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# Influence of Post-paid Subsidized Fertilizer Policy in Increasing Farmers Income in North Tapanuli Regency

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Abstract: The Government of North Tapanuli Regency in cooperation with the North Tapanuli Agriculture Company to distribute postpaid subsidized fertilizer subsidy to the farmer group community. The objective of the North Tapanuli Regent's program policy of granting and distributing post-paid subsidized fertilizer is done as a step to assist and release the farmers from the shackles of middlemen who lend to the farmers who can impoverish farmers. In addition to assisting farmers in capital and avoiding grip of middlemen, this new breakthrough is also done as well as one of the efforts to realize North Tapanuli Regency as a food barn area. The research was conducted in North Tapanuli Regency on the Influence of Postpaid Subsidized Fertilizer Policy Paid to Increase Farmers Income. The method of analysis used in this research is descriptive analysis and variance test analysis. The result of the research shows that the implementation of postpaid subsidized fertilizer policy shows the overall result of four indicators that determine the effectiveness of fertilizer subsidy policy obtained from 100 respondents who become the sample of this research. The mean of the four suitable and unsuitable indicators are respectively 90.00% and 10.00%. From the results of the overall percentage of indicators it can be seen that the suitable percentage stated is greater than the unsuitable one. In addition, the percentage of suitable is also greater than 80 percent so fertilizer subsidy policy is said to be effective. The policy of postpaid subsidized fertilizer gives a positive influence on rice production in North Tapanuli Regency.

Keywords: Postpaid Subsidized Fertilizer, Production, Income.

#### 1. INTRODUCTION

Agriculture in the 21st century Indonesia should be viewed as a sector tailored to an economy parallel to other sectors. This sector should no longer only serve as auxiliary actor let alone extras for national development as long as it is treated, but must be a leading actor parallel to the industrial sector, therefore the agricultural sector should be a modern sector, efficient and competitive, and should not be viewed only as a safety valve to accommodate abundant uneducated labor or cheap food providers in order that the industrial sector can compete with relying only on low wages (Napitupulu, 2007).

Munandar (2001), explained that the agricultural sector is considered to have an important role in the provision of employment, food supply, income of foreign exchange through export and so on. The agricultural sector plays a major role for the industrial sector due to being a raw material supplier. To support the role of the agricultural sector in the development of the region is required agriculture resource empowerment. Agricultural resources consist of four pillars, namely: farmers, officers / structural officials, functional officials and stakeholders.

Agricultural sector in Indonesia has not been considered as a sector that can provide high profit because the production often experience price fluctuations. Failed harvest is often experienced by farmers due to natural disasters and drought so



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that the farmers assume will be more profitable if the agricultural land used as industrial land. The amount of expenditure that is still small can also cause incentives for farmers to survive in the agricultural sector so that there will be industrialization of changes from primary to secondary sectors.

The central government is viewed in terms of funding has not been well targeted in allocating the budget and has not succeeded in determining the priority scale in order to alleviate poverty. Indonesia is an agrarian country but government budget for agriculture sector is very small, including in terms of subsidies for agriculture sector, where the majority of Indonesian people are poor farmers.

The agricultural sector of North Tapanuli Regency provides about 48 percent by 2015 in the formation of Gross Regional Domestic Product (GRDP). The size of the contribution of this agricultural sector should have a positive impact on improving the welfare of farmers in North Tapanuli Regency. In addition, the agricultural sector encourages the development of other economic sectors.

The agricultural sector is grouped into several sub-sectors, namely food crops sub-sector, plantation, livestock, fishery and forestry sub-sector. Sub sectors covering these food crops include rice / crops and horticulture. A total of 272,587 residents or 61,256 families in North Tapanuli regency have 54,316 families or 88.67 percent who work in the agricultural sector (Lumban Tobing, 2011). Agricultural potential and the number of people working in the agricultural sector, but still constrained by capital which consequently will affect the income of farmers, the Regent Government of North Tapanuli issued a policy of postpaid subsidized fertilizer program

The Government of North Tapanuli Regency in cooperation with the North Tapanuli Agricultural Company to distribute postpaid subsidized fertilizer to the farmers' group, which is set forth in the Regional Regulation of North Tapanuli Regency number 05 of 2015 on Government Equity Participation to North Tapanuli Regency Agricultural Enterprise and Decision of Regent of Tapanuli Number 372 Year 2016 regarding Stipulation of Income and Amount of Additional Capital paid to Regional Company owned by North Tapanuli Regency Government in 2016.

The objective of the North Tapanuli Regent's policy of granting and distributing postpaid subsidized fertilizer is to assist and release the farmers from the shackles of middlemen who lend to the sijon system (borrowed with crops) to farmers to impoverish farmers. In addition to assisting farmers in capital and avoiding grip of middlemen, this new breakthrough is also done as well as one of the efforts to realize North Tapanuli regency as a food barn area.

### The Role of Government in Agricultural Development Policy:

According to Todaro (2000) development is an ongoing (continuous) process of improvement in a society or a social system as a whole to achieve a better life. And one of the basic components as a basis for development is food as a basic human need physically. Achieving national food security is a strategic and urgent program of a country. To that end, the Government has a great responsibility in formulating strategies, programs, and work plans to achieve national food security.

Mubyarto (1989) reveals that agricultural policy is part of economic policy concerning the interests of the agricultural sector. Agricultural policy is a series of actions that have been and will be implemented by the Government to achieve certain goals. The general objective of Indonesia's agricultural policy is to promote agriculture, to make agriculture more productive and increase production efficiency so that the farmers' livelihood is improved.

Governments have power over natural resources, policies, and capital resources that can be used to carry out development. The role of the Government can be classified into four types (Dumairy 1999), namely:

- a. The role of allocation is the role of the Government in allocating existing economic resources for optimal utilization and supporting production efficiency. Governments should plan regulations and regulate the use of existing economic resources to be efficiently allocated.
- b. The distributive role is the Government's role in equitable distribution of resources, opportunities and economic outcomes. Ownership of resources and economic opportunities are often unequal, both between the territories of the country concerned and among the existing economic sectors. Similarly, the trend in the distribution of revenue.



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- c. The role of stabilitative is the role of the Government in maintaining economic stability and its recovery when in the state of disequilibrium.
- d. The dynamic role is the role of the Government in moving the process of economic development in order to develop faster. This role is manifested in the pioneering form of certain economic activities.

The optimization of the implementation of the four roles of the Government is crucial to the economic success of a country. Therefore, the accuracy of government policy making in implementing these four key roles is very important in the implementation of development.

Rindayati et al. (2007) states that the Government has 15% - 20% control over gross domestic product (GDP), and one of the Government instruments to raise GDP is by issuing fiscal policy in the form of additional government spending and tax regulation. In the agricultural sector of food crops, the increase in government spending is intended to increase the economic growth of the agricultural sector through efforts to increase food production and income of farmers.

#### Fertilizer:

Fertilizer is one of the most important elements in increasing soil fertility because it contains the chemical composition required by plant growth (R & D 2002). The role of fertilizer is so important in the growth of plants to make the Government take the policy of subsidized fertilizer. Kapindo (2011) stated that the procurement of subsidized fertilizer will improve the efficiency of farming business, which implies increased land use and the use of seeds that synergistically affect the increase of agricultural production. Then, increasing production at subsidized costs and stable output prices leads to increased farmer incomes. Both of these will affect aspects of availability and accessibility, so that will affect the status of food security.

#### **Income:**

According to Gilarso (1992), income is defined as the form of repayment earned as a reward or compensation for a person's contribution to the production process. Types of sources of income may come from: (a) self-employment (self-employed, eg trading, working in the rice fields); (b) work for others, such as working in an office or company as an employee or employee (whether private or government); (c) the proceeds of the possession, for example having a leased rice field, owning a leased house, having money lent at a certain interest.

Earnings may be received in the form of money, may also be in the form of goods (eg rice allowances, yields from rice paddies or own yards), or facilities (eg official houses, free medical treatment / health), other than income derived from pensions for those already elderly and used to work with government or other agencies; donations or gifts, such as support from relatives, inheritance, savings gifts, loans, this is indeed an income, but at some point will have to be paid / refunded.

An interregional revenue model representing a change in regional income may come from several possible sources, no longer solely derived from exogenously determined export changes. These sources include (a) changes in regional autonomous expenditures (eg investment, government spending); (b) a change in the income level of another region (or regions) within the relevant system to be seen in the change of regional exports; (c) the change in either of the model parameters (marginal consumption desire, irregular trade coefficient or marginal tax rate) (Richardson, 2001).

It is important to know that if the goal is to maximize national income, then the optimal distribution of expenditure is not dependent on the values of the interregional trade coefficients. If the objectives to be achieved are more complex, eg changes in the distribution of income desired for some (or all), then the value of the marginal import desire becomes relevant (Engerman, 1965 in Richardson, 2001).

Equitable income, as a target is a difficult problem to achieve, but the lack of gaps is one of the benchmarks of development success. A good enough indicator to measure the level of income distribution is the distribution of income among the population (income group).

Community income is highly dependent on business field, job title, general education level, productivity, business prospect, capital and others. These factors are the cause of differences in income levels of the population.



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#### **Implementation of Public Policy:**

In policy studies, the policy process will initiate the stages of planning and policy-setting, and then after the policy is set, the policy must be well implemented and in the next stage by evaluating to see how this policy can or does not meet its goals and objectives. In this study, the emphasis is on Policy Implementation that is Impelmentation of Regent of TNorth Tapanuli Policy in giving subsidy to farmer society. As explained by previous data, the people of Tapanuli Utara are generally farmers, in which case their living conditions are still in a situation that desperately needs empowerment. This fertilizer subsidy policy would, of course, be an alternative to a populist solution to help farmers in need of capital subsidies in this case fertilizer to be paid after harvest. The existence of pameo in the policy study that success in performing a policy stages in this case successfully design a policy that can help people solve their problems in a form of policy is not a guarantee of success at the implementation stage (Implementation). And if this policy is not done well, it is certainly a meaningless policy that has been designed to be established with many sacrifices of time, money and others. Therefore, a good policy that must be the basis of its implementation should be prepared in such a way as to give results and even improve the welfare of the people in terms of policy is said not only to "out put" but to: out come "policy to the public.

The draft of public policy implementation planning in this study will certainly be the core or the focus of attention: how this policy is done so that the policy does not deviate from the intent and purpose. Therefore the function of planning also needs to be applied in this implementation, hence can see forward how strategy, who target group (amount) and target to be intervened, schedule, how to control, how financial administration, how the process of administration, responsibility, controlling and other -other should be designed in such a way. In this implementation study a Public Policy Graduate George Edward III stated, it is important to understand what the preconditions or preconditions for success or failure of policy implementation are. The prerequisite refers to the agriculture management of both internal and external communications, to communicate with the community, especially to the target group, in this case the beneficiary farmer or subsidy, the second is how to design and manage the resources in order to give maximum results, how the rules distribution and do not deviate from the rules of existing regulations. Then the third is about attitude behavior. In this case attitude behavior especially than apparatus executor. The attitude of service behavior should be developed, always trying to make it easier instead of making it difficult to help the target group in terms of difficulties encountered and that is not less important is the fourth factor is the administrative bureaucracy. In this case it should be clear who is responsible for what is the procedure and minimum standard of service, not convoluted but responsive how the service can run well. In the implementation of the policy of these four factors must synergize with each other so as to have a positive effect on the implementation of the relevant policy, namely fertilizer subsidy policy. The fertilizer subsidy with the existing condition of North Tapanuli as agriculture area, and the farming community that need the touch of government especially one in terms of capital or fertilizer subsidy, will be very helpful and at the same time can explore the potential of agriculture owned and ultimately can improve the welfare of the community.

#### **Statement of the problem:**

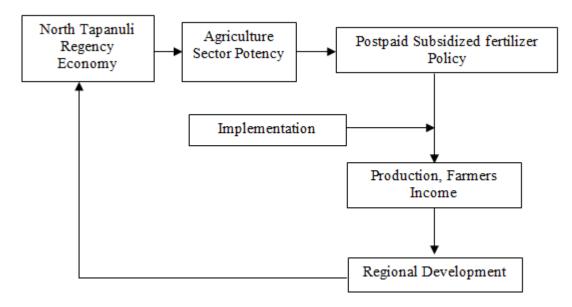
To facilitate the implementation of research, the influence of postpaid fertilizer program policy in increasing the income of paddy farmers is done by preparing a concept of thinking. The basic concepts and origins of the research are based on the experiences of young writers who observed and experienced troublesome situations and circumstances, due to the large number of bonding practices by middlemen who offer fertilizer with quality, unfavorable types and unsuitable prices, as well as when the harvest will buy the farmer's agricultural production at the price of his own. This research is focused on rice plants, this is in harmony with Vision, Mission of North Tapanuli Regency, and dominantly is farmer of paddy plant, and also there is wide rice farm land in North Tapanuli Regency.

The concept of thinking illustrates the potential of the rice sector in the development of North Tapanuli Regency. Efforts to accelerate the increase of agricultural production are implemented through the postpaid fertilizer program policy in the hope that farmers who are difficult to obtain fertilizer due to limited capital, the location of paddy farm far from the subdistrict capital, the lack of agricultural knowledge can be helped, so that farmers' production can increase for each hectare. Increased production of paddy farming in a linear manner will increase the income of farmers. While increasing the farmers as a whole will spur the increase in economic activities of the community, which in the end will be achieved regional development. The description of the concept of thinking above can be seen in the following figure:



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#### RESEARCH FRAMEWORK



### **Hypothesis:**

The hypothesis in this study is:

- 1. The policy of postpaid subsidized fertilizer significantly affect the production of farmers in North Tapanuli regency.
- 2. The policy of postpaid subsidized fertilizer has significant effect to the increase of paddy farmer income.

## **Research Question:**

Based on the above background, then the issues to be studied:

- 1. How is the implementation of postpaid subsidized fertilizer in North Tapanuli regency?
- 2. How is the effect of postpaid subsidized fertilizer policy on increasing the production of farmers in paten Tapanuli Utara?
- 3. How is the effect of postpaid subsidized fertilizer policy on increasing income of farmers in North Tapanuli regency?

## Research purposes:

Based on the formulation of the above problem, the purpose of this study can be determined as follows:

- 1. To analyze the implementation of postpaid subsidized fertilizer policy in North Tapanuli regency.
- 2. To analyze the effect of subsidized postpaid subsidized fertilizer policy on increasing the production of farmers in Kabupaten Tapanuli Utara.
- 3. To analyze the effect of postpaid subsidized fertilizer on increasing income of farmers in North Tapanuli regency.

#### 2. MATERIALS AND METHODS

#### **Population and Sample**

The population in this study is the entire Household (RT) in North Tapanuli Regency, which based on data from the Central Bureau of Statistics 2016 there are 67,805 households. Sampling is done by probability sampling, a sampling technique that gives equal opportunity for each element (member) of the population to be selected as a sample member (Sangadji and Sopiah, 2010).



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Furthermore, by using Slovin formula then obtained the number of samples as much as 99.85 people and rounded up to 100 respondents. The details are as follows:

$$\mathbf{n} = \frac{\mathbf{N}}{1 + \mathbf{N}\mathbf{d}^2} = \frac{67.805}{1 + (67.805 \times 0.01)} = 67805/679.05 = 99.85$$

$$= 100 \text{ responden}$$

Where:

n = Sampel

N = Population

d = Precession (10%) = 0.1

The sample of respondents was taken proportionally in each sub-district.

#### Data analysis:

- 1. To analyze the formulation of the first problem, the implementation of postpaid subsidized fertilizer, using descriptive analysis.
- 2. To analyze the formulation of the second problem, the effect of postpaid subsidized fertilizer on farmer production, using the analysis of mean variance test for paired samples test t test, the formula used is:

$$t = \frac{\bar{x}_{1,i} - \bar{x}_{2i}}{\sqrt{S^2 p \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

Where:

t = variance test

 $x_{1,1}$  = The mean production of farmers before obtaining postpaid subsidized fertilizer policy in 2014

 $\chi_{2,1}$  = The mean production of farmers before obtaining postpaid subsidized fertilizer policy in 2015

 $n_1$  = Number of respondents before postpaid subsidized fertilizer

n<sub>2</sub> = Number of respondents after postpaid subsidized fertilizer

 $s^2p$  = Standard deviation pairwise

The criteria of decision making in the mean difference test for paired samples test t test, comparing the t<sub>value</sub> with t<sub>distribution</sub>:

Ho accepted if  $t_{value} < t_{distribution}$   $\alpha = 5\%$ 

Ho ditolak (H<sub>a</sub> diterima) jika  $t_{value} > t_{distribution}$   $\alpha = 5\%$ 

3. To analyze the formulation of the third problem is the influence of postpaid subsidized fertilizer policy to increase the income of farmers in North Tapanuli regency by using the analysis of mean difference test for paired samples t test, the formula used is:

$$t = \frac{\bar{x}_{1,i} - \bar{x}_{2i}}{\sqrt{S^2 p \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

Where:

t = variance test



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 $x_{1,1}$  = The mean income of farmers before obtaining postpaid subsidized fertilizer policy in 2014

 $x_{2,1}$  = The mean income of farmers before obtaining postpaid subsidized fertilizer policy in 2015

n<sub>1</sub> = Number of respondents before postpaid subsidized fertilizer policy

n<sub>2</sub> = Number of respondents after postpaid subsidized fertilizer policy

 $s^2p$  = Standard deviation pairwise

The criteria of decision making in the mean difference test for paired samples test t test, comparing the t<sub>value</sub> with t<sub>distirbution</sub>:

Ho accepted if  $t_{value} < t_{distribution}$   $\alpha = 5\%$ 

Ho ditolak (H<sub>a</sub> accepted) if  $t_{value} > t_{distribution} \alpha = 5\%$ 

#### 4. RESULT AND DISCUSSION

#### The Influence of Postpaid Subsidized Fertilizer on Rice Production:

To be able to analyze the impact of postpaid subsidized fertilizer on rice production, such as has been formulated in the framework of concept / research thinking that postpaid subsidized fertilizer has a positive impact on rice production. To examine the impact of postpaid subsidized fertilizer on rice production is to compare the production of rice crops in two different circumstances, after and before postpaid subsidized fertilizer. So it can be concluded that it has an impact on the production of rice crops.

To know the difference of production of rice plant is done by using data analysis of rice production in 2014 and 2015. Based on result of data processing by using SPSS software obtained test result as in table I following:

Description Value (ton) t-statistic Sign Rice production 4,266 32,965 0,000 (Before) **Tahun 2014** Rice production 4,932 (After) **Tahun 2015** Difference 0,666

Table I: Results of Calculation of Rice Production Before and After postpaid subsidized fertilizer

Source: Primary data processed, 2016

Based on Table I, it can be seen that overall rice production after and before postpaid subsidized fertilizer shows a difference. To prove the hypothesis above, using two paired sample analysis and paired sample statistic, it is known that the mean value of rice production after postpaid subsidized fertilizer is 4,932 tons / planting season and mean value of rice production before and after is 4,266 tons / planting season. These results indicate a difference of 666 tons / planting season. This situation is in line with the results of Prabha et al's (2010) study which concludes that fertilizer has an effect on the increase of production with 1% increase of fertilizer budget will increase productivity 0,236%. This situation is in line with the results of research Rahmatullah Rizieg (2010) which concluded that fertilizer subsidy policy will increase the exchange rate of farmers through increased production. Farmers who have land above 1 ha have a big impact.

Using two paired sample analysis, it is important to know whether there is any difference of mean rice production after and before the program is executed with significance level of 0.05. So from the output table SPSS analysis obtained value t arithmetic is 32.965 and sign 0.000. Price t table ( $n = 100, \alpha.0,05$ ) = 1,660, then t arithmetic> t table then it can be concluded that Ho rejected or there is a significant difference production of farmers before and after the program is done. The conclusion of the result of two paired samples shows that Ho is rejected or this hypothesis (Ha) is accepted that there is difference of mean rice production after and before program. From the calculation of SPSS, the mean production of rice plants after the program becomes higher.



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Research conducted by Kaur and Shama (2012) which says that in India, fertilizer subsidy is a development subsidy that causes increased use of fertilizers and increased production. This means that postpaid subsidized fertilizer in North Tapanuli regency has a positive effect on increasing rice production.

The current increase in rice production in North Tapanuli Utara is managed and processed by the community as a form of staple food, but only small rice farming communities manage rice into food forms such as lappet, ombus-ombus, lemang, tipa, sasagun, and diamond cakes. However, due to the limited skills and capital, these small snacks are still traditionally managed, the packaging is less attractive, tasteful, not durable and only meet the needs of the local market, so it takes expertise to manage it so that rice production has added value to the concept of creative economy.

#### The Influence of Postpaid Subsidized Fertilizer on Farmers' Income:

To be able to analyze the effect of postpaid subsidized fertilizer to farmers income then to test the effect of the program on farmer's income is to compare farmer's income in two different circumstances, after and before postpaid subsidized fertilizer program. So it can be deduced a temporary conclusion that postpaid subsidized fertilizer has a real effect on farmer income if there is a difference in mean income.

Testing is done by using farmer income data in 2014 and 2015. Based on the data processing using SPSS software obtained the test results as in table II.

Description Value (ton) t-value Sign Income 18.469.400 14,750 0,000 (Before) **Tahun 2014** Income 21.346.000 (After) Tahun 2015 Difference 2.876.600

Table II: Farmers Income before and after Postpaid Subsidized Fertilizer program

Source: Primary data processed, 2016

The result of table II shows that the income of farmers as a whole after and before the program showed a difference. To test the hypothesis using two paired sample analysis and paired sample statistic, it is known that the mean value of farmer's income after postpaid subsidized fertilizer is 18,469,400 rupiahs / planting season and the mean value of previous farmer's income is 21,346,000 rupiahs / planting season. These results indicate a difference of 2.876,600 rupiahs / planting season. This is in line with research Dewi Ratna Sari (2005) states that the decline in land productivity, among others, due to higher fertilizer prices, will suppress the national food productivity. The elimination of subsidized fertilizer prices directly provides an increase in the cost of production costs large enough for farmers so they do not want to buy fertilizer. Farmers 'actions will reduce production in general and reduce farmers' income.

A paired sample analysis is used to determine whether there is a difference in the mean income of farmers after and before the program with a significance level of 0.05. So from the output table SPSS analysis obtained t  $_{value}$  is 14.750 and sign 0.000. Price t  $_{statistic}$  (n = 100,  $\alpha$ .0.05) = 1.660, then  $t_{value} > t_{statistic}$  then it can be concluded that Ho rejected or there is significant difference of income before and after program. The conclusion of the two paired sample test results shows that  $H_o$  is rejected or this hypothesis ( $H_a$ ) is accepted. Can also be known from the calculation of SPSS that the mean income of farmers after the program is greater than before the program. This means that postpaid subsidized fertilizer in North Tapanuli regency has a positive effect on increasing farmers' income.

The overall economic review of North Tapanuli regency is based on business field, hence Agriculture, Forestry, and Fisheries contributed the most in 2015 (47.61 percent), in detail contributed by agriculture, Livestock, Hunting and Agricultural Services sub-categories as 41.95 percent, Fishery by 0.45 percent and Forestry and Logging of 5.21 percent (Central Bureau of Statistics of Tapanuli Utara Regency, 2016).

Similarly, the Gross Regional Domestic Product (PDRB) per capita of North Tapanuli Regency based on the prevailing price in 2011 was 14.83 million rupiah and increased up to 19.86 million rupiah in 2015. Based on the prevailing price and



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constant price, from year to year showed an increase. Meanwhile, if viewed based on constant 2010 prices, ie by eliminating the influence of price increases (inflation), then in the period 2011-2015 there is a relatively stable increase. In 2015, the GRDP per capita of North Tapanuli Regency at constant prices reaches 16,590 million rupiah, while in 2014 the per capita GRDP of 18,509 million rupiahs, there is an increase of 1,919 million. GRDP per capita of North Tapanuli Regency based on price in 2014 is 15,971 millions rupiah compared to GRDP per capita of North Tapanuli Regency based on price in 2015 which increased by 3,889 millions.

The effect of postpaid subsidized fertilizer program policy which is able to increase the production of rice production in 2014 is 138,519.05 tons and in 2015, 148,135.22 tons, there is an increase of 9,616.17 tons, and mean production of 2014, 57.24 quintals/ha and mean production of 2015 of 58.54 quintals/ha.

Increased production and mean production of agricultural crops in linear increases farmers' income linearly, mean income in 2014 as 18,469,400 rupiahs - to 21,346,000 by 2015. This is also reflected in the increase of GDP per capita North Tapanuli regency at current prices increased by 3,889 million.

The success of postpaid subsidized fertilizer policy in Kabupaten Tapanuli Utara that has been able to increase rice production has not been intensively promoted to the farming community, so it needs technical thinking and promotional methods so that the activities can be a memorable brand such as words or labels "Eme Son" derived from Eme (paddy) and Son (Son) so that "Eme Son" can be interpreted by Son of Rice or region as managing rice plants to raise their children, by mentioning "Eme Son" people will know the post subsidized fertilizers policy is able to eliminate the Ijon (debt), and meet the six precise conditions of agriculture such as, fit and proper price, place, time, quantity, quality and type.

Postpaid subsidized fertilizer policy of North Tapanuli regency government has succeeded in increasing rice production, as well as increasing the mean production per hectare of planting area, as well as making other breakthroughs such as managing other agricultura productions such as red pepper, through chill auction market which will guarantee the price of chili more secure, the auction is managed and controlled by the agricultural company. An auction market needs to be followed for other agricultural products such as onions, vegetable ingredients. The local government has also provided farming equipment using machinery, but it still needs to be controlled by the supply and availability of superior seeds and other tools that support the improvement of agricultural sector activities.

Increased production of crops affected by postpaid subsidized fertilizer policy has also been implemented by the Vietnamese government with almost the same program as taking land reform steps mainly along the Mekong River. With this step, Vietnam is now the largest cashew nut producer in the world with a market share of about 1/3 of the world's needs. Most Mekong River rice traders have the advantage of using their own boats (cheap transportation) or using transportation services from private transportation bailouts of local cooperative funds. Policies undertaken by the Vietnamese government implement measures to increase agricultural production, especially rice crops by preparing rice market performance in Vietnam, which is dominated by consumer tastes and distribution channels.

The increase of GRDP per capita of Tapanuli Utara Regency based on current price gives an overview of the improvement of economic activity becoming one of the pillars of regional development. This is in line with Riyadi's (2002) study, which concludes that regional development is an effort to spur socio-economic development, reduce regional disparities, and preserve the environment, as well as Tarigan Robinson's (2004) opinion that regional development can measured by several parameters, among others, the increase of public income, employment increase, income distribution. In accordance with the results of research that postpaid subsidized fertilizer gives a real effect on the production and increase in farmers' income that spur the development of economic sector, which ultimately can increase the development of North Tapanuli regency.

## 5. RESULTS

Implementation of postpaid subsidized fertilizer policy with the six precise conditions of agriculture such as, fit and proper price, place, time, quantity, quality and type are a very good category, which is indicated from the dominance of farmers who argue that the four indicators with the right category. As well as the hope of farmers to the policy of postpaid subsidized fertilizer can be further improved.



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Postpaid subsidized fertilizer policy has a significant effect on rice production in North Tapanuli regency, as indicated by the increase in mean rice production after and before postpaid subsidized fertilizer program, as well as an increase in rice production. The policy of postpaid subsidized fertilizer gives a real effect in increasing the farmer's mean income in North Tapanuli Regency.

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