

Participatory action-research and a framework to evaluate community participation: Sustainability of one-forestry company village

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Abstract

This report addresses the issue of sustainability of one-forestry Company in Batu Majang, a remote village located in the tropical rainforest of east Kalimantan, Indonesia. In the given context, Batu Majang is facing uncertainties regarding the sustainability of forest maintenance in a scenario of discontinuation of a logging company operation in the region. The report is presented in a paper structure and is fundamentally based on secondary data and available references as well as updated information provided by Indonesian specialists during the 2010 summer course of the Graduate School for International

Development and Cooperation, Hiroshima University, realized in Bogor, Indonesia. The output of the discussion is a tentative set of insights on sustainable aspects of forestry management defined within a participatory approach framework.

Keywords; Batu Majang, Sustainable forest maintenance

1. Introduction

Present report attempts to discuss the issue of local community adaptation and forestry sustainability in a context of transitory economic activity. The discussion addresses the profound socio-economic changes observed in the village of Batu Majang, a rural village located in the east Kalimantan, Indonesia.

The discussion is elaborated within a participatory approach framework. This approach consists in a bottom-up method, alternative to top-down and supply-driven approaches usually attached to large economic scale projects (World Bank, 2004). Advocates of participatory approach have stated the potentialities of such method in addressing the capacity of ordinary people to create transformative and action oriented knowledge in order to collaboratively solve problems and transform local challenges (ADB, 2004).

The availability of previous studies on the area subsidizes most of the discussions carried out in this study. Therefore, several published documents and secondary data listed in the reference section were consulted along the work. Conclusions and policy implications of this work are formulated after extensive discussion between authors.

This study focuses on the transition period between a scenario with a dominant private company operating in logging market and another without the company. This transitory scenario is common in today's Indonesia and the relevance of the theme gained attention in the process of the country democratization (1998-2001) when conflicts between forest companies and indigenous population became notorious.

This text is organized in 5 sections. Following subsections 1.1 and 1.2. present a historical background of the Indonesia policies on forest management and a summary of Batu Majang development until current days. In section 2 it is identified the main problems addressed in this report. Section 3 refers to the problem statement and includes the identification of key constituency and stakeholders of the problem/solutions including and potential conflicts of their interests. Section 4 presents a summary of the group discussion on relevance/applicability and goal of participatory approaches in Batu Majang. Conclusions are presented in section 5.

1.1. Background

Sustainability is a new theme in Indonesia. This theme was better developed in the process of democratization of the country (1998-2001) when a broad discussion on the role of forest companies and the conflicts between these companies and indigenous population became evident. In this context the government of Indonesia assumed a leading role in the discussions overcoming a historical lenience on sustainability issues in forest.

The importance of forest as part of national identity and source of remarkable economic activity is rooted in Indonesia history. The importance of forest as source of richness and engine for economic growth was reinforced during the Soeharto's regime (1966-1998). During that period, forests resources were treated as important source for foreign exchange that would ultimately finance development programs. In 1967, the Basic Forestry Law was released together with the enactment of laws on foreign and domestic investments (Gunawan, 2004). The forestry law declared almost all forest areas are owned by the state, and has the exclusive rights in the management and control of the forest resources. The set of new legislation introduced the policy of concession of forestland to private exploitation through the provision of concession rights licenses. The arrangement of business operations into the Suharto's "New Order" regime evidenced a trend of domestic business to occupy niches of low technology sectors with special emphasis in the profitable timber industry while international business had higher share of advanced technology sectors such as mining and oil industry (Barber, 1997; Gunawan, 2004).

Participation of local stakeholders in the forest management (e.g. local communities, informal leaderships, local entrepreneurs) was institutionalized with the installment of the Ministry of Forestry decrees No.677/KPTS-II/1998 and No 310/KPTS-II/1999 (Casson and Obidzinski, 2002; Maunati, 2005). These decrees addressed the issue of community forests and the recognition of the right of local populations to collect forest products and the regional autonomy, respectively (Maunati, 2005).

Even though legislation had innovated to include local stakeholders in the decision process, progresses were received with skepticism. Maunati (2004), referring to previous studies in the region, reports that local community who own the customary land have in most cases delegated their attributions to businessman in charge of fees in a non-standardized parameter. In other words, the capacity of local people to bargain with major stakeholders defined the values of fees differentiating between one

village and another. Authors also mention cases when companies conceded fees to the heads of villages and traditional leaders, e.g. chiefs of native jurisdictions, local Europeans, native civil servants, heads of the regional administrations and self-governments, in order to reduce the costs of production (Casson and Obidzinski, 2002; Maunati, 2005).

Maunati (2005) reminds that the aforementioned decrees also created problems for companies which hold logging concessions. A central aspect contested by companies was the events when local government did not recognize the logging concessions issued by the central government. Apart from the above issues, the ineffectiveness of local government in forest protection and the downturn of the market demand for logs have also become part of the new challenges (Maunati, 2005).

Within the new scenario, including indigenous people became a mandatory step to assure the regional autonomy and as a factor for the success of regional development.

1.2. Target area¹

Batu Majang is a 35-year old village located in the East Kalimantan, Indonesia. The village is distributed in an irregular geography with few flat areas and major mountainous areas. Flat fields are mainly planted by rice through dry farming while the mountainous areas are protected as reserved forests. Forest area is source of clean water and a habitat for multiple species of medicinal plants and timber trees. Borders of Batu Majang's main river are designated to hunting, transporting and other communal purposes. Besides, beneath Batu Majang area lies mineral deposits and surrounding environment displays potential sites for ecological tourism (Nanang and Devung, 2004; Imang et al., 2004).

The main livelihoods activities of the village include farming, forest products extraction, and working at forest companies in and around the village. The village is relatively self-sufficient in food supplies and other general necessities are transported via the Mahakam River, the main river crossing the village. Other economic activities include an incipient service sector consisting of local shops and minor administrative activities in forest companies (Imang et al., 2004).

Among others activities, the timber company is the main economic driver of Batu Majang. The company employs local residents and also offers financial support to improve agricultural systems and infrastructure in the village. However, there have been no significant changes in the agricultural system in terms of management and technique, as compared with the systems used previously. Out of the economic relation, reference studies approaches the boundary conflict between Batu Majang and Long Bagun Ulu as a reason for exodus. Figure 1 summarizes the situation of land use and natural resources map of Batu Majang.

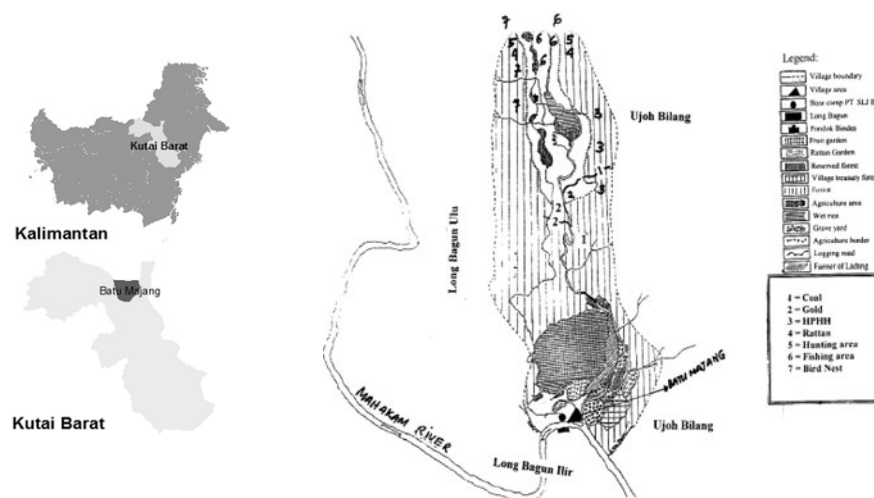


Figure 1. Map of Batu Majang

The villagers' regular income comes from agricultural products such as rice and vegetables, and wages from forest companies, small shops, or from harvesting and selling edible bird nests. The Village Cooperative Unit plays an important role in the economic activities in the village, especially for those involved in agriculture.

The private ownership of farmland, large lumber trees or honeybee trees, is recognized by custom as long as the owner or finder puts a sign on or nearby the claimed object. Whoever becomes the first one to clear a certain area of farmland, to plant a fruit tree or other crop, to find a big tree or honeybee tree in the forest, and then claims it/them, holds the individual rights to the resource. Export commodity products such as cacao, pepper, fruits and banana, are very limited from this village. Non-timber forest products taken by the villagers from the forest are rattan, honey, and medical plants. Wood is harvested for

housing material. To extract wood from the forest it is necessary a permission from the Village Head and then, if permission is granted, the official letter received from the Village Head must be shown to PT. Sumalindo personnel (or the driver) in order to get free transportation to take the wood from the forest to their village.

There have been a number of development programs undertaken in the village, either funded by companies (PT. Sumalindo and PT. Pacific) or by the government. The development programs proposed by the villagers in the future are as follows: Improvement of the village road (cemented road); Improvement of the drinking water pipes; Rehabilitation of the irrigation dam; Promoting Cacao plantation; Placement of a full time agriculture extension officer; Establishing a branch of KUD Udip Mading to supply fuel.

Amongst the private business the logging company (PT Sumalindo) has a remarkable role in the village. PT Sumalindo has been operating the region in charge of compensation from PT Sumalindo (IDR 3,000 (US\$ 0.3) /m³) for the timber cut from Batu Majang village area. After the arrival of PT Sumalindo, the logging road through the agricultural areas was opened (before it was doing in a system of boats change along the river) and over land transportation using the company's trucks was provided. In addition, an irrigation dam was built (PT Sumalindo would fix the dam if there were a commitment from the farmers to fully utilize it), and the agricultural activities have been much better from year to year in terms of yields and marketing arrangements.

PT Sumalindo is a bigger consumer of local market products and had already pledged capital of IDR 40 million (US\$ 4,000) to KUD for expanding the market. The advantage of the system mentioned above is that the farmers have a fixed market and buyer for their products, and they do not spend any money on transportation costs. The disadvantage of the system is the limited uptake by the company when yields are abundant. Another permanent buyer to replace PT. Sumalindo when the company closes in the future is also an important point to be considered (If there is no longer a buyer for the agricultural products, the villagers may revert their livelihoods from cultivation back to forest product extraction, as had been the case previously).

In order to establish export agriculture the PT Sumalindo will provide cacao seedlings for farmers that will be planted along the right and left side of the logging road. There have been a number of development programs undertaken in the village, either funded by companies (PT. Sumalindo and PT. Pacific) or by the government (examples: companies are the building of the 2 km village road, and provision of drinking water facilities in 1993, by channeling clean water from Mt. Ben to the village through pipes of a length of 500 m. The company also provided an electric generator for the village, and all materials for the 20 x 30 m Village Hall (Balai Desa), and also the building materials for Catholic and Protestant Churches.)

PT Sumalindo also is also concerned with education development, health, and transportation. For education development, the company provides a 160 HP boat for transportation of students from Batu Majang to Ujoh Bilang and back (twice a day), and awards scholarships to elementary and senior high school (SD, SMP, SMA) students amounting to IDR 50,000 (US\$ 5) per month, and IDR 600,000 (US\$ 60) per semester to university students.

Decision making within Batu Majang is carried jointly by the village head and staff plus the Customary Headman and staff hold joint responsibility for decision-making at the village level. The mechanism of the decision-making process at the Village Government level is as follows:

- 1st. The Village Head orders the Pengirak (the staff in charge of general affairs) to invite all Village Government staff, the Heads of the Neighborhood Association, the Customary staff, and the representatives of all social organizations to a meeting on an appointed day, usually a Saturday or Sunday.
- 2nd. The Village Head explains the purpose of the meeting and asks for input from the participants. (Women and men have equal rights and opportunity in the decision-making process however, in a discussion to reach an agreement, and especially in a debate, men are dominant over the women.)
- 3rd. Decision is resolved through agreement among all participants. (Mutual agreement is the most common way to reach a decision)
- 4th. In cases where no agreement is achieved in the meeting because of a long-running debate, the Village Head offers three options to those present to put the motion to a vote, or to invest the authority to make a decision in the Village Head alone.

Several conclusions can be pinpointed from the literature review on Batu Majang. Critical to the main issue considered in the present study is the evidences that community does not have full access to and control over the surrounding forest areas and forest resources, because the village forest area has been part of the PT Sumalindo concession area since 1982.

2. Sustainability in Batu Majang in a scenario without the presence of the logging company

The review of Batu Majang economic and social development evidences a variety challenges. To the present study the main issue to be addressed refers to the concerns on the sustainability of the local forest in a scenario without the presence of the logging company. The forest is regarded as a large primary tropical rainforest with high carbon absorption ability that has been protected due to the presence of a company with exclusive concession to explore the forest what ultimately guarantees that the people will not be dependent on forest product. Thus, the community is still quite dependent on forestry company for its market. Since forestry-company will not be there indefinitely, long-term economic sustainability without timber logging activities is at risk.

3. Identification of key constituency and stakeholders of the problem/solutions including and potential conflicts of their interests within them

In order to explain the nature of the problem being addressed in this report, key stakeholders were identified-local community (villagers), government, private company, customary representative and cooperative unit, summarized in Table 1, and the interaction between them, summarized in Table 2.

Table 1: Stakeholders and roles.

Stakeholder	Description	Main Problems
Villagers	<ul style="list-style-type: none"> ● The key player in sustainable forest management ● Partner of the companies in running various kinds of projects ● Forest-benefit users and labor force provider for the logging company. 	<ul style="list-style-type: none"> ● Age of population: more than 45% of population has less than 15 years old. (Young people used with company dependence). ● Are not allowed to use forest area due to exclusive concession to the forest company. ● The commonly-held view among government officials and other parties that local people are ignorant and backward, and need to be taught and developed. ● A tendency that the community members become more exploitative in the use of forest resources, focusing more on the economic profits rather than forest resources conservation. ● The community has not overcome the dilemma between the immediate need for subsistence and the demand for long-term reforestation. ● Forest management is not seen as a major economic activity (except for those involved in exploitative logging activities) because most of the community members earn their living from farming and plantations. ● Unequal benefits from timber: particular groups in the community (individual traders and loggers) get more, while most of the community members only get a little. ● Lack of participation of women in community decision-making.
Government	<ul style="list-style-type: none"> ● The lead agency in implementing forest laws and policies ● In-charge of monitoring and evaluation 	<ul style="list-style-type: none"> ● Contested customary laws due to changes in ecological and socio-economic conditions: in some cases ● People cannot rely on customary law, while new village rules do not exist. ● Lack of organized activities: many village authorities do not have the capacity to organize their people.
Private Company	<ul style="list-style-type: none"> ● Investor of natural resource exploitation. ● Community development-agent: creates job opportunities for the village, offers scholarship for elementary and high school levels, also helps in improving the infrastructures such as roads, water supply, etc. 	<ul style="list-style-type: none"> ● Major private company; ● Main employer. ● Strong influence on population and government decisions.
Customary Representative	<ul style="list-style-type: none"> ● Stewards of ancestral domain ● Partners of the village government in issuing local law concerning with forest protection. 	<ul style="list-style-type: none"> ● Based on primitive rules, ● Informal power.
Village Cooperative Unit	<ul style="list-style-type: none"> ● Financial assistance provider for the villagers. ● Marketing agent for agricultural products of the villagers. 	<ul style="list-style-type: none"> ● Attend interest of agriculture producers ● Is influenced by the demand of the private company (main buyer).

Table 2: Matrix of relations between stakeholders.

Matrix of Relations	Villagers	Government	Private Company	Customary Representative	Village Cooperative Unit
Villagers		(a)Restriction of villagers' access to forest due to concession for companies. (b)Rapid and frequent change in policy on small-scale logging that caused confusion among villagers. (c)Lack of facilitation from the administration to solve boundary disputes among villages. (d)Lack of information dissemination of government policy. (e)Weak coordination, human resource capacity, technology, law enforcement	(f)Unequal benefits from forest exploitation. (g)Source of jobs and developing (h)Main player of the Community Development program	(j)Operate as senior adviser between villagers. (k)Founded on customary influence on local people.	(n) Attend mainly major agriculture producers.
Government			(i)Privileges to the private sector in terms of logging concessions.	(l)No formal recognition of the existing customary forest management practices.	(o) Operates as a secondary power within the village.
Private Company				(m)Ignored by private company.	(p)Private company is the main consumer of the Village Cooperative.
Customary Representative					(q) Operates independently of official or unofficial authorities.
Village Cooperative Unit					

Tables 1 and 2 describe and identify the relation between key stakeholders. Among others, the particular relation between local communities and the company requires further comment. Reports from several sources have identified several sources of conflicts that include concerns on worker's rights, interference of the company in the decision making process and several concerns on the environment maintenance (Maunati, 2005; SF, 2005). Recent concerns of villagers include the rights to a safe working environment mentioning the fact that workers in PT Sumalindo operations are mainly employed by contractors or subcontractors (Sofyar et al., 2005) and the environmental concerns that include the impact of logging operations on the rivers, e.g. villagers can no longer use the river as a transport route except when it floods during the wet season (SF, 2005). Other refereed complaint related to environment concerns is the impact of the company on the degradation of waterfall due to the building of logging road next to it. The complaint is that they have lost income from tourism in the region (SF, 2005).

4. Application of participatory approach

4.1. Preliminary analysis

Attempts to address the issue of forest management in a participatory approach require a preliminary understanding of forest types, sectorial policies and institutions role. In the Indonesia case, forest related policies are designed by the Indonesia Ministry of Forest that defines specific set of rules according to the different forest functions/categories. Forests in Indonesia are categorized in 4 types. The first is the conservation forest, managed to conserve biological diversity, the source of genetic resources needed for food crops, medicinal plants, wood and non-wood forest species domestication. Second, protecting forest is an important instrument to maintain hydrological function, watershed protection and soil conservation. Third, production

forest, provides timber and non-timber products, and is managed through selective cutting for natural forest and clear cutting for plantation forests. The fourth category is conversion forest, forest area which can be converted for other land uses (FAO/EC, 2002).

Among others the wood products contributed significantly to Indonesia's exports, especially between 1980s-1990s (FWI/GFW, 2002). This trend has also accelerated the deforestation in the tropical forests of Indonesia. Estimative by the Indonesia Ministry of Forest and World Bank assigns approximately 1.7 million ha of forest lost per year during the period of 1985-1997 (MoF/WB, 2002). This deforestation rate showed relative progress in the recent years decreasing to approximately 1.2 million ha per year from 2003 to 2006 (Verchot et al., 2010).

Pressure over forest has created challenges to policy makers, communities and forest companies in the past ten years. In this transforming context, policy makers have set five priority policies, namely: (1) combating illegal logging and its associated illegal trade; (2) forestry sector restructuring through enhancement of timber plantation and industry restructuring; (3) forest rehabilitation and conservation and; (4) strengthening the economy of local communities and, (5) securing forest areas.

Another sensitive topic with major implications to local communities is the joint effects of the new policy framework over other components of national development such as agriculture, infrastructure, population settlement policies and industry. To cope with the interacting policies, priorities and interests the government has promoted the usage of participatory approach as instrument to policy implementation.

Additionally, new regulations formulated within the new regime have also been developed. A remarkable example that integrates the participatory approach to forest protection policy is the Community Plantation Forest (HTR) program established by the Ministry of Forestry (Obidzinski and Dermawan, 2010). This program is designed on the double purpose of timber production and forest conservation. It relies on the understanding that 12.3 million ha of degraded production forests in Indonesia is potentially available for development of timber plantations (Obidzinski and Dermawan, 2010) and represents an important source of income for local communities. The degraded production forest refers to over exploited areas where natural recover is not possible. By implementing the HTR in a sustainable manner HTR holders would reforest the degraded areas making it productive again.

In practice, the program provides subsidized funding to both community-based and large scale firms engaged in the reforestation of degraded production forest areas. Figure 2 summarizes the procedure for HTR concession in Indonesia.

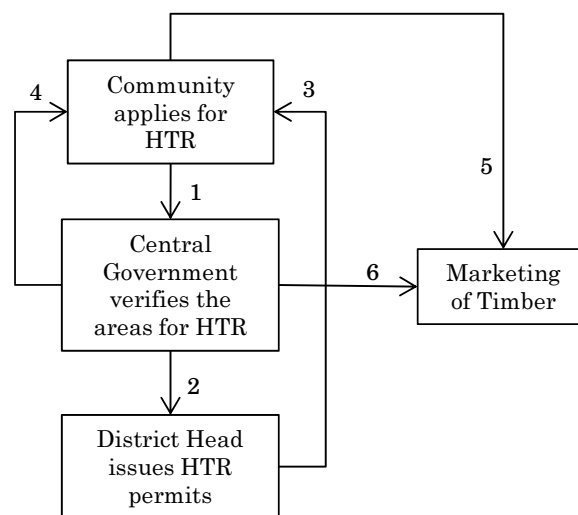


Figure 2: Simplified operational procedure for Community Timber Plantations Programme (HTR) concession.

The figure shows the interactions between several institutions and local community applicant. In summary, the local community is the responsible to start the application (1). The application is addressed to Central Government units in the region, then, followed by the verification of the areas for HTR concessions (2). After, the application follows to the local government where the district head is responsible for issuing the permit (3). The holder of the HTR receives subsidized financing from the Central government (4). This resource is employed in the plantation process and also to assure income over while waiting for harvest. The timber is commercialized by the HTR holder under a benefit scheme of fair opportunities for marketing forest products (5). Finally, the central government guarantees the marketing of the HTR timber according to pre-established prices for different species (6).

4.2. Proposal for participatory approach in Batu Majang

Given the reported conditions of Batu Majang and the available policies it is proposed a participatory scheme focused on the implementation of a community timber plantations program (HTR) in Batu Majang. It is therefore imperative to propose a framework that can be followed by stakeholders to assure the profitable usage of forest in a sustainable manner. Result of group discussion is summarized in Figure 3.

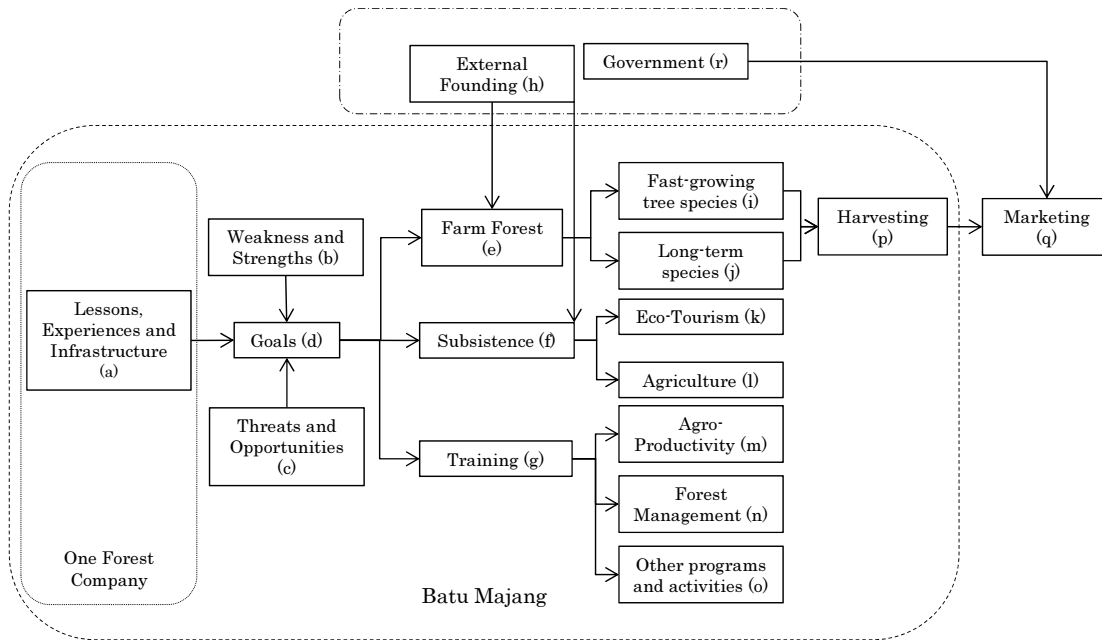


Figure 3: Conceptual framework to address the forest management problems in Batu Majang, East Kalimantan village through participatory approach

The proposed framework aims to aggregate the long-lasting experience of the forest-company operating in Batu Majang to the current challenges of local communities in implementing a productive forest that would be used both as instrument of preservation of native forest and as source of income and development. In this context the lessons, experiences and infrastructure (a) developed by the forest-company must be transferred to local communities in a negotiation process that embodies all stakeholders listed in Table 2. The community self-assessment on the weaknesses and strengths (b), the opportunities and threats (c) is a fundamental step to start a successful transition plan that include strategies of development both for the short and long run (d). Again, all groups would contribute to this discussion associating managerial knowledge from the forest-company, the boundaries of the regulation provided by government authorities, and the expectation of communities. Our understanding is that goals must be set in at least 3 critical areas. The first refers to the Farm Forest Project (e) proposed within the HTR scheme. With this project the communities would implement long and medium term forest plantations in the degraded production forest areas. This initiative would constitute the main source of income for Batu Majang in the mid- and long-run. The mid-run farm forest would include fast-growing species while the long-run would include noble wood with longer growing period. The share of the plantation areas between these species would depend on the priorities of the village and the availability of immediate subsistence activities (f). It is remarkable that the HTR scheme provides funding for the farm forest implementation as well as funding for community subsistence for the periods of inter-harvest (h).

To assure better life condition in the maturation of the farm forest communities must organize other subsistence activities. Two examples with potential to be developed in Batu Majang are the agriculture activities (l) developed in the flat areas and the eco-tourism (k). Other activities as handcraft and infrastructure building would be considered by communities depending on the available competencies and skills of villagers and support from public and private institutions.

Parallel to the economic activities it seems fundamental to improve the technical knowledge of residents. Priority training would include information, education and campaign programs on productivity (m), forest management (n) and others commercial and industrial activities and skills (o). This initiative would allow of the inclusion of stakeholders and dissemination of knowledge and information throughout the villages

Activities developed within a participatory approach would also require strong community organizing efforts. These activities would allow the diffusion of knowledge between stakeholders and the development of a sense of property necessary

to preserve the surrounding forest areas while promoting the farm forest. Furthermore, the community organizing is fundamental to maintain the economic development of the village over the period that antecedes the harvesting (p). Figures from the literature indicate that the average period before the harvest may take one decade (Obidzinski and Dermawan, 2010). The farm forest has a potential investment and the marketing (q) of timber in a context of natural resources shortage would represent important sources of revenue to Batu Majang. In a context of subsidized funding and the guarantee of timber marketing (r) the villagers would possibly be strongly benefited by this program.

The efforts however require enormous planning, coordination and implementation efforts. In this extent the participation of local and national governments are fundamental. Also, cooperation with neighbor villages would increase the agriculture specialization and develop the infrastructure for timber marketing.

In the context of transformation in Batu Majang the full understanding of the importance of forest sustainability is fundamental. The balance between economic activities and forest preservation would assure stability in the surrounding environment reducing risks of sickness and allowing extractive activities complementary to population subsistence. Finally, it must be noted that the Indonesia government offers several side projects that can operate complementarily to the Farm forest project. Some national initiative such as the Indonesia Forest Climate Alliance (IFCA), led by the Ministry of Forestry offers expertise in coordinating activities with various stakeholders in order to ensure the synergy between those initiatives.

5. Conclusive remarks

Proposals within the present discussion aim to offer input for the current context of transition experienced in Batu Majang. Group discussion based on available evidences indicates that the village main goal is to develop alternative environmentally friendly economic activities. Several potential economic activities were identified and discussed in the Community Plantation Forest program figures as a consistent alternative to Batu Majang. This program allows the development of farm forest in degraded production forest areas.

The choice for economic activities depends ultimately on the capabilities, competencies and priorities of local stakeholders and finding a common ground between involved stakeholders is one of main activities of participatory approach. Our proposal divides the activities in mid- and long-run activities typical of the farm forest projects and short-run projects for community subsistence. Simultaneously coordinated efforts between public authorities and local communities by developing technical education and training would allow better management of the forest areas and increment in productivity. Ultimately, successful development of alternative activities can bring direct benefits for local environment preservation. Coordinated efforts of stakeholders pass through redesign of the relationship between community members and investments in capacitating of local villagers. Furthermore, proposals should be constituted under forest regulation mechanisms of Indonesia. Finally, this preliminary evaluation requires further analysis and updated assessment of the village dynamics.

Disclaimer

This study represents the views of the authors and does not reflect the opinions of the Graduate School for International Development and Cooperation - IDEC, Hiroshima University, the Bogor Agricultural University and the SEAMEO BIOTROP, Southeast Asian Regional Centre for Tropical Biology - SEAMEO BIOTROP.

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Endnotes

¹ Whenever not specified references for target area description comes from Nanang, 2004.