The impact of oil palm revitalization partnership at PT. Brahma Bina Bakti to farming participants revenues in Sekernan District, Muaro Jambi Regency

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Abstract. This study aims to determine the application of partnership Plantation Revitalization Program (PRP) and reviewing farm income of palm oil farmers participating in a partnership with PT. Brahma Bina Bakti in District Sekernan. This research was conducted in the village of Suak Putat, Tanjung Lanjut with the study of side income. In its application, the pattern of development of the garden (70%: 30%) is 70% of the land to farmers and 30% of the land to the company. While the pattern of results (30%: 70%) is of the total sales value of farmers' land TBS then 70% cut by the company through cooperatives and 30% delivered to farmers through farmer group administrator. This pattern of results is done through credit/interest paid. The result of the calculation is known that the average income of farmers at the farm level is Rp 6,291,397.04 / ha/year while the rate of KUD is Rp 6,831,633.66 / ha/year. Income farming palm at the farmer level is smaller than the palm farm income at the level of KUD. This is caused by differences in the structure of production costs where other costs are not covered sacrificed farmers and cooperatives that the cost of medicines, family workers and agricultural tools.

1. Introduction
The role of the oil palm plantation company is felt to positively affect communities around the plantation both on village development, especially on demographic, economic and social aspects. The development of oil palm plantations to improve the welfare of oil palm farmers has been carried out, specifically through partnership activities. The partnership is a business strategy carried out by two or more parties within a specific timeframe to achieve mutual benefits with the rules of mutual need and mutual growth [1].

In general, there are three partnership patterns in Indonesia, namely the PIR, KKPA and PRP patterns [2]. So far, the weakness of the PIR pattern partnership and the KKPA pattern are on the techniques of oil palm cultivation, repayment of credit and when the land is handed over to farmers. Farmers are unable to manage their land after the partnership period has over independently. Whereas in repayment of credit, the non-smooth return of credit is a classic problem found. The presence of this PRP partnership is projected to improve problems both technically and non-technically in the previous partnership.

The Partnership of Plantation Revitalization Program (PRP) is a plantation partnership pattern built up by the government in 2007 as a determination to quicken the development of smallholder plantations through expansion, rejuvenation and rehabilitation of plantation crops supported by
investment credit and interest subsidies by the government by involving companies in the plantation sector as partners [3].

Manaek (2013) [4] conducted the research with the title Income Analysis of Oil Palm Farmers Plantation and the Influenced Factors in Sekernan District, the result of the research showed that there is no significant differences between independent and plasma farmers. By the partnership program, the cooperation members can manage their oil palm plantation sufficiently and independently from the beginning until post-harvest processing.

Muaro Jambi Regency is one of the regencies in Jambi Province. The number of oil palm plantation companies in Muaro Jambi according to the data of Muaro Jambi District Plantation Office in 2014 was 17 companies. However, only 1 (one) company has implemented this PRP pattern partnership, namely PT. Brahma Bina Bakti in Sekernan Subdistrict. Sekernan Subdistrict is one of the sub-districts located in Muaro Jambi Regency where most of the population must live as oil palm farmers.

The implementation of partnerships in Sekernan District by PT. Brahma Bina Bakti was held in 2007 precisely in Tanjung Lanjut Village, Suak Putat Village and Bukit Baling Village. The company in the case of the determination of the agreement must still be considered by the local government and related agencies which must continue to prioritize the principle of partnership. This partnership is required to have the capacity to improve technical and non-technical constraints on the previous partnership pattern, particularly in terms of improving the welfare of farmers participating in the partnership.

Based on the description related to the partnership matters and oil palm farming income, the farmers participating in the partnership, then the authors are interested in conducting research with the title "The impact of revitalization partnership on PT. Brahma Bina Bakti of oil palm farming participants revenues in Sekernan District, Muaro Jambi Regency". The purpose of this study is to determine the application of partnership at the level of the farmers in the partnership and to examine the farm income of palm oil farmers participants of partnership PT. Brahma Bina Bakti in Sekernan District.

2. Material and Methods
2.1. Scope of Research
The object of this research is the farmer participants of the partnership who actively involved in the implementation of oil palm, as well as located in in the study area with 5 years of age or already has Plantation but not produced yet (TBM) or Crop Yield (TM), and the plantation has been turned over to farmers or group of farmers. The focus of this research is on partnership activities, especially on oil palm farming activities carried out by farmers including partnership pattern, cost structure, production, cost of production, income, credit (instalments) and other data related to this research.

2.2. Data Collection
The data consists of primary data and secondary data. The primary data were taken from the farmers partnered with the age of the plant in the top 5 of the year. The data were taken from production data last year. While the secondary data were from the Central Bureau of Statistics (BPS) Provinsi Jambi, Dinas Perkebunan Jambi Province, Dinas Perkebunan Kabupaten Muaro Jambi, the office of the chief of the village, cooperatives and farmer groups. Data collection methods used in this research consists of interviews, namely the collection of data derived from interviews based on a list of questions directly with the farmers of the palm oil partnership, the observation, namely by direct observation systematically to the activity oil palm growers, and the literature study.

2.3. Sampling Methods
Survey method is used in this research, which research used a sample from a population as a source of data by using the questionnaire as the main data collection [5]. The number of farmers participating in the partnership is 328 people. So, the number of respondents taken is 10% of the total population or 33 respondents.
2.4. Data Analysis
To analyze the income of oil palm farm, partnered mathematically used the following formula:

\[
\pi = TR - TC \quad \text{........ TR = Production x Price of FFB (Fresh Fruit Bunches)}
\]

\[
TC = \text{Fixed Costs (FC)} + \text{Cost (VC)}
\]

\[
\pi : \text{Farm Income}
\]

\[
TR : \text{Total Revenue}
\]

\[
TC : \text{Total Cost}
\]

The size of cutting the land credit in a partnership that applied by PT. Brahma Bina Bakti is 70%:30%, meaning that 70% of the sales value is deducted by the company through KUD including; production costs and land loan instalments, and/or other agreed costs, while 30% are handed over to farmers as net income.

3. Results and Discussion
3.1. The Implementation of Partnership of PT. Brahma Bina Bakti
The implementation of partnerships implemented by PT. Brahma Bina Bakti is divided into two patterns/schemes; plantations development patterns and profit sharing patterns. The pattern of plantation development is a land sharing system agreed upon at the beginning of the partnership between the company and the farmers participating in the partnership. Whereas the profit sharing pattern is a profit-sharing system agreed/implemented by the company through KUD after the land has been handed over to the farmers participating in the partnership and is still in partnership or repayment of land credit.

Within its implementation, the management of the plantation to the area of land submitted by farmers at the beginning of the partnership (2,661.90 ha), the company in its management refers to the Regional Regulation No. 21 of 1999 Batanghari District, the net land received by farmers participating in the project was 70% or 1,863.33 ha of the land area provided that each farmer be entitled to 2 ha or 4 ha. While 30% or 798.57 ha of the land was handed over to the partner company for the purposes of facilities, infrastructure, public facilities, substitutes for gardens that were not worthy of submission and for the nucleus estate.

For profit sharing from FFB sales, the company sets a profit-sharing pattern (70%: 30%), which is from the farmer's net land area of 1,863.33 ha (70%) of which KUD cuts 70% of the FFB sales value and the remaining of 30% is delivered to farmers who are members of partnership participants through farmer group administrators. This revenue sharing policy refers to Regulation No. 21 of 1999 Batanghari Government. This is done up to the cost of developing a plantation or called credit /interest is complete.

3.2. Revenue Level of Palm Palm Partnership Participant
The value of sales of FFB in partnership is not a net revenue of farmers participating in the partnership. Farmer revenue is the value of selling FFB after deducting agreed costs (profit sharing). The profit sharing pattern in this study is 70%: 30%, that farmers' income is the sales value of FFB after deducting 70% of the total value (table 1).

| Production (Kg/Ha/years) | Price (Rp/Kg) | FFB Value (Rp/Ha/Years) | Revenue 70% KUD (Rp/Ha/Years) | Revenue 30% Farmers (Rp/Ha/Years) |
|--------------------------|--------------|--------------------------|-------------------------------|-----------------------------------|
| Highest                  | 15.000       | 2.029,71                 | 26,027.250                    | 18.219.075                       | 7.808.175                        |
| Lowest                   | 10.740       | 1.362,15                 | 18.635.511                    | 13.044.858                       | 5.590.653                        |
| Average                  | 13.124       | 1.735,15                 | 22.772.108                    | 15.940.475                       | 6.831.633                        |

Based on table 1, the average price of FFB in the study area is Rp 1,735.15/kg, the average production of FFB is 13,124 kg/ha/year. The average value of total FFB sales is Rp.
22,772,108/ha/year. The value of sales of FFB then is divided by the pattern that has been agreed between farmers and KUD, which is 70% for KUD and 30% for participating farmers. The revenue of farmers participating in the partnership at the KUD level is Rp. 6,831,633/ha/year and the average KUD revenue is Rp. 15,940,475/ha/year.

3.3. Cost of Palm Oil Partnership Participants

According to Soekartawi (2010), there are two types of costs in farming, namely; 1) Fixed costs is the cost of which is not used up in one production period, for example, land tax, water tax, depreciation of agricultural equipment and buildings, heavy equipment (tractors), etc.; 2) Variable costs (variable costs) are costs incurred during the production process, for example, the cost of fertilizers, seeds, pesticides, labour or wage labour, harvest costs (procurement of work tools and experienced labour) and land rent.

In this study what is meant by the cost at the KUD level is the deduction made by KUD on the value of selling FFB from the net land received by farmers after passing through the plantation development period. Costs deducted by KUD are included in the Partnership Agreement (SPK). In principle, KUDs in regulating and managing farmers' finances in partnership participants must remain to prioritize the principles of partnership, which are mutual and open to each other (table 2).

| No | Cutting Points          | Information                      |
|----|-------------------------|----------------------------------|
| 1  | Interest Credits        | 30% (from selling values)        |
| 2  | Balanced Cost (Fertilizer deposit) | 10% (from selling values) |
| 3  | Certification Installments | -                                |
| 4  | Group Loans             | -                                |
| 5  | ADM & SPW fees          | -                                |
| 6  | Others (Roads Maintenance Fees) | -                  |
|    | Total                   | 70%                              |

The costs incurred by farmers at the farmer level are the cost of pesticides and herbicides, the cost of depreciation of production equipment and family labour costs. Based on the calculation of the cost of pesticides and herbicides is IDR 201,426/ha/year, the cost of depreciation of production equipment is IDR 31,927/ha/year and family labour costs are IDR 306,883/ha/year (table 3).

| No | Costs of Farmers Level | Costs of Partnership |
|----|------------------------|----------------------|
|    | Uraian (Rp/Ha/Tahun)   | No                     | Uraian (Rp/Ha/Tahun) |
| 1  | Production Cost        | 1                      | KUD costs (70%)      |
|    | • Equipment depreciation | 31,927.27            | • Interest credit (30%) | 6,831,633 |
|    | • Fertilizers          | -                     | • Fertilizer deposit (10%) | 2,277,211 |
|    | • Family Labors        | 306,883.35            | • Management fees (30%) | 6,831,633 |
|    | • Non-family Labors    | (3,693,670)           |                      |
|    | • Pesticides and herb. | 201,426.00            | 3,693,670            |
| 2  | Total Production Cost  | 540,236.62            | 2                      | Total     | 12,802,514 |
| 3  | Revenue/ Profit sharing| 6,831,633.66          | 3                      | Revenue/ Profit sharing | 15,940,475.94 |

In table 3 shows the difference in costs at the level of KUD and the level of farmers participating in the partnership. At the farmer level, the costs borne by the farmers themselves are; depreciation of agricultural equipment, labour in the family and the cost of pesticides and herbicides with an average of Rp. 540,235.62/ha/year. Fertilizer costs and non-family labour costs are borne by KUD. The amount of costs incurred by KUD is the number of credit costs, fertilizer costs and labour costs, which is Rp. 12,802,514/ha/year.
3.4. Income of Palm Oil Partnership Participants

In this study, the farmer income of the participating participants was calculated at the level of the farmers participating in the partnership. At the time of the research, each farmer who joined in the farmer group was still in the period of repayment of credit/land interest. So that the income of the farmers participating in the partnership is still relatively small due to the KUD cut. However, after the credit period is paid off, farmers' income will increase, formulated as follows:

- Income of Farmers at the payback periods

\[
\Pi_p = TR - TC(30\% \text{ land credit} + 30\% \text{ other costs} + 5\% \text{ management fee})
\]

Other costs: Certification instalment fees, group loan costs, road maintenance costs.

- Income of Farmers after the payback periods

\[
\Pi_p = TR - TC (5\% \text{ management fee})
\]

Therefore, the income of farmers after the credit is paid off will increase by 65%. KUD's deduction is only 5% for ADM fees and management. However, the increase in the income of farmers participating in the partnership is not absolute, because, after the repayment period, the costs of production and maintenance will be fully borne by the farmers.

| Table 4. Farm income of oil Palm Farmers in the Research Area |
|---------------------------------------------------------------|
| No | Description at Farmers Level (Rp/Ha/Years) | Income at KUD Level (Rp/Ha/Years) |
|----|--------------------------------------------|----------------------------------|
| 1  | Production cost                            | 1 Cost of KUD (70%)              |
|    | Equipment Depreciation                     | 31,927.27                        |
|    | Fertilizers                                |                                  |
|    | Family Labor                               | 306,883.35                       |
|    | Non-Family Labor                           | 201,426.00                       |
|    | Pesticides and Herbicides                  |                                  |
| 2  | Total Production Cost                      | 540,236.62                       |
| 3  | Production                                 | 13,124.00                        |
| 4  | Price                                     | 1,735.15                         |
| 5  | Selling values of FFB                      | 22,772,108.60                    |
| 6  | Revenue/ Profit sharing                    | 6,831,633.66                     |
| 7  | Income of Farmer                           | 6,291,397.04                     |

Based on table 4 the income of farmers at the KUD level is Rp. 6,831,633.66/ha/year while net income at the farm level is Rp. 6,291,397.04/ha/year. The large difference in the average income of farmers is due to other costs incurred by farmers such as depreciation of agricultural production equipment and the cost of medicines and labour costs in the family are not included in the dependents/pieces of KUD. The costs borne by KUD are fertilizer costs, labour outside the family and credit/interest costs to the bank amounting to Rp. 12,802,514/ha/year. So KUD's net profit is Rp. 3,137,961/ha/year.

In partnership, if the farmer's land credit has been paid off, the farmer still must sell FFB to the company and the company is also obliged to buy the FFB of the farmer. This is valid for one crop cycle (± 20 years). In general, in terms of credit/interest in land, the farmer's income will increase as well. It can be assumed that the income of farmers after repayment of credit in this study amounted to Rp 6,291,397.04/ha/year increased to Rp 13,123,030/ha/year. However, the problem is with increasing time, then the life of the plant will also cause high production costs. This is in line with research conducted by Soleman Imbiri (2010) [6] with a study entitled "The Impact Analysis of Oil Palm PIR on the Welfare of Surrounding Communities in Manokwari Regency (Case Study on Plasma Participant Farmers from the Arfak Tribe in Prafi District)". The results showed that the oil palm PIR project in the Prafi District after 25 years of operation: still had a direct and positive impact on the additional cash income of Arfak ethnic plasma participating farmers, although the average income
derived from oil palm land was relatively smaller at Rp. 395,382,- per month compared to farming land of Rp. 514,693,- per month, and a side business of Rp. 418,909,- per month.

4. Conclusion
Implementation of the partnership pattern of the Plantation Revitalization Program (PRP) conducted by PT. BRAHMA BINABAKTI, in partnership with KUD AKSO DANO, in implementing the pattern of plantation development (70%: 30%), that is from the total land area in partnership with farmers. The land development pattern is applied at the beginning of the partnership while the profit sharing pattern is applied after the land has been handed over to farmers where oil palm plantations have already been produced and are still in partnership. Based on the results of research, oil palm farming income of farmers participating in the partnership calculated at the farm level is Rp. 6,291,397.04/ha/year. While the oil palm farming income of the partnership participants which was seen from the net income from KUD was Rp. 6,831,633.66/ha/year. The large difference in income is due to other costs incurred by farmers but not borne by KUD, namely the cost of pesticides, the cost of depreciation of agricultural equipment and labour costs in the family. Partnership Revitalization in its implementation is not without weakness. In the study area, the low quality of the management of KUD administrators and farmer group officials is a major problem. The weaknesses of KUD in rural areas include management culture that is still feudalistic paternalistic (supervision has not yet functioned). The weak entrepreneurial spirit and the low level of education of administrators. The sense of tolerance still influences the community in determining the management and management of cooperatives, not based on the quality of leadership and entrepreneurship. In addition, the participation of members is still low due to the low quality of supportive services to members and non-members.

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