

**LOCAL CULTURAL CONTEXT IN COMMUNITY BASED FOREST  
MANAGEMENT  
STUDY CASE: INDONESIA**

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## ABSTRACT

This research discuss about the key local cultural aspects that influence the implementation of community based forest management in Indonesia. In order to find out which local cultural aspects are influential, all local cultural factors that have been studied are presented and then using the rationales and arguments from literature, local cultural aspects that significant for the CBFM is then being listed. There are six aspects that considered the prominent factors, namely: property rights, formal-informal institution, human/community resources, interest on resources, community features, and traditional practices. These six factors then described in confronting to Indonesian context, and then to the two study cases presented: CBFM in Java and CBFM in Kalimantan.

The influences of the six factors in the implementation of CBFM in Indonesia are present. In Java case where the community is a modern community, the factors are mostly giving negative effects to the implementation of CBFM. On the other hand, in the traditional community represented by Kalimantan case, the factors are giving positive effects to CBFM implementation.

*Keywords:* Community Based Forest Management, Local Cultural Context, Indonesia.

CHAPTER 1 .....	1
INTRODUCTION .....	1
1.1. Background .....	1
1.2. Problem Statement.....	2
1.3. Research Objectives and Questions .....	3
1.4. Significances of research.....	3
1.5. Research Methodology .....	4
1.6. Structure of the Thesis.....	5
CHAPTER 2.....	7
THEORETICAL REVIEW .....	7
2.1. Community Forest .....	7
2.2. Local Cultural Context: Definition.....	8
2.3. Local Cultural Context and Community Forest .....	9
CHAPTER 3 .....	15
COMMUNITY BASED FOREST MANAGEMENT IN INDONESIA .....	15
3.1. Cultural Context .....	15
3.2. Decision Making Context .....	17
3.3. Practices of Community Based Forest Management .....	18
CHAPTER 4.....	30
DISCUSSION.....	30
4.1. Key Factors Relevance .....	30
4.2. Local cultural context in CBFM in Java and Kalimantan.....	36
CHAPTER 5 .....	42
CONCLUSION AND RECOMMENDATION.....	42
5.1 Conclusion.....	42
5.2 Recommendation .....	44
REFERENCES .....	47

## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1. Background**

In recent years, there has been growing attention on community based forest management. People are more aware of the importance of forest for ecological balance and for economic sources for the people living near and around the forest (NCFC 2000).

Many studies have been conducted focusing on community based forest management with variety of subjects. With the ample availability of case studies in the practice of CBFM, the study on meta-analysis of these case studies became possible. And there are several meta-studies using journal articles on CBFM focusing on the success of its implementation. In this meta-analysis we can found factors of success for CBFM being presented. Some of the factors in the list are property right regimes, financial and human resource support, and community features (Pagdee 2006).

Social Forestry, Society Forest, Community Forestry, Community Based Natural Resources Management, Community Conservation and Community Based Forest Management all are having the same perception on the importance of community in managing natural resources effectively (Pagdee 2006) (Sasse and Milhoj 2011) (Agrawal and Gibson 1999). Thus, in this research, these terms are used interchangeably.

Different literature has different measures and factors to determine the success of a community based forest management. In seeing the success of CBFM, every writer focuses on the measures that directly and clearly visible. The factors which have indirect effect are less likely to be explored (Pagdee 2006). One of the less likely explored but mentioned quite often is the local cultural context. Many researcher mentioned the importance of local cultural background in their work, however there

is still limited studies which focuses on this factor and try to really understand how this character of a community influence the outcomes of CBFM (Waylen et al. 2010).

From the international cases in variety of literature, the key factors are still a general approach taken from many study cases. These factors then, due to its generalization sometimes does not really fit the context of a specific community. The effect or the significance of these factors vary among places and applicable in many places and conditions (Pagdee 2006).

Focusing on Indonesia which has the third largest area of forest in the world and many people living around and in the forest, and from these people, more than 10 million of them are living below the poverty line (Berliani et al 2009). The practice of CBFM therefore plays important role in forest conservation and poverty alleviation in Indonesia.

The implementation of CBFM in Indonesia will most likely be influenced by its cultural context. Well known as the archipelagic state with thousand of islands, Indonesia also rich in culture and religious beliefs that formed in its people daily life and activities (Swasono 1997). The extent of local cultural influence to the practice of CBFM and the degree of interest in studying this extent will be the subject of the study.

## **1.2. Problem Statement**

In achieving successful CBFM, many important factors need to be fulfilled or considered. One of the factors is the local cultural background. Despite the potential benefit and barrier of engaging cultural aspect in development program, the publication and research in this topic, especially in Indonesia, are still limited (Wallen et al. 2010; Swasono 1997). Therefore studies focusing on the effect of local cultural context are essential in capturing the positive and negative effect of this factor and later can be incorporated in planning and implementation of CBFM.

### **1.3. Research Objectives and Questions**

The research objectives are: The first one is to understand definition and aspects of cultural context that relevant to community forestry. The second objective is to gain insight to the influence of local cultural back ground in CBFM practice in Indonesia. The last objective is to identify the local cultural aspects that determine the success or failure of the CBFM. These objectives hopefully give information to CBFM stakeholder especially government official on the importance of local cultural background and how to benefit from it in the CBFM implementation in Indonesia.

Based on the research objective stated above, the research questions for this research are:

What are local cultural context and its aspects in community forestry?

What are the relevant local cultural contexts that influence the CBFM in Indonesia?

What are the key local cultural aspects that are very influential in determining the success of CBFM in Indonesia?

### **1.4. Significances of research**

Much has been written on community based forest management. This research aims to contribute to academic knowledge by exploring the factors for the success of a community forest management in particular the local cultural context of a community. Many practices of community forestry around the globe face obstacle and even failure. By gathering the result of practices from academic journal articles and other literature available, it will help future practice to avoid the same mistakes and achieved better chances of success. This research largely based on review of available journal articles and largely using descriptive analysis therefore the contributions are modest.

## 1.5. Research Methodology

In answering the research questions, this research used several methodological steps. The first step is the literature review. In this step the theoretical framework of the research will be developed. This framework focuses on defining the local cultural context and aspects of it that presented in journal articles and other literature. In the end, a list of factors that have been studied by scholars will be presented. The second step involves the exploration of case studies. The case studies generated from available academic journals and other literature focus on the implementation of CBFM in Indonesia and its local cultural context. The third step would be the discussion on how local cultural background influences the CBFM implementation in Indonesia and determining the key local cultural factors in CBFM implementation in Indonesia.

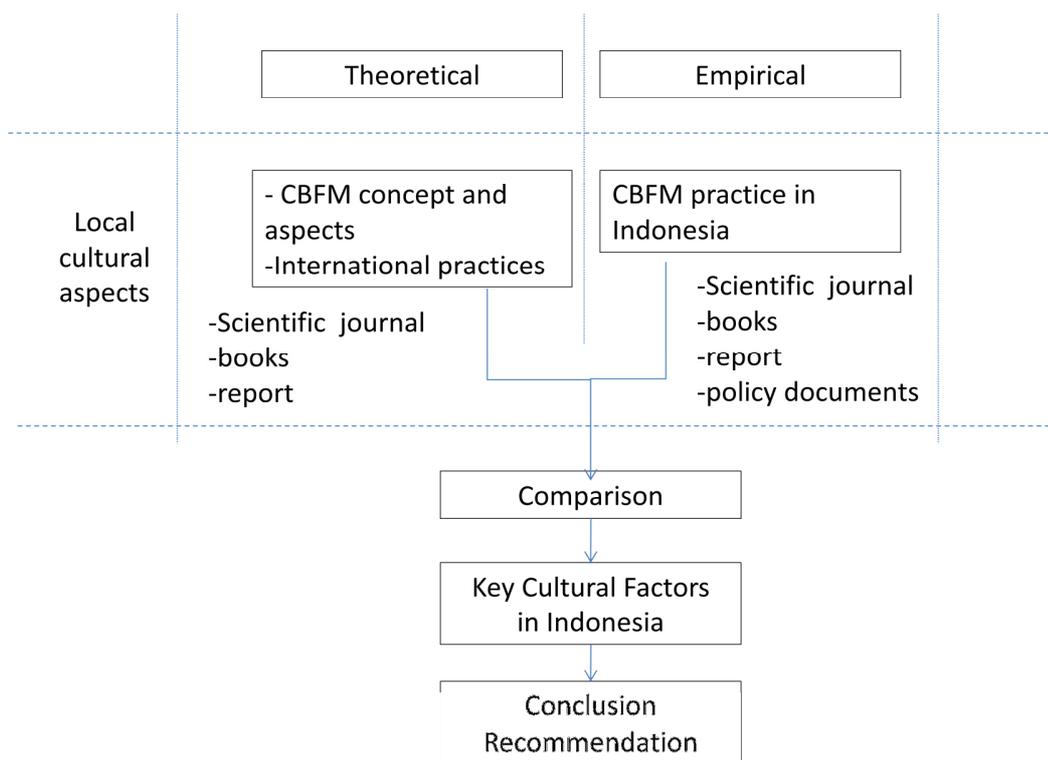


Figure 1. Research Methodology

## **1.6. Structure of the Thesis**

The thesis consists of 5 chapters with the structure and the content of each chapter are can be seen as follows:

### *Chapter 1 Introduction*

This chapter presents the background of the thesis, problem statement, continued by research objectives and questions then the significances of research, research methodology and a view of the report structure.

### *Chapter 2 Theoretical Review*

This chapter provides theoretical perception on community forest management, its history and general explanation, definition of local cultural context, aspects of local cultural context available in journal articles and list of the aspects.

### *Chapter 3 Data and Analysis*

In this chapter, study cases from journal articles and other literature are explored in search of the influence and the use of local cultural background in CBFM implementation in Indonesia.

### *Chapter 4 Discussion*

In this chapter, an overview of the findings from the study cases is given. Each study case is explored and explained in relation to the influence of local cultural context to its success or failure.

### *Chapter 5 Conclusion and Recommendation*

The last chapter provides research finding and some recommendation for further study.

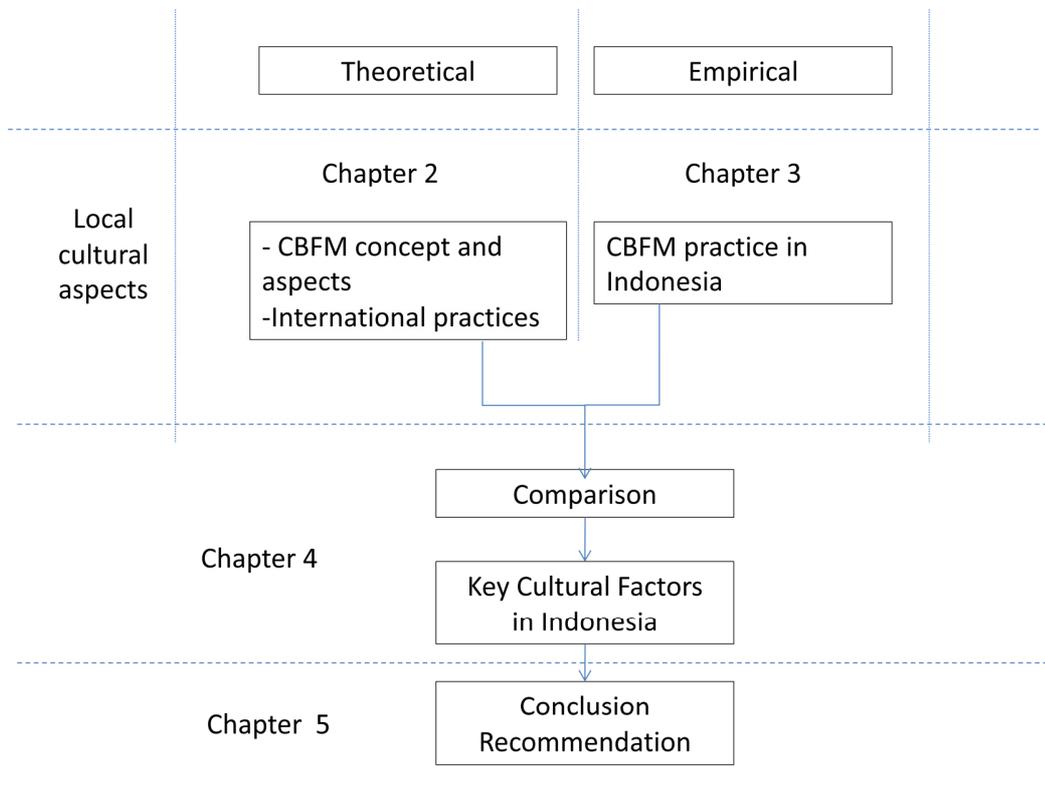


Figure 2. Research Structure

## **CHAPTER 2**

### **THEORETICAL REVIEW**

In this chapter, I will explore the theoretical concept of local cultural context and its influence toward community forest. The first section will briefly explain the concept of community forest as the main study area in this research. The later sub-chapter elaborates the definition of local cultural context and aspects that are included within the framework. The third section will explain about the relation between local culture and the practice of community forest in general based on experiences from several countries. Finally, this chapter will present the cultural factors that are important in defining the success of community forest implementation.

#### **2.1. Community Forest**

Community forestry in the early age was a work by FAO (1978)<sup>1</sup>, and defined as forestry activity that closely involve local people. The activity are ranging from collecting timber, getting non timber products from the wood, creating a plot for growing trees, processing forest product and the economic activity to generate income using this products and the maintain of the sustainability of the production. Another definition of community forestry comes from Martel and Whyte (1992): "Community forestry is a village-level forestry activity, decided on collectively and implemented on communal land, where local populations participate in the planning, establishing, managing and harvesting of forest crops, and so receive a major proportion of the socio-economic and ecological benefits from the forest". To put it in a simple definition, community forestry is forest management with community as the leading actor (FAO 1996).

The emergence of Community forest is due to the failure of the centralized forest management approach (Pandit and Bevilacqua 2011) and the notion that relevant knowledge about how to manage resources and its possibility of choices and the more

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<sup>1</sup> ://www.fao.org/docrep/u5610e/u5610e04.htm

collaborative decision-making processes can better create more equitable and more sustainable forest management (Chevalier and Buckles 1999).

In the early inception of community forestry, the main component of community forestry consists of three elements. These elements were provision of fuel and other products to fulfill basic necessities, provision of food and the sustainability of food production, and economic function to create employment and to generate income. There is a stress in promoting the quality of life of the rural poor and making them able to earn income independently. The involvements of external forces to empower rural people are in the form of supportive action and not in managerial form (FAO 1978). In more recent year the focus of community forestry is revolving around two main objectives. These objectives are conservation of natural resources and livelihood generation for forest people (Flint, Luloff and Finley 2008).

From the main goals of community forestry, there are studies that generate more specific goals based on their most frequent discussion on journal articles. These goals are meeting local needs, improving forest condition, addressing environmental issues, and distributing equitable benefits (Pagdee, et al. 2006).

## **2.2. Local Cultural Context: Definition**

Using the definition of local culture from (Waylen, et al. 2010) "*local culture as the shared values and institutions of a particular group of people*", (Tylor 1903) "*Culture is that complex whole which includes knowledge, belief, arts, morals, law, custom and any other capabilities and habits acquired by man as a member of society.*" , (Hofstede 1980) "*the collective programming of the mind which distinguishes the members of one human group from another* and an explanation from (Bode 2007) "*The terms culture comprises of language, religion, customs and manners, material goods, aesthetics and education*" we can see that culture is widely define but always related to society and having a shared properties among the member of the society. In a short list culture is knowledge, values, beliefs, arts,

morals, institutions, law, customs, languages, religions, manners, material goods, aesthetics and education.

### **2.3. Local Cultural Context and Community Forest**

The importance of local cultural context in Community Based Conservation is supported by (Waylen, et al. 2010), (Brechin, et al. 2002) and (Peterson, et al. 2010). However, the list of factors that included in the local cultural context is not yet commonly shared. Scholars are not distinctly made a group of factors that considered as local cultural context. Pagdee et al. (2006) discussed about the measures and factors for CBFM, but did not classify local cultural context factors in a separate group. The factors are divided into nine categories and each category consists of several factors. The factors that can be classified as local cultural context are spread in several categories. Table 1 Factors of Local Cultural Context, shows the factors that included as local cultural context in (Pagdee et al. 2006).

Waylen, et al. (2010) focuses on local cultural context influence to the implementation and outcomes of CBFM. In the paper the local cultural factor being discussed is clearly but very simply stated and limited to local institutions. These local institutions include taboo, community pride, traditions, and code of conduct. The informal institution, specifically fady, a form of taboo in Madagascar, and the local knowledge for harvesting certain plant and hunting games that support conservation are also discussed by Jones et al. (2008).

Zulu (2008) highlights the importance of local leader in determining the outcomes of Community Forest Management. The literature also discussed about internal power relation among community members.

**Table 1. Factors of Local Cultural Context**

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1. Security of a tenure to a resource
  2. Clear ownership to use and manage and use resource
  3. Clearly defined boundaries of the community resources
  4. Designated area for the specific use of forest
  5. Congruence between biophysical of the community and resources and social boundary
  6. Rules to regulate the use of forest products both in formal and informal forms.
  7. Effective enforcement of rules to control rule breakers and bring them to justice
  8. Sanction
  9. Skillful and experience administrative member, self governing resources management.
  10. Strong leadership and effective local organization with available financial and human resources.
  11. Value: A resource obtain value at some degree that is worth it for the community to establish local group responsible for resource management
  12. Forest dependency. The forest is considered a source of community basic needs
  13. Sharing of common interest that will led a group of people to create community management
  14. Community size
  15. Location
  16. Increasing population growth
  17. Increasing level of migrant
  18. Presence of conflict between local people and outsider
  19. Social cultural diversity
  20. Economic condition of community members
  21. Community experience in cooperative works
  22. Traditional practices. Villagers maintain traditional technique to use and harvest forest product
  23. Legal recognition of local group in forest management.
  24. Clear procedure for exercising local controls
- 

**Source: Pagdee et al. 2006**

Hiwari et al. (2010) present the traditional ecological knowledge as the important factor of a successful community based natural resource management. The practices of conservation and sustainable exploitation of natural resources are based on the knowledge that comes from the interaction of the people with their environment.

Existing social capital is a society features that can be used to support the implementation of the CBFM. Unawareness and misunderstanding of community's social capital may deter the success of CBFM implementation (Mathews and Missingham 2009). Social capital is considered as local cultural context since by definition from World Bank, "*Social capital refers to the institutions, relationships, and norms that shape the quality and quantity of a society's social interactions*".

The factors of local context presented by several literatures above are mostly addressing the same factors which are the local institution local knowledge. Pagdee et al (2006), Waylen et al. (2010), Jones et al. (2008) and Mathew and Missingham (2009) all discussed the local institutional as an important factor in community forestry. Furthermore, Hiwari (2001) and Jones et al. (2008) deliver local knowledge as important factors which pagdee et al. (2006) presented as traditional practices. Zulu (2009) and Pagdee et al (2006) agree that local leadership is an important factor.

Since Pagdee et al. (2006) has mentioned all the factors that discussed by the other researcher, we can use table 1 as the list of factors of local cultural context. Referring to these factors, I select some of the features that are relevant to the local cultural context studied in this research.

#### 1. Property rights

An important aspect from property rights is the security of tenure to a resource. It relates to the legal ownership upon a resource that enables the owner to use and manage it. Legitimate property rights usually defined by clear boundaries of the resources ownership. In forestry fields, the boundary delineate lands that are

belong to the local community, private/ business, and government. This delineation differentiates the management system that can be applied into a particular “lot” of forest land<sup>2</sup>.

## 2. Formal – informal institutions

Formal and informal institution shape the human’s behavior within the society. In forest management field, this aspect refers to the rules, either formal or informal law to regulate the use of forest products. Formal laws are usually for those which arranged by government (either national, regional or local) through a legal procedure and bind the community at large. On the other hand, informal laws have no clear and accountable sources and legal procedure, like customary law, which passed from generation to generation and bind the community at local or village level. However, both types of rules carry the similar objective to direct people’s behavior to be in accordance with the stipulated statutory (Grzymala-Busse, 2010). They also bring consequences of sanction or punishment for those who disobey the rule. In formal laws enforcement, the rule breakers can be sued or jailed through a legal procedure. The informal laws on the other hand, the punishment can be more direct and quick because the execution procedure is simpler.

## 3. Community/ human resources

Strong leadership can determine the success of a program or project in forest management field. A leader can influence the attitude or action of the majority members and induce the creativity of the community member in initiating activities to manage the forest. Small community group is usually led by a local leader that usually have stronger influence upon the members rather than the formal leader (which position is given by government). Their influence can encourage their member to act based on common agreement, custom or informal rules to achieve the common goal<sup>3</sup>.

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<sup>2</sup> <http://web.mit.edu/urbanupgrading/upgrading/issues-tools/issues/security-of-tenure.html>

<sup>3</sup> <http://www.cfc.umt.edu/NRLT/> accessed August 4, 2011

#### 4. Interests on resources

To make a resource management activity become more attractive to the community to be involved, a resource should be able to give added value or contribution (either cash or non-cash value) to make it worth for the community to cultivate it. As a community activity, forest management program, like CBFM, is more effective to be done by the whole community members rather than done individually. Therefore, it is important for each of the community member to share a common interest about the value of the forest resource. In many cases, communities who live in or near forest areas are having a common interest on the value of forest as their source of income and livelihood (forest dependency). This fact often shapes the attitude of these forest benefactors in which they are tend to work together to maintain the forest so that it will able to provide sustainable live support (Sam & Shepherd, 2011).

#### 5. Community features

Community features refers to physical and non-physical aspects of the society, including the community size, location, and culture. Community size is influenced by the rate of population growth and migration. Changes in the community size may shift of local culture of the indigenous people. The existence of migrants or outsiders within a particular area can generate conflict between local people and outsiders, and can create socio-cultural diversity. These features will eventually affect the behavior of a particular community towards a given resources. In line with this idea, CBFM is context dependent which means that the management system depends on the needs of the community which vary based on location (Sam & Shepherd, 2011).

#### 6. Traditional practices.

Traditional and customary practices of community forest are quiet effective to manage the forest areas. This is because the system is more accepted by the community members as a common agreement. Moreover, the implementation can

be improved if the traditional practices are incorporated with the legal guidelines of forest management (Ilam Cooperation Council, 2010).

## CHAPTER 3

### COMMUNITY BASED FOREST MANAGEMENT IN INDONESIA

This chapter starts by explaining the cultural context in Indonesia. It covers the importance of local culture in a particular society to strengthen the local area development. The next section will explore the state of community forest practices in Indonesia. It illustrates the way that local cultural influence the difference in practice of community forest in Indonesia. Finally, this chapter will list the cultural aspect that influencing the practice of CBFM in general for the case of Indonesia.

#### 3.1. Cultural Context

Indonesia consists of diverse ethnic, linguistic, and religious groups. It has diverse cultures and indigenous beliefs. In fact the national slogan of Indonesia, “*Binneka Tunggal Ika*” (“Unity in Diversity”) articulates the country has shaped by the divergent including the cultural diversity<sup>4</sup>. As stated by Swasono (1997), “*The peoples’ cultures represent identity and existence, sources of confidence, security, comforts and order, rendering participation and sharing*”

In developing their area, each citizen as well as its government also tries to keep their cultural resilience in order to strengthen the capacity to become independent. Government, as national development planners, has increasingly acknowledged the potential of local cultural aspect in improving and restraining the development and management plan in a particular place. The “uniqueness” of local culture differentiates the way people communicate, interact, and act. It also defines the most effective way to deliver certain project information and to conduct a particular program or project as intervention from government. From the experiences of development project implementation in different sectors and in different locations, it

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<sup>4</sup> [Indonesia: History, Geography, Government, and Culture — Infoplease.com](http://www.infoplease.com/ipa/A0107634.html#ixzz1Wcy5BpgZ)  
<http://www.infoplease.com/ipa/A0107634.html#ixzz1Wcy5BpgZ> accessed 31 August, 2011

appears that improvement plan implementation should not necessarily be carried out in the same regular way (standardized). Conducting plan as regularity by disregarding the local culture diversity has proven to be less effective in achieving the designate goal. In fact, the implementation of a government strategy may fail due to the ignorance toward the local cultural aspect, in which it leads to disagreement and rejection toward the strategy's realization. On the contrary, recognition to the local culture encourages the local acceptance, creativity and participation which eventually increase the effectiveness of the result (M. F. Swasono 1997).

Culture and education often goes hand in hand. The local culture may develop or shift as the result of the increase educational quality of its members (Mazonde, 1995). Related to the accessibility to education services, people in urban areas are usually obtain better education, for the availability of education services, than those who live in remote or periphery areas. Moreover, recent globalization gradually shifts people's perspective and attitude in which it slowly changes the culture of these people in a particular area. Globalization era demands each member of society to gain education to keep their existence in the international community. This fact brings consequences in the needs to get better education and indirectly require some adjustment in terms of cultural to be able to "keep up" with the changes (Suarez-Orozco & Qin-Hilliard, 2004). Cities often become the main gate of globalization. Being far from the center cities, communities who live in remote or periphery areas is usually "protected" from the fast changing society. They might be able to protect their local identity and tend to behave according to their own custom.

Focusing on the practice of forest management in Indonesia, cultural appears to be a relevant aspect which determining the choice of forest management model applied in a specific area. Related to education background, community who live in the surrounding of forest areas are usually those who has limited access to education.

Forest areas in Indonesia are mostly located in the fringe or outside central cities. It, sometimes, brings consequences to the limited access to adequate education for its people. Moreover, this fact also influences the persistence of local cultural practices within this local community. For this reason, imposing management program to this forest area has to pay more attention on the characteristic of the inhabitant so that they are willing to participate within the program or project. Although education background is not the only aspect determine the type of cultural behavior, it can reflect the attitude of its people in responding government's intervention in those area.

### **3.2. Decision Making Context**

The stipulation of decentralization law in Indonesia, Law No.22/1999 and replaced by Law No.32/2004, has change the constellation of power into more local minded. The previously centralized government has delegated its power to local government, province and city or regency. As a result, the responsibilities of managing several functions are transferred to local government.

In the era of local autonomy, forest management partly given to local government. The management of state forest are still in the central government hand (Suharjito, 2009). In the practice, the management is by state owned company. Perhutani In Java and Inhutani outside Java. Fiscal devolution brings consequences on the increasing rate of deforestation. Local government objectives is in increasing the economic gain and usually done by extracting natural resources, such as timber, with the lack of environmental awareness. The autonomy also creating lacking of coordination and collaboration (Berliani and Suwito , 2009).

CBFM is conducted in state forest, where the delineation of the forest for certain community is by the central government and in this case the minister of forestry, with the procedure as stated in the regulation number 6/2007. Community propose the land to government with the certain criteria and requirement. This proposal then will be

evaluated, and if it is meet the requirements then the proposal will be accepted. The status of the forest then becomes the village forest. (Indonesia Government, 2007).

### **3.3. Practices of Community Based Forest Management**

As the country that has the third largest forest area in the world, Indonesia faces the challenges of dilemma between keeping their forest area for natural and ecological balance and using the forest resources for economic needs. In managing the forest, the main issues attached to this program of community forestry are mainly on poverty reduction and deforestation (Berliani & Suwito, 2009).

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The implementation of community forest in Indonesia is better known as part of the Community Based Forest Management (CBFM) program. It is based on Government Regulation Number 6/2007 about forest governance and development of forest management plans and utilization of forest .article 84 in this regulation stipulates that the government empower the local community through: (i) community forestry (Hutan Kemasyarakatan); (ii) village forestry (Hutan Desa); and (ii) partnership between community and concessionaries (Partnership). Based on this regulation, government only responsible in legal status provision, institutional building, practical assistance (production, technology, and market access), and community development; while the rest of the practical things are distributed to the community to decide the most suitable forest management model that suit with their local condition (Rosenbarger 2009), (Berliani & Suwito, 2009).

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The practice of community forestry is highly relevant to participatory approach. Although there have been several change in policy and government regulation related to CBFM program in Indonesia, the basic idea of implementing CBFM relies on the empowerment of the local communities who lives within and surrounding the forest<sup>5</sup>.

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<sup>5</sup> Hindra B. (2007) "Community Forestry Indonesia" Presentation proceedings from: Asia Pacific Tropical Forest Investment Forum. Bangkok, 6-8 August 2007

The idea is to promote local participation to get involved in the forest management program.

There are many definitions about the term of “empowerment”. However in this research, empowering theme will follow the concept stated in the regulation (GR 6/2007) where the local communities play as the main actors in the whole process (Berliani & Suwito, 2009). This study will emphasize on managing the forest based on the local cultural knowledge of the indigenous communities.

### **3.3.1 Property rights**

In Indonesia property right for forest is regulated by government law, consist of state forest and private forest. The right regarding forest is not about the status of ownership but the rights of usage (Sirait, Fay, & Kusworo, 2000). The ownership of the forest land will be stayed on state, it is the right of usage that may given to people. The right to manage the forest fundamentally in the hand of the state, but it can be given to others like community or private business. In the context of CBFM, the right is given to the community with the assistance of state owned company which manage the forest.

Beside state forest, there is private forest, which is forest that located in private land. In fact, government, in order to increase the percentage of forest area, are promoting this type of forest by giving free saplings to the people who owned land parcel adjacent to state forest, so that they convert their land into a forest (Sulistyo & Raharjo, 2000).

Java

Land rights in forests in Java island comes in two form, private rights and state owned land. The community can used the state forest by agreement with Perhutani, the government owned company which responsible in managing state forest in Java<sup>6</sup>.

In central Java, the increase of number of people increases the need for land to support human activities. This gives pressure to forest and thus it is not possible anymore to expand state forest area. The only thing possible to increase forest area in central Java is to make people change their land into forests. This can be done by giving incentive like free saplings and also technical assistance in managing a forest using planting (Sulistyo & Raharjo, 2000).

In Wonosobo,Regency, the ownership of the forest area is still in process of agreement between the people and government (Norito, 2004).

In Banyumas regency, most of the forest areas are owned by the East Banyumas State Forest Corporation. Program implemented by the company is the “tumpang sari” project, one of teh top-down community based forestry where the people are allowed to plant their crop in between the trees in the forest owned by the state. The land status of the forest is still in the process of converting into Village Forest (Norito, 2004)

In Blora Regency Majority of its community live as forest farmers. Forest for productivity. The policy makers and managers for forest areas in Blora are local government and Perhutani. Status of the land is state forest. Community work together with Perhutani to maintain and improve the forest productivity through CBFM (Susilowati & Esariti, 2007)

### ***Kalimantan***

In Semaung-Sepapan, strong customary law that govern the land use of forest and the forest status as protected forest give a clear delineation and rules for the use of forest

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<sup>6</sup> <http://www.perumperhutani.com/index.php/sustainability/society-and-csr>

resources by the communities. This has made possible the forest management practices that are sustainable which last until today. Customary council regulates forest usage by delineating it into three zones for different levels of use. In Semangit, since it is located in the Danau Sentarum National Park (DSNP) area, the people in gathering honey and catching fish must use sustainable approach to keep the ecosystem as it is. This practice is possible since the communities have build understanding with the DSNP authorities. And this is also supported by one of the missions of the park which is to maintain good communication and good coordination on natural resources use. In Sungai Utik communities, in 1998, with the help of NGO PPSDAK, has created a map with clear divisions for forest use, divided into reserve forest, limited production forest, production forest and agricultural areas which help protect their timber from concession (Crevello, 2010).

In Dayak Bidayuh Tribe, the management system is called “Tembawang” and it is a division of land use in the forest using different use of the forest area. They divide the forest into “rimak” (communal natural forest), “pulaut” (secondary forest area), “sompuat” (manged honey trees), rubber plantation, “jamieh” (swidden fallow), “lading” (swidden), “tawa” (rice fild), “kampong” (settlement) and “pelaman” (home area in swidden) (Wahyuni, 2004).

In the application of land use right they have their customary rules which determined the rights for a piece of land according to their effort in clearing and cultivating the land in the past. Most of the rights are inherited, but some can be obtained by trading. They have their own cultivation methods which they inherited from their ancestor from generation to generation (Wahyuni, 2004).

In Gunung Mas Regency, Central Kalimantan, pattern of land ownership is inherited; it can be private or communal. Recognize by the local people but not from formal law. The rights come from the interaction between the land and the people and then come the obligation to protect and cultivate the land. If they neglected it the rights is gone. Tree ownership comes from clearing the tree from weed and other plant around

it. The rights for the land and for the tree can be inherited. The rights transfer can be from trade (hajual haili) gift, inherited (panenga), barter (tangkiri ramu), pound (sanda/hasanda), marriage. (Meilantina, 2006).

### **3.3.2 Formal-informal institutions**

Formal institution in forest management refers to regulation and government and community organization. In forest management the central government decide the use of a forest. Local government shared some tasks after the decentralization era, in the form of administrative and safekeeping. The determination of forest use as stated in the Law No 26/2007 should involved the people living in and around the forest (Crevello, 2010). The regulation about CBFM is based on government law No. 6/2007 (Berliani & Suwito) Local regulation to support the implementation of CBFM requires communities involvement that are more specific to the practical and the implementation (Crevello, 2010).

Informal institution is regulation and organization recognized by groups of people but not stated in a formal law. The character of informal institution is unclear source and in the form of customary law (Grzymala-Busse, 2010).

#### ***Java***

In Java, to support CBFM, communities need to build local organization to sort of formalized their commitment using local forum in villages area between the villagers like in Jegong village Blora (Susilowati & Esariti, 2007). In Wonosobo, the formal regulation that exist is the regulation from Perhutani, about Community Based Forest Management, Local regulation No 22/2001 about CBFM from the regency. These two regulation have different scheme for implementation. Perhutani regulation used trees for the planting, on the other hand, Regency is using agroforestry, so, it's create confusion in the practice (Krustanto, 2003).

### ***Kalimantan***

Dayak Hibun community has customary law that adaptive to the condition and needs of the local people. The system is hierarchical with customary leader in several level of the community groups. This law plays important role in their lives as it regulate their daily lives and as the direction for what is right and what is wrong (Crevello, 2010)

Dayak Iban also has customary law which regulate how to cultivate the land. The customary law combined with traditional religion, animist, which beliefs nature has souls support the sustainable use of forest and promote conservation. Traditional organization in Kalimantan generally based on community cohesion; they manage their interest together to achieve common goals (Crevello, 2010).

### **3.3.3 Interest on Resource**

#### ***Java***

Community in Blora occupy the forest area to plant teak and mahogany tree, while outside the forest to plant crops.

While in Jegong, the people use forest for planting herbs like curcuma and ginger and mixed with corn, soya or peanut. While outside the forest they plant trees.

In Banyumas local community depends on farming outside the forest area (Norito, 2004)

In Wonosobo people in the CBFM implementation are planting “sengon” certain types of tree that relatively fast to harvest (Krustanto, 2003).

### ***Kalimantan***

Most of Dayak tribe use forest as their source of subsistence like in Dayak Bentian, Dayak Benuaq and dayak Tunjung (Wahyuni 2004). While in Semaung Sepapan main source of income is from oil palm and rubber plantation and also from rice fields since they already have enough income from these activities, so, the use of forest product is low. There is also customary law which stipulated that the people can only take timber from the forest for own consumption or usage.

Semaung Sepapan: Local leaders and the community have a long-term vision of their environment and well-being. They want to ensure that future generations have access to resources in the protected forest including clean water, timber, and spiritual requirements. Although there is no economic benefit from the protected forest, the forest is still well managed. the Semaung-Sepapan forest generates almost no financial benefits, in terms of timber and valuable NTFPs because of the heavy logging that occurred when the land was cleared for rubber and oil palm plantations. the local community's reliance on clean water, income from the sustainable harvest of timber and non-timber forest resources, and the availability of jobs and livelihoods from oil palm and rubber tree plantations, as well as agriculture. The community is aware of their level of dependence on forest water sources, as water is difficult to obtain from the surrounding areas, which are under oil palm plantations. (Crevello, 2010)

In Semangit, the communities explicitly voice the need to maintain the forest ecosystem for future generations. In Semangit, the community manages the natural environment to ensure continuity of future income generating activities. For example, the prohibition on using poison such as *tuba* for fishing was developed to preserve the quality of organic honey (Crevello, 2010)

#### **3.3.4 Community/Human Resources**

According to Perhutani regulation, CBFM require an institution that can be used to unite the people interest and agree on common goals. This local institution needs a leader that can lead the people toward achieving common goals. From this role in

traditional communities, customary leader play important roles in forest conservation (Crevello 2010).

### ***Java***

According to the decentralization Law No.32/2004, the village leader is chosen in an election. Strong leadership is important in CBFM, but in the practice of CBFM, according to the Perhutani regulation, the village need to have formal institution with several board members, not necessarily has to be the village leaders. The role of the leaders is to lead the discussion on planning the CBFM and direct the people to agree and achieve the common goals.

### ***Kalimantan***

Local leader or the customary leaders plays important role in Kalimantan. For example the Dayak Hibun customary leaders, when eight of the villages customary leader made consensus to get recognition for their customary land. They represent their people to come to the government, in this case the minister of forestry to recognize the protected forest in their customary land. They also involves in politics and social network to gather support from other people. The result of this effort was the Governor decree Number 66/2003 about legal status of protected customary forests. Communication and coordination among customary leaders now happen regularly to continue their cooperation (Crevello, 2010).

### **3.3.5 Community features**

Community features of inland area in Indonesia are influenced by transmigration program and affect cultural diversity of the destination area. It also changes the community size. Idea of transmigration is to structure the population distribution and to balance economic development between java and other islands (Yulisetyaningtyas, 2008). This program enables people from one place to deliberately move to another

place to work and use the local resources of the designate area. Decrease overpopulation in Java and promote development in other islands.

### ***Java***

Fuelled by the availability of adequate public facilities and job opportunities, Java becomes the center of growth (population and economy). However the population growth is not balanced by economic growth and employment availability, as the result poverty issue becomes the central case of population growth. One program initiated by government to reduce population density in Java Island and to open job opportunity in other island is transmigration program. Actually this program is already been implemented for almost 40 years. The objective is to cultivate or manage the natural resources located in other islands. Their destinations are Sumatera, Kalimantan, Sulawesi and Papua<sup>7</sup>.

### ***Kalimantan***

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## **3.3.6 Traditional Practice**

### ***Java***

Traditional practices are not commonly practiced in the recent years, because CBFM in Java carry intervention from central government. Perhutani as the managing operator of state forest in Java have work together and provide significant technical

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<sup>7 7</sup> <http://www.depnakertrans.go.id> accessed 7 August 2011

support and supply seeds to be planted in the community forest (Sulistyo and Raharjo 2000).

### ***Kalimantan***

In the Bentian tribe, a tribe from Dayak Luangan family, they use swidden to cultivate their land and return cycle plantation. They did not leave behind fallow land, but they planted it with cane. Cane is act like a saving, if the price is high then they will harvest it, but if the price is low, they will let it grows. They have their own way of marking their land ownership which is by oral tradition. In the more recently practice, they mark their land using certain trees like jack fruit. They cultivate a piece of land for two or three years and then they will leave it so it can recover its fertility. Sometimes they enrich the land by planting wood or cane. After a few years they will come back to cultivate it again. They have certain areas of forest that are restricted; they call it “Tana’ulen”. It was once belong to the aristocrat and it is a place for reserve area. The “Tana’ulen” usually located where two river meet. Now “Tana’ulen” is decided by the people, they decide which area should be restricted and let it recover before it can be used again (Wahyuni 2004).

The practice of traditional farming in South Kalimantan is using swidden farming. Swidden farming is not destructive because the people watch the process and guard the fire so it would not spread. The proof is that the practice is been going on for hundreds of year, but not until after 1980 there is no evidence of damage from shifting cultivation. (IMPAS-B, 2008)

Dayak Benuaq mixed their swidden agriculture with forest product and off-farm activities to support their live and to survive during hard time like bad weather or crop failure (Gonner 2011). The practice of Dayak Benuaq resource management has proved that traditional system can be called as genuine sustainability since it has survived for a long time (Gonner and Seeland 2002)

People of Dayak Kenyah tribe in Kayan Mentarang nature reserves are using rotational swidden cultivation or traditional shifting cultivation. They manage the land using local knowledge and recognize the customary land tenure system. Their agricultural system is stable and one of the reasons is because they used mixed cropping and farm forest product. There is also a habit of the people to plant tree seeds before they cut a tree. They have their own way of cutting trees that limit the destructive force to its surrounding and have an effect that very similar to a nature fell trees (Wahyuni 2004).

## **CHAPTER 4**

### **DISCUSSION**

In this chapter, I discuss the implementation of CBFM in Indonesia using study case from Java and Kalimantan in chapter 3 by using the six factors of cultural background formulated in chapter 2. The first sub-chapter explains the relevance of these six key factors for CBFM practice in Indonesia. The second sub-chapter aims to analyze the practice to identify the cultural factors from the theoretical perspective that are relevant based on the two study cases. The identification uses comparative analysis between the factors from theoretical review and empirical cases. The explanation figures out about how local cultural aspects generate complexity or support the success of CBFM practices. In the last parts of this chapter, several key determining factors of cultural context that are highly influential toward the success or failure of CBFM implementation in Indonesia are defined.

#### **4.1. Key Factors Relevance**

Before comparing, it is important to first discuss about the reason of why I choose these six factors. The comparison between cultural contexts from theoretical review and case studies focuses on the key factors identified from the literatures. As being explained in chapter 2, there are six key factors from the literatures that being considered to be relevant with local cultural context, namely (i) property rights, (ii) formal-informal institution, (ii) community/human resources, (iv) interests on resources, (v) community features, and (vi) traditional practices. These key factors exist together with other determining aspects and are pointed based on studies on community forest management practices around the world.

In general, there are many factors that can determine the success of CBFM implementation, for example are factors from technical, financial and political sides, but these key success factors are chosen because their existence as determining

factors are dependent on cultural context of particular area. The degree of how they influence the success or failure is different between one to another place. One factor might strongly determine the success of forest management in particular place, while this same factor becomes less important in another place. This happens because they have specific cultural characteristic which force them to apply CBFM in a unique way in order to be success.

The relevance of these six factors for the cases of CBFM in Indonesia is explained as follows:

1. Property rights

Property rights in term of security of tenure is relevant to cultural aspect of CBFM in Indonesia because in some cases, the ownership of forest land by local community is based on the informal recognition, which is a part of legacy from their ancestor or customary land. Instead of having legal recognition based on formal law by government, this type of ownership is legally recognized by the local community through consensus which eventually acknowledged by the authority as a formalized property rights (Grzymala-Busse, 2010).

The forest management in customary land is usually cultural dependent. It means that they have freedom to cultivate particular forest area based on their local needs. Moreover, in some other forest area, the ownership status of the land is still unclear or still in transition from state forest to community forest due the alteration from centralized to local autonomy government system which also affects the forest management system. The uncertainty of forest land status has cause problem concerning the parties which responsible on the forest management (Crevello, 2010) (Norito, 2004) (Krustanto, 2003). Communities sometimes see these forest areas that have no clear ownership or still in transition ownership as no man's land, as they tend to maximally exploit the forest resources.

Property rights are usually ratified by clear boundaries of ownership. In community forest management, the boundaries are usually refers to the villages' boundaries which located within or adjacent to the forest (Government Regulation No 6/2007). The geographical, physical, and administrative boundaries of these villages' inhabitants are commonly responsible to manage the forest area that belongs to their administrative boundaries. The choice CBFM model and its implementation are given to the community live in the village located near those forest areas (Susilowati & Esariti, 2007). Furthermore, the village itself is usually divided on custom and history. In other words, the village is established based on the origin and the socio-cultural condition of the local people. Each village has its own custom that is different between one and another. It shapes the way of living of community in one village, including the way they treat the local forest as their resources. For these reasons, property rights together with its aspects become an important part of discussion in the cultural aspect of Indonesia's forest management (Crevello, 2010).

## 2. Formal-informal institutions

This aspect consider being relevant to the cultural context in CBFM system because its practice cannot be separated from the rules that are emended within a particular society. As mentioned earlier in chapter 3.1, each area in Indonesia has unique cultural heritage; they have their own rule that have to be obeyed and preserved.

These local rules refer to the customary laws (informal institution) that are accepted as the norm of certain community group. It often becomes the local identity that affects the behavior of its member. In many cases, the customary laws are respected by local government. In fact, the formation of the local-formal regulations is usually adjusted with these informal rules exist within the community by adopting and integrating some of the local values and knowledge into the formal regulation. In making the formal law, the indigenous people are involved to get insight about what kind of informal rules which practiced and what adjustment needed to make these community accept and obey the formal laws (Grzymala-Busse, 2010).

Similar case also applied for forest management practice in many areas in Indonesia. Each village has their own customary law which determines the way (acceptable method) to manage the resources based on informal laws. Imposing the informal rules on natural resources management system is sometimes more effective for the community to follow. For example, local communities have a customary law to limit the access to forest by applying periodical methods of forest land utilization which allow them to take the forest product only in a particular period to keep the natural ecological balance (Crevello, 2010).

### 3. Community/Human resources

The essences of community forest management are the community and the forest. The community plays important roles as the main actor in the whole process and implementation. The sustainability of the forest depends on their willingness to protect and how the local people treat their nearest forest areas. In village area which communities are still practicing traditional customary, the forest management practices are influenced by their custom or habits of daily living. It influences the way they think (interest) and they act over the forest resources.

In traditional community groups, like communities in Kalimantan and Papua inland areas, the prominent actor is not only the community but also the local customary leader who can effectively impose the practice of customary rules. He or she usually has power to influence and control communities' behavior over the forest or other natural resources in the surrounding. Therefore, the availability of indigenous community and strong local leadership become the prerequisite of the success of forest management program in Indonesia.

### 4. Interest on resources

In community forest management field, there are at least four prominent actors, namely community, private (business), government, and non-governmental

organizations (NGOs). Each group of actors has different interest on forest resources which are often conflicted one another. The two main poles are economic and ecological interests. Almost all stakeholders have interest on the economic benefit that can be obtained from forest resources. Local or traditional communities see the forest as the source of livelihood; therefore, they tend to preserve the forest resources for the sustainability of their daily income. Business practitioners usually use the forest as the source of commodity that is beneficial in a larger scale, regional or national income. Except business actors, community and government added by NGOs also have ecological interest to preserve the richness of natural resources and maintain the ecological balance for sustainability reasons (Rhee, 2004).

Cultural aspects influence the community interest over the forest. As one community group bound by the same custom, it also unites their interest and perspective about the function of the forest that eventually influence the way they use the resources. In small village community, the people usually share their value of the forest based on their belief. Some of them see the forest as endowment for their gods that have to be preserves. Therefore, the unique beliefs that influence the interest on forest resource become important part of discussion in forest management in Indonesia.

##### 5. Community features

As mentioned earlier, community features consists of several aspects, like community size, location and culture. As a country which has the fourth largest population in the world, community size become an important part of the discussion for Indonesia. The fast population growth is not equal between islands. Fuelled by the availability of adequate public facilities and job opportunities, Java becomes the center of growth (population and economy). However the population growth is not balanced by economic growth and employment availability, as the result poverty issue becomes the central case of population growth. One program initiated by government to reduce population density in Java Island and to open job opportunity in other island is transmigration program (Yulisetyaningtyas, 2008). Actually this program is already

been implemented for almost 40 years. The objective is to cultivate or manage the natural resources located in other islands. Their destinations are Sumatera, Kalimantan, Sulawesi and Papua<sup>8</sup>.

The participants of transmigration programs are commonly work by utilizing the natural resources. To some extent, the arrival of these migrants from Java shifts some of the local cultural value, norms, habit and added cultural diversity. It also influences the system of land cultivation and forest management system. Besides having their own culture, these new migrants usually have more knowledge about land utilization methods. Indigenous people could learn techniques to manage and exploit their forest (Badrun, 1986) (Alisadono, et al., 2006).

The new custom brought by the migrants can also directly influence the practice of local customary which then slowly shift the traditional practices of the indigenous including the forest management system. Sometimes, there are also conflict between the indigenous and the new comers which eventually affect the model of community forest management model. Some areas which locations are isolated from these new comers might able to keep their practice of forest utilization, but other might have more modern system introduced by the migrants. For these reasons, the characteristic of the community is an important part in CBFM discussion.

## 6. Traditional practices

Traditional practices closely related to the local custom followed by the member of a particular village society. The traditional forest management practice in Indonesia refers to the techniques that are used by traditional community to utilize the forest resources which are commonly very simple. Their choice of forest management model can also as the reflection and part of local wisdom. They may choose to stick on the traditional non-advances technique because the system is already been practiced since many years before by their ancestors. Referring to earlier explanation

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<sup>8 8</sup> <http://www.depnakertrans.go.id> accessed 7 August 2011

about the aspects of community features, new comers may deliberately interfered the forest management practice based on their knowledge. Moreover, government, through their forest management programs, also attempt to intensify the practice and optimize the forest commodity by giving technical assistance or tools to help them manage the resources effectively.

On the one hand, such efforts may give better result in terms of productivity and economic benefit. On the other hand, modern practices influences by outsider can cause more damage toward the forest condition itself. The new-introduced system is sometimes not considering the local customary values. As the result the new practices might gain less support from the local community, either because they are not used to it or because it against the local cultural value and tradition they have been followed for a long time. Traditional practice can be successful for the implementation of community forest because it is simpler to be applied, more acceptable by the local community (because it is in accordance with their culture) and based on local needs. However, traditional community members usually lack of know-how about the sustainable way or appropriate management technique that can be applied into the forest areas. Consequently, the traditional practice sometimes brings even more damage to the forest land, like in forest fire in Kalimantan. Therefore, traditional practice is important aspect for the success of CBFM in Indonesia (Crevello, 2010).

Remarks: from the description, it appears that the six key factors are sensitive to cultural context. The success of CBFM is very context dependent. It means that the practice as well as the result is very much depending on the local custom

#### **4.2 Local cultural context in CBFM in Java and Kalimantan**

In Kalimantan and Java the implementation of CBFM are apparently influenced by the local cultural factors that are being studied in this research. Based on the six factors of local cultural context chosen for this study, the discussion area as follows:

## 1. Property rights

The recognition of property rights in villages and forests in Kalimantan despite the government regulation about state forest is using the customary law. In this law, people have their rights for a piece of land from their parents as an inheritance. The applications of this customary law on land rights sometimes are having frictions with the formal law (Gonner, 2011). And now there are some effort from the government to accommodate these informal law incorporated into government regulation. In relation to CBFM, this traditional land ownership needs to be recognize by the government and need to be supported by formal law since the implementation of this form of land use are already in line with natural preservation. It is not necessary to find particular form of land use or land ownership since formalizing the existing traditional laws might be more effective (Crevello, 2010).

While in Java, the land right is using formal land tenure regulation. The application of customary land division is not present anymore. For this villages, government may apply the form of land right suitable for CBFM, like village forest, where the right for cultivating an area of forest that owned by the state given to the village and protected by the law. The ownership still held by the state, only the right to use it that given to the villages. There is no individual right, and village people must decide themselves on how they going to manage it (Sulistyo & Raharjo, 2000) (Berliani & Suwito, 2009).

## 2. Formal-informal Institution

Informal institutions are stronger than formal institution among the indigenous or inland people of Kalimantan. Customary laws regulate everyday life and the strict punishment made people obey the rules and prevent crime or law breaking. Form of informal institution like sacred ground or taboo is in favor of the forest conservation since it provides protection to certain parts of the forest to become a nature sanctuary for plants and animals. In java, only limited form of informal law are still present. Most of the villages now use formal law from the government as their life become more and more open to modern values and also the more diverse people living in the

villages. Traditional institution became a form of cultural preservation and usually in the form of ceremonial event rather than practical regulation.

### 3. Community/Human resources

Leadership comes with knowledge and quality. Indigenous people choose their leader based on these two aspects and hence the voice of the leader is still well respected (Crevello, 2010). On the other hand, village leaders in Java are chosen using the formal system, and usually, it fell to the hand of the wealthy rather than to the one with proper ability (Berliani & Suwito, 2009) (Susilowati & Esariti, 2007). The influence to the implementation of CBFM, strong leadership with good quality and knowledge will support the success of the implementation since he will gain the support from his people in accomplishing the goals. On the other hands, doubted leadership will lengthen the process of CBFM since the people will always try to get their personal objective and gain more for them than try to support common goals.

### 4. Interests on Resources

Interest on resources drive the people to turn on the forest, whether in sustainable or in destructive way. The interest on resources for people in Java is mainly for economic reason and neglecting preservation that ensure sustainability. On the other hand, interests for indigenous people in Kalimantan, bind by their custom are besides for subsistence, is also for protection of sacred grounds of their ancestor which support the natural conservation and hence ensure sustainability (Crevello, 2010) (Rosenbarger 2009). The impact on the implementation of CBFM is that in Java, the people are needed to be made aware of the importance of conservation to ensure the continuity of their living that is generated from the forest. Meanwhile for the people from Kalimantan awareness is not needed and it is the role of the government to develop more and maintain these beliefs.

## 5. Community features

There are big differences between forest communities features in Kalimantan and in Java such as population number and population growth, cultural diversity, and character of the people. In Kalimantan the number of population and population growth is low, therefore the need for resources remain low. While in Java, with large number of population and fast growth, resources for subsistence is increasing following the population growth (Sulistyo & Raharjo, 2000). Pressure for cultivating the forests for subsistence is become bigger every time. Kalimantan forest are able to provide resources while remain intact since, one of the reasons is, the number of resources extracted remain relatively the same. In Java the forest alone cannot maintain its sustainability, since the forest itself already in bad condition, so, incentive for resource provision from other source like from cattle farming is needed.

**Table 2. Local Cultural Context in CBFM in Java and Kalimantan**

Factors	CBFM in Java	CBFM in Kalimantan
Property rights	No legal security of tenure, conflicts with government	Using Customary law, in the process of getting acknowledgement from government
Community/ human resources	Recognizable leader are not apparent	Village leader holds a high position as a respectable leader
Formal-informal institution	Village organization based on government hierarchy	Traditional customary law As the base for institution
Interests on resources	Opening the forest for farming	People depend on the forest for their subsistence
Community features	Have accepted modern value; Culturally diverse	Still holds traditional value, but there are changes coming

		from migrant
Traditional practices	Application of local wisdom is no longer present	Local wisdom is still used in farming and managing the forest

## 6. Traditional practices

Indigenous people of Kalimantan have traditional cultivation practices that while provide them with product from the forests are also in the same time preserving the natural environment. Cultivation systems that incorporate the natural self regenerating and timber extraction using timber selection and avoid destruction to its surroundings maintain the ecological balance thus fulfilling the objectives of CBFM. The people in Java on the other hands are no longer in favor of traditional practices since they are accepting modern techniques.

As a summary, the comparison of local cultural context between implementation of CBFM in Java and in Kalimantan is presented in Table 2.

## **CHAPTER 5**

### **CONCLUSION AND RECOMMENDATION**

In this last chapter, the results of the study from the previous chapters are presented in order to answer the research questions in the first chapter. From the second chapter, the answer for the first research questions will be generated. From the third chapter the answer for the second question are elaborated and the for the last questions, the answer will be taken from the discussion in chapter 4.

#### **5.1 Conclusion**

Local cultural context defined in this research is all the shared value and institution of a community. The key factors chosen in this study are: Property rights, formal-informal institution, community features, human/community resources, interest on resources, and traditional practices. These factors are chosen because they are discussed by researcher which means they are important and another reason is they are culture dependent.

Key cultural factors in CBFM implementation in Indonesia consist of all the proposed factors from the literature, which are: property rights, formal-informal institution, community features, human/community resources, interest on resources and traditional practices.

In the implementation of CBFM in Indonesia we found two general cases. The first one is the communities with modern value, represented by the case in Java and communities with traditional values and practice represented by the case in Kalimantan. The implementation of CBFM in Java is still in progress and generally still looking for the suitable form. In Kalimantan the CBFM is established and sustained as a traditional practice from long time ago, despite the friction with formal regulation.

In general the differences of CBFM practice in Java and in Kalimantan are the influence of local custom. This factor is important, in fact this factor determine the model of forest management. In Kalimantan CBFM implementation is driven by cultural need the importance to follow their ancestor. They still hold their traditional values. While in Java the practice is not influenced by traditional value but, motivated by economic drive, to fulfill basic need or to increase welfare.

The six factors of local cultural context discussed are both influential in Java and Kalimantan with different effects to the CBFM implementation. The results are:

*Property rights*; both in Java and in Kalimantan study cases, property rights are influential and the clarity of this rights support the implementation of CBFM. Property rights in Java are according to formal law while in Kalimantan the practice is according to customary law.

*Formal-informal institution*; in Java and Kalimantan study cases, formal–informal institution generally supports the implementation of CBFM. Strong established institution like in case customary institution in Kalimantan made the implementation of CBFM easier, while the non existence of strong institution like in Java prolonged the implementation of CBFM

*Community/human resources*; strong leadership is positive support for the implementation of CBFM. The indigenous people in Kalimantan hold their custom very high and the voice of the elder is valued keeping the implementation more controlled. While in Java case, leadership is not a sacred thing, people may have different opinion with the leader and differences need process to manage into making one common goal in making the CBFM works.

*Interest on resources*; the people in Java case have more interest to the forest rather than just for subsistence, they want more income to improve their live and provide for amenities which they get from the forest and increase the pressure to forest. While Kalimantan case, the people only extract product for subsistence thus limit forest

product extraction which means less pressure and more chance for forest conservation.

*Community features;* Population growth unparalleled by economic growth become the biggest problem in implementation of CBFM in Java case. Forest cannot provide enough resource or remain sustainable. In Kalimantan case where population growth is low, forests are able to generate sufficient product while remain to regenerate and keep sustain.

*Traditional practices;* Tradition in Java case is no longer apparent. While in the Kalimantan case, local wisdom for cultivating and farming is still applied in daily life. These practices are generally in favor to natural preservation with the basic of minimum extraction and minimum damage to nature.

## **5.2 Recommendation**

Community based forest management is not a generic system it requires contextual knowledge of each subject where the program will take place. It is the work of the people that concern about the success of CBFM to first always try to understand the context and gather as many information as possible that can be used in the support of the program. The understanding of traditional practices and incorporation of traditional beliefs may improve the possibilities of success in CBFM implementation.

For Government of Kalimantan, the integration of informal institution into formal regulation has to be strengthened to ensure the customary law practice and thus the implementation of community based forest management.

For Government in Java the status of the forest need to be clarified, and have to encourage the willingness of the land owner to plant trees to increase the areas of forest.

### *Recommendation for planning practitioners and government*

First, government planners in Indonesia have to integrate cultural aspect part of consideration. Cultural aspect is sometimes missed because it is less visible so planner overlook about the potential of cultural aspect in determining the success of a plan, program or project, like CBFM.

Second, because the characteristic of Indonesian people, in determining community forest management models, planners have to be more flexible and open minded to the socio-cultural distinctiveness and the customary values in the society. It means they should not only strict to the formal aspect but also on informal aspect like local customary, religion, beliefs, norms, cultural heritage, etc.

Third, in facing the challenge of cultural diversity, government planners have to be able to design models to include diversity. Implementation CBFM program cannot be separated from the role of traditional community and modern society; hence government planners have to take advantage from cultural diversity by incorporating the traditional minority groups together with their values into the formal activities without losing their local identity and opportunity to participate.

For Government of Kalimantan, the integration of informal institution into formal regulation has to be strengthened to ensure the customary law practice and thus the implementation of community based forest management.

For Government in Java the status of the forest need to be clarified, and have to encourage the willingness of the land owner to plant trees to increase the areas of forest.

### *Recommendation for future research*

There are many literatures about the facts of cultural diversity in Indonesia, but there are very limited literatures discuss about the influence of cultural aspects in the

practice of community forest management (CBFM). Therefore, further studies are required to enrich the knowledge about influence of local cultural aspects in CBFM implementation specifically in a culturally diverse community like villages in Java.

Research in determining the customary practice among indigenous people on the implementation of CBFM needed to find out the possibilities of implementing traditional law into modern context.

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