

**THE ROLE OF AGRICULTURE SECTOR ON
GROSS REGIONAL DOMESTIC PRODUCTS (GRDP)
NORTH SUMATERA PROVINCE**

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Abstract

The potential of natural resources owned by each region is an economic potential that can be used in improving people's lives and regional and state revenues.

The agricultural sector is a potential sector for the economic growth of communities and regions where this sector contributes to the creation of the economy of society and regions and countries.

Based on the result of Location Quotient Method (LQ) analysis, it is known that LQ of agriculture > 1 means that agriculture sector is base economic sector in North Sumatera Province, but there is decrease every year.

North Sumatra Provincial Government must make various policies so that the agricultural sector does not continue to decline and if it continues to be left then it will eliminate the economic opportunities of the agricultural sector.

Keywords: Agricultural Sector and Gross Regional Domestic Product (GRDP).

Preliminary

Given the vastness of the Indonesian territory and followed by the vastness of its land, it makes Indonesia the world's largest agricultural country rich with its natural resources.

Indonesia is dubbed as an agrarian country and as a source of food for the livelihood of its people which is supported by the availability of vast agricultural land and plantations which, if managed properly, will bring value to the results produced by the agricultural sector.

The progress of the agricultural sector in Indonesia has experienced a peak during the leadership of President Soeharto who managed to make Indonesia as the largest rice producer in the world.

The agricultural sector is a production sector that has been given by God Almighty to the people of Indonesia because of the enormous natural wealth in Indonesia that can fulfill the lives of its people for a long period of time and must be managed properly.

The agricultural sector contributes enormously in lifting the regional and national economies where the agricultural sector contributes substantial foreign exchange to the national economy.

In addition, the agricultural sector can absorb a large workforce and most Indonesians rely on agriculture.

The growth of the agricultural sector can absorb a lot of labor so that the government is expected to participate and active in agricultural development for the future.

In the Five-Year Development Plan or Repelita I and Repelita II the government has been very correct in setting priorities for development in the agricultural sector, but in Repelita III the government is too quick to switch to the industrial sector where the agricultural sector at that time was not strong enough.

Development priorities in the agricultural sector will have an effect on the absorption of labor in the agricultural sector in anticipation of an increase in unemployment due to high birth rates and the achievement of community welfare. (Tambunan in Setya Budi, 2005).

The government should pay very serious attention to the improvement of the agricultural sector as the agricultural sector becomes the backbone of the Indonesian economy (Arifin, 2005).

In the 1998 economic crisis in Indonesia, many of the production sectors suffered devastation, but the agricultural sector is very resilient and persistent and can raise the spirit of other sectors to grow and flourish after the monetary crisis.

We can follow the example of Thailand's emerging and developing government in economic development because the agricultural sector is very strong in Thailand and can sustain Thailand's economy.

Thailand also got an economic crisis and almost all countries suffered economic crisis in 1998, but Thailand can bounce back its economy because its agriculture sector is very strong.

North Sumatera Province has a vast land area of about 71,680 km² so that it can be used in the development of business activities in North Sumatra whether agriculture, industry, trade, mining, etc.

In fact, in North Sumatra there are excellent commodities such as: palm oil, cocoa, rubber, tea, coffee, cloves, cinnamon and tobacco owned by some large plantations owned by the government, private and public.

The plantation area is located in Asahan, Simalungun, Deli Serdang, Serdang Bedagai, Langkat, Batubara, Labuhan Batu and Tapanuli Selatan and then vegetables in Karo District. North Sumatera Province has an area of 65, 51% of coastal areas and 8.64% of lowland and 24.28% highland and Lake Toba of 1.57% so this is an agricultural potential that should be empowered by the Government of North Sumatra Province.

The extent and fertility of agricultural land in North Sumatra Province is very supportive for the development of the agricultural sector so that the government should facilitate all agricultural needs such as: irrigation, agricultural technology, working capital of farmers, the availability of fertilizers and agricultural extension workers.

Then the government must also pay attention to the market for farmers and even the government should be ready to buy agricultural produce so that prices can be guaranteed by the government and not harming the farmers.

The Provincial Government of North Sumatra should also be able to allocate good land use so that existing agricultural lands are not converted into housing, industrial and trading centers that remove agricultural land.

Farmers should also be trained and given knowledge of agricultural cultivation so that farmers do not seek other jobs to the city or to other sectors and farmers can survive in rural areas because farmers can earn sustenance from farming jobs.

The agricultural sector is the leading sector in North Sumatera Province which can be seen from the contribution of the agricultural sector to the income of the people and the regional income as well as the regional economic growth.

Samuelson, 1997, says that economic growth is the expansion or increase of a potential Gross Domestic Product or output of a country's economy that is affected by four factors that cause economic growth:

1. Human resources ie labor, skills, knowledge and work discipline.
2. Natural resources are all natural resources contained in the earth.
3. Formation of capital.
4. Technological change and innovation.

Then Boediono, 1999, said that economic growth is a process of increasing per capita output in the long term.

Production sectors that exist in each region must be well managed so as to provide benefits to people's lives in the long term and can be felt in the next generation.

Formulation Of The Problem.

With regard to the background that has been explained then it can be concluded the formulation of the problem is: How the influence of the agricultural sector to Gross Regional Domestic Product (GRDP) in the Province of North Sumatera.

Research Hypothesis.

From the background and the formulation of the problem can be concluded that the research hypothesis is: there is the influence of the agricultural sector on the formation of Gross Regional Domestic Product (GRDP) in the Province of North Sumatera.

Research Purposes.

1. To find out how much influence the agricultural sector on the formation of Gross Regional Domestic Product (GRDP) of North Sumatera Province.
2. To provide input to the Provincial Government of North Sumatera to make development policies to sectors that contribute to the income and economic growth of communities and regions.

Theoretical Description

Agricultural Sector

The role of the agricultural sector can be done by increasing agricultural productivity supported by science and technology in agriculture. (Mubyarto, 1989).

The agricultural sector is a pre-eminent sector in many regions and countries because this sector has a large influence on the absorption of labor and economic growth of the people and the regions so that the government and the state must plan the empowerment of the agricultural sector in order to improve the welfare of the people.

Arsyad, 1992, says that one way to improve people's lives is to increase crop production and trade in farmers and increase the prices they receive on farm produce.

The development of the agricultural sector is aimed at the long-term development direction leading to the liberalization of international trade and investment.

Changes in the agricultural environment should be made agriculture empowerment strategy that will create superior agricultural products that are ready to compete in the domestic market and in the international market.

Daniel, 2002, says that the creation of superior agricultural products and domestic and international markets is a solid basis for the government to accelerate the reorientation of the agricultural development direction.

The agricultural sector provides a strategic role to regional economic development, among others:

1. Agriculture absorbs labor of the region where if agriculture is developed in one particular region it will create local employment opportunities in the region.
2. Agriculture meets the needs of local food where the agricultural products in the area will be able to meet local food needs and can even be exported.
3. Agriculture generates investment areas where investors will come to the region because it creates business opportunities in the region.
4. Agriculture as a social disparity regulator (disparity Regional) where there will be development in the countryside so that the development does not belong to the urban only. (Todaro, 2000).

Gross Regional Domestic Product (GRDP)

Local and state governments continue to plan for improved regional and state economies, but governments should pay attention to development priorities where the government's inability to build the region as a whole is caused by limited funds.

One of the foundations for the government to develop regions and countries is to look at the magnitude of Gross Regional Domestic Product (GRDP) and National Domestic Product as it will show the magnitude of each sector that contributes to the economic growth of regions and countries.

According to Black, 2008, said that Gross Regional Domestic Product (GDP) is an indicator to measure the extent of government success to utilize existing resources and can be used as planning and decision making.

Then Tarigan, 2007, explained that the Gross Regional Domestic Product is the level of income of the people in the region where the regional income level can be measured from the total income of the region or the average income of the community in the area.

Economic Sector

Each region is not the same economic potential and the difference occurs because it has been created since this world is created by God Almighty.

To see each region about the sectors-production sectors that exist in the area is the Gross Regional Domestic Product (PDRB) where in it has been explained about how big the contribution of each sector to the formation of regional economy.

Glasson, 1997, says that the base sector is an activity that exports goods and services to places outside the boundaries of the economy of the people concerned or that markets goods and services to people coming from outside the boundaries of the economy of the people concerned, while non-activities basis is an activity that provides the goods needed by persons residing within the boundaries of the economy of the people concerned.

This is similar to the opinion of Saharuddin, 2005, which says that the base sector is a sector that has great potential in overall development in the region, while the non-base sector is the sector supporting the economy in the region.

The sector that contributes most to the creation of the regional economy is called the base sector and the less contributing is called the non-base sector.

Previous Research

1. Jui Rompas, Deisy Engka, Krest Tolosang, 2015, said that the agricultural sector in South Minahasa Regency has a positive effect on the absorption of labor with large R^2 is 0.225 or 22.5%.
2. A. Baroroh, A. Hanim, R., N., Wilantari, 2015, said the results of his research that based on the calculation of input-output analysis method that direct economic linkage in Jember Regency is agricultural sector with coefficient value of 0.360470842 from livestock sub-sector, 0.308378746 foodstuff sub-sector, 2.392460826 fishery sub-sector, and 0.0111855515 forestry sub-sector.

3. Daryono Soebagiyo, Arifin Sri Hascaryo, 2015, said that the agricultural sector in Wonogiri regency provides strength to the economy of Wonogiri Regency and is the leading sector where the results of the research value $LQ > 1$ ie 2007 LQ is 1.909, in 2008 the value of LQ is 1.954, year 2009 the value of LQ is 1.895, in 2010 the value of LQ is 2.119 and in 2011 the value of LQ is 2.050.

Research methods

Research sites

In this research which is used as research object is North Sumatera Provincial Government.

Data Type

The data used in this research is quantitative data that is Gross Regional Domestic Product (PDRB) of North Sumatera Province and National Domestic Product (NDP) Indonesia Year 2012-2014.

Data Source

Sources of data were collected from various sources ie from magazines, newspapers and from the Central Bureau of Statistics (BPS) of North Sumatra and Central.

TABLE 1
DATA GRDP PROVINCE NORTH SUMATERA AND PDN INDONESIA
YEAR 2012-2014

NO	YEAR	GRDP AGRICULTURE SECTOR OF NORTH SUMATERA	TOTAL GRDP NORTH SUMATERA	NDP AGRICULTURE SECTOR INDONESIA	TOTAL NDP INDONESIA
1.	2012	103.933.11	417.120.44	1.193.452.9	8.230.925.9
2.	2013	115.194.75	470.221.98	1.310.427.3	9.087.276.5
3.	2014	121.435.44	523.771.57	1.446.722.3	10.094.928.9

**Sumber : Central Bureau Of Statistic Of North Sumatera Province And
Central, 2012-2014.**

Data analysis

The data will be analyzed by using Location Quotient (LQ) method using the following formula:

$$LQ = \frac{X_i \text{ GRDPNS} / \text{TGRDNS}}{X_i \text{ NDP} / \text{TNDP}}$$

Where :

LQ = Location Quotient

$X_i \text{ GRDPNS}$ = Added Value of Agriculture Sector at GRDP of North Sumatera.

TGRDPNS = Total GRDP of North Sumatera.

$X_i \text{ NDP}$ = Value Added Agricultural Sector In Indonesian NDP

TNDP = Total Indonesian NDP

By using the formula Location Quotient (LQ) then there will be value in accordance with the criteria Location Quotient namely:

1. $LQ > 1$ means that the value of the agricultural sector in North Sumatra Province is greater than the value of the agricultural sector in Indonesia, the agricultural sector in the Province of North Sumatra called the base sector and the agricultural sector can export.
2. $LQ = 1$ means that the value of the agricultural sector in North Sumatra Province is equal to the value of the agricultural sector in Indonesia, the agricultural sector in North Sumatra Province can only meet the needs of the province of North Sumatra.
3. $LQ < 1$ means that the value of agricultural sector in North Sumatera Province is smaller than the agricultural sector in Indonesia, the agricultural sector in North Sumatra Province is called non-base sector and the need of agriculture sector in North Sumatera Province must be imported from outside the region or country.

Discussion

To see which sector is the base and non base sector, Location Location Quotient (LQ) method for Gross Regional Domestic Product (PDRB) of North Sumatra Province 2012-2014 and National Domestic Product of 2012-2014 is applied.

But there are also disadvantages of the Location Quotient (LQ) method because the LQ method is static and can not predict the growth of regional or state economy in the future.

One method that can be used to see the development of regional or state economy in the future is used Method of Dinamic Location Quotient (DLQ).

Based on the data in Table 1, it can be seen the result of calculation of Location Quotient (LQ) on agriculture sector of Gross Regional Domestic Product (PDRB) of North Sumatera Province and National Domestic Product (PDNB) of Indonesia in 2012-2014 as follows:

TABLE 2
RESULT OF LOCATION QUOTIENT (LQ) SECTOR OF AGRICULTURE

NO	YEAR	LOCATION QUOTIENT (LQ) AGRICULTURE SECTOR
1.	2012	1.8
2.	2013	1.7
3.	2014	1.6

Sumber : Processed Data.

By calculating Location Quotient (LQ) method for Gross Regional Domestic Product (GRDP) of North Sumatera Province and National Domestic Product (NDP) of Indonesia in 2012-2014 there is LQ of Agriculture Sector > 1 in 2012 of 1.8, 2013 1.7 and the year 2014 is 1.6.

If you look at the results of calculations LQ 2012-2014 there is a decrease where this is caused by several things:

1. The shifting of community employment from agriculture to other sectors.
2. Lack of government attention to the agricultural sector.
3. The transfer of land use from the agricultural sector to housing, industry, trade, etc.
4. Lack of agricultural facilities and infrastructure.
5. Lack of farmers' capital and knowledge.

Conclusion

Based on the calculation of Location Quotient (LQ) in 2012-2014 on Gross Regional Domestic Product (GRDP) of North Sumatera Province and National Domestic Product (NDP) of Indonesia it is known that LQ of agricultural sector > 1 , but there is decreasing every year.

Suggestion

With the value of LQ is reduced every year, it is doubtful agricultural sector will continue to decline if the government of North Sumatera Province does not anticipate the decline, therefore the government of North Sumatera Province must do several things:

1. The Government of North Sumatera Province shall supervise the transfer of land use.
2. The Government of the Province of North Sumatera should improve the knowledge of farmers and the infrastructure needed by farmers.

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