

# Management Strategy of Palm Oil Plantation Conservation Acreage of PT.MSM Wilmar Plantation, Central Kalimantan, Based on the Economic Value of the Area and the Society's Perspectives

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## Abstract

A new initiative on acreage management with high conservation value issued in Roundtable on Sustainable Palm Oil (RSPO) standard shows a form of environmental responsibility of oil-palm entrepreneurs. RSPO stimulates palm oil industry to be committed to save wild life around the plantation. Conservation acreage management of palm oil plantation aims to manage environmental aspects with High Conservation Values; while on the other side, the policy of conservation acreage management often times crashes with the society's interests which depends on natural resources within palm oil plantation acreage. The purpose of this research is to formulate strategies of palm oil plantation conservation acreage based on the economic value of natural resources and the perceptions of society who lives around the palm oil acreage by studying the case of PT. MSM Wilmar Plantation, Central Kalimantan. This research is a combination of a qualitative descriptive and quantitative methods with the following analysis methods: economic valuation, scoring, and SWOT. Economic valuation is used to know the economic value of palm oil plantation conservation acreage. Scoring analysis is used to know the society's perceptions on the existence of conservation acreage and palm oil plantation. This research shows that the total economic value of palm oil plantation conservation belong to PT MSM is Rp. 120.868.807.307/year for firewood, rattan, wild animals, carbon sequestration, water resource, existence value, option value, and inheritance value. From the society's perceptions, it is known that the society think that the forest has not given much influence on their lives. It can also be concluded that the society feel the palm oil plantation has given negative influence on many aspects of their lives. Therefore, the proper conservation acreage management strategy to be implemented in palm oil plantation belonging to PT MSM Wilmar Plantation Group, Central Kalimantan, is a strategy located in quadrant I room B: *Stable Growth Strategy*

**Keywords:** Palm Oil Plantation, Conservation Acreage, Economic Value, Perception.

## 1. INTRODUCTION

Indonesia is a country that has the widest forest in the world. The kind of forest existing in Indonesia is tropical forest. Indonesian Tropical forest and its natural varieties are the second largest in the world after Brazil. In Indonesian tropical forest, there are 10% flora species, 12% mammal species, 16% reptile and amphibian species and 17% bird species of the world. Some of the species are even endemic, such as Cendrawasih in Papua, Bekantan in Kalimantan, Anoa in Sulawesi, etc (Zamzami, 2015)

The existence of forest in Indonesia has very much influence on the national life even human beings all over the world. However, Indonesia today is facing deforestation. Indonesian forests decrease each year and 34% of them are severely damaged. One of the main causes of deforestation in Indonesia is the conversion of function from forest to palm oil plantation. Conversion from forest to palm oil plantation has damaged more than 7 million hectares of forest until 1997 (Profauna, 2013). This is problematic considering both forest and palm oil gives big influence to Indonesia. Palm oil promises the economic rise to Indonesia while the forest gives big advantage to environment and human lives.

One of regions that has the widest palm oil plantation is Central Kalimantan province. Palm oil plantation is one of leverages and prime movers of regional development. Central Kalimantan Central Bureau of Statistics (BPS) (2012) noted that in 2011, the length and width of palm oil plantation and its production increase. On the other hand, the forest width decreases due to the conversion. Based on data issued by Forestry Department, deforestation in Kalimantan from 2000 until 2005 is 1,23 million hectares.

A new initiative, an acreage management with high conservation value, issued in Roundtable on Sustainable Palm Oil (RSPO) standard shows environmental responsibility of palm oil entrepreneurs. Roundtable on Sustainable Palm Oil (RSPO) is stakeholders' initiative to achieve sustainable palm oil production. RSPO supports palm oil industry to be committed to save wild life around the plantation. The standard and criteria of RSPO which is acknowledged internationally requires an assessment on the High Conservation Value Forest (Hubert, 2005)

One of palm oil plantation companies in Central Kalimantan that has implemented RSPO is PT. Mentaya Sawit Mas (PT. MSM) Wilmar Plantation in Central Kalimantan. PT. MSM is among one of those palm oil plantation companies that has spares 4243,41 hectares at HGU of its pam oil plantation as high value conservation acreage with various biophysical indicators.

Conservation acreage management in palm oil plantation aims to manage environmental aspects that has High Conservation Value. On the other side, the policy to manage conservation acreage often times crashes with the society's interest that depends on the natural resources around the palm oil plantation conservation acreage. It also happens at PT MSM conservation acreage as they are frequently pressured by many sides regarding this matter. Illegal activities such as illegal harvesting of forest timber, illegal land clearing, land tenure conflict, forest fire, illegal logging even illegal hunt on wild animals constitute serious problems in the management of conservation acreage within that region. This is because the prohibition to access the forest products has interfered the society's main income and the making of conservation acreage management policy has never engaged the surrounding society which results in no information on the policy and the loss of their right to use the resources in the forest. This condition shows that there has never been harmony between the purpose of conservation acreage management and the society's expectation.

The society's role is very crucial in the development of village around conservation acreage. Andrade *et al.* (2012) states that when the local society is not engaged in the management of Nature Conservation Areas and their aspirations and needs are ignored, it will be hard to enforce the conservation policy. Furthermore, to make the natural resources around the palm oil plantation conservation acreage keep on giving benefits within the scope of its conservation functions and the benefits can be distributed fairly among the society, a management model which is not only based on High Conservation Value of the protected acreage but also its natural resource potentials is necessary; the economical use of the society, the perception supports from the society, and the role of the company as the organizer are important too. Therefore, this research aims to formulate palm oil plantation conservation acreage strategy based on the natural economical value and society's perceptions around the conservation acreage in the palm oil plantation through a case study on PT. MSM, Wilmar Plantation, Central Kalimantan.

## 2. RESEARCH METHOD

The approach used in this research is a combination of descriptive qualitative and quantitative methods. The data collection techniques used are observation and field data measurement, survey on respondents, interview, and secondary data study.

In this research, the objects to be research are the society of five villages around palm oil plantation area and palm oil plantation conservation acreage of PT. MSM, Wilmar Plantation, Central Kalimantan. The respondents are chosen using purposive sampling and convenience sampling methods. Purposive sampling is a sampling methods that choose the samples carefully so that the objects chosen are relevant with the research structures, in which the samples are selected by the researcher based on specific features and characteristics (Djarwanto, 1998). Convenience sampling is a sampling method that choose respondents who are easy to run into and have the quality as respondents.

The parameter of data investigated, methods, the number of respondent samples, and data analysis are below.

**Table 1. Matrix of Research Methods**

No	Parameter	Methods	Respondent	Analysis
I.	Economic value			
	A. Direct use value:			
	1. timber value	Survey on respondents	50 respondents	Market price
	2. rattan value	Survey on respondents	50 respondents	Market price
	3. wild animal value	Survey on respondents	50 respondents	Market price
	B. Indirect use value			
	1. carbon sequestration	observation & and measurement of carbon sequestration	--	Estimation of biomass and market price
	2. water resource	Survey on respondents	50 respondents	Market price
	C. Non-use value			
	1. Existence value	Survey on respondents	50 respondents	CVM
2. Option value	Survey on respondents	50 respondents	CVM	
3. Inheritance value	Survey on respondents	50 respondents	CVM	
II.	Society's perception			
	1. On conservation acreage	Survey on respondents	126 respondents	Scoring analysis
	2. On the pam oil plantation	Survey on respondents	126 respondents	Scoring analysis
III.	Management strategy	IFAS-EFAS Matrix	--	SWOT analysis

### 3. FINDINGS AND DISCUSSION

#### I. Economic Value of Palm Oil Plantation Conservation Acreage of PT. MSM

##### A. Use Value

##### 1) Direct Use Value

Direct use value of palm oil plantation conservation acreage is obtained from the calculation of economic value of forest resources utilization, both wood or non-wood. The kind of wood the society takes benefit from is timber while non-wood forest resources is rattan and wild animals. The forest resources utilization by the society are for trade or their daily needs.

The kind of forest the respondents benefit from the most is timber. All respondents (100%) from the five villages around the conservation acreage of PT. MSM take benefit from timber. The second forest products the respondent mostly benefit from is rattan, which is consumed by 34 people or 68 %; while the third most beneficial forest products for the society is wild animals. Wild animals the society hunt the most to the least are in the following order: deer (13 respondents), small antelope (13 respondents), wild boar (10 respondents), mouse deer (10 respondents), *Enggang Cula* bird (3 respondents) and *Kangkareng Perut Putih* (3 respondents).

Based on the survey result, timber and rattan are the most important forest resources to the society while wild animals are the least important to them. The following is the economic value of the forest products:

- Timber: economic value of the entire timbers the society utilize within the plantation conservation acreage of PT.MSM for one year based on 50 respondents' is the total timber consumption/year multiplied by the price of each bundle of timber. The result is 3960 bundles multiplied by Rp. 8.350 = Rp. 33.066.000/year
- Rattan: Analysis result shows that the total rattan harvested from conservation acreage of PT. MSM is 20.020 kg per year with total selling price Rp. 3.500,- per kg; therefore, the economic value of rattan per year is Rp. 70.070.000,-.
- Wild animals: Wild animals in conservation acreage are various, such as mammals, birds, etc. These are the economic value of the wild animals:

**Table 2. Economic Value of Wild Animals**

No	Type of Wild Animals	Total Value (Rp/year/KK)
1.	Wild boar	90.000.000
2.	Mouse deer	53.200.000
3.	Small antelope	45.150.000
4.	Deer	27.000.000
5.	Big Lathe	44.400.000
6.	Enggang cula	56.000.000
7.	Kangkareng perut putih	56.000.000
Total		371.750.000

The observation result on wild birds in this research shows that there are some birds that have economic value according to their market price. For this matter, the researcher compares the price with the selling price in bird market at Palangkaraya to obtained added economic value in the future (because some of the following kinds that the society have not taken any benefit from).

**Tabel 3. Economic Value of Birds  
 that the Society have not Taken any Benefit from**

No.	Kind (animal/ha)	Profusion	Price (Rp/animal)	Price (Rp/ha)
1	Merbah	0,1	100.000	13.333
2	Pijantung	0,2	75.000	15.000
3	Pekaka Emas	0,2	300.000	60.000
4	Raja Udang	0,3	200.000	53.000
5	Burung Madu	0,2	100.000	20.000
Total animal economic value				161.667
Within conservation acreage 4175,06 ha				674.968.033

Based on the calculation, total economic value of wild animal is Rp. 371.750.000 + Rp. 674.968.033 = Rp. 1.046.718.033

## 2. Indirect Use Value

Indirect use value of conservation acreage of PT. MSM can be calculated based on carbon stored and countable water resource. Below is the economic value of the indirect use value of conservation acreage.

### - Stored carbon:

Total carbon stored in conservation acreage belonging to PT. MSM is 680.985,47 tons. Carbon price is \$ 13 per ton (Lueger, 2010), in which 1 \$ = Rp 13.400,- so the price of carbon /ton is Rp. 174.200,- ; the total economic value of stored carbon then is Rp. 118.627.668.874/year

### - Water resource:

Water value for household is obtained through substitute price method; that is resulted from the multiplication between price water sold by PDAM per cubic meter, which is Rp. 2.450, average water usage by every family member per year, which is 41,35 m<sup>3</sup> and the number of people living around conservation acreage of PT.MSM, which is 2.285 people. The water value calculation for household per year around conservation acreage of PT. MSM is Rp. 233.755.272.

## B. Non-Use Value

### 1) Existence value

The existence of conservation forest in palm oil plantation of PT. MSM can give the local society and societies beyond that neighborhood spiritual advantage, cultural advantage, and other kinds of advantage. The society admits the existence of those advantages; they appreciate them as existence value. Therefore, existence value is a value given by the society, both local society or those who live outside the neighborhood, who take benefit from the forest.

Considering that the existence of palm oil plantation conservation acreage of PT.MSM does not have market value yet, the approach on this is then based on the respondents' willingness to pay.

Based on the analysis result, the average society's willingness to pay is Rp.8.200/month or Rp. 98.400/year. With 2.285 people, the number of society in five villages around the conservation acreage of PT. MSM, the

economic value of resource existence in conservation acreage of PT.MSM is Rp. 224.844.000/year. Such economic value of existence is obtained based on the society's or respondents' willingness to pay so that they can maintain the existence of the conservation acreage and the utilization of forest can be continued.

2) Option value

The option value is a potential of forest resources that has economic value and give benefit to the society in the future time although the economic value has not emerged yet. The conservation acreage of palm oil plantation of PT.MSM is rich with natural varieties and other natural potentials that have not been not explored. Someday, all the potentials will have economic value.

Based on the analysis result, the society's average willingness to pay per year is Rp.8.900/month or Rp. 106.800/year. With 2.285 people in five villages around conservation acreage of PT. MSM, the option value of the conservation acreage resource is Rp. 244.038.000/year. This value is the potential value of this plantation conservation acreage in the future, which, in the meantime, is not contained yet.

3) Inheritance value

The society's dependence on the resources in the palm oil plantation conservation acreage of PT. MSM is a life pattern that passes from generation to generation, such as harvesting rattan and hunting animals, which basically are for daily needs. The society has long considered the resources within conservation acreage can always be used until the future and can be passed to their grandchildren or coming future generation.

Based on the analysis result, the society's average willingness to pay is Rp.8.600/month or Rp. 103.200/year. With 2.285 people in five villages around conservation acreage of PT. MSM, the economic value of the heritage is 235.812.000/year

c. **Total Economic Value**

The total economic value per year from conservation acreage at palm oil plantation of PT. MSM can be calculated from all the economic components below.

**Table 4. Total Economic Value of Conservation Acreage of PT.MSM Palm Oil Plantation**

No	Economic Value Components.	Economic Value (Rp)	%
1	Timber	33.066.000	0,03
2	Wild animal	1.046.718.033	0,87
3	Rattan	70.070.000	0,06
4	Carbon sequestration	118.627.668.874	98,27
5	Water	233.755.272	0,19
6	Existence value	224.844.000	0,19
7	Option value	244.038.000	0,20
8	Inheritance value	235.812.000	0,20
	Total Economic Value	120.715.927.179	100,00

The economic value component of carbon sequestration is the highest economic value among all values within conservation acreage of PT. MSM. It shows that the condition of conservation acreage is relatively fine.

**Society's Perception on the Forest Conservation Area and the Existence of Palm Oil Plantation**

Perception is an integrated process within individual upon the stimuli he or she accepts. Therefore, perception is organization an interpretation on the stimuli someone sense to make it meaningful; it is also an integrated response within an individual (Moskowitz and Orgel in Walgito, 2010)

**A. The Society's Perception on the Existence of Forest Conservation Area**

To know the society's perception about the existence of forest conservation area, scoring analysis is conducted on variables and sub-variables determined before. The variables and sub-variables are

1. The influence of forest conservation area on the environmental aspect

- Sub-variable:
  - a. Flora preservation
  - b. Fauna preservation
  - c. Hydrological tool
- 2. The influence of forest conservation area on economical aspect.
  - Sub-variable:
    - a. Natural resource utilization in forest area
    - b. Income of the society
    - c. Cooperation in forest product management
- 3. The influence of forest conservation area on social aspects
  - a. Habits of society
  - b. Awareness of society
  - c. Role of society

Next, the society's perception is assessed based on the following perception classification.

**Table 5. Classification of Society's Perception Level on the Influence of Conservation Area Existence**

Interval	Information
2646-3402	Forest conservation area gives positive influence on many aspects of society's life.
1890-2645	Forest conservation area has not given much influence on the society's life.
1134-1889	Forest conservation area gives negative influence on many aspects of society's life.

Source: Analysis result, 2016

Quantification of society's perception on the existence of palm oil plantation conservation acreage has total value 2614. Therefore, if we look at the interval of each class, we can conclude that **the forest conservation area has not given much influence on the society's life.**

We can also say that the conservation acreage has not given positive influence on the society's life especially in terms of economical and development aspects of their life. It can be seen from the condition of the society living around the conservation acreage and palm oil plantation. They mostly do not live well due to the prohibition of forest product utilization in conservation acreage which consequently results in the loss of their livelihoods. Besides, they were not asked to participate in the management and supervision of conservation acreage, which makes them have no role on the existence of conservation acreage. Consequently, they know none of policy issued regarding conservation acreage which might make them unknowingly commit crimes, such as illegal logging and illegal hunting.

### **B. Society's Perception on the Existence of Palm Oil Plantation**

Scoring analysis are also used to know the society's perception on the existence of palm oil plantation. So far, there are many people in the society around the palm oil plantation who live under the poverty line. This is contradictory to the development of palm oil plantation. To know the society's perception on the existence of plantation, the researcher then conducted scoring analysis with the following variables and sub-variables.

1. The influence of forest conservation area on environmental aspect
  - Sub-variable:
    - a. Flora preservation
    - b. Fauna preservation
    - d. Hydrological tool
2. The influence of forest conservation area on economical aspect.
  - Sub-variable:
    - a. New job opportunities for society
    - b. Society's income from the utilization of palm oil plantation
    - c. Cooperation in forest product management
3. The influence of forest conservation area on social aspects
  - a. Society's education and skill
  - b. Empowerment of society
  - c. The role of society

The classifications determined to know the perceptions of society on the existence of plant oil plantation are below

**Table 6. Classification of Society's Perception Level on the Influence of Palm Oil Plantation Existence**

Interval	Information
2646-3401	Palm oil plantation gives positive influence on many aspects of society's life.
1890-2645	Palm oil plantation has not given any significant influence on the society's life.
1134-1889	Palm oil plantation gives negative influence on many aspects of society's life.

Quantifying society's perceptions on the existence of palm oil plantation result in total score 1483, which means the **society thinks that the pam oil plantation gives negative influence on many aspects of their life.**

In conclusion, the existence of palm oil plantation only gives negative impacts on social, economic, and environmental aspects of the society and gives them no benefit. It is indicated by the decrease in their economic growth because their livelihood area is converted to palm oil plantation. Environmentally, the society is affected by the rise of temperature around the villages and puddles during rainy season.

The existence of palm oil plantation also has not opened any significant number of job opportunities to the local society. This is because incompetency of the society to work in plantation; only a few of them are recruited to work as unskilled labors. Such low human resource quality does not attract the plantation company to contribute to the sustainability of human resource in the long run so they can increase their income level by taking benefit from forest product. The society does not have any opportunity to seek another job either because of their lack of competence and skill.

#### **Management Strategy of Forest Conservation Acreage in Palm Oil Plantation**

After knowing the economic valuation and perceptions of the society on the existence of conservation acreage and palm oil plantation, this research has finally come to the last stage, which is determining management strategy of conservation acreage and palm oil plantation. To determine the correct strategy, SWOT analysis is needed. According to Butarbutar (2014), SWOT analysis is a tool usually used to formulate development strategy of business organization. This analysis is used to empower the business development strategy and work quality of the company. In addition, SWOT can also be used to identify and analyze systematically various factors of government strategies in ruling its region (Muhammad, 2008).

In this research, SWOT analysis is used as a method to determine the development strategy with internal and external factors that affects the management of conservation acreage and palm oil plantation. Those factors consist of potential, problems, opportunities, or threats happening within conservation acreage of PT MSM. Based on the analysis result, the following are internal and external factors that affect the development.

After we know the internal and external factors, strategies are required to anticipate what will happen. Then, the research assigned weigh to each criterion. Subsequently, each factor will be calculated based on the weighs to be used on further analysis, which is IFAS-EFAS (Rangkuti, 2001). Based on the result, a calculation is conducted to know point X and point Y that will be used in of strategy selection quadrant (Rangkuti, 2001).

$$X = \text{Strength} + \text{Weakness}$$

$$= 1,375 + (-9375)$$

$$= 0,4375$$

$$Y = \text{Opportunity} + \text{Threat}$$

$$= 1,25 + (-0,75)$$

$$= 0,5$$

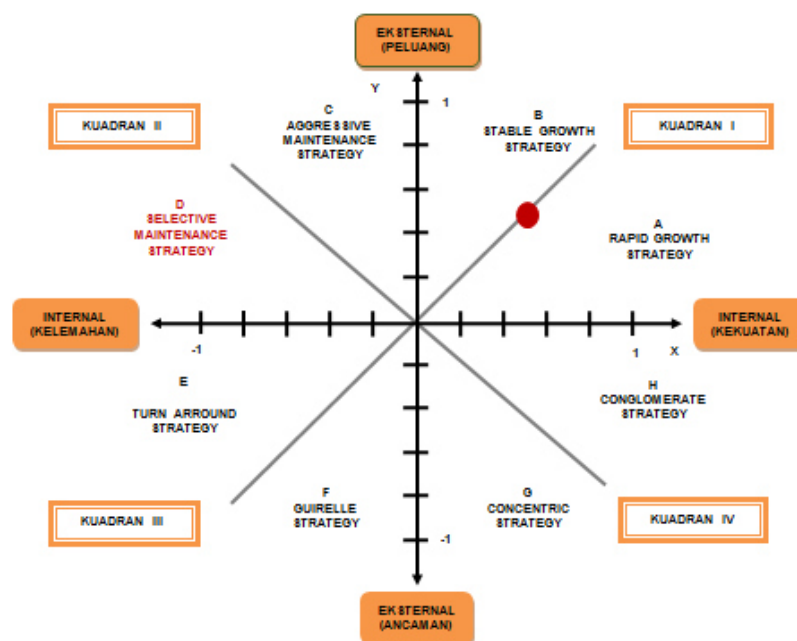
**Table 7. Internal Factors of SWOT Analysis**

Internal Factors	
Strength	Weakness
The direct use of the conservation acreage that has high value: -Timber 33.066.000/year -Rattan 70.070.000/year -Wild animals 1.046.718.033/year	The rules of natural resource utilization within conservation acreage is not clear yet which confuses and harms the society.
Indirect use of the conservation acreage that has high value: - Carbon sequestration 122.168.793.018,- / year - Water resource Rp. 233.755.272/ year	Cooperation of conservation acreage management is only between the government and the private company without the involvement of the local society.
Non-use value of the conservation acreage: - Existence value Rp. 224.844.000/year - Option value Rp.244.038.000/year - Inheritance value Rp. 235.812.000/ year	There are still society who violate the law in conservation acreage, such as illegal logging and illegal forest burning, although there has been a decrease in the violation number recently.
Conservation area has positive value on flora preservation.	The society only knows about the existence of management plan but they are not involved in the decision making process.
Conservation area has positive value on fauna preservation.	The palm oil plantation gives negative impact on the environmental aspect because it hampers the preservation of flora and fauna, causes flood, and ruins water hydrology.
Conservation area has positive value on hydrological tool.	The existence of palm oil plantation has not been able to provide sufficient job opportunities for the local society.
Conservation acreage become income source for the society.	The management of palm oil plantation is only run by the private company without involving the local society.
The society has high awareness to keep and take care of the preservation of flora and fauna.	Palm oil plantation does not give any significant influence on the social aspects of the society because they have never shown any effort to contribute to the betterment of their livelihood.

**Table 8. External Factors of SWOT Analysis**

External Factors	
Opportunity	Threat
There is initiative in a form of Roundtable on Sustainable Palm Oil (society empowerment) that requires palm oil plantation to have acreage with High Conservation Value	Inexistence of society empowerment program makes the society cannot stand alone on their feet (dependent)
The Law of Indonesian Government No 28/ 2011 about Management of Nature Sanctuary and Nature Preservation Area as a reference of conservation acreage management at palm oil plantation	Extreme climate during dry season often cause forest fire.





**Figure 1. Matriks of Analysis Strategy Quadrant of IFAS-EFAS Conservation Acreage Management Strategy**

Source: Analysis Result, 2016

Based on the analysis result shown on the matrix, it is obtained that the strategy of conservation acreage management at palm oil plantation of PT MSM Wilmar Plantation Group, Central Kalimantan, is in quadrant I room B, meaning *Stable Growth Strategy*. In other words, stable growth strategy in which the improvement is conducted gradually and the target is adjusted to the condition. Therefore, the management strategy of forest conservation acreage that can be made by PT MSM Wilmar Plantation Group, Central Kalimantan:

- a) Determining the utilization zone in forest conservation acreage. This zone give the local society chances to be able to take benefit of the forest product according to the decision and regulation of utilization that consider preservation aspects and protection of natural varieties.
- b) The campaign program of forest resource economic advantage in palm oil plantation conservation acreage is an effort to give information to many parties including the local society about the high economic advantage they can obtained from the forest resources directly or indirectly. Through this campaign, the society and many other parties will significantly improve what they know about the economic advantage of conservation acreage of palm oil plantation from time to time. As a result, they, especially those who live around the neighborhood, consciously are of the importance of keeping and protecting the preservation of forest resources and will do it willingly.
- c) The role of the society need to be acknowledged by involving them in the decision making process of keeping the forest preservation, forest management, and forest /conservation acreage supervision so the society will be more aware of keeping the sustainability of the forest and stop breaking the law.
- d) Developing a program to increase the local society's livelihood level by giving them access to the area and to lessen the pressure on conservation acreage, such as through agroforestry program or agricultural technique improvement
- e) Giving firm punishment to those who violates the law in conservation acreage to give lessons for other potential law breakers.
- f) Conducting a strict government supervision to guarantee that the palm oil plantation does not open land in conservation acreage, which will damage the flora and fauna preservation and harm the hydrology which will result in low water sequestration level.
- g) Palm oil plantation opens sufficient job opportunities to make them involved in the management process so that plantation growth decision making does not harm them (their livelihood) anymore.
- h) The plantation company and the government cooperate each other to form conservation village as a form of society empowerment and improve natural resource cultivation that has potentially high economic value in the future, such as medicinal plants, ornamental plants, natural rattan, and many others.

- i) Sustaining the direct use value and indirect use value of conservation acreage by managing and supervising the resources that have economic values in terms of quality and quantity through High Conservation Value programs.
- j) Improving non-use value through: 1) Giving information to society to make them understand how important forest resource preservation is 2) educating and empowering society to improve their livelihood level and prosperity level, and to create high socio economic quality of the society. The rise of awareness among the local society about the significant function and influence of conservation acreage on the environment will increase the society's willingness to maintain and protect forest in their neighborhood.

## CONCLUSION

The following are conclusion of this research based on the analysis the researcher has conducted:

1. Total Economic Value of the palm oil plantation conservation acreage is Rp. 120.868.807.307/year
2. Society's perception about the palm oil plantation conservation acreage belong to PT. MSM is that this conservation acreage has not given any significant influence on the life of the society. This is because the existence of forest conservation acreage does not affect them in social and economic aspects, although it does environmentally. It can also be concluded that the society feel negative influence from the palm oil plantation on many aspects of their life. It damages the environment preservation and does not give much benefit to their economic growth. In addition, the plantation company does not have sustainability program to help the local society.
3. Based on the analysis, it is known that conservation acreage management strategy in palm oil plantation of PT MSM Wilmar Plantation Group, Central Kalimantan, is in quadrant I room B, meaning *Stable Growth Strategy*. This means they run stabile growth strategy in which the development/improvement is done gradually and the target is adjusted to the condition.

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