

**A New Direction of Coastal Fisheries Management: People's Participation,
Designated Community and Local Fisheries Committee**

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ABSTRACT

The project plan proposes to introduce the idea of community-based coastal resource management at a defined project site and to implement practical management methods, places emphasis on promoting the sustainable use of coastal resources by territorializing a demarcated area preserved for small-scale fisheries. The project includes management of the demarcated zone where particular types of fishing operations are prohibited. This is a very effective approach toward the expansion of comprehensive community development programs. DOF and SEAFDEC/TD have agreed to minor changes in the framework of the project's implementation and have added some new activities. This is the project proposal for the further development of coastal resource management project, although the basic concept and methodologies adopted are the same as the DOF's initial proposal. This project sets up three overall objectives, 1) The establishment of sustainable coastal resource management at local level, 2) The rehabilitation of coastal resources, 3) The alleviation of poverty in coastal fishing communities. Four results from the implementation of this project are expected, 1) Locally Based Coastal Resource Management (LBCRM) in Pathew District, Chumphon Province, works, 2) People's production and living conditions improvement, 3) Local people and organizations enhance their capability in community development, 4) Practices are converted into DOF's policy on coastal resource management. The project will consist of six major activities, 1) Base Line Survey, 2) Encourage and Extend Locally Based Coastal Resource Management, 3) Encourage Local Business, 4) Enhance Human Resource Capability and Participation, 5) Develop Extension Methodologies and Strengthening Extension System for Sustainable Use of Coastal Resources, and 6) Rehabilitate and Enhance Coastal Resources.

Keywords: community-based, resource management, small-scale fisheries, promoting the sustainable use, demarcated area

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I. BACKGROUND

1. DOF Initiative

1. Department of Fisheries (DOF), Thailand, has decided to conduct a Royal Project in Pathew District on behalf of His Majesty the King, and has drawn up a five-year plan for its implementation. The Cabinet has already approved this plan, together with an allocation of budget. This project is a part of "Rehabilitation and Management of Marine Fisheries Project". The plan proposes to introduce the idea of community-based coastal resource management at a defined project site and to implement practical management methods. DOF will also start a series of small-scale fisheries development programs at the site.

2. The project site is located in Tambol Pakklong (sub-district), Pathew District, Chumporn Province (*see Figure 1*). The Royal Project consists of three different fields, agriculture, forestry and fisheries. Agricultural improvement will be conducted mainly in the wasteland covering an area of 448 rai. As there is no fishing community in the wasteland at the Royal Project area, the fisheries improvement program will cover all coastal communities of Tambol Pakklong.

3. Tambol Pakklong is under the governance of Pathew District, Chumporn Province. Its total area is 117 sq. km., and the population is 4152. This Tambol composes of 7 villages and total household is 879. Local residents engage in capture fisheries, coastal aquaculture and agriculture. Rubber, coconut and palm are major income sources in agriculture. Local residents engage in capture fisheries using squid cast nets, fish gill net, blue swimming crab gill net, squid trap and anchovy purse seine. Some engage in sea bass fish cage culture.

4. As shown in *Tables 1 and 2*, the DOF has set up a tentative schedule of five years for the implementation. The installation of artificial reefs and fishing gear improvement are given higher priority in terms of budget allocation. The provision of artificial reefs and gear to fishing communities would be a major objective in the fisheries field. Practically, DOF has a plan to conduct a survey on resources, environmental and the socio-economic aspects, releasing fingerlings, fishing gear development and organizing groups.

5. Adding to the improvement of marine capture fisheries, DOF is ready to transfer technology in marine aquaculture and the provision of materials and fingerlings. Promotion of marine aquaculture is a part of the process of alternative job creation. Extending shellfish culture may be another job-creation-oriented activity. These processes may create additional income sources to local communities and reduce the present amount of catch effort put into adjacent fishing grounds.

6. The project that DOF has proposed places emphasis on promoting the sustainable use of coastal resources by territorializing a demarcated area preserved for small-scale fisheries. Through consensus among local fishers, DOF has proclaimed the demarcation of coastal fishing grounds. The project includes management of the demarcated zone where particular types of fishing operations are prohibited.

7. By applying the Ministerial Announcement of 1972 (July 22) 1990 (April 16), trawl, push nets and clam dredge will be banned for operation within an area of 3 km from the coastline in Tambol Pakklong. DOF and local fishers have agreed that two defined areas would be managed to prohibit the foregoing types of fishing operations. Both parties reached complete agreement on effective enforcement and monitoring of illegal operations in AREA I, covering an area of 46 sq. km. The majority of fishers and stakeholders have agreed a further expansion of the demarcated area to the south of Tambol Pakklong, setting up an AREA II of 70 sq. km.

8. DOF encourages the people and communities to enhance their management capability and develop

methods to sustainable use of coastal resources in the demarcated coastal areas. This is a very effective approach toward the expansion of comprehensive community development programs.

2. SEAFDEC Joining in the Project

9. Under the Fisheries Consulting Groups (FCG) scheme that the Southeast Asian Fisheries Development Center (SEAFDEC) has adopted, Training Department (TD) collaborates with DOF to implement a coastal resource management program. In this program, Thailand (DOF) acts as the lead country among the ASEAN-SEAFDEC member countries and TD will be the lead implementing department of SEAFDEC. DOF and TD have reached agreement that both parties will be involved in the King's project in Tambol Pakklong under the FCG scheme. Technologies, knowledge and lessons gained through the implementation of this project will be transferred to member countries through the SEAFDEC information transfer mechanism.

10. To transform the project proposal planned by the DOF into a collaboration, DOF and SEAFDEC/TD have agreed to minor changes in the framework of the project's implementation and have added some new activities. This is the project proposal for the further development of coastal resource management project, although the basic concept and methodologies adopted are the same as the DOF's initial proposal. The budget allocation having been approved by the Cabinet of Thailand is not a matter for change.

11. As DOF and SEAFDEC/TD have developed this project into a collaboration, it is entitled "*Locally Based Coastal Resource Management in Pathew District, Chumporn Province*" (LBCRM-PD).

II. OBJECTIVES

1. Overall Objective

12. Overall objective means the expected effects and outcomes on the target fields when the project is successfully achieved. Through the implementation of this project, Thai coastal fisheries will develop into a new era. This project sets up three overall objectives.

- 1) The establishment of sustainable coastal resource management at local level
- 2) The rehabilitation of coastal resources
- 3) The alleviation of poverty in coastal fishing communities

13. Community-Based Fisheries Management (CBFM) and Co-management (CM) are workable frameworks for coastal resource management. Local government, fishers and any stakeholders are encouraged to participate in the decision-making processes of coastal resource management, employing their own sustainable fishing methods in their immediate coastal areas.

14. While establishing sustainable fisheries management with a participatory approach, the rehabilitation of coastal resources should be adopted through appropriate measures. Rehabilitation will be feasible through enhancing awareness building among resource users and adopting conservation measures.

15. Alternative job opportunity should be created outside capture fisheries to approach the alleviation of poverty, so that small-scale fishers can survive and reduce over-dependence on coastal resources. Successful pilot projects of CBFM in the Southeast Asian region indicate that much effort to reduce poverty in local communities leads a reduction of using destructive fishing gears.



2. Project Purpose

16. The project purpose is to: Establish a practical framework for locally-based coastal resource management through the encouragement of fishers' participation, supported by the creation of alternative job opportunities in coastal fishing communities.

17. A practical framework for locally-based coastal resource management (LBCRM) consists of CBFM and CM that have been implemented in the Southeast Asian region so far. This project will encourage the people and local governments to join in the management of the demarcated coastal zones defined by the DOF.

18. Success or failure of this project will also depend on how successfully alternative job opportunities are created. The project should be designed to generate alternative job opportunities outside capture fisheries, to reduce the people's over dependence on coastal fisheries resources.

3. Outputs

19. Four results from the implementation of this project are expected.

1) Locally Based Coastal Resource Management (LBCRM) in Pathew District, Chumporn Province, works

With LBCRM working effectively, resource users and any stakeholders will be able to use coastal fisheries resources in sustainable ways. They participate in the decision-making process of coastal resource management and share responsibility with local governments. The destructive fishing operations such as trawl, push nets and clam dredge are prohibited in the demarcated zones are monitored and eliminated.

2) People's production and living conditions improvement

A comprehensive approach toward the establishment of LBCRM will bring an improvement in production and living conditions. Solutions to over-fishing and over-capitalization lead to more stable social and economic surroundings for resource users and their families. Diversification of income sources reduces over-dependence on coastal fisheries resources.

3) Local people and organizations enhance their capability in community development

People and any participatory organizations, having joined in the project, will be capable of conducting resource management and community development activities. This project is to overcome institutional weaknesses both in coastal resource management and in community development. Strengthening such institutional arrangements stipulates that the people and local governments must be involved in self-help economic and social activities.

4) Practices are converted into DOF's policy on coastal resource management

The project involves a process of converting the practices undertaken in Pathew into the policy of DOF on coastal fisheries management.

III. APPROACHES AND ACTIVITIES

1. The Project Approaches

20. The project purpose can be achieved by adopting substantial approaches. Practically and realistically, the following three approaches will be applicable, namely, (1) A CBFM and CM approaches, (2) A resource enhancement approach, (3) A job creation approach. The first approach consists of participatory management and institutional strengthening methods.

21. This project covers the locality defined by DOF, being located in Tambol Pakklong (Sub-District) area. So that the implementing agencies are DOF (Bangkok), the Provincial and District Office of DOF, Chumporn Marine Fisheries Research and Development Center, Sub-District Administrative Organization (Ao.Bo.To.), SEAFDEC/TD and other supporting agencies, the project may diversify its approaches to some extent.

2. Major Activities

22. The project will consist of six major activities.

1) Base Line Survey (Activity I)

To achieve overview information and a database to delineate proper activities for sustainable coastal resource management and community development, the local demand-led project needs a feasibility study in depth.

The base line survey includes topics that rely upon people's idea on management aspects and/or their demand for the proposed activities of the project. The survey identifies a beneficiaries group, supporters and those negatively affected, etc. in the project implementation.

1.1 Data collection on a regular basis in coastal areas of the project site

Data collection at coastal areas of the project site that rely upon technological, biological, ecological and oceanographic aspects will be carried out as a regular basis survey during the period of the project. A Socio-economic survey should also be regularly conducted to understand the social and economic status of the project site. Regular basis surveys provide indicator identification for monitoring and evaluating the project.

1.2 Survey of particular topics and subjects and for providing a training course

The survey includes particular topics and subjects related to the theme of the major activities. The results of the survey will be the basis for providing and setting up a training course and technology transfer.

1.3 The results of the analysis should be given to the people and the community, and adapted into a proposal and recommendations

The results of the analysis of all data and other information will be presented to the people and communities of the project site. This will consist of part of a proposal and recommendations for setting up LBCRM with sustainable use of resources and an improvement in the quality of life.

2) Encourage and Extend Locally Based Coastal Resource Management (Activity II)

Evaluating the present framework of fisheries management and referring to the past experience of CBFM projects, the project will conduct three kinds of activity through the consensus of users and stakeholders, and/or will propose applicable models to coastal resource management at the project site.



2.1 Encourage fishers' self-regulating activities in coastal zones, and reduce conflicts between resource users.

The project will encourage fishers' responsible fishing and aquaculture operations and their participation in the management of the demarcated zones. By providing information and data vital to responsible fishing and aquaculture operations, the project will enhance users' consensus on the self-regulatory use of coastal resources and on the reduction of conflict between resource users. Any technical advice and training courses will be prepared by the project according to the demand of users and stakeholders.

2.2 Establish community-based management groups

The project will advise and assist resource users to organize community-based management groups of whatever type. They are expected to work as a unit of management. By the users' active participation in the groups, there will be a network of the groups within the project site. For the groups and network to undertake self-management in the demarcated coastal areas, the project should give necessary advice and technological transfer as regards organization and activities.

2.3 Enhance local government's ability in coastal resource management

Strengthening the institutional framework at the project site is a substantial factor for the establishment of LBCRM. To achieve this objective, the project will transfer information and give advice to Ao.Bo.To in Tambol Pakklong, to take part of the responsibility of management. By building the awareness of local officers and community leaders, Ao.Bo.To will develop a workable management system in collaboration with the resource users and stakeholders (and their groups), and with the DOF.

3) Encourage Local Business (Activity III)

To reduce over-dependence on coastal resources, the project encourages and enhances local businesses outside capture fisheries at the project site. The project assists people to increase household income in two ways. The first way is by improving technologies of handling, marketing and processing of fisheries products. The second is to create alternative job opportunities inside and outside the fishing communities.

3.1 Improve post-harvest technology and introduce new value added fisheries products

In collaboration with the private sector and government agencies concerned, the project will improve post-harvest technologies and introduce new value added fisheries products. Introduction to the preservation of fresh products with good quality and good prices will be carried out. Provision of training and information on new processing will be targeted at women's groups particularly.

3.2 Introduce alternative job opportunities and support "One-Product, One-Tambol" ("One-Tambol, One-Product") activity.

Promotion of fish and shell culture will be incorporated into this activity. The project provides aquaculture technology and information with assisting in part of the necessary production materials. The project supports "One-Product, One-Tambol" activities conducted by Ao. Bo. To and other agencies. As well as the processing of fisheries products, other local businesses including marine eco-tourism are encouraged by the project. Women have a vital role in job creation with the promotion of small-scale local businesses. A training program on a micro credit scheme will be prepared for the women who are the target groups.

4) Enhance Human Resource Capability and Participation (Activity IV)

Enhancement of human resource capability is the most basic activity leading to the full success of this project. Building awareness and consensus is the first step to achieving smooth and effective objectives of the project's activities. Building awareness and consensus will be realized through appropriate educational and training programs. People can generate a self-regulating management framework and organize community-based development projects on their own. The following activities are conducted and incorporated with the development of extension methodologies and strengthening of the extension system.

4.1 Training and education for enhancing awareness of the sustainable use of coastal resources

The project will conduct activities to enhance awareness about the sustainable use of coastal resources and the objectives of resource management in coastal areas of the project site. Preparation of a series of training and educational courses should be considered on the purpose and framework of resource management, responsible fishing and aquaculture operations. The project targets its training and educational activity, not only toward resource users, stakeholders and local government officers, but also toward youth and schoolchildren.

4.2 Plan and prepare to organize group activities and encourage local business

Participatory training and educational courses will be planned and prepared for organizing and managing group activities. While enhancing leaders' ability in communities and groups to take a leadership role, the project encourages the peoples' participation in group activities. The topics of the courses are also concerned about creating diversified business activities including fisheries and in other fields. The project will arrange a training course to make a business and financial plan to diversify the peoples' economic activities. Target groups are broadly based, but particularly, women.

5) Develop Extension Methodologies and Strengthening Extension System for Sustainable Use of Coastal Resources (Activity V)

The project develops extension technology and methodologies to help resource users understand the need for coastal resource management. It will include some kinds of experimental activities on strengthening the extension system through participatory methods. The project explores new approaches to enhance people's self-regulation on fishing activities and participation in community development.

5.1 Develop text, manuals and any visual methods to be understood simply

Text, manuals and any visual methods through experiments on extension and training activities should be prepared and developed by the project. These methods should make resource users and stakeholders understand the content of fisheries laws and the framework of resource management and encourage peoples' participation in the management. The project also needs to create a series of campaign on its objectives and activities toward the people.

5.2 Explore approaches to enhance resource users for participation in coastal resource management

Provision of motivation about the sustainable use of coastal resource is very important. The project will introduce and prepare participatory methods like participatory resource assessment and mapping.



6) Rehabilitate and Enhance Coastal Resources.

The project will involve itself in rehabilitation and enhancement of coastal resources, while stimulating the establishment of a locally-based management system. DOF will start a series of small-scale fisheries development programs at the site including the deployment of artificial reefs and the releasing of fingerlings.

6.1 Deployment of artificial reefs

In the fishing grounds of the project site, DOF has a plan to deploy artificial reefs (fish aggregating devices). DOF, the project counterpart agencies and the people should join together to participate in the decision making process of selecting the areas of artificial reef placement.

6.2 Release of fingerlings

The release of fingerlings is an activity to enrich fisheries resources. DOF plays a role as fingerling providers. The people are expected to join the releasing of fingerlings. Participatory resource assessment is an approach to achieve this activity in the right habitat and the right season.

IV. THE DURATION OF THE PROJECT AND THE FIVE-YEAR PLAN

1. Duration

23. As regards the time schedule of the Thai budget year, the duration of the LBCRM-PD is five years, starting in October 2001 with the expected completion in September 2006. SEAFDEC/TD will join the project in January of 2002.

2. The Five Year Plan Main Activities

1) The Two Phases of Project Implementaion

The project has a five year plan to effectively achieve the project purposes. *Table 3* shows the outline of the yearly planned activities. The duration of the project will be divided into two phases in practice, although the division of the period is not strict. The process of developing the LBCRM framework may consist of three sequential stages.

1.1 The First Phase

The first phase, consisting of the first and second year, will focus mainly on the activities of a base line survey and training matters with a campaign for enhancing awareness building of extension methodologies. Rehabilitation activities of coastal resources will be started from the first year.

During the first phase, the base line survey (Activity I) concentrates on identifying resource environmental conditions and socio-economic surroundings, to comprehend the characteristics and problems at the project site. Analysis and results of the surveys will form the basis for developing LBCRM, and other activities. The project prepares for the implementation of coastal resource managemnet activities in the demarcated coastal areas and for the development of local business enterprises.

1.2 The Second Phase

After the two year implementation period, the project activities will be evaluated and the original plan will be reviewed. The base line survey functions as a monitor of the advance of the project.

During the second phase, the project concentrates its activities on establishing and functioning of the LBCRM framework and the promotion of the creation of alternative job opportunities.

1.3 Sequence Plan for Developing and Extending LBCRM

The project creates a sequence plan for encouraging and extending the LBCRM framework. Three development stages are prepared, to achieve the objective of this activity. The main activities on the first stage are the expansion of the comprehensive coastal management campaign using posters and pamphlets, and providing programs of education and training to enhance awareness building.

In the second stage, resource users and stakeholders are encouraged to develop their own regulating activities. Ao.Bo.To and community-based management groups should obtain a consensus on self-regulatory resource utilization. A further development of self-regulatory activities with a monitoring function will be in the third stage. By the end of the project duration, LBCRM schedules to work well.

V. ORGANIZATION CHART OF THE PROJECT

1. Role of Steering Committee (SC)

24. DOF should officially take full responsibility for its implementation under the scheme of a Royal Project in Pathew District on behalf of His Majesty the King. At the same time, the LBCRM-PD will be carried out as a collaborative project between DOF and SEAFDEC/TD under the FCG scheme. Therefore, this project will establish a steering committee (SC) which consists of representatives of DOF and SEAFDEC/TD (*see Chart 1*).

The SC takes charge of the following:

- 1) To guide policy and direction of the project implementation
- 2) Review the implementation plan of the project and budget allocation
- 3) Monitor and evaluate the implementation of the project
- 4) Coordinate between all institutions involved in the project

The membership of the SC consists of as follows:

- 1) DOF's Senior Expert on Marine Fisheries (Mr. Somsak Chullasorn)
- 2) JICA's expert dispatched to SEAFDEC/TD (Prof. Dr. Masahiro Yamao)
- 3) Director of Marine Fisheries Division, DOF
- 4) Representative of Rehabilitation and Management of Marine Fisheries Project
- 5) Representative of SEAFDEC/TD



- 6) Representative of SEAFDEC/Secretariat
- 7) Representative of Royal Project
- 8) Chief of Fisheries Information Sub-Division, Marine Fisheries Division (Mr. Wannakiat Thubthimsang), Coordinator

DOF's expert on Marine Fisheries, nominated by the Director General of DOF, takes charge of chairperson.

2. Functions of Implementing Committee (IC)

25. Under the control of the SC, the Implementing Committee (IC) will be established for daily operation of the project. This committee consists of Chumporn Marine Fisheries Research and Development Center, DOF's Provincial and District Offices, Ao.Bo.To in Tambol Pakklong, and the implementing group of SEAFDEC/TD.

The IC has following operational functions:

- 1) Make a demand-led work plan of the project together with a budget allocation
- 2) Manage and coordinate any administrative affairs among the agencies involved
- 3) Review and self-evaluate the implementation of the project
- 4) Prepare annual progress reports of the projects from the technical, financial and administrative aspects.

26. The IC is expected to act as a conduit between the project site and DOF. In the later stage of the project implementation, lessons learned through LBCRM-PD will be proposed as recommendations for a further development of coastal resource management projects.

The membership of the IC consists of as follows:

- 1) Director of Chumporn Marine Fisheries Research and Development Center, DOF (Mr. Panit Sungkasem)
- 2) Representative of Chumporn Fisheries Provincial Office, DOF
- 3) Representative of Pathew Fisheries District Office, DOF
- 4) Representative (s) of Pakklong Sub-District Administrative Organization (Ao.Bo.To.)
- 5) Representative of Chumporn Provincial Office
- 6) Representative of Coastal Fisheries Aquaculture Center, Prachaup Kirikan, DOF
- 7) Representative of Chumporn Marine Fisheries Research and Development Center
- 8) Representative of SEAFDEC/TD

Director of Chumporn Marine Fisheries Research and Development Center is the chairperson, and

the secretariat is located in the Chumporn Marine Fisheries Research and Development Center under his or her direction.

3. Functions of the Field Office

27. During the first phase of the project, the project sets up a field office at the site with functions to:

- 1) Establish two way contact between the IC and the targeted people and groups,
- 2) Assist staff of the IC to conduct activities at the project site

28. The Field Office leads to appropriate implementation of demand-led activities. It will phase out the roles, and Ao. Bo.To and the people's groups will take its place during the second phase.

4. Sharing Responsibility between Participating Agencies

29. There are several agencies and groups joining LBCRM-PD. To coordinate and share responsibility among participants in the project, a tentative work sharing plan will be made and shown in **Table 4**. The Implementing agency means, that which is directly involved in the project activities. Several agencies will simultaneously be in charge of implementation, among which, one or two agencies will take leading positions. Supporting agencies are those that assist whatever implementing agency is involved in that particular activity of the project.

30. SEAFDEC/TD contribution to the project is through a function mainly on research, training and advisory aspects.

31. The SC and the IC are fully responsible for the coordination of how to share responsibility between the participants in the project.

32. Given such different conditions as the degree of people's awareness and level of local organizations' capability, the project will be flexible enough to arrange a new framework of shared responsibility among the participants. Encouraging targeted people and their groups to take an increasing responsibility for their own activities is one major objective of this project.

VI. INPUTS

33. Major inputs into the project will be provided by DOF (including Chumporn Marine Fisheries Research and Development Center, Fisheries Provincial and District Office) and SEAFDEC/TD. DOF prepares the major inputs including a mix of machinery, equipment and skilled human expertise, according to the budget allocation plan as approved by the Cabinet. SEAFDEC/TD will share of the inputs.

34. Both DOF and SEAFDEC/TD will provide in-kind and manpower contributions.

VII. FUNDING

35. DOF has a budget plan for the five year implementation of the project, the total being estimated at 15.20 million baht (*see Table 1 and Table 2*). SEAFDEC/TD provides financial assistance to the project, depending mainly on the source coming from the Trust Fund given by the Government of Japan ("Japanese Trust Funds").

36. The yearly plan of budget allocated by Japanese Trust Funds will be discussed before a starting of budget year.



(It should be noted that the costs calculated in this table include SEAFDEC/TD's own activities under the FCG scheme, which budget plan must be approved by the Fisheries Agency in Japan on a yearly basis).

37. If any re-allocation of the funds for the project is needed, the SC and the IC will discuss new breakdowns of the budget and settle them, taking due regard of the progress and achievements of the project activities.

VIII. MONITORING AND EVALUATION

38. The IC will monitor the progress of the project on regular basis, and report to the SC on yearly basis. The base line survey includes inquires with the people and leaders of the communities about impact, efficiency and sustainability of the project. Participatory approaches are adopted to the monitoring and evaluation processes.

39. Based on the regular monitoring and evaluation activities, the yearly plan of the project activities will be revised if necessary.

IX. SPECIAL CONDITIONS

40. As a leading country under the FCG scheme of SEAFDEC, DOF will contribute technological transfer with lessons and suggestions for new approaches to coastal resource management and make effort to disseminate their experiences to member countries through SEAFDEC's mechanism.

41. SEAFDEC/TD will also prepare for technological transfer. SEAFDEC/TD organizes seminars and workshops on important topics of locally based coastal resource management with participatory approach and of comprehensive community development program.

Figure 1 Location of Tambol Pakklong, Pathew District, Chumporn Province

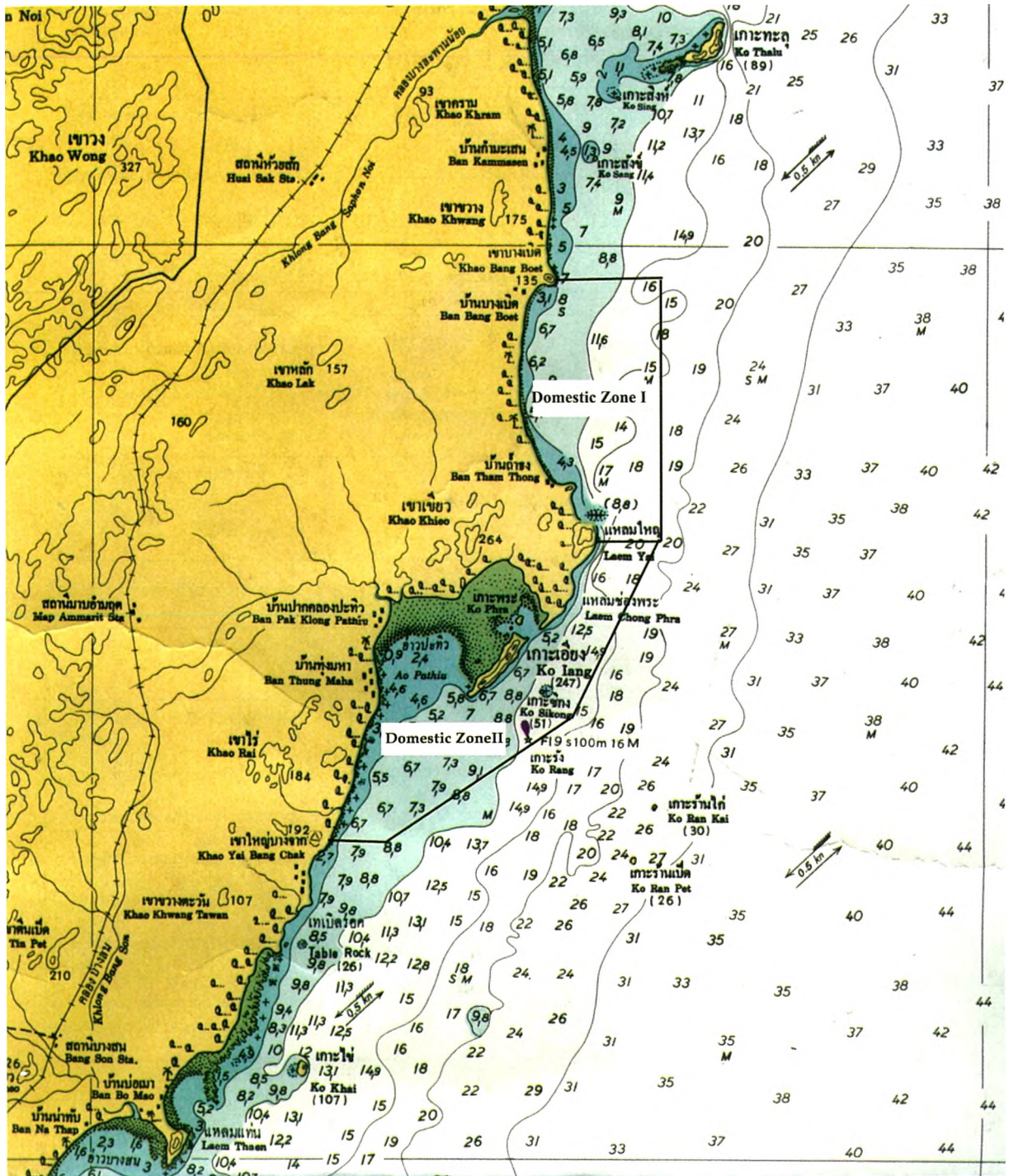




Chart 1 Organization Chart of the Project

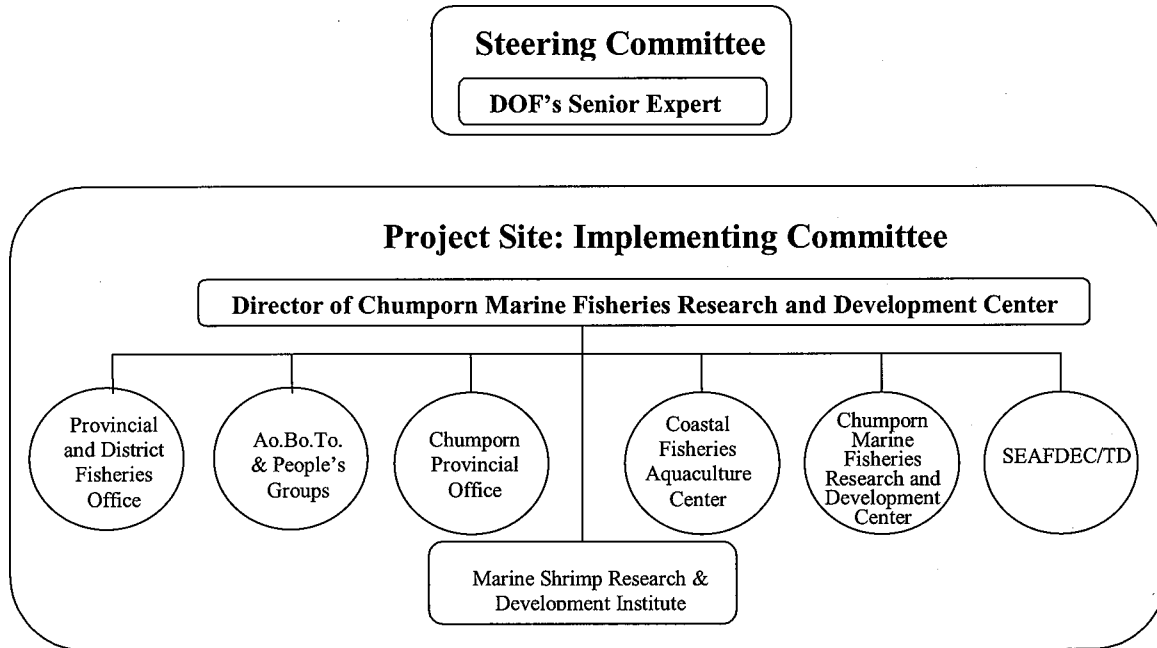


Table 1 Five Year Plan Proposed by DOF(Budget)

Activities	Budget (Million Baht)					
	Year 1 (2002)	Year 2 (2003)	Year 3 (2004)	Year 4 (2005)	Year 5 (2006)	Total
1. Investigation on qualities of sea water and environment	0.12	0.12	0.12	0.12	0.12	0.60
2. Investigation on fisheries resources	0.12	0.12	0.12	0.12	0.12	0.60
3. Investigation on socio-economics	0.12	0.12	0.12	0.12	0.12	0.60
4. Rehabilitation on fisheries resources	0.20	0.20	0.20	0.20	0.20	1.00
5. Installation of Artificial reefs	-	6.00	-	-	-	6.00
6. Formulation of fisheries communities	0.20	0.30	0.30	0.30	0.30	1.40
7. Management of destructive fishing gears	1.00	1.00	1.00	1.00	1.00	5.00
Total	1.76	7.86	1.86	1.86	1.86	15.20

Source: Department of Fisheries (DOF)

Table 2 Five Year Plan for Target Activities

Activities	Target					
	Year 1 (2002)	Year 2 (2003)	Year 3 (2004)	Year 4 (2005)	Year 5 (2006)	Total
1. Investigation on qualities of sea water and environment	12 (times)	12	12	12	12	60
2. Investigation on fisheries resources	12 (times)	12	12	12	12	60
3. Investigation on socio-economics	12 (times)	12	12	12	12	60
4. Rehabilitation on fisheries resources	100,000 (Fishes)	100,000	100,000	100,000	100,000	500,000
5. Installation of Artificial reefs	-	2	-	-	-	2
6. Formulation of fisheries communities	1 (group)	1	1	1	1	5
7. Management of destructive fishing gears by introduction of responsible fishing gears, aquaculture and processing	60 gears	60	60	60	60	300

Source: Department of Fisheries (DOF)



Table 3 Main Activities: Five Year Plan

Activities	Year 1	Year 2	Year 3	Year 4	Year 5
	Phase I		Mid-plan	Phase II	
1 Base Line Survey					
1) Data collection on regular basis in demarcated coastal zones					
2) Survey of particular topics and subjects					
3) Result of analysis restored to people and the community, and adapted to a proposal and recommendation					
2 Encourage and Extend Locally Based Coastal Resource Management					
1) Encourage fishers' self-regulating activities, and reduce conflicts between resource users					
2) Establish community-based fisheries management group					
3) Enhance local government's ability					
3. Encourage Local Business					
1) Improve post-harvest technology and introduce new value added products					
2) Introduce alternative job opportunity and support "One Product, One Tambol"					
4. Enhance Human Resource Capability and Participation					
1) Training and education for enhancing awareness on the sustainable use of coastal resources					
2) Plan and prepare to organize group activities and encourage local business					
5. Develop Extension Methodologies and Strengthening Extension System for Sustainable Use of Coastal Resources					
1) Develop text, manual and visual methods					
2) Explore approaches to enhance resource users motivation					
6. Rehabilitate and Enhance Coastal Resources					
1) Deploy Artificial Reefs					
2) Release fingerings					

Table 4 Participation and Responsibility

Activities	DOF	DOF Provincial Office	DOF District Office	CMFRDEC	Ao.Bo.To.	Fishers & Groups	Other Local Institutions*	SEAFDEC	District Office
1 Base Line Survey									
1) Data collection on regular basis in coastal zones		<i>I</i>	<i>I</i>	<i>I</i>		S		<i>I</i>	
2) Survey of particular topics and subjects		<i>I</i>	<i>I</i>	<i>I</i>		S		<i>I</i>	
3) Result of analysis restored to people and the community, and adapted to a proposal and recommendation		<i>I</i>	<i>I</i>	<i>I</i>	S	S		<i>I</i>	
2 Encourage and Extend Locally Based Coastal Resource Management									
1) Encourage fishers' self-regulating activities, and reduce conflicts between resource users	I	<i>I</i>	I	I	I	T	S	I(S)	
2) Establish community-based fisheries management group		<i>I</i>	I			T	S	I(S)	
3) Enhance local government's ability	I	<i>I</i>	I		T	I	S	I(S)	
3. Encourage Local Business									
1) Improve post-harvest technology and introduce new value added products		S			<i>I</i>	T	I	S	S
2) Introduce alternative job opportunity and support "One Product, One Tambol"		S			<i>I</i>	T	I	S	S
4. Enhance Human Resource Capability and Participation									
1) Training and education for enhancing awareness on the sustainable use of coastal resources		I		<i>I</i>	S,T	T		<i>I</i>	
2) Plan and prepare to organize group activities and encourage local business		I	S	<i>I</i>	S,T	T		I	S
5. Develop Extension Methodologies and Strengthening Extension System for Sustainable Use of Coastal Resources									
1) Develop text, manual and visual methods	S			<i>I</i>		S		<i>I</i>	
2) Explore approaches to enhance resource users motivation				<i>I</i>				<i>I</i>	
6. Rehabilitate and Enhance Coastal Resources									
1) Deploy Artificial Reefs	<i>I</i>	I	I	I	S	S		S	
2) Release fingerings	<i>I</i>	I	I	I	S	S		S	

* Other local institutions include government agencies and schools.

This table does not include the department responsible for joining the King's project.

I=Implementing Agencies

F=Funding Agencies

S=Supporting Agencies

(*I* means leading agency)

T=Target Group

I(S)= Implementing and Supporting Agencies