

## **Greater People's Participation and the Increasing Role of Local Government in Coastal Fisheries Management: Toward Decentralization of Resource Management**

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### **ABSTRACT**

This paper describes a possible proposal for a decentralized management system with a participatory approach, according to observation and investigation on the present system of local fisheries management in Chumporn Province. One major purpose of "Locally Based Coastal Resource Management, Pathew District, in Chumporn (LBCRM-PD)" is to experiment with a decentralized system within the existing legal framework of fisheries management that brings greater people's participation. The content of this paper is divided into three parts. The first part refers to new trends in decentralization under preparation for the proclamation of new fisheries acts. The second part discusses the elements of LBCRM. These are community-based management units (CBMU), and local government (including Sub-district Administrative Organizations). The last part concerns a perspective of a decentralization mechanism that is proposed in the context of LBCRM-PD practice and experiences. This paper concludes that LBCRM is a primary unit in decentralized coastal fisheries management, standing between the local fishery committee and local communities. The committee may contain a partial assembly of LBCRM units within a defined locality, while government fisheries agencies, provincial and district offices instruct the committee's activities. While sharing responsibility with the people, the role of local government certainly increases under the new regime.

**Key words:** decentralization, participation, LBCRM, local government, shared responsibility

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## I. The Objectives of this Paper

1. This paper describes a series of proposals for a new decentralized management system based upon a participatory approach, according to our observation and investigation on the present system of local fisheries management in Pathew District, Chumporn Province. One major purpose of “Locally Based Coastal Resource Management in Chumporn (LBCRM-PD)” is to experiment with a decentralized system within the existing legal framework of fisheries management, a system that has greater people’s participation. Any proposal and analytical description hereafter is tentative and ascribable to the author alone.

2. The content of this paper is divided into three parts. The first part refers to new trends in decentralization under preparation for the proclamation of new fisheries acts. The second part discusses elements of LBCRM. These are community-based management units (CBMU), and local governments (including sub-district administrative organizations, namely Ao.Bo.To). The last part describes the perspective of a decentralization mechanism that is proposed in the context of LBCRM-PD development.

## II. The New Trends of Decentralization and the New Fisheries Act

### 1. Decentralization and Sub-District Administrative Organization

3. Decentralization has become a most important issue in Thai politics since the mid 1980s. One highlight of the decentralization is the establishment in 1994 of Sub-District Administrative Organizations (Ao.Bo.To). The conventional top-down local administrative mechanism, being the Province (Changwat), District (Amphur) and Sub-District (Tambol), began to move toward localization and devolution. Members of Ao.Bo.To councils are elected from the people in the Moobaans, who hold great responsibility for community development and people’s welfare. The Ao.Bo.To council members elect a president, who manages the administrative work on a daily basis in collaboration with the Ao.Bo.To secretary and managerial staff. The Ao.Bo.To gradually grows into an independent entity with the functions of taxation and budget allocation, taking over several administrative functions from the district office.

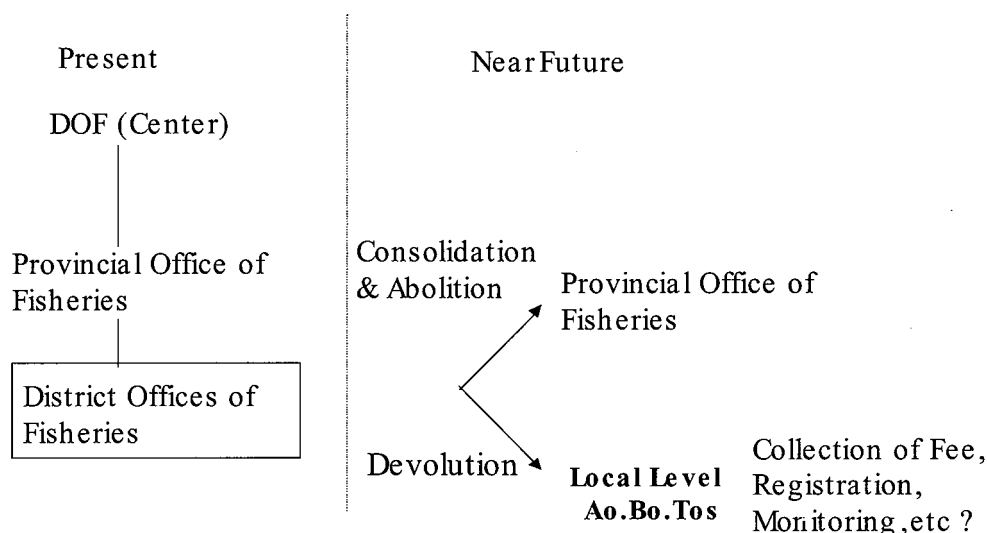
4. The Thai local administration holds the district office fully responsible for local security, community development, and people’s welfare. The Ministry of the Interior appoints a district head (Nai Amphur) from government officials. Its staff members belong to the administrative lines of different ministries (and/or departments) through a Provincial Office. In the case of fisheries management, a District Office of Fisheries (Pramong Amphur) takes charge in fisheries and aquaculture registration, planning and extension activities under the supervision of the Provincial Office of Fisheries (Pramong Changwat).

5. Generally speaking, the local administrations currently existing will move quickly towards a process of polarization. This movement is still uncertain from a political aspect, but it may soon be possible to get a picture of decentralization and de-officialization. Obviously, some roles and functions that a district holds will be absorbed both into the operations of the Provincial Office and Ao.Bo.Tos (*Chart 1 Devolution of District Function*). Uniting district offices into a provincial office is one notable trend.

6. At primary level, Ao.Bo.Tos are likely to share greater responsibility in the community development fields and various sorts of administrative work. Local people have more opportunities for participation in the planning and implementation of social and economic development programs, with more access to funds and sources for an improvement of living and producing conditions. In coastal and small-scale fisheries, too, Ao.Bo.Tos (and their networks) may become a management body for local fisheries and coastal resource management, guided and supervised by the Provincial Office of Fisheries.<sup>1</sup>

7. Thus, any pilot project on coastal resource management in Thailand should consider such on-going processes of decentralization, although there may be unforeseen changes.

**Chart 1 Devolution of District's Function**



## 2. Towards The New Fisheries Laws

8. In Thailand, central government still keep the majority of authority to control licensing and to manage fishing activities in territorial waters. The present fisheries act and regulations<sup>2</sup> do not have any specific issue on the mechanism and procedure of localized coastal fisheries management that allows for the participation of fishers and stakeholders. The legal framework currently existing does not contain issues on devolving management functions and roles to local government. Of course, many provisions of these acts and regulations have so far been revised from time to time. They empower Provincial Governors, the Minister of Agriculture and Cooperatives, and the Director General of the DOF to control and manage fishing and aquaculture activities to some extent.<sup>3</sup> However, both commercial and coastal fisheries cannot co-exist nor accord themselves with old-fashioned and non-systematic legal and administrative frameworks. Conflicts between highly intensive and small-scale fisheries, and among small-scale fisheries, should be reduced in accord with appropriate legal procedures.

9. The Thai Government is considering amending the Fisheries Act, B.E. 2490 (1947) in all aspects. A new act is already in the process of formulation, even though it has to pass through several stages. The DOF proposes new approaches and frameworks, with reference to coastal fisheries management.<sup>4</sup> Firstly, Thai territorial marine waters are divided into two zones, i.e., A "Commercial Marine Fishery Zone" and A "Coastal Marine Fishery Zone." Although there may be disagreement over the definition of a coastal zone with a distance from the high water mark, the zones preserved for coastal fisheries will be further expanded.

10. Secondly, a "designated community" becomes a primary management body in coastal fisheries.<sup>5</sup> A "designated community fishery area" means a specific geographic area set up by the Ministry or the Director General of the DOF, in which the designated community will be delegated rights and responsibilities regarding the management and implementation of appropriate measures for the sustainable use of aquatic resources. Thirdly, a "Local Fishery Committee" functions as a management and coordination body within certain defined areas. Its membership consists of fishers, communities, the public, provincial and local authorities, working together for the purpose of managing, conserving and developing the aquatic resources in defined areas. Given by the Ministry or the Director General, the local committee has the exclusive authority to issue local fishing permits for particular areas, and to issue written permissions.

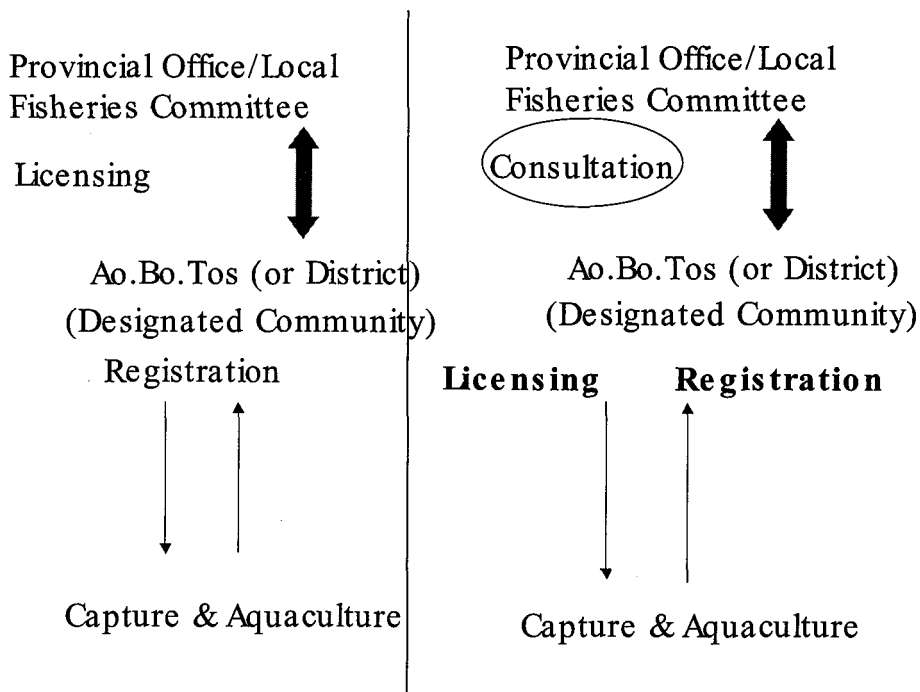
11. Together with such new concepts, the proposed new fisheries act describes the issues of



community-based management. It will give a designated community responsibility and mandate to control and manage fishing activities in a certain defined zone. Members of the community can join a decision-making process of coastal fisheries management. The community develops its management and implementation functions while law enforcement takes place. It is necessary to discuss the adjustment and coordination as regards sharing responsibility and the inter-links between a designated community and local fishery committee.

12. Chart 2 indicates a system of registration and licensing under a new regime of fisheries management (*Chart 2 Registration System for Small-scale Fisheries*). There may be several patterns of management body according to the types of fishery, biological, geographical and other socio-economic surroundings. Prior to the enactment of a new fisheries law, it may be realistic that Tambol(s) become a management body that undertakes registration by taking the place of the District and Provincial Offices of Fisheries. In actuality, a district office would be unlikely to complete all management activities because of a lack of budget and personal. In Pathew, two officers are assigned to do the registration, monitoring, and any other administrative procedures required. They must take care of a far wider area extending over six Tambols (sub-districts). The total number of fishers and aquaculture farmers amounts to 669 establishments, who are scattered all over the Tambols. Enforcement of fisheries laws is very difficult work.

**Chart 2 Registration System for Small-scale Fisheries**



### III. Elements of LBCRM in Tambol Pakklong

#### 1. Management of Demarcated Zones

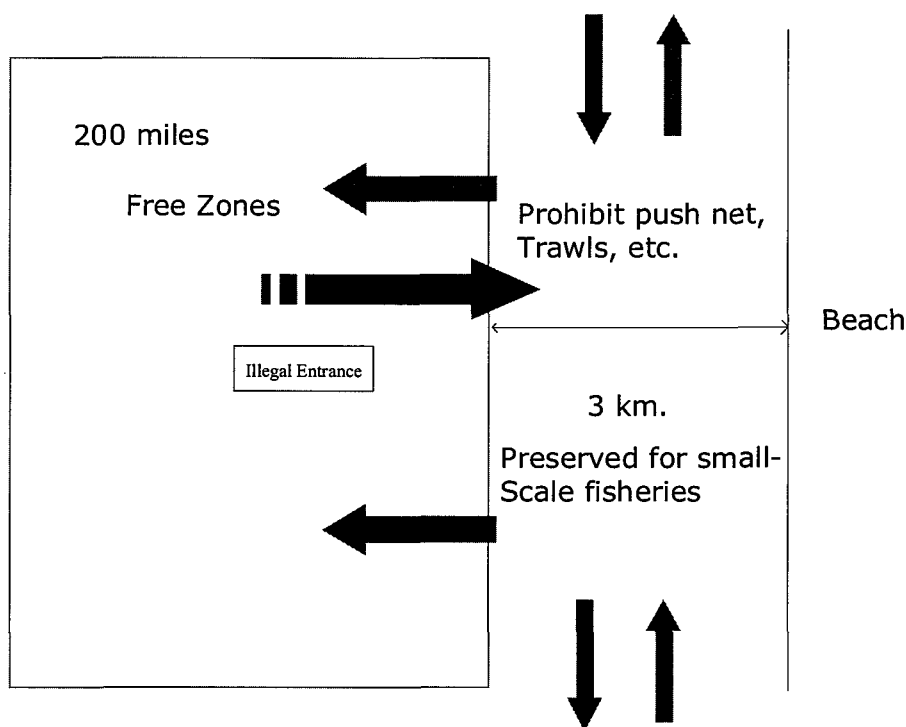
13. The project proposal for LBCRM-PD does not describe what function and authority a LBCRM will have in Tambol Pakklong. The completion of proclaiming a new fisheries act takes much time and many sequential steps for adjustment and compromise among the stakeholders. Before the contexts of the new act are settled, a community-based management body with the exclusive right to control fisheries activities in the demarcated zones cannot be established.

14. Though, having not yet proclaimed a new fisheries act, the government puts forward a decentralization program of local administration and development with the empowerment of Ao.Bo.Tos and people's organizations. Management and conservation of local resources and the environment are the main tasks in the Ao.Bo.To (or networks of Moobaans).<sup>6</sup> Considering the on-going process of decentralization and a new fisheries act, an appropriate LBCRM in Tambol Pakklong should be designed.

15. Given the conditions whereby local fishers and the DOF agree to set up the demarcated zone in the front of Tambol Pakklong, local fishers, stakeholders and leaders of Tambol will have opportunity whereby they consider appropriate rules and regulations, achieve consensus and generate Tambol-based rules. They manage the demarcated zone, but neither the occupying coastal resources there nor excluding those fishers coming from outside Tambol Pakklong. Any rules and regulations that they draw up must not strain the present fisheries law to suit themselves.

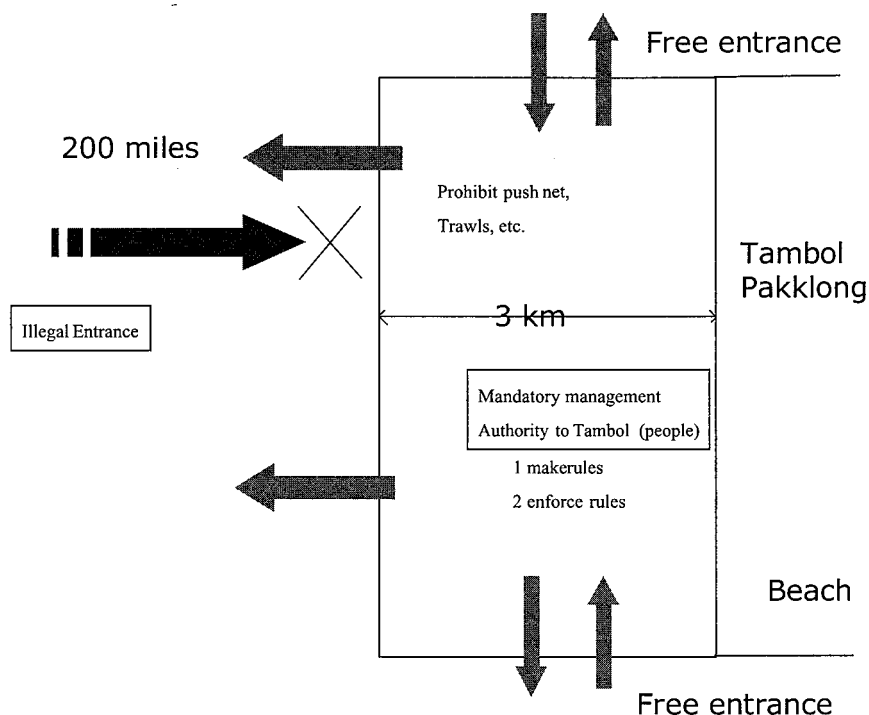
16. As seen in Chart 3, the present management regime holds a boundary 3 km out from the beach. The area inside this line is preserved for small-scale fisheries, prohibiting destructive operations using trawls, push nets, and other destructive fishing gear (*Chart 3 Present System within Thai Territorial Waters*). In principal, any small-scale fishers can access the resources within the boundary. Free entrance is a basic principle. With some exceptions of traditional boundaries in communities in the South, no type of management body proclaims its own territory or reinforces an exclusive territorial use right. Moreover, illegal operation of destructive fishing devices inside the 3 km boundary is common. It is very hard for provincial and central governments to excise strict control over commercial fishing vessels over the long coastlines throughout the country. Of course, governments have so far exerted enormous amounts of effort to keep control over illegal entrance into the preserved coastal zones.

**Chart 3 Present System within Thai Territorial Waters**



17. The LBCRM-PD proposes the establishment of an appropriate management body in charge of the sustainable use of coastal resources in the demarcated zone, while keeping the present boundary system regulated by the fisheries act (*Chart 4 Function of LBCRM-PD*). Resource users, stakeholders and local government achieve such consensus including reducing destructive fishing operations, adjudicating conflicts between fishers, making local rules, enforcing rules, and increasing collaboration with the DOF's

**Chart 4 Function of LBCRM-PD**



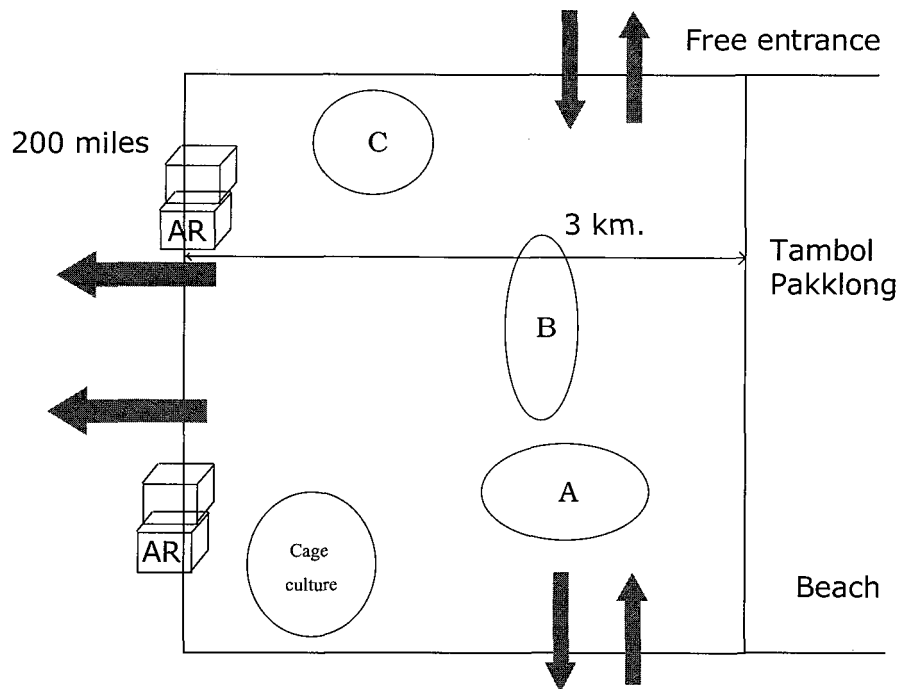
local agencies. Hence, they are devolved the particular authority to manage the demarcated zones in a proper manner by the central and provincial governments. In addition, the meaning of local fishers and stakeholders may extend over those people whose fisheries operations involve the demarcated zone. This is because a number of fishing boats enter into Pathew Bay from adjacent Tambols and Districts. Strictly speaking, under the present regime of fisheries management, these boat operators join in the decision-making process of management. In actuality, training and educational activities often target fishers in adjacent areas.

18. In the development process of LBCRM-PD, local fishers, stakeholders, and local governments will draw up a zoning plan inside the demarcated zone, shown in *Chart 5 LBCRM-PD: Zoning in Demarcated Areas*. As other reports describe, the Activity II of LBCRM-PD has encouraged them to discuss several urgent issues on zoning activities. They are also targeted for establishing a management body whose functions are to generate procedures of decision-making, building effective organizations, determining problems and finding solutions, making plans for management, consulting with related fisheries and government agencies, making and announcing rules, and enforcing them. Obviously, it takes much time to achieve these objectives. There should be a step-by-step plan.

## 2. One Proposal for a Management Body: Role of Ao.Bo.To

19. Although the process of decentralization is still uncertain, Ao.Bo.To will become a primary unit to which district offices devolve several administrative functions. The Ao.Bo.To and its administrative system should work together with local resources users. The Royal Project Committee and related government agencies selected a project site in Tambol Pakklong. As a result, project activities are confined within the area of the Pakklong Ao.Bo.To. The demarcated zones do not extend their neighboring Tambols and Moobaans, restricted to the sea in front of Tambol Pakklong. The Tambol is regarded as a basic, administrative and socio-economic uniformity, regardless of whether or not such selection methods for a project site might not fit in with the reality of people's living and producing conditions inside and outside the Tambol.

Chart 5 LBCRM-PD: Zoning in Demarcated Areas



20. Ideally, a *Tambol-based* coastal resource management system, Ao.Bo.Tos would have the following three functions.

**1) Administrative unit of fisheries management**

Provincial and District Offices of Fisheries plan to delegate some functions and issues to Ao.Bo.Tos, like registration, licensing, and planning for management. As the first step of decentralization, the Ao.Bo.Tos may assist the development of registration of fishing gear, fishing boats, aquaculture ponds, and so on. In collaboration with staff from the Pakklong Ao.Bo.To, the LBCRM-PD identifies selective functions that the Ao.Bo.To and coastal resource users can take over from the Provincial and District Office of Fisheries. The project will then explore a *Tambol-based* fisheries registration system and develop it. This attempt, however, will be done on a voluntary basis by the time of the completion of the amendments to the fisheries act and regulations.

**2) Support resource users' activities on coastal resource management**

To achieve consensus and agreement on the sustainable use of the demarcated coastal zones, the Ao.Bo.To supports fishers and resource user activities in various ways. Establishing and managing user's groups are core activities. The Ao.Bo.To encourages the people to join the groups, and involve themselves in resource management.

**3) Legitimate resource user decisions and agreements**

The Pakklong Ao.Bo.To may find difficulty in extending its function to the management of local resources and the environment because of a lack of personnel and budget. However, the Ao.Bo.To enables legitimate resource user decisions and their agreements. It is an autonomous administrative organ in political and budgetary terms, whose council members are elected from the public through democratic voting procedures. At the last stage of decision-making as regards the management of the demarcated zones, the Ao.Bo.To council allows rules and regulations with the consensus of the people.



21. There may arise some doubt and disagreement over whether an Ao.Bo.To is mature enough to take charge of coastal resource management. It has just started with development at gradual pace. In actual implementation, fishers and resource user organizations –of whatever type – should be the foundation of the self-regulatory management of demarcated coastal zones.

### 3. Community (Moobaan)-Based Management Unit and Its Roles

22. At present, fishers and any stakeholders join the discussion and decision-making process of community development and social welfare aspects at Moobaan level. The Moobaan works as a fundamental unit of local administration, and the uniformity of people. Community-based management units (CBMU) exist in the Moobaan, or Moobaan administration may work as CBMU. In fact, as Suanratthanachai *et al* report on the zoning of fish cage farms, people first discuss matters at Moobaan regular meetings and exchange opinions (Suanrattanachai, Petchkamnerd, and Auimrod, 2003).

23. It is ideal that the CBMU becomes a primary unit at Moobaan level that functions in at least six roles (*Table 1 Roles of CBMU*). CBMUs act in detecting problems and finding solutions on coastal resource management at both Moobaan and Tambol levels. They provide a wide variety of opportunities whereby the people obtain consensus on how to regulate fishing and aquaculture operations in the demarcated coastal zones. According to the agreements that the people reach, the CBMUs extend their own rules and enforce them. Adjusting and coordinating to reduce conflict in the demarcated zones are the responsibility of the CBMUs. They represent a formal and core organization of fisheries and resource users in Tambol Pakklong.

**Table 1 Community-based Management Units**

#### **Functions:**

- |                   |   |
|-------------------|---|
| 1. Representative | Act as representative and unity of resource users in the primary unit                 |
| 2. Consensus      | Organize a process of gaining consensus among resource users                          |
| 3. Suggestion     | Suggest directions of coastal resource management and community development Ao.Bo.To. |
| 4. Implementation | Undertake conservation and management activities in line with consensus and agreement |
| 5. Enforcement    | Enforce laws, monitoring and controlling irresponsible production                     |
| 6. Adjustment     | Adjust interests between areas and reduce conflicts                                   |

24. What is most important is not organizing a CBMU, but creating an effective institutional arrangement to encourage fishers and resources users forward realizing these objectives at Tambol level. The following issues on the organization and activities of CBMUs should be considered in depth:

#### **1) A Moobaan-based Organization with open membership**

Under the present local administrative arrangements, a Moobaan functions as a primary administrative unit standing between the people and the Ao.Bo.To, and covers a wide range of local concerns. Naturally, the Moobaan administrative unit must open its membership to all residents. Geographically, in Tambol Pakklong, some Moobaans become an actual unit of people's life and production. They provide political and economic cohesion. Therefore, a Moobaan-based



framework of resource management encourages greater participation by the fishers and resource users in a decision-making process.

## 2) Coverage area of CBMU

A CBMU does not need to restrict its membership and activities within one Moobaan, if several Moobaans have geographic, environmental and socio-cultural aspects in common. Organization and membership should be flexibly changed. For example, Moobaan Nos. 1 and 6 are in the same neighborhood. Fishers mostly anchor boats in the same beach and go to the same fishing grounds. They often share training and education programs, too.

## 3) Adding resource management functions, transforming the currently existing groups, or newly establishing ones?

If a Moobaan administration secures people's participation in coastal resource management, it is unnecessary to organize any new management units. Just adding several functions of resource management to the Moobaan administration will be very cost-effective, in cases where the majority of households are engaged in fisheries activities.

In other cases, fishers and resource users transform the fishers' groups currently existing into a management unit, which also seems more rational and cost-effective rather than to newly establish groups. But, the fishers' groups currently existing at the project site are likely to close their membership.<sup>7</sup> Without open-access to membership for all fishers and resource users, these groups would not function as a management unit.

## 4) Combination with particular types of fisheries groups

A primary management unit (CBMU) has area-based membership, not an occupationally based (fishing gear) one. This no longer means that it would be unnecessary to organize any occupationally based units. Those engaged in fish cage and shellfish culture have already established groups. They are expected to hold responsibility for the management of culture grounds, whose membership extends over the whole area of the Tambol. Area-based and fisheries-type-based management bodies will coexist and work together to solve many different problems. They will reciprocally support each other, as each type has both advantages and disadvantages.

25. There may be much argument on organizational principles and activity guidelines that will eventually be adopted at the project site. The people themselves are seeking adequate management units and creating institutional arrangements.

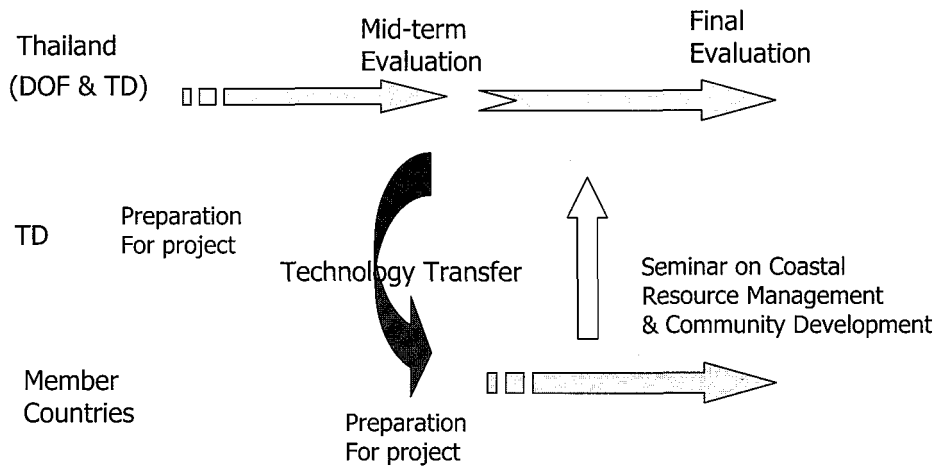
## IV. LBCRM: As a Total System with a CBMUs Network

### 1. A Realistic Approach to LBCRM

26. In local administration, the Ao.Bo.To system has just begun to develop with the concessive support of government, so that it is still weak. It is unrealistic to hold the Ao.Bo.To fully responsible for coastal fisheries management from an early stage, although it is expected that the Ao.Bo.To will increase its function and role in local resource and environmental management. Even after the Ao.Bo.To has matured enough to manage local resource utilization, it must depend on the people's enthusiastic participation and involvement.

27. An LBCRM contains three substantial elements, that is, Ao.Bo.To, CBMUs and a network of CBMUs (*Chart 6 Framework of LBCRM*). In actual implementation of coastal fisheries management in Tambol Pakklong, the network that all CBMUs join will stand at the center.

**Chart 6 Framework of LBCRM**



28. Such a network is to arrange and conduct self-regulating activities at Tambol level. It resolves conflicts between Moobaans, and between different types of fisheries. Sharing responsibility between the Pakklong Ao.Bo.To and the network will change flexibly, according to the level of people’s participation and involvement. In any case, a LBCRM plans to work as a holistic management body covering the area of the project site. This should be a formal institutional arrangement, widely acknowledged by the people. Otherwise, confusion would arise and a struggle for legitimacy of consensus and agreement among the people.

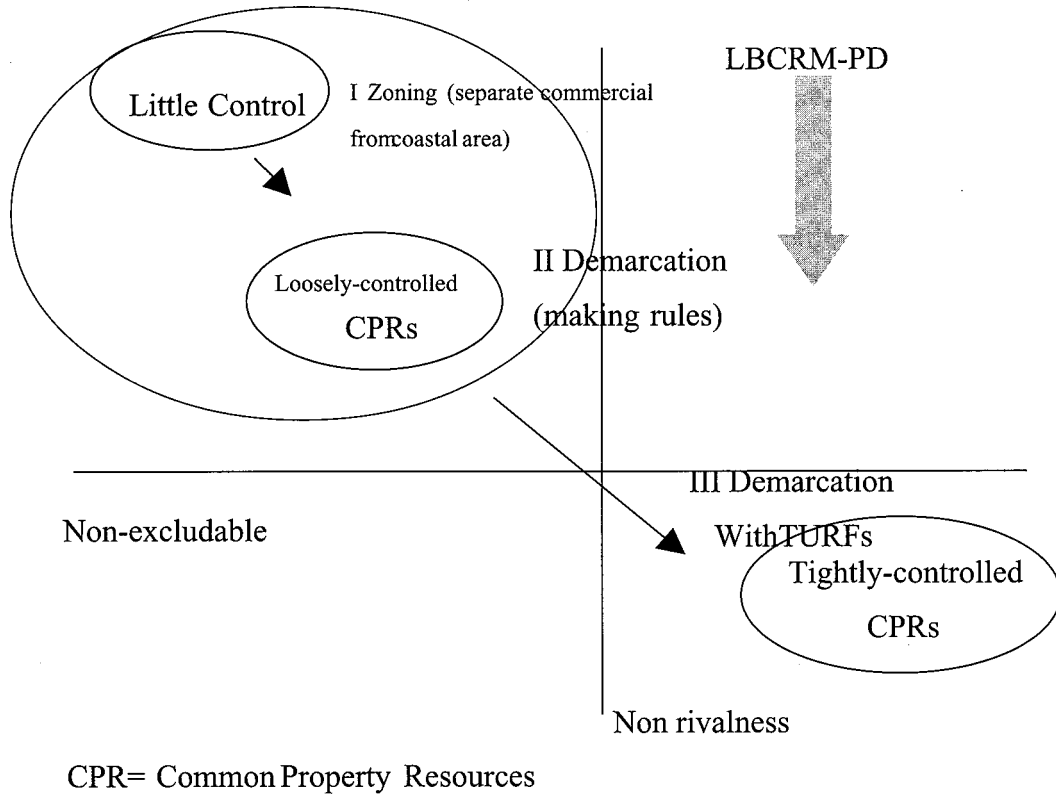
29. It is tentatively proposed that an LBCRM should be constituted with the Pakklong Ao.Bo.To and CBMUs whose membership is limited to the Tambol Pakklong area. This does not mean that such an LBCRM framework is confined to its mandate and control over only one Tambol. There may be an enormous number of variations of the LBCRM framework, given different geographical, resource environments, and socio-economic surroundings. Even in Tambol Pakklong, different patterns of LBCRM could be proposed, when considering the fact that those outside residential fishers usually encroach upon the demarcated coastal zones to fish. Through experiments in this project, a more adequate model of LBCRM fitting with the reality of coastal resource utilization would be searched for.

30. It is not always rational that a local fisheries management body should be established in line with the local administrative system currently prevailing. Under *de-facto* open access to coastal resource, fishers and resource users more freely and flexibly explore aquatic resources far beyond their own residential areas. CBMUs and their networks flexibly extending their organization and activity over Tambols will be more effective and realistic than if local administrative and bureaucratic lines restrict them. In other words, the CBMUs and the networks should steer in any direction of LBCRM instead of local administration.

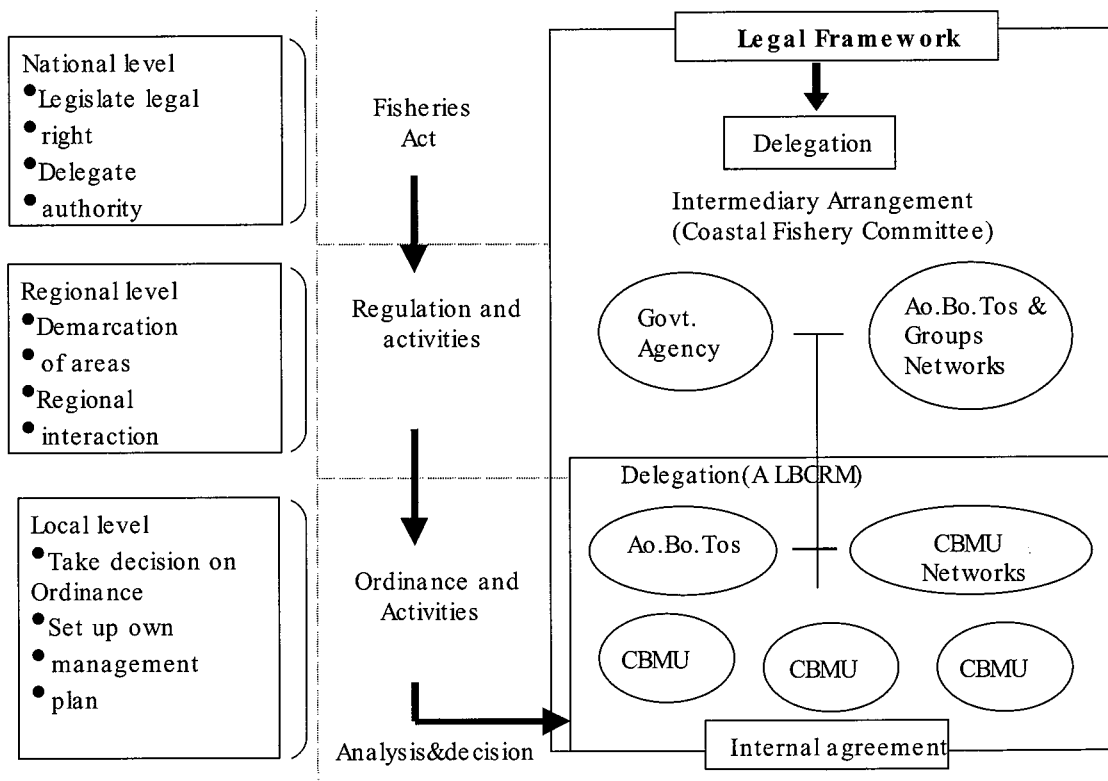
## 2. What Roles and Issues Be Devolved to the LBCRM-PD?

31. It is still uncertain what roles and issues would be devolved to LBCRM-PD by the government in the pilot project. At present, the LBCRM-PD activity is not clearly defined, organization, legitimacy and coverage area of authority. Everything may depend on the future formulation of a new fisheries act. As a pilot project, the LBCRM-PD has started with the management of the demarcated zone. This cannot be categorized into “territorial use right in fisheries (TURF)” with excludability and non-competitiveness. Probably, it will be defined that the LBCRM-PD as the management programme standing at the starting point of “loosely-controlled communal property resources”. (*Chart 7 Characteristics of Common Resources in Coastal Management*). It is not realistic that the LBCRM-PD should become a

**Chart 7 Characteristics of Common Resources in Coastal Management**



**Chart 8 Mechanism of Decentralization**





management body with TURFs. Local residents do not desire to build such a tightly-controlled system in the front of their Moobaans and Tambol. But they need to make local rules for the sustainable use of targeted resources, and impose their own rules on inside and outside residential fishers. The LBCRM-PD then exercises jurisdiction over the demarcated zone, fully supported by the Provincial and District Offices of Fisheries. This includes the elimination of illegal and destructive fishing operations from the demarcated zone.

32. At one and the same time, the consultative and informative processes and procedures that the Provincial and District Offices of Fisheries would require, the LBCRM-PD should be shortened and reduced as much as possible. While reducing the project staff and government officers' involvement, the LBCRM-PD (fishers, stakeholders, people's groups, Moobaan-based arrangements, and Ao.Bo.To) will expand the coverage area of exercising jurisdictions. They would like to explore a shorter and simpler decision making and consultation process of zone management.

33. As a pilot project, the Provincial and District Offices of Fisheries may plan to devolve some selected issues and roles on registration and licensing. They are mostly related to small-scale fisheries, and their means of production including fishing boats and major devices. A registration system will be experimented with on a voluntary basis within the framework of the present fisheries act. The LBCRM-PD will seek an effective and simple registration system for small-scale and coastal fisheries.

### **3. LBCRM Will Stand as the Foundation of a Decentralized System**

34. It is predicted that the one possible mechanism of decentralized coastal fisheries management regime, is shown in Chart 8 (*Chart 8 Mechanism of Decentralization*).<sup>8</sup> This chart illustrates just one process of how to devolve central authority to the local level stage by stage. According to the draft of the new fisheries act, the "local fishery committee" may stand between the central government and local levels. The committee holds great responsibility for adjustment and coordination among different areas, and among different types of fisheries. The coverage area of the fisheries committee is far beyond that of a LBCRM unit. The committee may function as a provincial and regional management body, consisting of a number of LBCRM units.

35. An LBCRM is a primary management unit in a decentralized coastal fisheries management regime, standing between the local fishery committee and local communities. Whatever the type, an intermediary and regional institution will be required to achieve effective and sustainable management of coastal resources. The committee may partly contain an assembly of LBCRM units within a defined locality, while government fisheries agencies, provincial and district offices instruct on the committee's activities.

### **Reference**

Suanrattanachai P., Petchkamnerd J., and Auimrod S., 2003. Experience on Zoning of Fish Cage and Shellfish Cultures Areas, the Seminar Report.

**Notes:**

- <sup>1</sup> At the time TD and the DOF made a project proposal in 2001, the government had not yet defined a direction of decentralization in agriculture, fisheries, and forestry.
- <sup>2</sup> The main laws and regulations are as follows; 1) The Fisheries Act, B.E. 2490 (1947), 2) The Act Government the Right to Fish in Thai Fisheries Water, B.E. 2482 (1939), 3) The Thai Vessels Act, B.E. 2481 (1938).
- <sup>3</sup> If necessary, these authorities should proclaim provincial regulations, ministry regulations, and department regulations, respectively.
- <sup>4</sup> The discussion hereafter will be based upon “Fisheries Act, B.E. 25— (Draft)”, which is discussed in public.
- <sup>5</sup> A “Designated community” means the persons who have the right to harvest aquatic resources within a designated community fishery area or have been given the authority to manage and implement measures related to aquatic resources within a designated community fisheries area.
- <sup>6</sup> There is much disagreement over whether the Ao.Bo.To and/or local communities become owners of local resources. In the recent development of the reforestation program since the 1990s, the concept of social forestry has developed and has recently become widespread through the North and the Northeast. However, agreement has not yet been reached as regards common property rights of forestry resources. This is a very controversial issue.
- <sup>7</sup> These groups have dealt in the provision of micro finance to their members, with a DOF subsidy to lending funds.
- <sup>8</sup> This chart and the description here are not based upon any official statement, but based upon the author's (Yamao's) personal view. The author assumes full responsibility for illustrating this chart and the description.



## Registration Systems

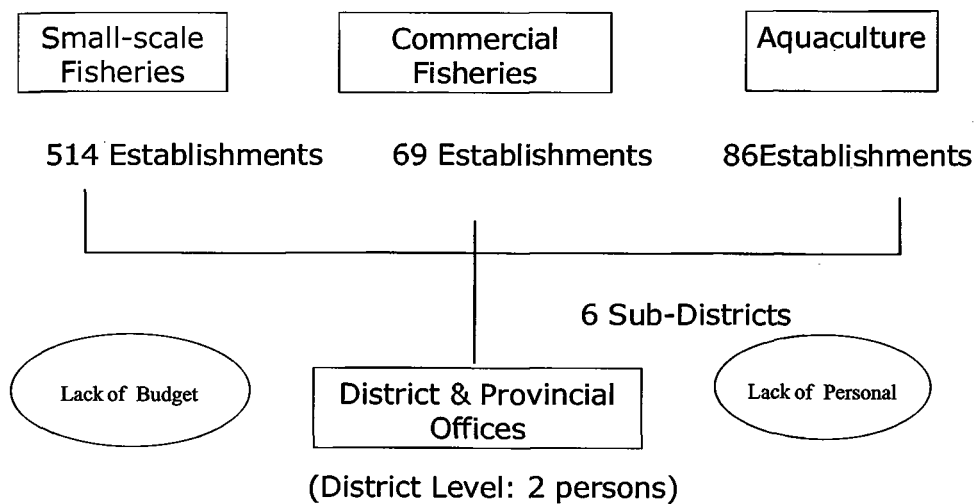
### Fishing Boats and Operations (Gears)

#### Requirement for Output Control & Input Control

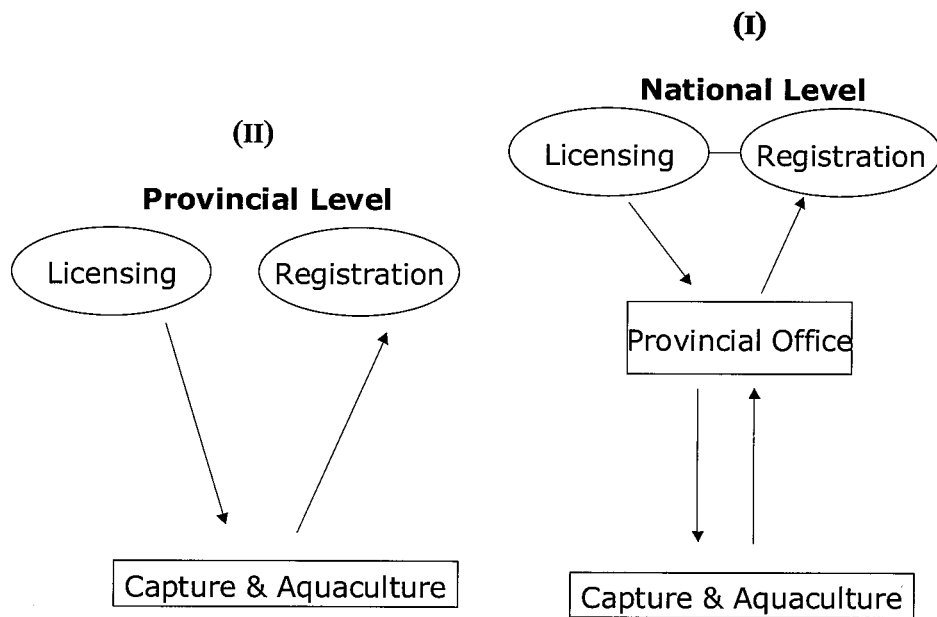


- 1) Establishment of registration fitting in with patterns of fisheries
- 2) Registration agencies: according to patterns of fisheries, types of management, etc.
- 3) Registration links to Licensing

### District Office of Fisheries in Pathew



### Registration Systems for Commercial Fisheries



### Classification of Small-scale Fisheries

Kinds of Registration	Free Entrance	Registration Fisheries	Registered & Licenced Fisheries
Fishers	Non	Need	Need
Operations (Gears)	Free Operation with Any Gears Except Registration & License	Free Operation with Registration Selected Gears	With License Selected Gears
Fishing Boats	Need	Need	Need
Fishing Areas	Coastal	Coastal (Fixed)	Coastal (Fixed)