

## I. Planning Sustainable Use of Mangrove

### 1. Introduction

**Project No:** THA/MFFSGF/12/01

**Project Title:** Planning Sustainable Use of Mangrove

**Grantee:** Mangrove Restoration Group of Tambon Kapoe

**Address:** 6/3, Moo 8, Chi Mi Village, Tambon Kapoe, Kapoe District, Ranong Province, 85120

**Contact Person:** Mr. Wiroj Detsongpraek, Project Leader, Tel. +66810891822

**1.1 Implementing NGO/CBO:** Mangrove Restoration Group of Tambon Kapoe: Established in 2005 following the Tsunami, by core community leaders of Baan (village) Chi Mi, Baan Darn and Baan Banglamphu, with objective to assist the victims and rehabilitate mangrove. The network has continuously been launching conservation activities with financial supports from several agencies, such as, UNDP, IUCN, and MFF SGF phase-I. The group is now a member of Kapoe Bay Conservation Network which launch ecosystems protection “from-ridge-to-reef”, and of Andaman Coastal Community Network. In 2008, the group was awarded “Outstanding Conservation of Mangrove” from the Department of Marine and Coastal Resources.

**1.2 Location of project:** Kor Yai Rang Mangrove area covering 2 villages, i.e. Baan Chi Mi, and Baan Banglamphu, In Tambol Kapoe, Kapoe District, Ranong Province. The location is situated next to mangrove of Kapoe Bay which was proclaimed in 2002 as a wetland with international importance and richness in biological diversity. However, national effort to maintain and conserve such a rich biodiversity by reforestation of mangrove is limited to a few species. The group had launched nursery of a few more species, aiming to plant them to restore biodiversity in several plots of degraded areas which remained uncared for.

**1.3 Target Population:** 130 out of 528 households who earn their living through fishery and depend upon provisions of mangrove for livelihood activities. The per capita income is THB 51,600.

#### **1.4 Long-term objectives to support national coastal resources policy:**

- 1) Improving the knowledge base for coastal planning, policy and management (POW 1)
- 2) Designing ecologically and socio-economically sound coastal ecosystem rehabilitation (POW 2)
- 3) Improving community resilience to natural disasters (POW 9)

#### **1.5 Specific Objectives:**

- 1) To build community mangrove nursery for maintaining biodiversity and community livelihoods
- 2) To restore degraded mangrove areas in project location
- 3) To increase long-term conservation awareness among community members in project location

#### **1.6 Major stakeholders**

- 1) Ranong Provincial Fisheries Office
- 2) Pineapple’s eyes Civil Society Organisation Network
- 3) Thailand Research Fund’s Community-based Research project in Phang Nga Province
- 4) Thailand Environment Institute
- 5) Marine and Coastal Resources Conservation Centre 5, Phuket Province
- 6) Mangrove Development Station 9 at Kapoe District

## 2. Project Completion

### 2.1 Period of Participatory Evaluation: August 2013

**2.2 Number of Beneficiaries/ Participating personnel:** 1,000 households, 300 persons from Baan Darn, Baan Banglamphu, Baan Chi Mi and youth group

### 2.3 Income and Expense

Detail		Amount (THB)
Budget Allocation		300,000
Total expenditure		303,582
% expenditure against allocation		101%
Co-financing Sources	In-cash (THB)	In-kind (THB)
Ranong Provincial Office of Fishery	-	1,300,000
Network of Civil Society	-	240,000
Network of Communities	-	240,000
<b>Total</b>	<b>-</b>	<b>1,780,000</b>

### 2.4 Activities and results/outcomes

Main Activities Implemented	Results/Outcomes
1. Launching nursery activities, such as collection of seasonal species, procurement of raw materials including maintenance 2. Preparing selected degraded area for reforestation followed by reforestation 3. Launching campaigns to build conservation awareness of youth groups on special occasions and by other dissemination facilities (existing floating learning centre and publication)	1. Emergence of a nursery of 30 M X 40 M continuously producing at least 15 mangrove species of at least 40,000 seedlings 2. Degraded mangrove area of 8 ha (50 rai) being rehabilitated and maintained properly 3. Emergence of floating learning centre-renovated to better accommodate project activities 4. Evincing increased capacity & awareness of targeted population (200 persons/organized event) 5. Increased conservation awareness of various local sectors such as CSO group, Tambon Administrative Organisation, Mangrove Development Station in project location being witnessed

**2.5 Plans and Activities for Sustainability:** The grantee planned to keep on with conservation activities, even though financial resources from outside would not be available any more. At least, the floating learning centre would continue to provide learning on ecosystem and be a meeting place for both local and outside communities. Moreover, the grantee would propose plan to the PAO and TAO to expand services of the centre to cover about 20 local groups.

### 2.6 Challenges and constraints

1) Natural threat such as some types of insects and animals devoured and ruined the mangrove seedlings.

2) The project needed to plant mangroves' seedlings in summer once mangroves bore fruits which was unable to be stocked until rainy season. However, since the weather in summer is not quite suitable for this activity, some amount of seedlings were dehydrated by the heat and died. The project had to re-plant lots of seedlings to replace thus keep up with proposed result.

## **2.7 Lessons Learned**

1) The project related technical experience on mangrove planting. The experiences they acquired are summarized as follows;

- Location and soil condition should be carefully and appropriately checked for planting each species of mangrove.
- Mangrove seeds of some species, e.g. *Rhizophora apiculata*, *Kandelia candel*, need to be extremely ripe enough before planting.
- Planting seedlings in summer should be carried out more carefully so as to prevent direct heat to dehydrate the seedlings.

2) Surveillance of community conserved areas to prevent illegal fishing was important activities for community and their coastal/marine resources.

3) The learning centre had been playing an important role for both knowledge management, and other community-led activities.

## **3. Story of change**

### **3.1 Change in people or human knowledge, attitude, and practice (behavior)**

1) Increased conservation awareness of targeted communities prompted collective measures against illegal fishing which had considerably threatened young aquatic animals and its habitats.

2) Increased harmonization and better participation in community activities amongst community members were evinced after launching the project.

### **3.2 Change in socio-economic status or livelihood**

1) Since one area of mangrove had been restored and used as a crab habitat, this area was found richer in crabs, increasing the catch from 10 kg. /day to 70 kg. /day.

2) Furthermore, immigrant, less privilege women groups in Baan Darn and Baan Chi Mi were able to earn their income by sewing and selling Nipa Palm leaves conserved by the project.

### **3.3 Change in participation and social interaction**

There appeared to be more participatory activities from several sectors, i.e. district-chief officer, fisheries officer, Kapoe Tambol Administrative Organisation, local schools by youth council, international students, and immigration groups. It was estimated that 80% of community became more participatory.

### **3.4 Change in coastal governance frameworks**

The community formulated a conservation and management plan with Kapoe Mangrove Development Station No. 9.

### **3.5 Change in natural environment or ecosystems, and practices in ecosystem/coastal conservation**

1) The project establishes cooperative/regular activities to practice and raise awareness on coastal/marine conservation, such as mangrove planting, collecting garbage in mangrove area. So far, no garbage/solid waste was discharged to canals in project location.

2) In conservation zone with mangrove thriving, there seemed to be more number of crabs, fishes and other aquatic animals

## 4. Monitoring visit by the National Coordinator, NSC and NCB members

### 4.1 Findings and observation

At the functioning floating community learning centre in Baan (village) Chi Mi, the visiting team interacted with 7 project leaders who explained undertaken activities and evinced immediate results. The project nursery situated next to the centre was said to have produced hundreds of seedlings of over 15 mangrove species, and transferred for reforestation in community conserved area.

A brief sailing around a community conserved area of 20 ha revealed a picture of thriving mangroves, Nipa Palms, and other rare species, many of which are edible. Several spots in the area appeared thicker with thriving seedlings.

Sustained and improved promotion of civil society engagement was also briefed by project leaders, leading the visiting team gain more insight about holistic community development and natural resources management, from ridge-to-reefs, from drug prevention to human trafficking check to poaching watch.

### 4.2 Photos



Under forest concession in the past several decades, the estuary had been degraded. However, under several public environment conservation projects of community management, including MFF/SGF, the area had been gradually recovered. Project leader is showing an up-scaled area for mangrove recovery and protection.



A newly established project nursery has been producing more than 2,000 seedlings of mangrove to be planted in the up-scaled plot of 80 ha in project location. Under the plan of up-scaling, the final figure would be bigger than this.





While the nursery looks less filled, the 20-ha community conserved area looks more filled with thriving seedlings. This area has been under co-management, between community and DMCR, and maintained through regular reforestation.



This photo depicts recovery status of mangrove and nipa which should have been covered and smothered by the aggressive species "fish bladder. Once mangrove and nipa were nurtured to grow, the bladder got no chance to survive.



This kind of grown up crams are being sold at THB: 40/kg., ensuring income for this community member.



Under regulations of the project, community members earn additional income from processing nipa leaves into roofing material. The lady would earn THB: 4 per sheet of roofing material of the size seen in this photo.