



## GREEN ECONOMY : AGRICULTURAL SECTOR VALUATION TO CREATE FOOD SECURITY IN JAKARTA CITY IN SHARIA PERSPECTIVE

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### ABSTRACT

*The agricultural sector is one of the most important sectors for a region, because this sector will support the provision of food, so that the region creates food security. Preservation of the environment with a perspective based on Maqashid al-Shari'ah in order to achieve benefit in the world and the hereafter. This study will analyze the green economy valuation of the agricultural sector so that it can determine the food needs in Jakarta, and provide solutions so that Jakarta can become a city that has food security for its citizens. The results of this study showed that the value of the degradation of food needs in Jakarta in 2019 was Rp. 15,902,260 and in 2020 it was Rp. 16,182,279. So that the value of green GDP in 2019 will be minus 14,504,043 and in 2020 it will be minus 14,781,212. The urban farming program is one of the best solutions in overcoming this food security problem, by utilizing vacant land around the house yard. With urban farming, the people of Jakarta are assisted in basic needs.*

**Keywords:** *Green GDP, Degradation, Food Security*

## INTRODUCTION

The concept of sustainable development is currently getting attention from various parties. The population density factor is an important factor that demands the availability of sufficient natural resources, this is the main problem that must be found an effective and efficient solution. Sustainable development is the integration between the economy and the environment as a human effort to improve the quality of life. Economic development based on natural resources that does not pay attention to aspects of environmental sustainability will ultimately have a negative impact on the environment itself. Basically, natural resources and the environment have a limited carrying capacity. In other words, economic development that does not pay attention to the capacity of natural resources and the environment will cause development problems in the future [1].

To overcome the weakness of conventional economic growth, a green growth strategy is needed. The green growth strategy focuses on strengthening the positive trade-offs of economic and environmental policy aspects. Green growth takes into account the total value of natural capital as a factor of production and its important role in growth. Green growth also focuses on finding cost-effective ways to reduce pressure on the environment so that the transition to new growth patterns that can be created does not exceed the carrying capacity of the environment. In green growth, innovation plays an important role, because the depletion of natural resources at some point will have a negative impact on growth. Innovation can play a role in creating substitutions for depleted natural resources to support growth. A green growth strategy recognizes that measuring economic progress must take into account the contribution of natural resource assets to the well-being, health and prosperity of humankind. Measurement of economic progress also concerns the quality and composition of growth as well as the impact of growth on human welfare[2].

The agricultural sector is one of the most important sectors for a region, because this sector will support the provision of food, so that the region creates food security. Likewise in Jakarta, which is one of the largest cities in the world, with an area of 664.01 km, has a population density of 15,900/km and it is projected that in 2035 the population will reach 11,459,600 people. This additional population will certainly cause problems if it is not anticipated from now on, one of which is the food problem. To meet the needs of the population of Jakarta, food production must increase by at least 70% in the next 35 years. Increasing food production that much is difficult. Especially at this time, the amount of land used for agriculture and plantations is decreasing. Not to mention the problem of pollution which reduces soil fertility, thus increasing the difficulty of producing food crops. Although not easy, efforts to increase food production are not impossible.

From the explanation above, it is necessary to analyze the green economy valuation of the agricultural sector so that it can find out the food needs in Jakarta, as well as provide solutions so that Jakarta can become a city that has food security for its citizens. The green economy formulation clearly shows a strong will to protect the environment (environment) associated with the concept of conservation and restoration of the environment that is blessed, which is expected to be an alternative for "conservation" and "restoration" efforts to preserve the environment with a perspective based on Maqashid al-syari 'ah in order to achieve benefit in this world and the hereafter. Another perspective, namely sharia economics, at the same time emphasizes the importance of a religious approach, including its legal products.

## LITERATURE REVIEW

### a. Green Economy

Green Economy is a tool that is expected to be able to provide three outputs, namely: 1) the existence of new sources of income and employment; 2) lower carbon emissions, reduce the use of natural resources, and reduce the increase in pollution and waste; and 3) contribute to broader social goals through the implementation of sustainable development, social equality, and poverty reduction, although these social goals sometimes do not happen automatically. However, these social goals require specific institutional policies and must be attached to green economy activities. In summary, a green economy is characterized by: (i) increased green investment; (ii) increasing the quantity and quality of employment in the green sector; (iii) increasing share of the green sector; (iv) decrease in energy/resources used in each production unit; (v) reduction of CO<sub>2</sub> and level of pollution per GDP generated; and (vi) decreasing consumption that produces waste (decrease in wasteful consumption) [4]

### b. Green Economy in the Perspective of Maqashid al-Shari'a

The substance of the green economy itself is contained in the Maqashid Sharia concept which emphasizes the benefit of (1) the maintenance of religion (Hifzhu ad-din), (2) the maintenance of the soul (Hifdzu an-nafs), (3) the maintenance of reason (Hifdzu al-aql). ) (4) Maintenance of offspring (Hifdzul an-nasl) (5) Maintenance of property (Hifdzu al-maal). So that the actual green economy activities are economic activities that prioritize the maintenance of religion, soul, mind, property, lineage, and property. Even preserving the environment is the same as maintaining the five basic goals of Islam (maqashid al-syari'ah). Because, the five basic goals can be realized if the environment and the universe support it. Therefore, maintaining the environment is the same as maqashid al-syari'ah .. And the only economic concept that has maqashid sharia values is Islamic economics. So it is clear that the true green economy is reflected in Islamic economics [5].

### c. Agricultural Sector

The development of the agricultural sector has a strategic role in the national economy. The strategic role of agriculture is illustrated through its tangible contribution through capital formation, provision of food, industrial raw materials, feed and bioenergy, absorbing labor, sources of foreign exchange, sources of income, and environmental conservation through environmentally friendly farming practices. The various strategic roles of agriculture are in line with the objectives of national economic development, namely increasing the welfare of the Indonesian people, accelerating economic growth, reducing poverty, providing employment, and maintaining a balance of natural resources and the environment [6].

### d. Food Security

The Food Agricultural Organization (2009) explains that food security can be created when all people at all times have physical and economic access to sufficient food that is safe and nutritious by meeting food needs and food preferences to live an active and healthy life. Based on this definition, there are four dimensions related to food security that can be identified, namely: food availability, food access, food utilization, and food stability [7].

## RESEARCH METHOD

Green Economy Valuation of the Agricultural Sector in Wibowo, E. W (2021) [9] :

### a. Semi-Green GRDP Calculation

Semi-Green GRDP is obtained by subtracting the value of natural resource depletion from the value of Conventional GRDP (or Brown GRDP). The depletion value is obtained by multiplying the volume of extraction of each type of natural resource by the unit rent or unit price.

b. Green GRDP Calculation.

The inclusion of elements of depletion and environmental degradation into the calculation of GRDP as a step taken to correct the shortcomings of Conventional GRDP. According to (Juniah, Dalimi, Suparmoko, Moersidik, & Waristian, 2017) in (Mulya et al., 2014) [8], Green GRDP is GRDP that includes elements of depletion and degradation of natural resources and the environment. Mathematically, it can be expressed as follows:

Green GRDP = conventional GRDP – SDA depletion value - pollution reduction costs

## DISCUSSION

### a. Result

#### 1. Green GDP

**Table 1**  
**Degradation of Agriculture, Forestry and Fisheries**  
**Jakarta City (2019-2020)**

Describe	2019	2020
<b>Food Production / ton</b>	<b>3,359</b>	<b>4,658</b>
Rice Needs per capita / kg	124.89	124.89
Total population	10,557,810	10,562,088
<b>Amount of Rice Needs / ton</b>	<b>1,318,565</b>	<b>1,319,099</b>
<b>Food needs / ton</b>	<b>1,315,206</b>	<b>1,314,442</b>
<b>Rice Price per Rp. / kg</b>	<b>12,091</b>	<b>12,311</b>
<b>Degradation Value / Rp.</b>	<b>15,902,260</b>	<b>16,182,279</b>

In Table 1, it is explained that rice production in Jakarta in 2019 was 3,359 tons and in 2020 it was 4,659 tons, while the rice needs of the residents of Jakarta in 2019 amounted to 1,318,565 tons and in 2020 amounted to 1,319,099 tons. So that the city of Jakarta still needs rice for food security in 2019 of 1,315,206 tons and in 2020 of 1,314,442, with the basic price of rice per kg in 2019 of Rp. 12,091,- and in 2020 worth Rp. 12,311, then the value of the degradation of food needs in Jakarta in 2019 is Rp. 15,902,260 and in 2020 it is Rp. 16,182,279.

**Table 2**  
**Green GDP Agriculture, Forestry and Fisheries**  
**Jakarta City (2019-2020)**

Describe	2019				2020			
	GDP	Depletion	Degradation	Green GDP	GDP	Depletion	Degradation	Green GDP
Agriculture, Forestry and Fisheries	1,398,217	-	15,902,260	14,504,043	1,401,067	-	16,182,279	14,781,212

Table 2 explains Green GDP for the agriculture, forestry and fisheries sectors in 2019 GDP of Rp. 1.398.217, - and in the GDP in 2020 of Rp. 1,401,067,-

deducting the value of degradation, the value of green GDP in 2019 will be minus 14,504,043 and in 2020 it will be minus 14,781,212,-

## DISCUSSION

From the results of the green GDP analysis above for the agricultural sector in 2019 and 2020 it is still minus (14,504,043,-) and (14,781,212), so that the agricultural sector must be given a solution so that the city of Jakarta creates food security. The urban farming program is one of the best solutions in overcoming this problem, by utilizing vacant land around the yard of the house. With urban farming, the people of Jakarta are assisted in meeting basic needs. The cost of spending for basic needs is reduced, especially to buy vegetables, chili, ginger, etc., and even the results of this urban farming can also be sold to become an additional producer for the family.

## CONCLUSION

The value of the degradation of food needs in Jakarta in 2019 was Rp. 15,902,260 and in 2020 it was Rp. 16,182,279. So that the value of green GDP in 2019 will be minus 14,504,043 and in 2020 it will be minus 14,781,212. The urban farming program is one of the best solutions in overcoming this food security problem, by utilizing vacant land around the house yard. With urban farming, the people of Jakarta are assisted in meeting basic needs. Maintaining the environment is the same as maqashid al-syari'ah in order to achieve benefit in this world and the hereafter.

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