**

- Developing the planning of protection zoning and working out the regulations for the management and planning of protection sub-zones; drawing charts of 1,5000 scale and submitting them to the higher authority for approval and promulgation.
- Working out regulations for the operation of the Management Unit and the community based groups.
- Developing plans for the operation of the community based groups in protecting and monitoring the coral reef ecosystem; in sustainably exploiting aqua-products; and in developing community based eco-tourism in accordance with approved plans.
- Working out schedules and seasons for exploitation, and regulations for the community to manage, exploit and protect the resources according to approved plans; setting up rotary debts to support the community in its sustainable aqua-exploitation and aqua-culture.
- Embarking on monitoring the work of conservation and sustainable use of the coral reef ecosystem resources according to approved plans.
- Embarking on the development of community based eco-tourism including the establishment of local tours (to see coral reefs, local production activities, places of cultural and historical interest); organizing and promoting local tours in glass-bottomed boats to see coral reef ecosystems; providing food and beverage services; offering local made products; designing and promoting tourist services in connection with local socio-cultural activities;
- Setting up financial management mechanisms for community based eco-tourism development.
- Providing supports for local people in establishing relations with various banks, and supports for the community in designing projects to obtain loans from banks to finance sustainable aqua production models that proved successful.

### **Enhancing the capacity of the community in coral reef conservation**

- Providing training courses to develop planning capacity for commune and village officials in Thuan An; organizing eight technical training courses for 400 person/times attended by the Management Unit members and members of key community based groups as well as members of other project participating groups;
- Organizing two contests for the community and schools on issues relating to environmental protection and use of natural resources in marine environment and coral reef ecosystems;
- Organizing study visits to other locations (reefs in Khanh Hoa province, and Nui Chua in Ninh Thuan province).

## **RESULTS AND IMPACTS**

### **Impacts of Biodiversity**

#### ***Conservation of Natural Ecosystems***

- The project successfully established a community-level coral reef ecosystem protection area covering an area of 1700ha including a core zone of 13,12ha, a rational exploitation area of 1.537ha, a community development area of 54,4ha and a tourist development area of 50ha. The remaining area is included in Mui Ban Than (Ban Than Cape), Hon Dua Islet, Hon Mang Islet.
- The establishment and development of the Coral Reef Ecosystem Protection Zone in Tam Hai, Nui Thanh in combination with the Cham Island's MPA and the Cam Thanh Nipa Forest Protected Area in Hoi An constituted a marine conservation network in Quang Nam, contributing to the multiplication of conservation benefits and enriching the marine biological resources, enhancing the abundance of fish and improving the living conditions of the coastal fishermen.

## Socio- economic Impacts

### Social Impacts

- The project successfully encouraged the community to participate in sustainable exploitation of marine resources, in developing eco-tourism, enhanced capability in management, protection, reasonable and sustainable exploitation of natural resources, preserving the environment and the biodiversity of the coral reef ecosystem in the locality.
- The project provided support in obtaining capital loans for those women who mainly earned their living in the core zone of the Tam Hai Coral Reef Ecosystem Protection Area so that they could shift to the environmentally friendly jobs, contributing to the conservation and sustainable utilization of the coral reef ecosystem. The project supported 20 poor households with loans so that they could still reap the benefits from the resources of the protection zone by having access to and participating in several alternative livelihoods in order to earn additional income besides their fishing. The micro credit revolving scheme is still running to support community.



### Economic Impacts

#### Rational natural resources exploitation and production scale expansion

- The reasonable exploitation and use of fishery resources and natural resources from the coral reef ecosystem and the seaweeds in Thuan An gave over 90% of the fishing households in Thuan An village considerable economic benefits, resulting in an annual income of over 8 billion VND only from catching lobsters in coral reefs;



- In Thuan An, there were about 200 small boats used in harvesting seaweeds in harvest season that usually lasts 3 months (20 catching days/month x 3 months x 200 tons/day = 12000 tons). However, the harvest of seaweeds should be reconsidered from the point of view of environmental protection and that of reasonable harvest of this type of resources.

Photo: baoquangnam.com.vn

### Development of Eco-tourism

- The project introduced eco-tourism to the community on the basis of coral reef conservation;
- The project also organized some pilot eco-tours in the project area for the community to study.

### Policy Impacts

- The project worked out regulations for the operation of the coral reef ecosystem protection zone in order to protect all targeted species such as corals, sea grasses, seaweeds especially to protect the core zone and the reasonable exploitation zone. The project came up with concrete regulations that helped ease the pressure on the exploitation by banning or limiting types of exploitation that might lead to destruction of species, or by periodic banning and banning of some exploiters.

- The project established community based groups which included an environmental sanitary group as a key group in the village's solid waste management. The community in Thuan An village held discussions and came up with the zoning of the area and the regulations on the coral reef ecosystem protection area in Tam Hai. The local inhabitants also formed their own working groups such as the coral reef patrol group, the eco-tourism group and the waste collection and disposal group.
- The project involved the participation and cooperation of the local authority, the border guard unit and the fishery inspectorate in the protection of natural resources.

### The Sustainability of the Project

- The project helped establish the Management Unit of the Tam Hai Coral Reef Protected Area and 3 community based groups whose responsibility for protecting the coral reef ecosystem, managing sustainable fishery exploitation activities and developing community based eco-tourism. These groups are presently operational on a voluntary basis, joining their efforts in designing the regulations on operation for themselves and the Management Unit.
- The results obtained the Tam Hai Coral Reef Ecosystem Protection Area were just initial steps but Thuan An village community people's efforts in the last nearly 10 years have been of great significance in the conservation and rational exploitation of natural resources and the protection of the environment in their locality. Today, the local authority and people are continuing their coordination with concerned agencies and organizations in sharing responsibilities of protecting the environment, the coral reefs and the related resources of potential benefits in order to keep exploiting and using them in a sustainable manner, thus contributing to the local socio-economic development;
- Still in place now is the scheme of rotary loan valued at 100 million VND (approximately 4,500 USD), started in 2011 and supported by GEF SGP for investment in food and beverage service, animal husbandry and development of reasonable fishery exploitation managed by the Women's Association of Nui Thanh district, Quang Nam province under the project "Loans to support the livelihood of women in Thuan An village". The beneficiaries of this scheme are those women whose family livelihood mainly depends on the core zone of the Tam Hai Coral Reef Ecosystem Protection Zone in Thuan An. Each loan is valued at 5 million VND per household for a 24 month period with a monthly interest rate at 0.65% (7.8% annually);
- During the implementation and after the completion of the project, many studies were proposed and successfully conducted, resulting in several suggestions and recommendations to support conservation and development schemes in Thuan An village, Tam Hai commune. These included studies on the construction of artificial reefs, the treatment of solid waste, coral reef eco-tourism, thus contributing to the future improvement of the community livelihood, the local socioeconomic development and the regional biodiversity conservation.

## LESSONS LEARNT

1. Coordination and links should be established with training institutions in conducting researches and training courses so as to strengthen the managerial resources and capability paralleled with communication activities to raise the community's awareness of and capability in the conservation and rational utilization of the local marine resources.
2. Importance should be attached to the community approach so as to translate information about the ecosystem management into knowledge of and experience in managing their local ecosystems in Tam Hai.
3. Solid waste and environmental sanitation issues of the Tam Hai beaches should be addressed by the village, commune, district and provincial levels in a well matched and coordinated manner.
4. The Tam Hai coral reef ecosystem would not have been well managed without adopting an approach based on the integrated coastal zone management.

## KEY ACTORS

- The Nui Thanh District Women's Union, Quang Nam province (Project Steering Committee)
- The Tam Hai Communal People's Committee, Nui Thanh district, Quang Nam province
- Local authority of Thuan An village, Tam Hai commune, Nui Thanh district, Quang Nam province
- Thuan An village community, Tam Hai commune, Nui Thanh district, Quang Nam province
- Ky Ha Border Guard Station
- Nui Thanh District Division of Agriculture and Rural Development
- Quang Nam Provincial Fishery Inspectorate

## SOURCES OF DATA & INFORMATION

- Workshop documents, papers and reports, video clips and photos of the Project of the Women's Union of Nui Thanh district.
- Website of the Cham Island's MPA and Biosphere Reserve – Hoi An, Quang Nam  
<http://www.culaochamppa.com.vn>
- Project performance reports



## DEVELOPING A COMMUNITY PROJECT TO CONTRIBUTE TO BIODIVERSITY CONSERVATION OF VAN LONG WETLAND NATURE RESERVE IN GIA VIEN DISTRICT, NINH BINH PROVINCE

VIE/01/008

- Project Implementation Years: 1999 – 2004 (2 phases)
- Project Site: 7 communes in the buffer zone of the Van Long Wetland Nature Reserve (namely Gia Van, Gia Hung, Lien Son, Gia Hoa, Gia Lap, Gia Tan and Gia Thanh)

- **Implementing Organization:** Farmers' Association of Gia Van Commune, Gia Vien Dist., Ninh Binh province
- **Beneficiaries:** Communities of seven project communes, students from primary and secondary schools and communal authorities
- **Area of Biodiversity:** Van Long wetlands ecosystem

Van Long Wetland Nature Reserve is located in Gia Vien District, Ninh Binh Province. The Reserve is home of the Delacour's langur which is listed by the IUCN – Primate Specialist Group as a critical endangered species and on the list of the 25 world's TOP most endangered primate's species. However, due to low environmental awareness and low standards of living, the local community has over-exploited the Reserve's resources for their daily livelihoods, resulting in the biodiversity loss and deforestation. In addition, illegal hunting from local residents and outsiders was also a big problem in the area and a major threat to biodiversity conservation. Although the Province has designated the area as a local nature reserve, there is very limited investment in the reserve management and protection.

The project on *“Developing a community self-governing model for Van Long biodiversity protected area management, protection and restoration in Gia Vien district, Ninh Binh province”* financially assisted by the GEF SGP for seven communes in the buffer zone of the Protected Area, was aimed at building the conservation capacity and encouraging the participation by the community in the conservation and sustainable use of Van Long wetland biological resources and ecosystem.

## PROJECT CONTEXT AND OBJECTIVES

Van Long, the first wetland nature reserve in mainland in Viet Nam, covers an area of 3000ha with a high biodiversity and many precious species of fauna and flora listed in Vietnam Red Book, especially the Delacour's langur – a unique species in Vietnam and one of the top 25 most endangered species of primate subject to extinction globally. Nevertheless, the biodiversity and the environment in this reserve were threatened by socio-economic development activities, especially the impacts caused by the local communities. The main threats posed on the biodiversity came from the logging and the over-harvest of timber for firewood, resulting in deforestation in most parts of the reserve. The natural regeneration of forest vegetation was very limited due to the grazing of goats on limestone mountain while limestone exploitation also caused harmful impacts to the natural environment.

Realizing the threats as well as the advantages in environmental protection in general and biodiversity conservation and sustainable development of natural resources in particular, the Ninh Binh government attached importance to the build-up and planning of biodiversity conservation. Several international organizations such as SIDA, SEMA, and GEF supported the nature reserve through training courses provided for the communities, which helped enhance the capability in the protection of the environment and biodiversity resources.

The project "Developing community self-governing model of Van Long biodiversity protected area management, protection and restoration in Gia Vien district, Ninh Binh province", funded by the GEF SGP Vietnam, aimed to develop a model of integrated conservation and development which promotes the community participation in the conservation and sustainable use of biological resources and the riverine wetland ecosystem of the Van Long nature reserve.

The project also aimed to establish and test an environmental education curriculum, incorporating teaching biodiversity conservation in other relevant subjects at primary and secondary schools, using the nature reserve as an example for school teaching and learning activities on environment and biodiversity conservation.

#### **Specific objectives of the project included:**

*1* To contribute to the management and protection of the nature reserve through the establishment of community protection groups, work out the community's regulations, build the local capacity in managing the nature reserve;

*2* To reduce the community pressure on the natural resources of the nature reserve by creating alternative livelihoods for the local community that would contribute to hunger eradication and poverty reduction in the area;

*3* To raise environmental awareness, knowledge of biodiversity and understanding about GEF and GEF SGP among the community, the local leaders and other stakeholders;

*4* To enhance the communal Association of Farmers' capacity in managing the environmental project, establish partnerships between local authority levels so as to support the community and the Association of Farmers in addressing environmental issues and in promoting sustainable development.

## **MAIN ACTIVITIES AND INITIATIVES**

1. Building the local capacity in managing and protecting the nature reserve. Organizing training workshops and study visits on managing and protecting the nature reserve, on skills to organize environmental awareness raising activities.
2. Establishing community protection groups, working out the community's regulations on managing and protecting the nature reserve.
3. Carrying out activities in environmental awareness raising and environmental education.
4. Providing technical and financial supports for targeted community members to carry out income generation activities for the local households

## RESULTS AND IMPACTS

### Impacts of Biodiversity

#### *Conservation of Wetland Ecosystem*



- Before the establishment of the Van Long Nature Reserve, some households depended on such activities as harvesting of firewood, hunting and fishing in the wetland for their livelihoods, which put pressure on the Reserve. During the project timeframe (1999 – 2004), that pressure considerably lessened, and by 2004 negative impacts on the reserve were reduced through the termination of such activities as mining of rocks, collection of ornamental rocks, ornamental trees and plants, peat, hunting, goat grazing on limestone mountains. Within the wetland, there had been no more fish and crab catching by using electric charging and small stitch net, or grazing of cow, buffalo and duck.
- Forest coverage had increased by 25 – 30%, and the Delacour's langur population had increased from 40 individuals in 1999 to 90 individuals in 2013. Recently, some red faced monkeys, though to no longer exist within the area have been sighted. . There are now three bird sanctuaries which mainly consist of storks, herons and egrets whose number of individuals is growing as the environment is getting cleaner and quieter.

#### *Raising Awareness of Wetland Ecosystem Conservation*

- Environmental educational programmes and extra-curricular activities were designed and carried out as pilot ones at primary and secondary schools. The subject of biological conservation was integrated with other related subjects such as biology, geography, chemistry, etc...The nature reserve was used as an illustration and demonstration in the schools' teaching and learning activities on environmental protection and biodiversity conservation;
- Environmental contests and campaigns held on the occasions of, say, World Environment Day, Biodiversity Day involved active participation by the community;
- Many training workshops and study visits organized by the project for commune leaders, mass organizations and community protection groups helped widen their knowledge of and enhanced their skills in managing the nature reserve.
- A network of public loud speakers installed to help disseminate effectively information about and raise awareness of the nature reserve and the central government's programmes and policies among the community.

## Socio-economic Impacts

### Social Impacts

- The project beneficiaries were given opportunities to participate in project management training courses, in exchanges of experiences, and in study visits to other GEF SGP projects. The success of the project made itself more reliable to local governments and the community;
- The project beneficiaries established close working relationships with the Nature Reserve Management Unit and the concerned departments of the local authority such as the provincial Department of Science, Technology and Environment (DOSTE); and Department of Agriculture and Rural Development(DARD); as well as some scientific institution at central level such as the Hanoi National University and the Vietnam Ecological Association;
- Seven community protection groups were established and had close cooperation with the Nature Reserve Management Unit in protecting the reserve. The community's regulations on the Nature Reserve management and protection were developed and approved by the authorities of the project communes, and enforced throughout the community;
- All results obtained by the project contributed to the achievement of the project objectives for the province in particular and to the conservation of the Van Long Nature Reserve in general;
- The creation of alternative livelihoods for the local community previously depending on natural resources of the reserve for their daily subsistence helped lessen the community's pressure on natural resources of the reserve, which contributed to hunger eradication and poverty reduction.

### Economic Impacts

- The project provided technical support (through technical training and study visits) and financial support (through the rotary debt loan scheme) for 100 households in their animal husbandry – the main source of income for the community in the project area. Cows and pigs of new breeds were raised. Technical trainings in veterinary and breeding were conducted;
- For the treatment of animal wastes, a model of biogas generation was developed and there were seven biogas digesters built in each commune (42 in total under project) for demonstration. And 70 households were provided loans to build biogas digesters for their use;
- In Phase 1 of the project (1999) a fish- rice- blue legged prawn culturing model was a success, which in Phase 2 was widely replicated in seven communes in the buffer zone. There are now 200 models compared to 40 models in 2002.

### Development of Eco-tourism

- Van Long was selected by Ninh Binh province as a model of community that self-governed and self developed its tourist service with the commune authority directly managing the community's tourist business;
- The tourist service station, established in 2000, is still operational now with 13 staff.



## Policy Impacts

- The project developed and applied a cooperation mechanism that involved 7 communes in protecting the Nature Reserve. All project management principles were designed and applied with transparency and democracy.
- The GEF SGP and those concerned local agencies such as DARD; Department of Education and Training (DOET) and the Van Long Nature Reserve Management Unit assisted the project beneficiary in developing the project plan and making available the committed financial contributions from the provincial and communal PCs;

## The Sustainability of the Project

- The GEF SGP is the first donor to provide technical and financial support for the conservation of the Van Long Nature Reserve (established in 2001). The reserve management unit was set up by the Ninh Binh Provincial People's Committee and its office is located in Gia Van commune;
- The GEF SGP provided Gia Van commune with opportunities to participate in the training of project management;
- Van Long was selected by Ninh Binh province as a model community that self managed and self developed its tourist service with the commune authority directly managing the community's tourist business. Toward 2005, the number of tourists visiting Van Long had increased to 25000 – 30000 annually, the number doubled by 2013 with 80% being foreign tourists. Since 2011, Van Long has developed community-based tourism (home stay) with 5 households presently running this type of tourist service successfully. Soon the number of households offering this service is expected to increase to 50;
- During the project timeframe, 42 biogas digesters (6 in each commune) were built in combination with the animal husbandry model. In 2012 there were 333 digesters combined with the raising of cows, buffalos and pigs. In 2003 the number of cows, buffalos and sows was 66; and in 2014 the number was 1080 (increased by 15 times);
- With regard to the revolving micro-credit scheme: the project assisted the community members in obtaining the loans in order to build new livelihood models and maintain these models. Loans provided by the project were revolved by the communal Farmers' Association. In Gia Van commune in particular, it is considered an environmental capital with 40 households obtaining this type of capital annually. The Associations of Farmers in these communes are still keeping this type of scheme in place at present with the total of 400 household/times benefiting from this scheme over the past 10 years. This scheme is particularly running well in Gia Van commune;
- The public loud speaker systems in all seven communes have been doing well in disseminating information about the political tasks, especially environmental communication. Since the end of the project the systems have been upgraded and well maintained at the cost paid by the commune budget. In Gia Van commune in particular, budget was allocated annually for the maintenance of the system and the procurement of additional equipment for the system. The total budget allocated in the past 11 years was over 1500 USD.

## LESSONS LEARNT

### On Capacity Building for Target Groups

- Priority should be given to the constant raising of public awareness of the GEF and GEF SGP among local community, authority levels and concerned agencies where GEF SGP projects are implemented. It is necessary that such promotion of awareness and understanding of the GEF SGP criteria among key partners and stakeholders be put in place right in the period of project preparation; and
- Capacity building for GEF SGP actors through training workshops on project development and implementation should have a decisive role to play in producing high quality proposals for the project, in obtaining high efficiency and high effectiveness in project implementation.

### On Stakeholders Engagement

- The ownership, the responsiveness, the acceptance and participation on the part of the community in the process of designing and implementing the project should constitute a decisive factor for the success and the sustainability of the project. The linkage between conservation activities and sustainable livelihoods should be created to ensure the sustainability of the project;
- The full participation by the local key stakeholders including all authority levels, the concerned agencies and the local communities in the design and implementation of the project should constitute an important factor for the success of the project. The role played by all local authority levels and their committed contributions are very necessary in implementing the project and in replicating widely its results. The exercise of the ownership of the GEF SGP projects by all local authority levels should be of very important significance and should constitute one of factors contributing to the project sustainability.

### On the Use of Revolving Fund from the Project

- The revolving micro credit scheme managed by the communal Farmers' Association proved to be very suitable for income-generation activities. It supports equitable distribution and helps raise the community's and the local authority's awareness and responsibility, reducing the 'mindset of reliance' and the request-and give mechanism, thus heightening the financial solidity of the project.

### On the GEF SGP supportive role

- GEF SGP supports in developing and implementing the project are very necessary, and considerably contribute to the enhancement of the quality and the effectiveness of the project implementation. The detailed supports, suitable to local conditions, given to the project beneficiaries in working out plans for project activities are necessary to ensure the project implementation progress and the successful achievement of the project objectives within the project time frame.

## KEY ACTORS

- Farmers Association of Gia Van commune, Gia Vien Dist, Ninh Binh province
- Authority levels and Farmers' Association of seven project communes
- Van Long Nature Reserve Management Unit
- Ninh Binh Provincial Center for Agricultural Extension
- Gia Vien District Association of Farmers, Division of Agriculture and Rural Development and Division of Education and Training
- Hanoi National University and Vietnam Bio-Ecological Association

## SOURCES OF DATA & INFORMATION

- Workshop documents, papers and reports, video clips and photos of the project from Gia Van Communal Association of Farmers;
- Project results reports.



# MARINE BIODIVERSITY & WETLANDS CONSERVATION IN VIET NAM

EXPERIENCES FROM GEF SMALL PROJECTS

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