

## **Conceptual Model of Seasonal Flooded Forest Management (Pa Bung-Pa Tham Management, PBPTM) by Community-Based Management for Lower Wetland Area of Mun River in Northeast Thailand**

<sup>1</sup>Anand Kumparatana, <sup>1</sup>Charlie Navanugraha and <sup>2</sup>Phassakon Nuntapanich  
<sup>1</sup>Faculty of Environment and Resources Studies, Mahasarakham University,  
44000 Mahasarakham, Thailand  
<sup>2</sup>Faculty of Agriculture, Ubonratchathani Rajabhat University,  
34000 Ubonratchathani Province, Thailand

---

**Abstract:** This qualitative research was conducted to find out the conceptual model of seasonal flooded forest management (Pa Bung-Pa Tham Management, PBPTM) by community-based management which would be appropriate for lower wetland area of Mun river for application and promotion for community-based management. The main method of this research was the focus group discussion among the local masters who had experiences in PBPTM by community-based management in the Northeast Thailand. The results were found that the appropriate conceptual model of PBPTM by community-based management for lower wetland area of Mun river composed of 2 factors viz. internal factor of local community and external factor of local community which they comprised of 5 major factors such as; local community situations, local community people, local community organizing, local community organization management and external support and promotion for local community movements in PBPTM. In case of the indicators for appropriate PBPTM by community-based management comprised of 15 indicators. This appropriate conceptual model of PBPTM by community-based management for lower wetland area of Mun river would be the useful and effective approaches to promote and support for the real operation of PBPTM by community-based management for lower wetland area of Mun river soon.

**Key words:** Conceptual model, community-based management, seasonal flooded forest, lower wetland area of Mun river, Northeast Thailand, PBPTM

---

### **INTRODUCTION**

Pa Bung-Pa Tham (PBPT) was the seasonal flooded forest in the wetland and it was very useful and important for socio-economic, social and environmental relationships of the local community but it has been negligent for conservation and appropriate management. Pa Bung-Pa Tham was an Isa-an word (a dialect in Northeast Thailand) which meant the forest areas in the wetlands where they were close to the rivers. These areas were plain land and flooded in rainy season, they were abundant of bushes, so many people misunderstood that these PBPT areas were deforested and useless and some people have partially invaded and destroyed the forest that caused the negative changes of its situation.

PBPT has been an important geographic component that influence on the ecological system of the rivers in Northeast Thailand, Klinhom (1996) defined the meanings of Bung and Tham as follow as: Bung was a wetland close

to the rivers, it might be flooded for the whole year or mostly a year which comprised of the thick bushes in this area and Tham was the flooded plain areas of both banks of the rivers which would be flooded about 1-3 months annually (September-November) that led to collect the organic matter or silt to this temporary flooded land, so the soil in this area had high fertility and became the sources for bearing many kinds and species of living things such as aquatic and land plants, aquatic and land animals and amphibians.

Mun river was a very important one of the lower part of Northeast Thailand, watershed began from Nakorn Ratshasima and flew along the areas of Buriram, Surin, Srisaket and Ubon Ratchathani where it flew down to the Maekhong river. The lower wetland area of Mun river had covered over the lands of Srisaket and Ubon Ratchathani. Nontnapha (2002) surveyed and found that PBPT of lower wetland area of Mun river has been decreased rapidly, the causes of invasions and destructions of this area viz.

Project of Economic Development; the forest and lands of PBPT have been invaded and destroyed by private sector and local community for utilization the natural resources without the reasonable reasons and limitations. So, the forest condition was changed to be the agricultural and constructional lands such as Eucalyptus planting land, sand suction and sand factory, road construction, water reservoir construction, etc., which they caused to decrease the lands of PBPT rapidly.

So, the support and promotion for local community in appropriate PBPTM by community-based management are very important and essential. Because the appropriate PBPTM by community-based management will be very useful and effective for the local people in sustainable utilization of the natural resources in PBPT lands and it will be an approach for PBPT conservation and existence. However, the important and main question is how a pattern and model of the appropriate PBPTM by community-based management for lower wetland area of Mun river should be for application and promotion for local community. The important components and indicators of the appropriate PBPTM by community-based management how they should be. Therefore, the objective of this research is to find out the conceptual model of community-based seasonal flooded forest management (Pa Bung-Pa Tham Management, PBPTM) which would be appropriate for lower wetland area of Mun river that will be useful for sustainable application and promotion for community-based management in the near future.

## MATERIALS AND METHODS

This study is a qualitative research which main method of this research was the Focus Group Discussion (FGD) among the local masters who had experiences in PBPTM by community-based management in the Northeast Thailand. The focus group discussion was conducted for 2 times, at the first time of this discussion aimed to identify the conceptual model of the appropriate PBPTM by community-based management which defined the factors, components and indicators of the appropriate PBPTM by community-based management after that the researcher analyzed and synthesized all of the collected data and proceeded them for the second discussion for fulfilling of this expected conceptual model.

The local masters were obtained by using Snowball Technique, ten local masters were selected from different sectors viz. 3 members from government organizations, other 4 members from private organization for development and other 3 members from the local villager groups who were folklore wisdom of the local community. All selected local masters who attended the focus group

discussions of this research were experienced masters in PBPTM of the lower wetland area of Mun river. They discussed among the local masters for identifying the appropriate PBPTM by community-based management. The tools of this research were the main points of questions and question sets which emphasized on building up the conceptual model of the appropriate PBPTM by community-based management and setting up the important factors, components and indicators under this expected conceptual model. The collected data from both discussions were studied by content analysis, typology and interpretation according to qualitative data analysis.

## RESULTS AND DISCUSSION

The results were found that the appropriate conceptual model of PBPTM by community-based management for lower wetland area of Mun river composed of 2 major factors viz. internal factor of community which composed of 4 components and external factor of community which comprised of 1 component (Fig. 1). The details of each major factors were as following:

**Internal factor of local community:** Internal factor of community composed of 4 factors such as: local community situations, local community population, local community organizing and local community organization management.

**Local community situations:** The local masters joined to identify the main points for PBPTM by community-based management under the real condition of local community situations such as context of location, ecological condition, culture and tradition including community economy.

The local masters revealed the point of view that the model for the appropriate PBPTM by community-based management should be depend upon context of location and ecological culture as the words of the local masters who expressed Pa Bung-Pa Tham is very valuable in both ecological condition and culture aspects, therefore Pa Bung-Pa Tham management how will be suitable and successful, the consideration of ecological condition, culture and tradition must be essential and the ecological condition, culture and tradition are also depend upon the context of location if the contexts of location are different these would cause the different management too. In case of community economy, the local masters showed points of view that Pa Bung-Pa Tham will have an important roles for the community economy if it will be managed properly and suitably.

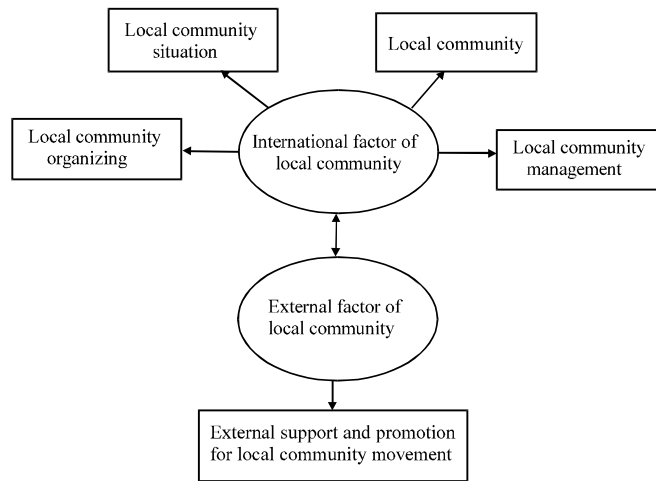


Fig. 1: Components of factors of the conceptual model of the appropriate PBPTM by community-based management for lower wetland area of Mun river which were obtained from focus group discussions among the local masters

**Local community people:** The local masters concluded that the people of local community were very important components because PBPT related to living style and condition of the people in each local community. If the people had knowledge and realized on the precious values of PBPT that would be effective for PBPTM. The participation of people in local community was an important component for PBPTM with the success of conservations and managements in many researched areas which similarly with the study of Silaket (2003) found that the success of community forest management depended on the process of knowledge exchanging processes, the participation of local community organizations and people of local community.

**Local community organizing:** The local masters concluded that PBPTM would depend upon the local community organizing as groups of people which the organization must have rules, regulations or agreements for using as the mechanism and tools for administration and management. Inclusion of network establishment should be operated for co-ordination with other people group organizations and other related sectors in internal local areas or external areas for PBPTM which related to the study of Pragtong (1990) found that community forest management would be sustainable if the people group organizations were established with proper rules, regulations or agreements for using as the mechanism and tools for administration and management.

**Local community organization management:** This component was used as the tools and operation of the local organizations for PBPTM which composed of

administration plan and management plan for PBPTM of the local areas. This component related to people group organization establishment that influenced on identified the administration plan and management plan. Besides the utilization of PBPT, resources would relate to local community situation, especially community economy, life style and living condition of the people because PBPT was a source of foods and incomes of local community. In case of PBPT conservation was an important aspect for the existence of PBPT areas in local community, therefore the aspects of utilization and conservation of PBPT were the operations in local field level that led to the sustainable PBPTM which related to the study of Pragtong (1990) and Boonwan (2006).

**External factor of local community:** External factor of local community had only one component the was external support and promotion for local community movements in PBPTM from related sectors. This component should consider 2 aspects; co-ordination with related organization for making the co-operations and joint party for supports. The local masters showed the points of view that the found success of PBPTM would occurred by the co-ordination between the external organizations and local community organization for asking co-operations in PBPTM, especially local level organizations such as office of local sub-district government or regional level organizations such as provincial office of natural resource and environment, universities including the central office such as the Ministry of Natural Resources and Environment that set the main policy. And joint party for development or promotion in PBPTM was an important component of the

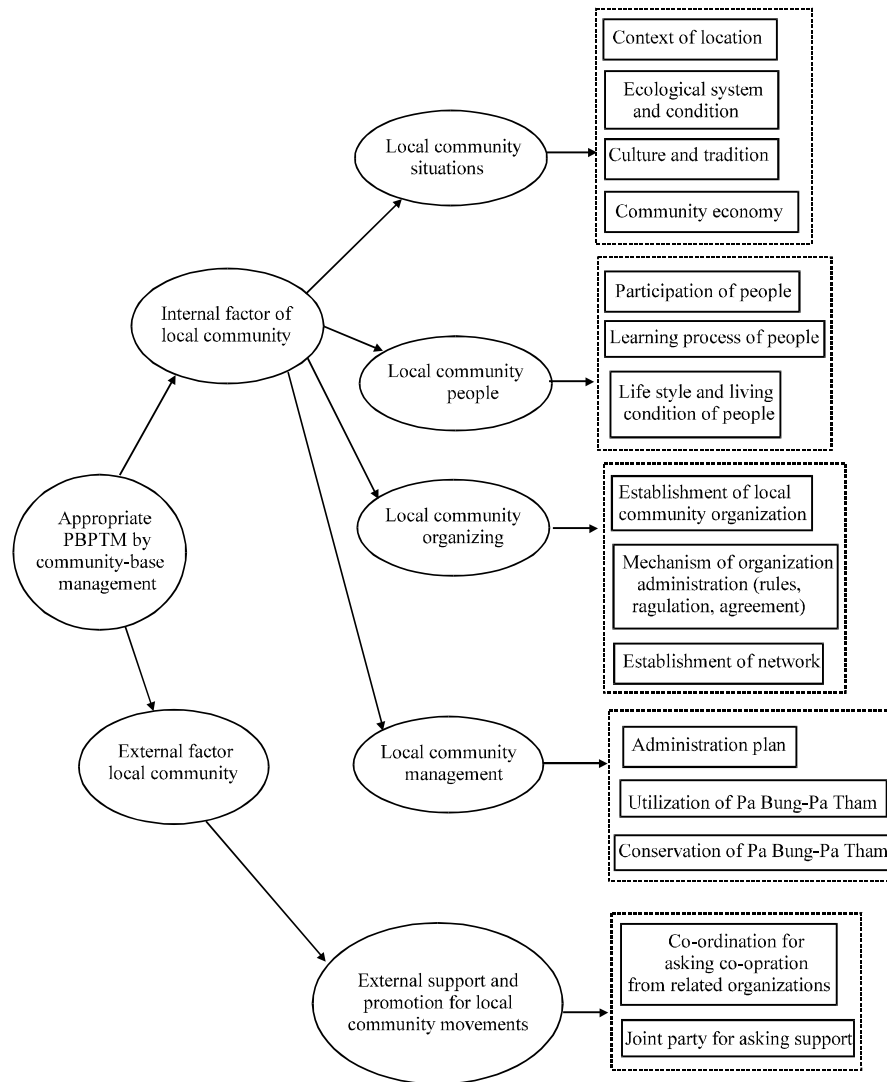


Fig. 2: The conceptual model of the appropriate PBPTM by community-based management for lower wetland area of Mun river which were obtained from focus group discussions among the local masters

Table 1: Factors, components and indicators of conceptual model of the appropriate PBPTM by community-base management for lower wetland area of Mun river

Factors	Components	Indicators
Internal factor of local community	Local community situations	Context of location, ecological system and condition, culture and tradition community economy
	Local community people	Participation of people, learning process of people, life style and living condition of people
	Local community organizing	Establishment of local community organization, mechanism of organization administration (rules, regulation, agreement), establishment of network
	Local community management	Administration plan, utilization of pa bung-pa tham, conservation of pa bung-pa tham
	External support and promotion for local community movements	Co-ordination for asking co-operation from related organizations, joint party for asking support
External factor of local community		

external factors of local community that would help to support the local level management of PBPTM successfully which it was similar as the report of Silaket (2003) and Boonwan (2006) stated that the success of

community forest management would depend upon the promotion and support from related government and private organizations which they would promote and support continuously and suitably. So, the community

forest management could occur and sustain to bear the direct and indirect uses for local community and public. The internal and external factors of local community composed of 5 components which their details and indicators that identified the conceptual model of PBPTM by community-based management were shown in Table 1. The collected data and indicators from both focus group discussions (Table 1) could set the conceptual model of appropriate PBPTM by community-based management for lower wetland area of Mun river which were shown in Fig. 2.

### **CONCLUSION**

The conceptual model of appropriate PBPTM by community-based management for lower wetland area of Mun river from this research composed of 2 factors viz. internal factor of community and external factor of community. The internal factor comprised of 4 major components and 13 indicators but the external factor comprised of 1 major component and 2 indicators. This conceptual model of the appropriate PBPTM by community-base management could be applied to promote and support for local community for PBPTM by community-based management in lower wetland area of Mun river by using as a frame and scope for evaluation and development or for forcing to build up the operations

based on the indicators of these components in local community where PBPT was located and so the sustainable PBPTM would occur soon.

### **REFERENCES**

- Boonwan, J., 2006. Pa Tham management in the middle area of Lumsebai River: Case study of community forest (Pa Tham) in Ban Muang, Nagae sub-district, Kamkhuenkaew district, Yasothon province. Master Thesis, Naresuan University, Pitsanulok.
- Klinhom, U., 1996. Study of pa bung-pa tham. J. Waliairukhavech, 1: 4-11.
- Nontnapha, W., 2002. Swine production and sales in lower wetland area of Mun River. Master Thesis, Maharakam University, Maharakam.
- Pragtong, K., 1990. Community Forest in Thailand. Publishing House of Agricultural Co-operative Club of Thailand, Bangkok,.
- Silaket, C., 2003. Co-operation among community organizations and community in sustainable community forest management: Case study of Dongyai community forest in Ban Wang Or-Wangtham, Huadon district, Khuengnai district, Ubon Ratchathani. Independent Study Report. Maharakam University, Maharakam.