# Socio-Economic Impact Assessment of The Existence of Forest Concessionaire (*PT Gunung Gajah Abadi*) to Local Community, East Kalimantan, Indonesia (A Case Study of Corporate Social Responsibility (CSR) Implementation*in Kongbeng Sub-District and Muara Wahau Sub-District*)

# Dr. Rujehan

Faculty of Forestry Mulawarman University Samarinda, East Kalimantan - Indonesia

## Dr. Ndan Imang

Faculty of Agriculture Mulawarman University Samarinda, East Kalimantan - Indonesia

# Abstract

The existence of forest concessionaire could provide positive impacts and negative impacts on forest communities. The positive impact that might be obtained by the society is opportunities to work in the forest concessionaire and to establish business, while the negative impact that may occur is the presence of uncontrolled population growth that led to otherpossible negative impacts. The purpose of this study is to determine the impact of socio-economic conditions of the existence of forest concessionaire (PT Gunung Gajah Abadi) to local community. The research was conducted in Miau Baru Village and Makmur Jaya Village in Kongbeng Sub-District and Nehas Liah BingVillage in Muara Wahau Sub-District, East Kutai District, and East Kalimantan Province. A total of thirty respondents from each village was selected randomly, so that the total number of respondents who had been interviewed was ninety. The results show that the socio-economic impacts increase revenues of local community as the results of working in the company and expand business opportunities due to the availability of infrastructure provided by the company.

Key Words: Socio-economic impact, forest concessionaire, local community, East Kalimantan..

# 1. Introduction

As a country with the third largest forest in the world, Indonesia has been relying on its natural forests to support national economic development. Natural forests serve as the fundamental source of livelihood for local community surrounding its area as well as the businesses which utilize natural forests for their production. Kartodiharjo and Supriono (2000) stated that, since the end of the 1970s, forest concession rights have been the dominant system to utilize natural forests and their resources. The Agreed Functional Forest Classification and the Provincial Land Use Planning (*Tata Guna Hutan Kesepakatan*) are the bases for design and control in the development of the forest concession rights, timber plantation concessions, and tree crop plantations. Forestry, logging and related services such as silviculture make a significant economic and social contribution to Indonesia. According to Indonesia Ministry of Forestry (2013), forestry sub sector contributed roughly IDR56.9 trillionat current market price (approximately 0.63 per cent) to Indonesia's GDP in 2013. The contribution of forestry to employment is particularly significant. Indonesia totalforestry worker in plantation forest concessionaire in 2013 was 27,931 workers with 6,384 people worked in East Kalimantan Province.Meanwhile, the social benefits of forestry tend to be high because forestry operations often include iinfrastructure developments and employment. Investments in the forestry sector not only have positive impacts but also adverse impacts, eitherin changes in social, culture, and economic structureor the quality of environment.

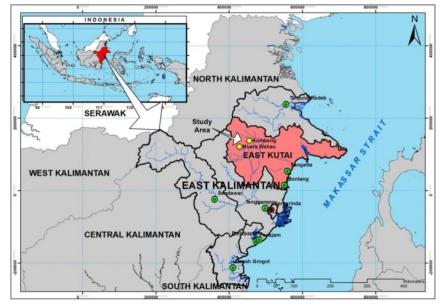
Many adverse impacts were due to poor social structure around the company such asgambling, drunk, and consumptive life pattern of the employees that could drive local communities be more consumptive and if it is not supported by changes in the purchasing power of local community, it will cause social jealousy which could eventually cause disharmony or social conflict among people around the timber company. The concern of PT Gunung Gajah Abadi (PT GGA) is to develop Corporate Social Responsibility (CSR). CSR is as a form of corporate social responsibility to the public around the company operates. The necessity to implement CSR is regulated in Indonesia Government Regulation No 47 of 2012 concerning Social and Environmental Responsibility of Limited Liability Companies which stipulates that all companies that manage or utilize natural resources or that impact natural resources are required to bear a social and environmental responsibility which is harmonious and balanced with the surroundings and the local society according to the values, norms and culture of that society. The commitment of CSR programs embodied in various community development programs can help to rise the economy through the establishment of facilitated and managedbusinesses by the company. The program can provide direct benefits to the community to improve the quality of life such as poverty alleviation, provide facilities and infrastructures such as roads, health center, and schools, increase purchasing power, and enhance skills and competitive advantage of local community through several training provided by the company.

In the framework of business sustainability of a company, the World Business Council for Sustainable Development (WBCD) stated that CSR is a continuing commitment by business to act ethically and contribute to economic development of local community or society at large, along with an increase in the living standards of workers and the entire family. Meanwhile, according to Nuryana (2005), CSR is an approach whereby companies integrate social concerns in their business operations and in their interaction with stakeholders based on the principle of voluntarism and partnership. Philosophically, companies implement CSR in order to not only deemed to have fulfilled its obligations, but also to get many benefits, including improving the reputation or image of the company, obtaining social license from local community to be able to continue to operate, reducing business risk and costs, widening access to resources, open access to the market, improving relations with stakeholders and regulators, improving employee morale and productivity, as well as opportunity to earn some awards related to CSR programs. Besides, stakeholders also expect the company to have a good performance in non-financial matters involving human rights, business ethics, environmental policy, corporate donations, community development, corporate governance, diversity, and issues in workplace.

Limberg, *et al* (2009) stated that Corporate Social Responsibility (CSR) is based on three fundamental aspects known as 3-P (People, Profit, Planet) or triple bottom line (economy, ecology, social). Through the implementation of CSR, it is expected that these three aspects: people or social aspect, profit or economic aspect, and earth or environment aspect, are balance and in ideal condition that can support sustainable development. Concession area of PT Gunung Gajah Abadi (PT GGA) are located in forest areas of Long Seleq and Wahau River based on the Minister of Agriculture Regulation No. 314 / Kpts / um / VII / 1973 dated July 4, 1973. The company is expected to contribute to the development of local village through Forest Village Community Development or better known as Corporate Social Responsibility (CSR). In order to assess the extent to which the implementation of the CSR onlocal community from the aspect of socio-economic, this study aims to determine the socio-economic impacts of forest concessions onlocal community. It is expected that the results of this study can be, from managerial aspect, the basesfor policy making related to development planning andfrom social aspects, improving relations with local community.

## 2. Study Area and Duration

The study area is PT Gunung Gajah Abadi (PT GGA) including its patronage villages, Miau Baru Village, Nehas Liah Bing Village, and Makmur Jaya Village. Miau Baru Village and Makmur Jaya Village is located in Kongbeng Sub-District, while Nehas Liah Bing is located in Muara Wahau Sub-District (Figure 1).



## Figure 1. Map of StudyArea

Source: East Kutai in Number, 2013

Field data were collected in two periods at different times. The first period was conducted in March 2014 and the second period was carried out in April 2014 to fulfill incomplete data from the first period of data collection. Therefore, the complete period of study was from February 2014 to June 2014.

## 3. Methodology

Respondents in this study consist of the head of CSR Program from PT GGA and local community. Thirty householder respondents from each village were selected randomly. Thus, the total number of respondent from local community was as much as ninety householder respondents. Data used in this study consists of primary and secondary data. Primary data is the type of data obtained directly in the study area either through household surveys, focus group discussion (FGD), or in-depth interview with community leaders. Meanwhile, secondary data is the type of data obtained through the review of related documents. Source of primary data is local community or selected respondents, head of village, head of ethnic, head of sub-district and director of the company while source of secondary data comes from printed or electronic literature and various documents from the company.Collected data consists of components such as socio-economic of the villages. Socio-economic components concern the issues of welfare of local community. These data are used as the bases to conduct socioeconomic impacts assessment of the existence of PT GGA.Data collection is conducted through various different techniques based on the information needed, among them are interview, field observation, FGD and literature review. Collected data will be processed further in accordance with the type of data. Qualitative data will be analyzed through qualitative approach, including data reduction, data display, descriptive analysis and conclusion drawing (Miles and Huberman, 1992 in Sitorus, 1998). On the other hand, quantitative data collected through questionnaire was edited first before converted to a prepared tabulation sheet.

# 4. Findings and Discussion

Socio-Economic Impact Assessment (SEIA) is a study or assessing, in advance, the social and economic consequences of initiation of any industrial activity to the human population (Ramanthan and Geetha, 1998). The assessment should be based on important social and economic aspects of the community. The most reliable source of information about local community needs and concerns are the local community itself and the leader of local community. Therefore, it is important to know local community understanding against PT GGA in order to obtain valid information and data.

No.	Introduction of	Percentage (%)					
	PT GGA	Miau Baru Village	Nehas Liah Bing Village	Makmur Jaya Village (SP3)			
1	Ever heard	100	100	100			
2	Never heard	0	0	0			

#### Table1: Local community understanding against PT GGA

#### Source: Primary Data, 2014

Table 1 shows that all respondents (100%) in three patronage villages of PT GGA already know this company very well. Thus, questions from researcher and answers related to the existence of the company from respondents can be trusted. In addition, respondents' understanding against the company have demonstrated the interaction between the company and local community in the patronage villages.

#### 4.1 Job and Business Opportunity

The most direct economic effect that could be generated from new development project or business is creation of new jobs. Fisher (2011) mentioned that there are several economic impacts criteria that should be considered in a socio-economic impact assessment, including direct employment, labor supply and training, and effects on existing commercial activities and businesses. Job opportunity, in this case, is the available job fields directly provided by PT GGA, such as working in the company, either as a permanent employee or worker with daily wages in PT GGA. From the in-depth interview with the staffs, it has obtained that more than 80 percent of the employee are local community who are mostly ethnic Dayak.

For instance, from the production and maintenance department, it was found that 95 percent of the employees are local community which were then placed into several departments including road construction, logging and skidding, maintenance, the timber business administration, and the log assembly in which from the total of sixteen employees in this department, eleven people are local community and the other five are people from outside the village. Business opportunity is an opportunity to establish a business or new available businesses due the existence of PT GGA. For example, distribute rice to the company, or get a job contract from PT GGA. In addition, it also contains information about potential business opportunities and economic activities as well as public recreation activities in the operational areas of PT GGA.

No	Activity	Month (Frequency)											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Hunting	56	51	75	52	42	35	28	35	18	28	14	44
2	Fishing	15	11	19	3	8	18	16	21	9	13	12	15
3	Aloes hunting	8	4	3	7	3	9	9	3	10	7	8	3
4	Gold mining	9	10	14	20	20	4	9	3	9	4	1	1
5	Research	9	21	19	23	12	20	30	30	22	21	17	27
6	Tour	680	31	144	38	205	336	71	123	46	77	64	57
7	Others	6	10	13	10	14	15	30	14	24	21	41	91
Tota	ıl	783	138	287	153	304	437	193	229	138	171	157	238

Table 2: Local community activities in the area of PT GGA

# Source: PT GGA, 2014

These activities were able to be carried out because PT GGA still maintain primary and former logging forests which is an absolute requirement of the continuity of the activities carried out by the community. For example, hunting or collecting forest products such as aloes, rattan, fruits, resin and others could only be possible in the area of primary forest ecology. These activities will not be productive if the forest is damaged or in secondary forests. As the results of commitment from PT GGA to remain protecting the forest environment, local community can benefit from these activities. If the forest is damaged, such activities can not be carried out again. One of benefits from the existence of PT GGA is precipitating Wehea Protection Forest. Wehea Protection Forest has become the icon of East Kutai District, specifically Kongbeng Sub-District, and at the same time become awards for ethnic Wehea which are natives at this location. This protection forest contributes greatly to leisure activities in the Kongbeng Sub-District.

Its appeal is natural primary forest, and clearflowing river especially in the dry season. Table 2 shows how high the community activities undertaken within the operational area of PT GGA. For example, every month there were about forty hunting activities in forest areas of the company, dozens of forest research activities, and thousands of tourists who visit Wehea Protection Forest. Most visitors came from Kongbeng Sub-District and residents outside the sub-district. To compare business opportunities derived from PT GGA with palm oil companies, interviews were carried out with community leaders in 3 (three) villages coupled with the results of focused group discussion (FGD). Public opinion against PT GGA and palm oil companies can be formulated as follows:

- 1) Business opportunity in the last 5 years is somewhat limited by PT GGA (e.g. fishing, hunting). The purpose of such restrictions was to actually keep the preservation of fish and wild animals populations; so that people will not do excessive hunting and fishing and can not use methods that damage fish populations. Although limited by the company but society still benefit from the existence of PT GGA. While in the palm oil companies, all of the forests are destroyed so that all wild animals disappeared from the site, even place for fishing has also been damaged.
- 2) Activity of PT GGA does not reduce cultivation areas because all these areas are outside the area of the company. Precisely, after PT GGA is established, local community can join Camp of PT GGA for farming in more remote areas due to easier access to get to the farm by car or motorcycle.

## 4.2 Income Level

A survey of 30 households from each village was conducted to see the income level in the three patronagevillages of PT GGA. About 30 percent of respondents in Miau Baru Village earned a monthly income in the range of less than IDR 500,000, followed by the range of above IDR 1 million to IDR 2 million (26.67%) and up to 20 percent of respondents range in above IDR 2 million to IDR 3 million. But this income was derived from oil palm plantations and a variety of agricultural activities and services.

		Village				
No.	Income per month	Miau Baru	Nehas Liah Bing	Makmur Jaya (SP3)		
		(%)	(%)	(%)		
1	Less thanIDR 500,000	30,00	6,67	46,67		
2	IDR 500,000 - IDR 1 million	13,33	26,67	43,33		
3	IDR 1million- IDR 2 million	26,67	30,00	3,33		
4	IDR 2million-IDR 3 million	20,00	23,33	3,33		
5	AboveIDR 3 million	10,00	13,33	3,33		

Table 3: In	come level	of respondents
-------------	------------	----------------

*Note: USD 1 = IDR 11,562 (April 2014)* 

# Source: Primary Data, 2014

In Nehas Liah Bing, 30 percent of respondents earned income ranged from IDR 1 million toIDR 2 million, followed by 26.67 percent of respondents who earned IDR 500,000 to IDR 1 million, and about 23 percent of respondents with income ranged from IDR 2 million to IDR 3 million. Meanwhile, in Makmur Jaya (SP3), a total of 46.67 percent of respondents earned less than IDR 500,000 about 43.33 percent earned income amounted to IDR 500,000 - IDR 1 million. Only about 6 percent of respondents had income above IDR 2 million as shown in the last column on the right in Table 3.

The existence of a company is expected to provide additional income for local community, especially for its patronage villages, in this case, Miau Baru, Nehas Liah Bing and Makmur Jaya (SP3) Village. What is meant by "additional income" is additional income directly or indirectly obtained from the economic activity associated with the existence of PT GGA.

No.	Additional income by the	Village				
110.	existence of PT GGA	Miau Baru (%)	Nehas Liah Bing (%)	Makmur Jaya (SP3) (%)		
1	Yes	33,33	10,00	15,00		
2	No	66,67	90,00	85,00		

Data in Table 4 shows that 33.33 percent of respondents in Miau Baru Village got additional revenue from the existence of PT GGA while the remaining 66.67 percent of respondents said did not receive additional income from PT GGA. In Nehas Liah Bing and Makmur Jaya (SP3) Village, the percentage of respondents who received additional income from PT GGA was actually smaller than Miau BaruVillage.

AlthoughNehas Liah Bing Village was the village that historically and customary owns some areas which later became part of PT GGA areas, the location of this village is the most distant from Camp PT GGA. The nearest village is Miau Baru, followed by Makmur Java (SP3) and then Nehas Liah Bing Village. Distance from Camp PT GGA to Nehas Liah Bing Village is quite far which is about 60 minutes using a motor vehicle. So naturally, the local community does not obviously get additional income. The nearby Miau Baru Village has the largest number of respondents who receive additional income from PT GGA. Most village communities are not able to work consistently in formal employment on the company as they are lack of skills. Village communities as well as small-scale timber growers and plantation workers often augment their incomes through collection and sale of non-timber forest products (NTFPs) (Obidzinski and Chaudhury, 2009). However, expansion of timber plantation concessions reduces the access to natural forests where local community can find NTFP resources. Thus, their livelihoods declined due to decreasing opportunities for hunting, fishing, and collection offorest resources. Besides providing direct employment for local community, forest concession can lead to better standards of living for local people if natural resources extraction is well managed and meets government and community requirements. Devi and Prayogo (2013) stated that, in Indonesia, Corporate Social Responsibility and Community Development (CSR/CD) tends to be used to secure the business and to cover up (or avoid) tension and conflicts between companies and local community instead of genuinely attempting to promote better community welfare. Companies tend to make CSR program in the form of charity that only provide benefits in the short term. So that the benefits in the long term as to increase revenueor welfare of the community is not very significant.

# 4.3 Company Assistance (PT GGA) to Local Community

The assistance referred to in this context is any form of aid from the company to local community, either in the form of cash, materials to build public facilities, or the use of heavy equipment or vehicles to assist local community in infrastructure development and others.

No.	Company assistance (PT	Village				
INO.	GGA) to local community	Miau Baru (%)	Nehas Liah Bing (%)	Makmur Jaya (SP3) (%)		
1	Yes	63,33	66,67	90,00		
2	No	36,67	33,33	10,00		

Table 5: Company assistance (PT GGA) to local community within the last five years

#### Source: Primary Data, 2014

Data in Table 5 shows that most respondents stated that PT GGA had provided assistance to the community in various forms of assistance, as already mentioned above. A total of 63.33 percent of respondents in Miau Baru Village acknowledged and recognized the assistance, whilst in Nehas Liah Bing Village 66.67 percent got the assistance and even a higher percentage in Makmur Jaya (SP3) Village with a total of 90 percent of respondents was benefited. From the interview with community leaders, including the village chief and the head of the ethnic, the assistance provided by PT GGA mostly in the form of material aid for the construction of public facilities such as the church, village hall, meeting hall, and assistance to local community affected by disasters such as fire and others.Infrastructure is the most common aspect of a CSR program. However, some facilities such as health centers are often mismanaged by local community, due to a limited ability to operate, manage, and maintain them on an ongoing basis. In addition, some infrastructure is delivered with limited participatory planning (Dananjaya, 2001 in Devi and Prayogo, 2013), which does not reflect community needs and therefore reduces the likelihood of long term benefits to the community as it is managed poorly.

## 5. Conclusion and Recommendation

The impact of PT Gunung Gajah Abadi (PT GGA) CSR program to improve household incomes directly is not so obvious (and it is difficult to measure) except some local communities who work for the company and thus receive income directly from the company. However, employment opportunities increased with the existence of this company. Local community could open wider farm fields far from home because of easier access to roads provided by PT GGA.

Likewise with the existence of Wehea Protection Forest, business opportunities also increased (e.g. selling souvenirs and accessories to the visitors, selling agricultural products in the tourist attractions managed by the company,Wehea Protection Forest guards, hunting and fishing, selling vegetables or groceries to the company and others).However, CSR programs in employment, business opportunities, custom, and education were not effective. This condition does not mean negative.

From the standpoint of the local community, the concept of Corporate Social Responsibility (CSR) programs to improve productive activities such as agriculture and other businesses is still relatively unaccustomed for them. The interview conducted with the staff of PT Gunung Gajah Abadi (PT GGA) confirmed the same thing. CSR programs in the form of aid to local community are charitable. This is a positive approach to build relationships with target communities and other communities in the surrounding, but it is not profitable for the company and society itself in the long run because it will lead to dependency. If the company preferred charity, then the local community will continue to have recourse to the company.

#### Acknowledgments

The authors gratefully acknowledge the support of Management of PT Gunung Gajah Abadi (PT GGA) for its admission in conducting this research project. Special thanks and acknowledgments are addressed to the respondents who were interviewed during data collection in the field. We also appreciate the comments and critiques from anonymous reviewers of this manuscript.

## References

- Devi, B and D. Prayogo. 2013. Mining and Development in Indonesia: An Overview of the Regulatory Framework and Policies. Action Research Report. Australia: International Mining for Development Centre (IM4DC).
- East Kutai District Central Bureau of Statistics. 2011. *Kutai Timur dalam Angka 2011*(East Kutai in Number 2011). East Kutai District.
- East Kutai District Central Bureau of Statistic. 2013. *Kecamatan Kongbeng dalam Angka 2013*(Kongbeng Sub-District in Number 2013). East Kutai District.
- East Kutai District Central Bureau of Statistic. 2013. *Kecamatan Muara Wahau dalam Angka 2013* (Muara Wahau Sub-District in Number 2013). East Kutai District.
- Fisher, L. 2011. The Treatment of Socio Economic Impacts in Environmental Impact Statements. Thesis. School of Environmental Sciences. Norwich: University of East Anglia University Plain.
- Juniar, P. *et al.* 2012. Adat dan Tradisi Masyarakat Suku Dayak Kayan di Miau Baru Kalimantan Timur: Dinamika Perubahan Sosial dan Kebudayaan. (Indigenous and Traditional Community Dayak Kayan in New Miau East Kalimantan: Dynamics of Social Change and Culture).Pontianak: STAIN Pontianak Press and Balai Pelestarian Nilai Budaya Pontianak (Institute for Preservation of Cultural Values Pontianak).
- Kartodiharjo, H and A. Supriono. 2000. The Impact of Sectoral Development on Natural Forest Conversion and Degradation: The Case of Timber and Tree Crop Plantations in Indonesia. Occasional Paper No. 26(E). Bogor: Center for International Forestry Research (CIFOR).
- Limberg, G. et al. 2009. Bukan hanya laba: Prinsip-prinsip bagi perusahaan untuk melaksanakan tanggung jawab sosial(Not just profits: Principles for companies to implement social responsibility). Bogor: Center for International Forestry Research (CIFOR).
- Miau Baru Village Office. 2013. *Monografi Desa Miau Baru Tahun 2013*(Monograph of Miau Baru Village Year 2013). Miau Baru Village. East Kutai District.
- Ministry of Forestry. 2013. Statistik kehutanan 2013 (Forestry Statistics 2013). Indonesia.
- Nehas Liah Bing Village Office. 2013. *Monografi Desa Nehas Liah Bing Tahun 2013* (Monograph of Nehas Liah Bing Village Year 2013). Nehas Liah Bing Village. East Kutai District.
- Obidzinski, K and M. Chaudhury. 2009. Transition to timber plantation based forestry in Indonesia: towards a feasible new policy. *International Forestry Review*, 11(1), 79. Bogor: Center for International Forestry Research (CIFOR).
- PT Gunung Gajah Abadi. 1993. *Studi Evaluasi Lingkungan HPH PT Gunung Gajah Abadi di Kabupaten Kutai, Kalimantan Timur (Laporan Utama)*(Environmental Evaluation Study of Forest Concession Rights PT Gunung Gajah Abadi in Kutai, East Kalimantan (Main Report)). Jakarta.

- PT Gunung Gajah Abadi. 1994. Rencana Pengelolaan Lingkungan Hak Pengusahaan Hutan PT Gunung Gajah Abadi Kabupaten Dati II Kutai Propinsi Dati I Kalimantan Timur(Environmental Management Plan of Forest Concessions Rights PT Gunung Gajah Abadi Kutai District East Kalimantan Province). Jakarta.
- PT. Gunung Gajah Abadi. 1994. Rencana Pemantauan Lingkungan Hak Pengusahaan Hutan PT Gunung Gajah Abadi di Kabupaten Dati II Kutai Propinsi Dati I Kalimantan Timur (Environmental Monitoring Plan of Forest Concessions Rights PT Gunung Gajah Abadi Kutai District East Kalimantan Province). Jakarta.
- PT Gunung Gajah Abadi. 2005. Berita Acara Pengakuan Hak dari Masyarakat Adat terhadap Hasil Penataan Batas Areal Kerja IUPHHK PT Gunung Gajah Abadi di Wilayah Administratif Kecamatan Kongbeng Kabupaten Kutai Timur(Report of Recognition of Rights of Indigenous Peoples on the results of Working Area Boundary of PT Gunung Gajah Abadi Utilization License for Timber Forest Products in Kongbeng Sub-district Administrative Region of East Kutai). Miau Baru Village.
- PT Gunung Gajah Abadi. 2013. Realisasi Kegiatan Pembinaan Masyarakat Desa Hutan (PMDH)(Realization of Forest Village Community Development). Base Camp Sei Seleq.
- PT Gunung Gajah Abadi. 2013. Laporan Aktivitas Masyarakat di dalam Areal HPH PT Gunung Gajah Abadi(Community Activity Report in the concession area of PT Gunung Gajah Abadi). Base Camp Sei Seleq.
- PT Gunung Gajah Abadi. 2014. Laporan Aktivitas Masyarakat di dalam Areal HPH PT Gunung Gajah Abadi(Community Activity Report in the concession area of PT Gunung Gajah Abadi). Base Camp Sei Seleq.
- Raden, I.et al. 2010. Kajian Dampak Penambangan Batu Bara Terhadap Pengembangan Sosial Ekonomi dan Lingkungan di Kabupaten Kutai Kartanegara(Coal Mining Impact on Socio-Economic and Environmental Development in Kutai District Assessment). Badan Penelitian dan Pengembangan Kementerian Dalam Negeri (Research and Development Department of Ministry of Internal Affairs). Jakarta.
- Ramanthan, R and S Geetha. 1998. Socio Economic Impact Assessment of Industrial Project in India. Impact Assessment and Project Appraisal, 16(1), 27-32. United Kingdom: Beech Tree Publishing.
- SP3 (Makmur Jaya) Village Office. 2013. Monografi Desa SP3 (Makmur Jaya) Tahun 2013(Monograph of SP3 (Makmur Jaya) Village Year 2013). SP3 (Makmur Jaya) Village. East Kutai District.
- The Nature Corservancy. 2014. Penandatanganan Nota Kesepahaman TNC dan PT GGA Batu Loncatan untuk Sertifikasi Hutan Lestari dari FSC(The signing of the Memorandum of Understanding beteween The Nature Conservancy (TNC) and PT GGA: Stepping Stone for Sustainable Forest Certification from FSC).