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IMPACT OF UPSUS PAJALE POLICY AT FARMERS' LEVEL AND ITS IMPLICATIONS ON FOOD SECURITY AND WELFARE OF RICE FARMERS IN LEBAK RICE LAND IN OGAN KOMERING ILIR DISTRICT OF INDONESIA

Ali Antoni*, Minha Amruzi, Yamin M.

Master's Program of Agribusiness, Faculty of Agriculture, University of Sriwijaya, Indonesia

*E-mail: alifauzi27782@gmail.com

ABSTRACT

A special effort to increase the Rice, Corn and Soybean Production Program (Upsus Pajale Program) which started in 2015 is one of the government's strategic programs in achieving national food security, so it is necessary to evaluate the extent of its success. The purpose of this study was to evaluate the implementation of the Upsus Pajale policy at the farmer level. Calculating rice farming as the impact of Upsus Pajale policy and analyzing the impact of Upsus Pajale on food security and farmer welfare. The sampling method used purposive sampling method and taken as many as 92 samples. The data analysis method used consists of quantitative analysis and qualitative analysis. The results show that the distribution of aid has been carried out well, but there are several targets that have not been achieved, such as agricultural equipment assistance only in the form of a propulsion device in the form of a water pump. Then in the implementation of the Integrated Plant Management Application Movement (GPTT) it has not been implemented. Furthermore, the use of *jajar legowo* not all farmers implement it and there is no increase in the area of rice plants after the assistance from the Upsus Pajale program. The average profit of lebak rice farming before Upsus Pajale was Rp. 14,797,211.24 /ha/mt, while after Upsus Pajale was Rp. 22,948,398.74/lg/mt. The Upsus Pajale program also has an impact on food security for Lebak rice farmers by 60 percent and the total score of Subjective Well-being of farmers gets a score of 94.72, meaning that overall subjective well-being includes high criteria which prove that farmers are satisfied with their personal and social lives, happy in carrying out their daily lives.

KEY WORDS

Food security, farmer welfare, rice.

Ogan Komering Ilir Regency, especially in the Kayuagung District, Tanjung Serang Village and Srigeni Lama Village, Upsus Pajale is expected to increase the production of rice, corn and soybeans. As described in the Minister of Agriculture No. 03/2015 UPSUS PAJALE targets include, among others; (a) Cropping Index (IP) increased by at least 0.5 and rice productivity increased by at least 0.3 Ton/Ha GKP, (b) Soybean productivity was at least 157 Ton/Ha in new planting area and increased productivity by 0.2 Ton/Ha in existing area, (c) Minimum corn productivity of 5 Ton/Ha in new planting area and increase corn productivity by 1 ton/Ha in existing area. In this program, the government provides assistance to farmers through Gapoktan and farmer groups, one of which is planting machines and rice harvesting machines (Ministry of Agriculture, 2017). This shows that a transformation has begun in the agricultural sector, namely from conventional (labor intensive) to a more modern one (technology/capital intensive). This agricultural mechanization will certainly change the cost structure, farm management, and farmers' income levels in a better direction, as well as in South Sumatra (Ponto et al., 2017). On the other hand, agricultural mechanization is expected to increase food security in Ogan Komering Ilir Regency.

Technically, there are many benefits from agricultural mechanization, for example a planting machine will make the spacing more regular so that it is more effective for weeding, controlling pests and diseases and fertilizing and harvesting, and saving work time. By using a machine, the harvest time is shorter, less rice is wasted (losses), and increases



productivity. From an economic point of view, it will save working time and farming costs thereby increasing income. The benefits from the social side are increasing farmers' knowledge, adding insight and increasing free time to do other things, both economic, social and personal. For the government, the impact of agricultural mechanization is to increase production, thereby increasing food security. (Ponto et al., 2017).

In addition to agricultural mechanization, other technologies such as superior seeds/seeds, fertilizers and poisons to control pests and diseases, as well as technical irrigation canals are very helpful in increasing land productivity. The technology package is expected to be a lever to increase food production in order to achieve food self-sufficiency and increase income which ends up prospering farmers. (Simarmata, 2017). However, there are still many obstacles encountered in the field that can hinder the program's objectives. The obstacles are the readiness of the institution/gapoktan to manage the machineries, the ability of the operators, the ability to maintain and repair as well as the availability of spare parts, the effectiveness of the use and typology of land that is not suitable for the machine. (Pranadji & Hastuti, 2004). It is possible that the government's program in the form of agricultural mechanization, which costs a lot of money, is not balanced with the expected results. It is believed that the input of the Upsus Pajale technology package can increase production, but has not yet reached optimum production to achieve maximum profit. Therefore, it is necessary to study how the benefits of technology have been effectively applied to achieve maximum benefits for farmers based on the Upsus Pajale program in Ogan Komering Ilir Regency, especially in the Kayuagung District, Tanjung Serang Village and Srigeni Lama Village.

Based on Ponto's research (Ponto et al., 2017), The production of rice, corn and soybeans in 2015 is the 2015 ATAP data. There was an increase in the production of rice, corn, soybeans in Bolaang Mongondow in 2015 – 2016, due to UPSUS which was formed from 2015 to 2017. From the results of Minarso's research (2016), it shows that the UPSUS PAJALE program activities in Sri Agung Village have been running well, it is evidenced by the high production of rice and corn, from 41 respondents of rice and corn farmers, 60.97% of respondents experienced increased production and productivity of rice and 53.65% for corn farmers.

Kota Kayuagung District is one of the sub-districts in Ogan Komering Ilir Regency where the Upsus Pajale program is implemented. The implementation of the Upsus Pajale program in Kayuagung District has been carried out since 2015-2018. This is because the Kota Kayuagung District is the center for the production of lowland rice in Ogan Komering Ilir Regency and rice is the leading commodity in the Kota Kayuagung District. Upsus Pajale program in the development of food crop agriculture to date continues to provide a very meaningful contribution to the income of rice farmers where the people of Kota Kayuagung District, especially Tanjung Serang Village and Srigeni Lama Village, generally make a living as farmers. This study aims to mevaluate the implementation of the Upsus Pajale policy at the farmer level. Calculating rice farming as the impact of Upsus Pajale policy and analyzing the impact of Upsus Pajale on food security and farmer welfare.

METHODS of RESEARCH

Data collection was carried out from September to November 2021. The research location was in Tanjung Serang Village and Serigeni Lama Village, Kayuagung City District. with the consideration that the two villages were allocated the recipients of the Upsus Pajale program, especially in the rice fields of lowland rice fields.

Data collection in early research is done through questionnaires, interviews and observations. Sources of data that is processed comes from primary data and secondary data. Secondary data in the form of data that supports research. Secondary data is sourced from relevant agencies and agencies such as the Agriculture Service of Ogan Komering Ilir Regency, the Central Bureau of Statistics of Ogan Komering Ilir Regency, the Ministry of Agriculture of the Republic of Indonesia and others. The sampling method used in the study



is purposive sampling method and taken as many as 92 samples. The method of data analysis carried out consisted of quantitative analysis and qualitative analysis.

1. Farming Profits:

a) Fixed cost (Supardi, 2000)

$$FC = TC - VC$$

Where: FC - Total Fixed Cost; TC - Total Cost (Total Cost); VC - Variable Cost (Variable Cost).

b) Variable Cost (Supardi, 2000):

$$VC = TC - FC$$

Where: VC - Variable Cost (Variable Cost); TC - Total Cost (Total Cost); FC - Fixed Cost.

c) Income (Agustam Tri, 2016):

$$\text{Income (Rp)} = TR - TC$$

Where: TR - Total Revenue; TC - Total Cost.

2. Welfare Measurement:

Welfare measurement used the concept of Subjective Welfare Wellbeing can be formulated as follows:

a) Looking for Mean (Azwar, 2019: 109):

$$M = \frac{\sum x}{N}$$

Where: M = Mean; N = Total Amount; X = Number of numbers in the variable.

b) Standard Deviation (Azwar, 2019: 109):

$$SD = \frac{\sqrt{\sum f x^2 - (\sum f x)^2}}{N-1}$$

Where: SD = Standard Deviation; X = Score; N = Number of Respondents.

c) Determining Categorization:

Categorization is done to place farmers into separate groups in stages according to a continuum based on the measured attributes. In this study, the determination of the categorization used is as follows (Azwar, 2019: 109):

Table 1 – Categorization of Farmer Welfare

Information	Category
$X < M - 1SD$	Included in the Low Category
$M - 1SD \leq X < M + 1SD$	Included in the Medium Category
$M + 1SD \leq X$	Included in the High Category

RESULTS AND DISCUSSION

Based on the research results obtained, shows that lowland rice farmer recipients of the Upsus Pajale program old < 30 years by 20.65 percent, 30-39 year by 25 percent, 40-49 year



by 29.35 percent, 50-59 years 20.65 percent and age ≥ 60 by 4.35 percent. In detail, it can be seen in Table 1:

Table 2 – Age of Lebak Rice Farmers Upsus Pajale Program Beneficiaries in Kayu Agung District, Tanjung Serang Village and Serigeni Lama Village, Ogan Komering Ilir Regency

No	Age (Year)	Old Serigeni Village		Tanjung Serang Village	
		Number of people	%	Number of people	%
1	<30	8	16	11	22
2	30-39	12	24	11	34
3	40-49	13	32	14	24
4	50-59	10	22	9	18
5	≥ 60	3	6	1	2
Amount		46	100	46	100

Source: Processed from Primary Research Data.

The results showed that education lowland rice farmer The recipients of the Upsus Pajale program are generally dominated by elementary school (SD) graduates. The beneficiaries of the Upsus Pajale program did not finish elementary school as many as 27 people (27%), 35 people graduated from elementary school (38%), 29 people graduated from junior high school (29%), and 5 people graduated from high school (5%). For more details, see the following.

Table 3 – Education Level of Respondents for Lebak Rice Farmers Upsus Pajale Program Beneficiaries in Kayu Agung District, Tanjung Serang Village and Serigeni Lama Village, Ogan Komering Ilir Regency

No	Level of education	Beneficiary Upsus Pajale Program	
		Amount	%
1	Not completed in primary school	25	27
2	finished elementary school	35	38
3	High school graduate	27	29
4	High school graduate	5	5
Amount		92	100

Source: Processed From Research Primary Data.

Respondent's experience in farming lebak rice recipients of the Upsus Pajale program varies from 2 years to 35 years. The average of each lowland rice farm recipients of the Upsus Pajale program has been doing business for more than 20 years. Lebak rice farming experience recipients of the Upsus Pajale program can be seen in the following table.

Table 4 – Farming Experience of Lebak Rice Farmers Upsus Pajale Program Beneficiaries in Kayu Agung District, Tanjung Serang Village and Serigeni Lama Village, Ogan Komering Ilir Regency

No	Experience (Years)	Beneficiary Upsus Pajale Program	
		Amount	%
1	< 5	7	8
2	5 – 10	14	15
3	11 – 15	23	25
4	16 – 20	39	42
5	>20	9	10
Amount		92	100

Source: Processed From Research Primary Data.

The beneficiaries of the Upsus Pajale program can be described that for the number of dependents < 4 as many as 34 farmer respondents or 37 percent of the total number of respondents, the number of dependents ranging from 4-6 as many as 42 farmers or a total of 46 percent and the number of dependents ranging from ≥ 6 as many as 16 farmers or 17



percent, this shows that the number is large enough for farmers to meet the needs of their families who rely on the agricultural sector.

Table 5 – Distribution of DependentsLebak Rice FarmersUpsus Pajale Program Beneficiariesin Kayuagung District, Tanjung Serang Village and Serigeni Lama Village, Ogan Komering Ilir Regency

No	Number of Dependents (Persons)	Beneficiary Upsus Pajale Program	
		Number of people)	%
1	0	0	0
2	<4	34	37
3	4-6	42	46
4	≥6	16	17
Amount		92	100

Source: Processed From Research Primary Data.

In 2015 in Tanjung Serang and Serigeni Lama villages with the aim of increasing the cropping index (IP) and productivity on farm land in Serigeni Lama Village. This study aims to evaluate the Upsus Pajale program in Serigeni Lama Village. According to the Ministry of Agriculture No. 03/2015 regarding the UPSUS PAJALE guidelines, the problems faced in accelerating the achievement of food self-sufficiency include: (1) conversion and fragmentation of agricultural land; (2) damage to irrigation infrastructure/networks; (3) the decreasing and expensive wages of agricultural workers and the lack of equipment for agricultural mechanisms; (4) still high yield losses (losses); (5) the need for fertilizers and seeds has not been fulfilled according to location-specific recommendations and has not fulfilled the right six; (6) weak capital of farmers. (7) food commodity prices fall and it is difficult to market the results at the time of the main harvest. Such conditions begin to threaten national food security and will eventually threaten national food sovereignty and even national sovereignty.

Therefore, UPSUS PAJALE in an effort to increase production, will concentrate on the following efforts (Ministry of Agriculture No. 03/2015): (1) Improvement of Irrigation Networks, (2) Land Optimization, (3) Development of System of Rice Intensification (SRI), (4) Integrated Crop Management Application Movement (GP-PTT), (5) Corn Plant Area Expansion (PAT Maize), (6) Soybean Plant Area Expansion Optimization through Plant Index Improvement (PAT-PIP Soybean), (7) Provision of Agricultural Facilities and Infrastructure (seeds, fertilizers, pesticides, agricultural tools and machines), (8) OPT Control and Climate Change Impacts, (9) Agricultural Insurance and (10) Escort/Assistance. The following is a table of five indicators that will be discussed, namely 1) implementation time, 2) implementation frequency, 3) area size, 4) type of implementation, and 5) achievement targets.

As for efficiency level Upsus Pajale policy at the farmer level on food security and welfare of rice farmers in lowland rice fields in Lebak and the Old Serigeni Village. The differences that occur after the Upsus Pajale program will change for the better by utilizing the facilities that have been provided.

Average hoe cost IDR 1,743,000.00per hectare/year, sprayer feeRp 2,675,166.67, rice thresher costs Rp 3,503,990.33, sickle Rp 839,238.00 and sacks Rp 1,103,171.33per hectare/year in lowland rice farmingin Kayuagung District, Tanjung Serang Village and Serigeni Lama Village, Ogan Komering Ilir Regency can be held twice a year.

Based on the table above, the largest depreciation cost of equipment for rice farmers before and currently receiving assistance from the Upsus Pajale program is the depreciation of transportation equipment, which is equal toIDR 16.009,0000.00/lg/mt and the smallest tool depreciation cost for rice farmers before and during the Upsus Pajale program assistance was the depreciation of the sickle tool ofRp 839,238.00/lg/mt, this is because only a few rice farmers have harrows.

Variable costs are all costs incurred by respondent farmers for the purchase of fertilizers, seeds, and so on whose costs vary. The variable costs in this study include fertilizers, pesticides, seeds, and labor.



Table 6 – Implementation of Upsus Pajale Policy at Farmer Level Based on Indicators Implementation Time, Implementation Frequency, Area Size, Type of Implementation, and Achievement Target

No	Indicator	Technical Instructions	Implementation in Tanjung Serang Village and Serigeni Lama Village	Information
1	Execution time	In June 2015	<ul style="list-style-type: none"> In January 2015 (application to be included in the program) June 2015 (upsus pajale approval implemented) 28 July 2015 (activities for distributing program funds to Gapoktan/farmer groups and implementing the Upsus Pajale program) 	Achieved
2	Execution Frequency	Increased IP 200 in rice crops in two growing seasons	Increased IP 200 in rice plants	Achieved
3	Area	Each farmer group with a minimum expanse of 15 Ha	The total land area is 366ha with the average of each group having a land area ranging from 15 ha to 41 ha	Achieved
4	Execution Type	Tertiary Irrigation Network Rehabilitation (RJIT)	Rehabilitation of irrigation networks in the form of physical forms such as repair of physical forms such as repair of pumps and sluice gates	Achieved
		Provision of agricultural tools and machinery in the form of two-wheel tractors, planting tools and water pumps	Provision of agricultural tools and machinery in the form of 6 units of water pumps, 60 units of hansprayer, 1 unit of power treser	Achieved
		Preparation and use of superior seeds	Tanjung Provision and use of 25 kg of improved seeds with the type of mekongga	Achieved
		Provision and use of balanced fertilizer	Provision and use of balanced fertilizer assistance of 150 kg for NPK fertilizer and 250 kg for urea fertilizer	Achieved
		Setting the planting season using the planting season calendar (KATAM)	Setting the planting season using the planting season calendar (KATAM) which is used to determine the planting schedule	Achieved
		Implementation of the integrated crop management application movement program (GPPTT)	The implementation of the integrated plant management application movement program (GPPTT) in Serang and Serigeni Lama villages has not yet run	Not Reached
		Provision of assistant extension workers	The provision of agricultural extension assistants in Tanjung Serang and Serigeni Lama villages comes from the Kayuagung Agricultural Extension Agency (BPP)	Achieved
5	Achievement Target	the availability of sufficient water for the area of rice fields through the development/rehabilitation of irrigation networks	Rehabilitation of irrigation networks in the form of physical forms such as making sluice gates, providing 6 units of water pumps and repairing irrigation networks	Achieved
		Availability of fertilizers, seeds and medicines	Provision and use of balanced fertilizers of 150 kg for NPK fertilizer and 250 kg for urea fertilizer and 1 liter of pesticides	Achieved
		Increased IP and rice productivity with the potential for increasing IP minimum 0.5 and increasing productivity minimum 0.3 ton/ha GKP	To increase the productivity of dry grain harvested in the farming area in Tanjung Serang and Serigeni Lama villages it reached 4.5 tons/ha which previously only reached 2-3 tons/ha.	Achieved
		Improved technical quality of beneficiary cultivation at the location of irrigation network rehabilitation activities, land optimization, GP-PTT through:		
		Application of the 4:1 and 2:1 jajar legowo pattern	Farmers Apply the Application of the 4:1 and 2:1 jajar legowo pattern	Not Reached
		Application of the 4:1 and 2:1 jajar legowo pattern	Farmers Apply the Application of the 4:1 and 2:1 jajar legowo pattern	Not Reached
		The use of new superior varieties (vub) in the form of inbridam rice seeds, hybrid rice seeds.	Farmers in Lebak rice fields in Tanjung Serang and Serigeni Lama villages use new superior varieties (VUB) seeds in the form of hybrid rice seeds.	Achieved
		The use of balanced fertilizers is in accordance with the recommendations for implementing the integrated crop application program	implementation of the integrated crop application hoist program	Not Reached
		The increase in the area of lebak rice planting area	The rice planting area has not increased in the villages of Tanjng Serang and Serigeni Lama	Not Reached

Table 7 – Depreciation Value of Agricultural Equipment for Rice Farming Before the Upsus Program and After Participating in the Upsus Program in Tanjung Serang and Serigeni Lama Villages

No	Tool Type	Total Cost (Rp)
1	Hoe	1,743,000.00
2	sprayer	2,675,166.67
3	Rice Thresher	3,503,990.33
4	Sickle	839,238.00
5	Bag	1,103,171.33
6	Transportation	16,009,000.00

Source: Primary Data after Processing in 2021.



Table 8 – Total Variable Costs in Lebak Rice Farming Before and After Receiving the Upsus Program in Tanjung Serang and Serigeni Lama Villages

No	Type	Total Variable Costs in Rice Farming Before Upsus Program (Rp)	Total Variable Costs in Rice Farming After Upsus Program (Rp)
1	Seed	769,177.78	427,666.67
2	Fertilizer	356,900.00	3,333.33
3	Pesticide	510,833.33	61,458.33
4	Tools and Machinery	630,000.00	-
5	Labor	2,500,000.00	2,500,000.00

Source: Primary Data after Processing in 2021.

The table above shows that the use of fertilizers in Lebak Rice Farming Before Receiving the Upsus Program in Tanjung Serang and Serigeni Lama Villages was on average per hectare with a total cost IDR 356,9000.00, where the fertilizer used is Urea fertilizer, pesticides with a total cost Rp 510,833.33, labor i.e. with total cost IDR 2,500,000.00, labor from processing to post-harvest labor costs..

In Lebak Rice Farming after Receiving the Upsus Program in Tanjung Serang and Serigeni Villages, the use of fertilizers was Rp. 3,333.33, then the use of pesticides is Rp. 61,458.33, for the use of labor is Rp. 2,500,000.00. So that there is a difference in variable costs in Lebak rice farming before and after receiving the Upsus Program in Tanjung Serang and Serigeni Lama villages.

Several factors affecting rice production discussed in this study are factors that are considered to determine rice production, namely land area, labor, urea fertilizer, NPK fertilizer, pesticides and seeds.

Table 9 – Average Use of Farmers' Farm Production Factors Lebak Rice Upsus Pajale Program Beneficiaries in Kayuagung District, Tanjung Serang Village and Serigeni Lama Village, Ogan Komering Ilir Regency

No	Issue Name	Lebak Rice Production Costs	
		Farmers Before Getting the Upsus Pajale Program	Farmers After Getting the Upsus Pajale Program
1	Fixed Cost (Rp/lg/mt)	862,452.21	862,452.21
2	Variable Cost (Rp/lg/mt)	4,609,433.33	2,952,458.33
3	Production Cost (Rp/lg/mt)	5,471,885.54	3,814,910.54

Source: Primary Data after Processing in 2021.

Based on the table above, the production costs incurred by farmers before participating in the Upsus Pajale program are Rp 5,471,885.54/lg/mt while the average production cost incurred by rice farmers who are participating in the Upsus Pajale program is Rp 3,814,910.54/lg/mt. So the production cost of rice farming before participating in the Upsus Pajale program is greater than the cost of production while participating in the Upsus Pajale program.

Revenue in this study is the product of the production obtained by farmers with the selling price in the form of Harvest Dry Grain (GKP). Meanwhile, production is the result obtained by farmers before and after receiving Upsus Pajale assistance.

Table 10 – Average acceptance of respondent farmers in Serigeni Lama Village, Kayu Agung District, Ogan Komering Ilir Regency before and currently participating in the Upsus Pajale Program

No	Description	Before Upsus	After Upsus
1	Production (Kg/lg/mt)	3685	5376
2	Selling Price (Rp/lg/mt)	4,500	4,500
3	Revenue (Rp/lg/mt)	16,581,521.74	24,192,391.30

Source: Primary Data after Processing in 2021.

Based on the table above, it can be seen that the average income of farmers before participating in the Upsus Pajale program shows Rp 16,581,521.74/lg/mt. Meanwhile, the



income obtained by farmers who are participating in the Upsus Pajale program is Rp 24,192,391.30/lg/mt.

Based on these data, there are differences in the production of the two growing seasons, which can be seen from the differences in production. Where the average rice production before participating in the Upsus Pajale program was 3685 kg/lg/mt. Meanwhile, the average production currently participating in the Upsus Pajale program has increased with an average production reaching 5376 kg/lg/mt.

Based on the data above, it can be seen that there was an increase in production before participating in the Upsus Pajale program while participating in the Upsus Pajale program, this was due to repairs to irrigation networks, repair of sluice gates and cleaning of irrigation canals which made it easier for water to irrigate agricultural land that had been planted rice with the same selling price, which is Rp. 4,500 Rp./lg/mt.

The income of rice farmers in Serigeni Lama Village before joining the Upsus Pajale program or currently participating in the Upsus Pajale program can be calculated by calculating the difference between the total revenue and the total cost of farming. The total income received by farmers is obtained from the sale of production by rice farmers before and currently participating in the Upsus Pajale program, namely the production produced by farmers in rice farming.

Table 11 – The average income of farmers in Serigeni Lama Village, Kayu Agung District, Ogan Komering Ilir Regency before and after participating in the Upsus Pajale Program

No	Description	Lebak Rice Farmers' Income		
		Before Upsus	After Upsus	
1	Reception	(Rp/lg/mt)	16,581,521.74	24,192,391.30
2	Total Cost	(Rp/lg/mt)	4,766,911.11	2,992,458.33
3	Income	(Rp/lg/mt)	14,797,211.24	22,948,398.74

Source: Primary Data after Processing in 2021.

It is known that the average income of farmers before participating in the Upsus Pajale program is Rp 14,797,211.24/ha/mt while rice farmers are participating in the Upsus Pajale program of Rp 22,948,398.74/lg/mt. This shows that there is a difference in the income earned by rice farmers who are following the Upsus Pajale program which is higher than the income of farmers before participating in the Upsus Pajale program. The difference in income between farmers before and currently participating in the Upsus Pajale program is IDR 8,151,187.50/lg/mt.

Table 12 – Distribution of Food Security Levels for Lebak Rice Farmers before and after participating in the Upsus Pajale Program

No	Food Security Level	Before Upsus		After Upsus	
		Number of Households	Percentage (%)	Number of Households	Percentage (%)
1	Food Resistant	18	19.57	74	80.43
2	Food Vulnerability	11	11.96	8	8.70
3	Lack of Food	25	27.17	7	7.61
4	Food Insecurity	38	41.30	3	3.26
	Amount	92	100.00	92	100.00

Source: Primary Data after Processing in 2021.

Household expenditure is one indicator that can provide an overview of the state of the population's welfare. The level of farmer's life can be reflected in the expenditure pattern of the farmer's household. The level of household income will also affect the pattern of household expenditure. The food security level category is calculated based on cross-classification between the share of food expenditure and energy adequacy. There are four categories of food security, namely food insecurity, lack of food, food insecurity, and food security. Food security if the share of food expenditure is low (≤ 60 percent of household expenditure) and consumes enough energy (> 80 percent of the energy adequacy



requirement); food insecurity if the share of food expenditure is high (> 60 percent of household expenditure) and consumes enough energy (> 80 percent of the energy adequacy requirements); lack of food if the share of food expenditure is low (\leq 60 percent of household expenditure) and consumes less energy (\leq 80 percent of the energy adequacy requirement), and food insecurity if the share of food expenditure is high (>60 percent of household expenditure) and consumes less energy (80 percent of the energy adequacy requirements).

Before participating in the Upsus Pajale program, 18 households or 19.57 percent were classified as food insecure, 11 households or 11.96 percent classified as food insecure, 25 households or 27.17 percent classified as undernourished, and 38 households or 41.30 percent are classified as food insecure. Meanwhile, for rice farmers in Lebak, after participating in the Upsus Pajale program, there were 64 households or 69 percent classified as food insecure, 12 households or 13.04 percent classified as food insecure, 7 households or 7.51 percent classified as undernourished, and 9 households or 9.78 percent, classified as food insecure.

Subjective wellbeing is subjective well-being is a happiness, life satisfaction, hedonic balance and stress centered on an individual's affective and cognitive evaluation of his life. Pwelfare measurement by comparing per capita income to the BPS poverty line. The poverty line is a representation of the minimum amount of rupiah needed to meet the minimum basic needs for food which is equivalent to 2150 kilo calories per capita per day and basic needs for food. The poverty line figure for Ogan Komering Ilir Regency in 2020 is Rp. 375,857.00. shows the poverty line for Lebak Rice in Tanjung Serang and Serigeni Lama villages.

Table 13 – Average Non-Farming Income of Farmers in Serigeni Lama Village and Tanjung Serang Village

No	Information	Average Cost (Rp/year)	
		Total Cost (Rp/year)	Percentage (%)
1	Construction workers	8,563,221	73.34
2	Other	3,113,273	26.66
	Amount	11,676,494	100.00

Source: Primary Data after Processing in 2021.

Table 14 – Average Total Household Income in Serigeni Lama Villages and Tanjung Serang Villages

No	Information	Average Cost (Rp/year)	
		Total Cost (Rp/year)	Percentage (%)
1	Lebak Rice Farming	12,160,635	51.02
2	Non-Farming	11,676,494	48.98
	Amount	23,837,129	100.00

Source: Primary Data after Processing in 2021.

Table 15 – The Poverty Line of Lebak Rice Farmers in Serigeni Lama Village and Tanjung Serang Village

No	Information	Amount	Percentage (%)
1	Above the Poverty Line	55	60.00
2	Below the Poverty Line	37	40.00
	Amount	92	100.00

Source: Primary Data after Processing in 2021.

Farmers who have a per capita income above the poverty line based on the poverty line of Ogan Ilir Regency in 2017 are Rp. 367,076.00 as many as 55 people or 60 percent, while farmers who have a per capita income below the poverty line based on the poverty line of Ogan Ilir Regency in 2017 is Rp. 367,076.00 as many as 37 people or 40 percent. In welfare theory, income is important in welfare. According to Puspitawati (2015), welfare can be related to the concept of needs (needs) that the above needs will be fulfilled after the lower needs are met. The lowest level in Maslow's hierarchy is physical needs, namely the



need for clothing, food, and shelter. Furthermore, the need for security, social needs and the need for self-esteem.

Table 16 – Total Subjective Wellbeing Score Lebak Rice Farmers In Old Serigeni Village and Tanjung Serang Village

No	Measurement components	Average Score	Criteria
<i>Life Satisfaction of Person</i>			
1	Life is close to ideal	2.26	Currently
2	Very good living conditions	2.41	Tall
3	Satisfaction in life	2.41	Tall
4	Get what you want	2.39	Tall
5	Nothing to change	2.41	Tall
Amount		11.88	
<i>Health Satisfaction of Person</i>			
1	Ease of getting service	2.39	Tall
2	Health of family members	2.36	Tall
3	My whole family is in good health	2.36	Tall
4	My current condition is in good health	2.39	Tall
5	prosperous state (healthy, happy, safe)	2.40	Tall
Amount		11.90	
<i>Economic Satisfaction of Person</i>			
1	Satisfaction fulfilled (clothing, food, housing)	2.40	Tall
2	My income is increasing	2.39	Tall
3	Satisfaction meeting children's educational needs	2.40	Tall
4	Satisfaction in farming equipment	2.39	Tall
5	Income satisfaction	2.42	Tall
Amount		12.01	
<i>Job Satisfaction of Person</i>			
1	Job satisfaction	2.32	Tall
2	Satisfaction with the results obtained	2.25	Currently
3	Love work	2.65	Tall
4	Work environment satisfaction	2.75	Tall
5	Satisfaction with equipment	2.15	Currently
Amount		12.13	
<i>Family Satisfaction of Person</i>			
1	Healthy and livable house	2.38	Tall
2	Peace and love each other	2.39	Tall
3	Get transportation service	2.41	Tall
4	Guarantee for the future	2.40	Tall
5	Guaranteed future certainty	2.39	Tall
Amount		11.97	
<i>Friendship Satisfaction of Person</i>			
1	Strong support fellow friends	2.50	Tall
2	Provide assistance when experiencing difficulties	2.50	Tall
3	Friends satisfaction	2.59	Tall
4	Good relationship	2.49	Tall
5	Comfortable and peaceful environment	2.50	Tall
Amount		12.48	
<i>Personal Satisfaction of Person</i>			
1	Make ends meet	2.31	Tall
2	Comfortable working as a farmer	2.28	Currently
3	Life according to expectations	2.31	Tall
4	Very good life	2.26	Currently
5	Satisfaction in life	2.31	Currently
Amount		11.47	
<i>Community Services Satisfaction of Person</i>			
1	Good environment	2.30	Tall
2	Comfortable with community service	2.30	Tall
3	Community provides moral support	2.35	Tall
4	Public awareness is very high	2.30	Tall
5	Emotional support	2.34	Tall
Amount		11.58	
Total Score Subjective Wellbeing		94.72	Tall

Source: Primary Data after Processing in 2021.



Subjective well-being is a happiness, life satisfaction, hedonic balance and stress centered on an individual's affective and cognitive evaluation of his life, including in terms of life satisfaction and life goals such as *Life Satisfaction of Person, Health Satisfaction of Person, Economic Satisfaction of Person, Job Satisfaction of Person, Family Satisfaction of Person, Friendship Satisfaction of Person, Personal Satisfaction of Person and Community Services Satisfaction of Person*.

The results show that the input of Upsus Pajale technology packages such as superior seeds/seeds, pesticide fertilizers, agricultural tools and machines can increase production and is efficient. Maximum profit for rice farmers in Lebak rice fields in Ogan Komering Ilir Regency with an average of Rp 22,948,398.74. Total score *subjective well-being* Lebak rice farmers in Serigeni Lama Village and Tanjung Serang Village, Kayugaung City District, Ogan Komering Ilir Regency is 94.72 which means Lebak rice farmers overall including high criteria. This shows that farmers are satisfied with *Life Satisfaction of Person, Health Satisfaction of Person, Economic Satisfaction of Person, Job Satisfaction of Person, Family Satisfaction of Person, Friendship Satisfaction of Person, Personal Satisfaction of Person and Community Services Satisfaction of Person* and have meaning in his life.

CONCLUSION

The Upsus Pajale program in the villages of Tanjung Serang and Serigeni Lama, Ogan Komering Ilir Regency, South Sumatra Province, in the distribution of aid was carried out well, but there were several targets that had not been achieved, such as assistance with agricultural equipment in the form of a water pump. Then in the implementation of the Integrated Plant Management Application Movement (GPTT) it has not been implemented. Furthermore, the use of jajar legowo not all farmers implement it and there is no increase in the area of rice plants after the assistance from the Upsus Pajale program. The average profit of lebak rice farming before joining the Upsus Pajale program was Rp 14,797,211.24/ha/mt while after participating in the Upsus Pajale program the amount is Rp 22,948,398.74/lg/mt. This shows that farmers who participate in the Upsus Pajale program earn higher incomes than before participating in the Upsus Pajale program. The Upsus Pajale program also has an impact on food security for rice farmers in Lebak by 60 percent and the total score of Subjective wellbeing for farmers gets a score of 94.72, meaning that overall subjective well-being includes high criteria which proves that farmers are satisfied with their personal and social lives, happy in carrying out their daily lives.

REFERENCES

1. Agutam Tri. (2021). Analisis Biaya Imbangan Dan Potensi Pendapatan Usahatani Padi di Kecamatan Punggur Kabupaten Lampung Tengah. Agribisnis Fakultas Pertanian Universitas Lampung.
2. Aryani, D. (2014). Pola Usahatani, Pendapatan dan Ketahanan Pangan Rumah Tangga Petani Padi Lahan Rawa Lebak di Sumatera Selatan. <http://pur-plso.unsri.ac.id>
3. Astuti. (2017). Pemetaan Tingkat Kesejahteraan Keluarga Di Kecamatan Banjarmasin Selatan. *Jurnal Pendidikan Geografi*, 4(2), 20–34.
4. Balai Besar Penelitian dan Pengembangan Bioteknologi dan Sumberdaya Genetik Pertanian. (2015). UPSUS dan TTP, Program Utama Kementan untuk Meningkatkan Kesejahteraan Petani. *Warta Biogen*, 11 (2), 1–4.
5. Faridhavin, U., R. Witjaksono, dan H. (2016). Persepsi Pendampingan Terhadap Pelaksanaan Program UPSUS PAJALE di Daerah Istimewa Yogyakarta. *Agro Ekonomika*, 27(2), 197–214.
6. Husnaini, M. (2012). Karakteristik Sosial Ekonomi Rumah Tangga Dan Tingkat Ketahanan Pangan Rumah Tangga Petani Di Kabupaten Barito Kuala. *Jurnal Agribisnis*, 2(4), 320–32.
7. John K. Pattison-Williams, Jeremy P. Haggard, J. F. M. (2018). Intergenerational Perceptions of Household Wellbeing in India's Western and Eastern Ghats. *World*



- Development Perspective, 10–12, 51–57.
8. Maulidiawati, D., D. Nikmatullah, dan R. T. P. (2018). Partisipasi Petani Dalam Program UPSUS PAJALE di Kecamatan Rawa Jitu Selatan Kabupaten Tulang Bawang. *JIIA*, 6 (1), 65–71.
 9. McCrea, Rod, Andrea Walton, and R. L. (2019). Rural Communities and Unconventional Gas Development: What's Important for Maintaining Subjective Community Wellbeing and Resilience over Time? *Journal of Rural Studies*, 68, 87–00.
 10. Nugroho, Agus Dwi, S.N. Handayani Utami, Yunri Yuslianti, and L. N. (2017). Pelaksanaan Program Upaya Khusus (UPSUS) Swasembada Pangan Di Kabupaten Monosobo Provinsi Jawa Tengah. *Jurnal Pengabdian Kepada Masyarakat*, 3(1), 1–17.
 11. Permentan. (2017). Pedoman Upaya Khusus (UPSUS) Peningkatan Produksi Padi, Jagung dan Kedelai Melalui Program Perbaikan Jaringan Irigasi dan Sarana Pendukungnya Tahun Anggaran 2015. Permentan.
 12. Ponto, J., N.M. Benu, dan R. M. K. (2017). UPSUS PAJALE dalam Menunjang Program Swasembada Pangan di Kabupaten Bolaang Mongondow. 13 (2A), 253 – 260.
 13. Pranadji, T., & Hastuti, L. (2004). Transformasi Sosio-Budaya dalam Pembangunan Pedesaan. *AKP*, 2(1), 77–92.
 14. Purba, H. M. (2005). Analisis Pendapatan Dan Faktor-Faktor Yang Mempengaruhi Produksi Cabang Usahatani Padi Ladang Di Kabupaten Karawang. Bogor: Pertanian Bogor.
 15. Rezky, M. (2018). Analisis Pelaksanaan Program Upaya Khusus Padi, Jagung, Kedelai (UPSUS PAJALE) dalam Mewujudkan Swasembada Pangan di Kabupaten Sidenreng Rappang. Fakultas Ilmu Sosial Dan Ilmu Politik. Makassar.
 16. Rizki. (2016). Dampak Program Upaya Khusus (UPSUS) Padi Jagung dan Kedelai (PAJALE) Pada Komoditas Padi di Kabupaten Tanjung Jabur Timur 2016. Universitas Batanghari Jambi.
 17. Simarmata, T. (2017). Percepatan Transformasi Teknologi dan Inovasi dalam Era Smart Farming dan Petani Milenial untuk Meningkatkan Produktivitas, Nilai Tambah dan Daya Saing Pertanian Indonesia. Conference: Simposium Dan Expo Nasional Teknologi Pertanian Karya Anak Bangsa, 12–19. Soedjana, T. . (2007). Sistem Usaha Tani Terintegrasi Tanaman-Ternak Sebagai Respons Petani Terhadap Faktor Risiko. <http://pustaka.litbang.pertanian.go.id>.
 18. Soehendi, Rudy, D. (2013). Perkembangan Pertanian Lahan Kering di Sumatera Selatan. <http://www.litbang.pertanian.go.id>
 19. Wahyunto. (2009). Lahan Sawah Sebagai Pendukung Ketahanan Pangan serta Strategi Pencapaian Kemandirian Pangan. *Jurnal Sumberdaya Lahan Edisi Khusus*.
 20. Yamin, Hakim, Putri, A. (2018). Hubungan Karakteristik Dengan Wellbeing Petani Padi Di Desa Pelabuhan Dalam Kecamatan Pemulutan Kabupaten Ogan Ilir. <http://conference.unsri.ac.id>.
 21. Yamin, Putri, M. (2019). Kerentanan Ketahanan Pangan Wilayah dan hubungannya dengan karakteristik sosial ekonomi petani dalam konsep “wellbeing.” <https://jepa.ub.ac.id/index.php/jepa/article/view/215>.