# Identification of the Major Agricultural Potential and Commodity Potential of Major Food Plant and Its Growth in Oku Regency

Munajat, Fifian Permata Sari

The Lecturer of Agribusiness Study Programe

Agriculture Faculty of Baturaja University

Karang Sari Baturaja

Munajat.ub@gmail.com, Fifianpermatasari@gmail.com

**Abstract - This research aims to analyse and identify` the major of agricultural potencial sector and agricultural sub sector, identified the commodity potency of the major food plant sub sector, and to analyse the growth of food plant sub sector in OKU District. The result shown that the potency of agricultural sector in OKU District start on 2001 to 2011 were the major sector. Agricultural sub sector that analysed with Location Quotient Analysis on agricultural sector in OKU District on 2001 to 2011, were estate and livestock, meanwhile food plant sub sector, forestry and fishery were not the major sector. The major food plant sub sector in OKU District from 12 sub district in OKU were : Lengkiti sub district (paddy fields, corn, and sweet potato), Sosoh Buay Rayap sub district (paddy fields, corn, peanut and cassava), Pengandonan sub district (paddy fields, and corn), Semidang Aji sub district (paddy fields and corn), Ulu Ogan sub district (paddy fields, soy bean, peanut, green bean, cassava and sweet potato), Muara Jaya sub district (paddy fields), Peninjauan sub district (paddy fields, soy bean, green bean and cassava), Sinar Peninjauan sub district (paddy fields, peanut, cassava and sweet potato), Lubuk Raja sub district (corn, peanut, and sweet potato), Lubuk Batang sub district (paddy fields), East Baturaja sub district (peanut, green bean and cassava) and West Baturaja sub district (paddy fields, corn, peanut, green bean, cassava and a little bit of sweet potato. The growth of food plant sub sector was analyzed by shift share analyzing from 2009 to 2012 in OKU district had a faster growth actually.**

*Keywords - component : Potencial identified, major sub sector, food plant sub sector and major commodity.*

## I. . INTRODUCTION

The implementation of this autonomy is essentially a process of economic development of the region based on the ability and independence of the region itself. That is why it is important to do how to increase the contributor of the economic potential sectors of a region which is described by the existing economic indicators. An important indicator to determine the economic conditions of a region in a certain period is shown by the data of Regional Gross Domestic Product (RGDP), both on the basis of price and on a constant basis. Gross Regional Domestic Product (RGDP) is defined as the total plus value generated by all economic activities in a particular area, or a total value of final goods and services produced by all economic units (BPS OKU, 2011).

Regional Gross Domestic Product (RGDP) in Indonesia consists of 9 sectors, namely agriculture sector, mining and quarrying sector, manufacturing ssector, electricity and water sector, construction sector, trade sector, hotel and restaurant sector, transportation and communication sectors, financial sector, leasing, business services as well as services sector (Azhar and Nasir, 2001).

The Growth of Regional Gross Domestic Product (RGDP) in Ogan Komering Ulu (OKU) is dominated by agriculture and mining sectors based on RGPD dataof Ogan Komering Ulu in 2001 to 2011 according to the business field. As for the agricultural sector is divided into several sub-sectors including food crops, plantation crops, livestock, forestry and fisheries subsectors. Therefore agricultural sector is being a sector that accounts for the most high results of Regional Gross Domestic Product. So it is necessary to increase the potential of this sector year after year in order to contribute to the value of RGDP in a OKU District sustainably.

Furthermore, the highest rate of RGDP growth in Ogan Komering Ulu in agricultural sector occurred in 2003 amounted to 8.12 percent, earlier in 2002 the agricultural sector of RGDP in Ogan Komering Ulu of 454.150 million increased by 491.024 million in 2003, and in 2011 the agricultural sector of RGDP 799.656 or increase of 6.95 percent from the previous year in the agricultural sector of RGDP in Ogan Komering Ulu of 754.761 million.

The growth in the agricultural sector of a region is essentially influenced by the competitive advantage of a region, area of specialization as well as agricultural potential which possessed by the area. The potential of agriculture in a region not have any meaning for the area of agricultural growth if there is no attempt to utilize and develop the agricultural potential optimally. Therefore, the utilization and development of all potential agricultural potential should be a top priority for implementing explored and developed in the area of agricultural development as a whole.

As for the agriculture sector in the form of food crops, actually has a strategic position to be developed in an area to become a featured commodity. Determination of the featured commodity in a region becomes a necessity by considering that commodities which are able to compete on an ongoing basis with the same commodity in another region with the consideration that the commodity which cultivated is efficient in terms of technological and socio-economical as well as having a comparative advantage. In addition, the ability of a region to produce and market commodities in accordance with the conditions of soil and climate in a particular area is also very limited (Bachrein, 2003).

Related to the above information, the purpose of this study is: to identify the potential of the agricultural sector in Ogan Komering Ulu, identify what agricultural subsectors which being the leading/featured sectors in Ogan Komering Ulu, identify the potential commodities of food crops subsector that become the leading sectors in each of the subdistricts in Ogan Komering Ulu and analyze the growth of food crops in Ogan Komering Ulu.

## II. RESEARCH METHODS

The research was conducted in the District of Ogan Komering Ulu, the implementation of this research was conducted in January-March 2014. The method used in this research is descriptive method. Data collection used in this research is observation method. The data used is the time series data of PDRB OKU District and PDB South Sumatra in 2001 - 2011. In addition, this research also explore the time series data that is the total production of food crops in 2009-2012.

To answer the first, second and third goal at identifying potential agricultural sector and agricultural subsector about v leading sectors in Ogan Komering Ulu has done using t tion Quotient method. According to Arsyad (2009); T 2004), LQ approach formulated by the formula:

$$LQ = \frac{vi/vt}{Vi/Vt}…………….……..………..(1)$$

e:

: Index Location Quotient

: Regional Gross Regional Domestic Product RGDP agricultural sector of Ogan Komering Ulu District.

Vt : Regional Gross Domestic Product RGDP total economic sector in of Ogan Komering Ulu District.

Vi : Regional Gross Domestic Product RGDP of the agricultural sector in South Sumatera.

Vt : Regional Gross Domestic Product RGDP total of agricultural economic sectors of South Sumaetra.

Then the calculation result is continued by seeing the LQ value, if > 1 then the sector or sub-sector is the dominant sector (potential) whereas if the LQ value 1 then the sector or subsector is a non-seeded (not potential)

As for answering the fourth goal made by the Regional Growth approach / Regency (Budiharsono, 2001), that is:

$$PR = \frac{Nt}{NP} - 1 \quad …………………(2)$$

Specification:

Nt = Total production of food commodities at the district level in the year /last (tons)

Np = Total production of food commodities at the district level in the p / starters (tons)

Criteria:

*1) The value of positive PR showed food crops sector in the District is making progress.*

*2) The value of the negative PR showed food crops sector in the District is decrease.*

## III. RESULTS AND DISCUSSION

### A. *Potential Analysis of Agricultural Sector in the District of Ogan Komering Ulu*

From the analysis of Location Question (LQ) the agricultural sector of Ogan Komering Ulu in 2001 to 2011 can be seen in Fig. 1.
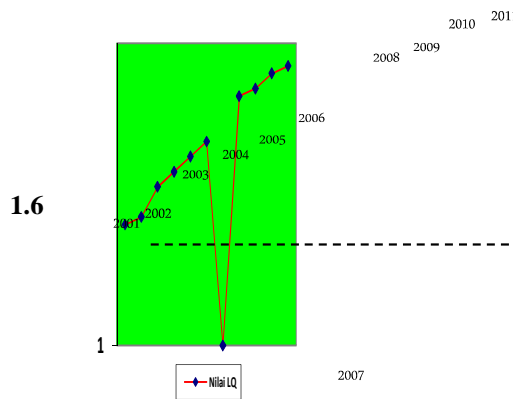


*Source: Secondary Data Analysis.*

Fig. 1. Location Question (LQ) Calculation Results of agricultural sector in Ogan Komering Ulu in 2001 to 2011 Kabupaten Ogan Komering Ulu on Year 2001 till 2011

More over based on Fig. 1 in 2001 to 2011 the value of the agricultural sector shows LQ> 1 and has an LQ average of 1.24. In 2001 the value of LQ agricultural sector was 1.16 and tends to increase in subsequent years, but in 2007 the value of

LQ agricultural sector decreased from 2006 which was 1.27 to 1.00 and in 2008 rose again, which was 1, 33 until 2011 the LQ value agricultural sector in Ogan Komering Ulu was 1,37.

Indeed impairment LQ in 2007, is the impact of the global economic crisis that has implications for Indonesian agriculture where the weakening global economic growth will result in demand for agricultural products is reduced which will automatically affect the selling prices of agricultural products will decline, it will be bad for farmers, farmers prefer not to conduct agricultural production on a large scale because of the fear of the loss due to the costs incurred when production is not proportional to the value of the products received by farmers.

## B. *Identifying Agricultural Subsector which Being Featured Sector in the District of Ogan Komering Ulu*

Identification of the agriculture sector in this case includes five sub-sectors such as: food crops subsector, plantation crops subsector, forestry subsector, livestock subsector, and the fisheries subsector. The results of the analysis with the Location Quotien (LQ) indicates that food crops subsector is a non featured subsector during the period 2001 to 2011 with an average value of LQ is 0.28. This is in line with the BPS data of OKU District (2011), where the vast of land crops (crops) such as rice, maize, cassava, sweet potatoes, peanuts, green beans, fruits and vegetables are relatively narrow and even there are some crops that are oriented only fill the family needed food (subsistence) is not for sale. Beside the narrow land factor, the other factor which also affecting is the unavailability of such good irrigation in the district of East OKU.

TABLE I.    THE RESULTS OF LQ CALCULATIONS IN AGRICULTURE SECTOR IN THE DISTRICT OF OKU, YEAR 2001 – 2011

| Agriculture Subsector | Average Score | Description |
|---|---|---|
| Crops | 0.28 | Non Featured |
| Plantation | 1.59 | Featured |
| Forestry | 1.22 | Featured |
| Livestock | 0.39 | Non Featured |
| Fisheries | 0.52 | Non Featured |

a. Source: Secondary Data Analysis

Based on the results of the analysis using the LQ analysis showed that the plantation subsector is the dominant sector with an average value of 1.59 for the period 2001 to 2011. The result of this research is in line with the results of DEPERINDAGKOP OKU study (2013), which states that the plantation crops subsector in OKU is an excellent area, but despite the plantation subsector is featured area but the LQ value shows pluktuatif and leads to decline. The Factor caused in this decline, according to Atmaja (2006) due to the age of plantation crops managed by communities or even old plantation companies so the results are less productive.

Livestock subsector is a featured sector during the period of 2001 to 2011 with an average LQ value is 0,39. Based on the analysis also showed a declining trend LQ values obtained. This indicates that a reduction in both the farm operated by public or private enterprises. Surely this should be the concern of local governments and steakholders so it needs to be an evaluation to be a further policy that a downward trend can be overcome.

The results obtained by the LQ analysis shows that the forestry sub-sector is a non seeded areas with an average value of 1,22 during the period 2001 to 2011. Although based on BPS OKU which shows the land for forestry subsector is more than 30 percent but the area is a protected forest area that is economically does not give a direct impact to the economy but environmentally is providing a huge benefit.

Based on Table 1 which shows that the fisheries subsector is unseeded subsector in the agricultural sector with an average LQ value of 0.52 during the period 2001 to 2011. This value reflects that the results of this sub-sector needs to be more developed to become the leading sector in view of marine resources owned by OKU District. The actual economic approach is based on the opinion that the thing which needs to be developed in an area is the ability to produce and sell these productions are efficiently and effectively with optimal utilization of available resources.

## IV.   FEATURED FOOD CROPS SUBSECTOR IN THE DISTRICT OF OGAN KOMERING ULU

The results of location quotient (LQ) analysis on food crops subsector of each District in Ogan Komering Ulu in 2012 can be seen in Table 2.

From Table 2, it shows that there are 7 types of food crops commodity that were identified from 12 Subdistricts of Ogan Komering Ulu, they are paddy (rice paddies and fields), corn, soybeans, peanuts, green beans, cassava, and sweet potatoes.

In LQ> 1 value, there are 4 featured food crops commodity in Lengkiti Subdistict such as rice seed lading, corn, green beans, and sweet potatoes. The green beans were the most superior commodity in Lengkiti Subdistrict, Ogan Komering Ulu with the LQ highest value of 4.61.

Sosoh Buay Rayap Subdistrict according to LQ analysis showed 4 featured food commodities which contained in this Subdistrict in the form of lading paddy, rice, corn, peanuts, and cassava. LQ value indicates that most maize seed in Sosoh Buay Rayap Subdistrict, Ogan Komering Ulu with LQ value at 2.94.

Pengandonan Subdistrict LQ analysis results show that there are 2 types of featured food crops commodities such as rice paddies with LQ value of 1.39 and corn with LQ value of 1.06. Based on LQ result, it can be seen that in this subdistrict paddy rice is superior than corn commodity.

In Muara Jaya Subdistrict also have 2 excellent food crops, paddy and maize that is also become the leading commodity in this subdistrict. The LQ value of paddy in this subdistrict of 1.36 while corn of 1.26.

Analysis result of LQ> 1 paddy rice, soybeans, peanuts, green beans, cassava, sweet potato is featured commodity contained in Semidang Aji Subdistrict, Ogan Komering Ulu, with each value of LQ> 1, in this subdistrict low featured commodity is in the form of paddy with the highest Q value of 1.13, while the more superior commodity with the highest LQ

values contained in the commodity sweet potato by 2.36. And Muara Jaya Subdistrict of Ogan Komering Ulu from the LQ value only indicates paddy lading commodity which become the featured commodity with LQ value of 1.35.

TABLE II.    RESULTS OF LQ FOOD CROPS ( RICE, RICE PADDY, CORN, SOY BEANS) SUBSECTOR ANALYSIS IN OGAN KOMERING ULU, 2012

| Subdistrict | Rice | Rice paddy | Corn | Soy Beans |
|---|---|---|---|---|
| Lengkiti | 0,10 | **2,09** | **2,79** | 0,88 |
| Sosoh Buay Rayap | 0,04 | **2,28** | **2,94** | 0,84 |
| Pengandonan | **1,39** | 0,42 | **1,06** | 0,99 |
| Semidang Aji | **1,36** | 0,42 | **1,26** | 0,80 |
| Ulu Ogan | **1,13** | 0,78 | 0,73 | **2,23** |
| Muara Jaya | 0,99 | **1,35** | 0 | 0,57 |
| Peninjauan | 0,43 | **1,99** | 0,77 | **1,31** |
| Lubuk Batang | **1,65** | 0,22 | 0,54 | 0 |
| Sinar Peninjauan | 0,88 | **1,18** | 0,37 | 0 |
| Baturaja Timur | 0,85 | 0,76 | 0,66 | 0 |
| Lubuk Raja | 0,87 | 0,93 | **2,48** | 0 |
| Baturaja Barat | 0,25 | **1,18** | **3,11** | 0,36 |

[b.] Source: Secondary Data Analysis.

Peninjauan Subdistrict from the value of Q indicates LQ> 1 in 4 commodities namely paddy fields, soybean, green beans and cassava. In this District green bean is featured with LQ value of 2.64. While in Sinar Peninjauan Subdistrict only show the results that rice is LQ featured commodity with a Q value of 1.65. While in Lubuk Batang Subdistrict shows the value of LQ> 1 in 4 food featured commodities, they are lading seeded rice, peanuts, sweet potatoes. Lubuk Raja Subdistrict has 3 commodities with each commodity LQ value of peanuts of 3.85, 4.86 green beans, and cassava 7.93. It can be seen in Table 3.

TABLE III.    RESULTS OF LQ FOOD CROPS (LAND NUTS, GREEN NUTS, CASSAVA, SWEET POTATO) SUBSECTOR ANALYSIS IN OGAN KOMERING ULU, 2012

| Subdistrict | Land Nuts | Green Nuts | Cassava | Sweet Potato |
|---|---|---|---|---|
| Lengkiti | 0,97 | **4,61** | 0,09 | **1,99** |
| Sosoh Buay Rayap | **2,39** | 0,70 | **1,53** | 0 |
| Pengandonan | 0 | 0 | 0 | 0 |
| Semidang Aji | 0 | 0 | 0 | 0 |
| Ulu Ogan | **2,32** | **1,28** | **1,58** | **2,36** |
| Muara Jaya | 0 | 0, | 0 | 0 |
| Peninjauan | 0,74 | **2,64** | **1,43** | 0,27 |
| Lubuk Batang | 0 | 0 | 0,56 | 0,84 |
| Sinar Peninjauan | **2,06** | 0 | **1,98** | **4,43** |
| Baturaja Timur | **3,85** | **4,86** | **7,93** | 0 |
| Lubuk Raja | **2,88** | 0 | 0,99 | **1,47** |
| Baturaja Barat | **5,23** | **6,93** | **5,66** | **11,24** |

[c.] Source: Secondary Data Analysis.

East Baturaja Subdistrict reflects the value of LQ> 1 in 3 seed food commodities such as corn, peanuts, sweet potatoes and in this subdistrict found in 6 lading commodity, they are rice, corn, peanuts, green beans, cassava and sweet potatoes. Low leading commodity in this subdistrict is rice paddy with LQ value of 1.88 and the highest seed yams commodity with LQ value of 11.24.

Judging from all the data, the sub-district of the 12 Districts in Ogan Ogan Ulu, Semidang Aji Subdistrict and West Baturaja Subdistrict are the most superior Subdistricts which produce food crops commodity because in this district has a value criterionof Q> 1 each which shows six crops commodity.

### A. The Growth of Food Crops Subsector in the District of Ogan Komering Ulu

Based on Shift share analysis which carried out on food crops in the district of Ogan Komering Ulu using Regional Growth / Regency approaches (Budiharsono, 2001) with the formula:

$$PR = \frac{Nt}{NP} - 1$$

Specification:

Nt = Total production of food commodities at the district level in the year / last (tons)

Np = Total production of food commodities at the district level in the p / starters (tons)

Shift share analysis results on food crops subsector in the district of Ogan Komering Ulu with the Regional Growth approach/Regency in 2009 to 2012 obtained the value of + 0.45.

$$PR = \frac{74.525,45}{51.385,80} - 1$$

$$PR = 1,4502839 - 1$$

$$= 0,45$$

Judging from the results of shift share analysis above showed positive value growth of food crops commodity in Ogan Komering Ulu progress from 2009 to 2012. Based on the data obtained by the main cause of the growth of commodity progress from 2009 to 2012 is because of the increase in acreage for planting on food commodities studied, in addition the other factors that affect the growth of commodity which progress is the advanced technology.

### V.    CONCLUSIONS AND SUGGESTIONS

#### A. Conclusions

Based on the results of research and discussion that has been described, it can be concluded as follows:

*1)* Potential of Agricultural Sector in Ogan Komering Ulu based on Location Quotient (LQ) for the period 2001 to 2011 is the leading sectors.

*2)* The agricultural subsector which become the featured sector that can be seen from the LQ analysis of the leading sectors in the agricultural sector in Ogan Komering Ulu during the period of 2001 to 2011 are: plantation subsector and the livestock sub-sector, while food crops, forestry subsector, and the fishery is not a dominant sector ( unfeatured).

*3)* Food crops featured subsector in Ogan Komering Ulu based on Location Quotient (LQ) analysis of the 12 Districts in Ogan Komering Ulu are as follows:

*a)* Lengkiti Subdistrict has excellent commodities, they are: rice paddy, corn, and sweet potatoes.

*b)* Sosoh Buay Rayap Subdistrict has excellent commodities, they are: rice fields, maize, groundnuts and cassava.

*c)* Pengandonan Subdistrict has excellent commodities, they are: paddy rice, and corn.

*d)* Semidang Aji Subdistrict has excellent commodities, they are: rice paddy and maize.

*e)* Ulu Ogan Subdistrict has excellent commodities, they are: rice paddy, soybean, peanuts, green beans, cassava and sweet potatoes.

*f)* Muara Jaya Subdistrict has excellent commodities, that is: paddy fields.

*g)* Peninjauan Subdistrict has excellent commodities, they are: paddy fields, soybean, green beans and cassava.

*h)* Sinar Peninjauan Subdistrict has excellent commodities, they are: paddy fields, peanuts, cassava and sweet potatoes.

*i)* Lubuk Raja Subdistrict has excellent commodities, they are: corn, peanuts and sweet potatoes.

*j)* Lubuk Batang Subdistrict has excellent commodities, that is: rice paddies.

*k)* East Baturaja Subdistrict has excellent commodities, they are: peanuts, green beans and cassava.

*l)* While West Baturaja Subdistrict has excellent commodities, they are: rice fields, corn, peanuts, green beans, cassava danmenunjukan sweet potato growth.

*4)* The growth of food crops subsector is based on the analysis of the shift share from 2009 to 2012 in Ogan Komering Ulu has progress.

*B. Suggestions*

Based on the analyzes described so the suggestions that can be made include:

*1)* Need further study about the potential of agricultural sector, agricultural subsector with schallogram analysis method, Provincial share, Proportional (Industrial-Mix) Shift (Sp), and Shift Differential (Sd) that is expected to generate more in-depth study.

*2)* Sector and existing commodity in each sub-district or in the District level of Ogan Komering Ulu which needs to be sustainable and strived to become more developed and advanced in the level of production.

*3)* Need specific and massive policies by the government and related parties for non-seed sector which is potential in OKU District.

## REFERENCES

[1] Arsyad, L. The Regional Economic Development Planning. First Edition. Yogyakarta: BPFE. 1999

[2] Atmaja, A.A.. The Analysis of Bokar Marketing in Batumarta II Village of OKU Regency. Agriculture Faculty of Baturaja University. Unpublished. 2006.

[3] Azhar, etc. The Analysis of Major and Non Major Sector in Nangroe Aceh Darussalam Province. Online(http://www.ekper.go.id/jurnalagribisnis. pdf.html). 2001.

[4] Bachrein S. The Procedure of Major Commodity Identified of Province. BP2TP Working Paper. Bogor. Departement of Agriculture Technology Development Bogor. 2003

[5] Budiharsono. S. Technic of Seashore Region Development. Pradnya Paramita, Jakarta. 2001.

[6] BPS OKU. The Statistic Centre of OKU Regency. Baturaja. 2011.

[7] Deperindagkop, The Research of Major Commodity of OKU Regency. Deperindagkop. OKU. 2013.

[8] Tarigan, R. Regional Economic, Aplication and Theory. Bumi Aksara. Jakarta. 2004.