

The Role of the Agricultural Sector on Economic Growth of Donggala Regency

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Abstract

The agricultural industry continues to be a significant source of employment in Indonesia, surpassing other sectors in terms of job opportunities. This underscores the importance of the agricultural sector in influencing the country's economy. Similarly, in Donggala Regency, agriculture plays a pivotal role in supporting the local economy. This research aims to assess the agricultural sector's impact on economic development in Donggala Regency. The study utilizes descriptive analysis and formulas to examine growth and contributions. The findings indicate that agriculture is a key sector in Donggala Regency, despite its slower growth rate compared to other sectors, as it makes the most significant contribution to the region's economic growth. For this reason, the result suggest that it is imperative for policymakers to focus on enhancing the agricultural sector by making strategic investments in technology, infrastructure, and training for farmers. This will help in maximizing growth rates and economic contributions for the purpose of sustainable regional development.

Keywords: Agricultural Development, Economic Growth, Regional Economics, Sectoral Analysis.

1. Introduction

The agricultural sector is one of the most dominant sectors in terms of income for the Indonesian people (Irham & Mulyo, 2016). The agricultural sector supports the country's economy, helps raise public awareness of the importance of local products, avoids various food crises, and creates food security for the region. Given the country's status as a major food producer, the majority of Indonesia's population works as farmers. Farmers are a valuable national asset that supports food availability (Sidiq, 2021). The presence of farmers is crucial for an agrarian nation to contribute to improving public welfare.

Economic development is inseparable from the growth of sectors contributing to the Gross Domestic Product (GDP). Developing countries rely heavily on the agricultural sector in order to drive their economies forward. The agricultural sector not only provides essential food sources, but also contributes labor to other industries, boosts investment for modern economic progress, and helps generate foreign exchange (Johnston & Mellor, 1961).

Agriculture is a commodity that not only holds a strategic position in meeting basic human needs. However, agriculture is also closely intertwined with the values and foundations of the social, economic, political, and cultural structures of a society, nation, and state. Ironically, agriculture and rural areas in developing countries such as Indonesia are always synonymous with poverty. This is due to the failure of the state to transform its social and economic foundations and structures from a social and economic structure of a working society to a social and economic structure of a sovereign society.



The competitive advantages, regional characteristics, and agricultural potential all play a role in determining the growth of agriculture in a particular area. It is crucial to make efforts to effectively utilize and develop the agricultural potential present in a region, as it is essential for agricultural growth. Therefore, prioritizing the utilization and development of high-potential agriculture is necessary for achieving overall economic growth in the region (Osly et al., 2020).

The agricultural sector remains a sector that plays a significant role in the economic growth of a region, both nationally and regionally or locally. Agricultural development can also help maintain the economic stability of a regional or national area because agricultural production prices have a significant weight in the consumer price index, making their dynamics highly influential on inflation rates. The relationship between the agricultural and industrial sectors is important for economic growth, with agricultural development potentially benefiting the industrial sector through various connections such as product exchange, consumption, and investment. The agricultural sector's contribution to economic growth cannot be underestimated, influencing both regional and national economic performance significantly. Therefore, investment in the agricultural sector remains a promising avenue for enhancing development. It is thus deemed necessary to conduct a more in-depth review or study on how investment in the agricultural sector can be optimised (Taoumi & Lahrech, 2023).

The government is focusing on improving the agricultural sector as a way to spur industrial growth. According to experts, a thriving agricultural industry is crucial for the development of other industries. Many economic analysts believe that the progress of the industrial sector hinges on the progress of agriculture (De Janvry, 2010).

In 2021, there was a 1.84 percent increase in the agricultural sector, which played a role in boosting the national economy by 13.28 percent. Additionally, during the second quarter of 2022, the agricultural sector experienced a steady growth of 1.37 percent year on year and contributed 12.98 percent to the national economy. This upward trajectory had a positive impact on the well-being of farmers, as indicated by the highest recorded Farmer's Price Index (FPI) in March 2022 at 109.29, while in July 2022, the FPI stood at 104.25 (Dewi, 2023). These data indicate that the agricultural sector plays a crucial role in boosting the national economy.

One of Indonesia's major agricultural-producing provinces is Central Sulawesi Province. According to data from the Central Statistics Agency in 2024, the agricultural land area in Central Sulawesi in 2023 was 177,266.17 hectares with a productivity rate of 45.86 hectares. Meanwhile, based on the 2023 Agricultural Census, the number of farmers using agricultural land in Central Sulawesi was 415,964 people, with a composition of 457,492 individual agricultural businesses (UTP). This indicates that there are still many aspects that need to be improved, considering the potential of the agricultural sector in Central Sulawesi Province.

In Central Sulawesi Province, Donggala Regency stands out for its expansive land area, surpassing many other regencies in size. The Central Statistics Agency of Donggala Regency reported that in 2024, the agricultural sector held control over 12,311.80 hectares of land in the region in 2023. The commodities produced include: cocoa, coconut, robusta coffee, cloves, pepper, and cashews. The agricultural sector is the primary pillar supporting the economy of Donggala District. Data from the Central Statistics Agency of Donggala District for 2024 indicates that the agricultural sector's contribution to the district's Gross Regional Domestic Product (GRDP) in 2023 was 35.53%, with a contribution rate of 38.89%.

According to data from the Central Sulawesi Province BPS (2024), when compared to the 12 other districts and cities in Central Sulawesi Province, Donggala District ranks third in rice production after Morowali District and Parigi Moutong District. For vegetable production,

Donggala Regency ranks sixth in vegetable production, following Parigi Moutong Regency, Tojo Una-Una Regency, Sigi Regency, and Poso Regency. For fruit production, Donggala Regency's production is quite significant at 10,869 quintals (2023), below the production of Parigi Moutong Regency and Tojo Una-Una Regency. For plantation production, Donggala District contributes significantly, particularly in oil palm and coconut crops. Coconut production in Donggala District is quite high annually and slightly below Banggai District and Morowali District. For livestock population, Donggala District is the district with the highest livestock population from 2022 to 2023.

This indicates that the potential of the agricultural sector in Donggala Regency plays an important role in improving the economy and standard of living of the people of Donggala Regency. The agricultural sector is the top contributor to the Regional Domestic Product (RDP) of Donggala Regency. Based on this phenomenon, this study aims to analyse the role of the agricultural sector in the economic growth of Donggala Regency.

2. Literature Review

2.1. Regional Economic Development

Local governments and communities work together to oversee current resources and establish collaborations with the private sector, aiming to generate employment opportunities and boost economic growth within the region (Ascani et al., 2012).

The main goal of all regional development programs is to create more job opportunities for the local community (Rosiana et al., 2023). To accomplish this, it is essential for both the government and the community to work together to promote regional growth. Therefore, local governments need to collaborate with their communities to determine the necessary resources for developing and enhancing the regional economy using the resources available (Raco, 2000).

2.2. Economic Growth

According to Srihidayati (2022), economic growth involves enhancing the individual output over time, with the rate of output growth surpassing that of population growth. This growth is expected to persist in the long run. Another way to describe economic growth is by focusing on boosting the economy's ability to produce, resulting in a rise in national income (Hess, 2016). Economic growth is shaped by a combination of economic and non-economic elements. Factors such as natural resources, human capital, financial resources, entrepreneurship, and technological advancements play a crucial role in economic development. On the other hand, social norms, political landscape, and ethical principles also contribute to the growth of an economy (Jhingan, 2000).

The expansion of economy in a particular area is evident when there is a rise in GRDP. GRDP serves as a gauge to evaluate the financial status of a region during a specific timeframe. An increase in GRDP will increase government revenue to finance its development programmes. The pace of economic development is expected to be a point of success for regional autonomy in the form of regional development that has been achieved and is useful for determining decisions in the future (Nandita et al., 2019).

2.3. The Agricultural Sector in Economic Growth

In agrarian nations, the agricultural industry provides a means of survival for many people in the community and makes a considerable impact on the local and national economy (Acharya, 2006). Broadly speaking, the agricultural sector consists of several subsectors, including food crops, plantations, livestock, forestry, and fisheries. Meanwhile, agriculture in

the narrow sense only covers agriculture as the cultivation of food crops, whereas if examined further, agricultural activities can produce crops and livestock to meet human needs (Wahyuningtias, 2021).

The agricultural sector itself contributes significantly to Indonesia's GDP (Gross Domestic Product) (Wahyuningtias, 2021). The agricultural sector's significance lies in its crucial role in driving economic growth within a country or region. It is intricately linked to various aspects such as food security, employment opportunities, raw materials for industries, and community income, all of which contribute to the overall economic development of a region (Acharya, 2006).

3. Methods

Descriptive research, as referred to in this study, involves using various methods to explain and validate research findings while providing detailed descriptions of the phenomenon under investigation. Donggala Regency is the focus of this research, utilizing secondary data such as the Gross Regional Domestic Product (GRDP) from 2014 to 2023 at constant prices based on 2010 figures for both the regency and the province of Central Sulawesi. The GRDP data includes growth rate information and sectoral contributions, sourced from the Central Statistics Agency website of Donggala Regency. Growth analysis and contribution analysis techniques were employed for the data analysis in this research.

a. Growth Analysis Formula

Growth analysis will explain how the agricultural sector in Donggala Regency grew during the 2014-2023 period. To measure the growth rate of regional income, the following formula is used (Chen & Fleisher, 1996):

$$GX = \frac{X_t - X_{(t-1)}}{X_{(t-1)}} \times 100\%$$

Explanation:

Gx = Growth rate of the agricultural sector in Donggala Regency

Xt = Agricultural sector in year t

X(t-1) = Agricultural sector in the previous year

b. Contribution Formula

The purpose of contribution analysis is to explore how much the agricultural industry has impacted the GRDP of Donggala Regency from 2014 to 2023, as shown in the equation below:

$$\text{Contribution} = \frac{\text{Agricultural Sector}}{\text{GRDP of Donggala Regency}} \times 100\%$$

The classification of contribution criteria can be seen in Table 1 below:

Table 1. Contribution Criteria

Percentage (%)	Criteria
0.00-10,99	Very Poor
11.00-20.99	Poor
21.00-30,99	Moderate
31.00-40,99	Fairly Good
41.00-50.99	Good
Above 51	Very Good

Source: Ministry of Home Affairs, Ministerial Decree No. 690.900.327

4. Results and Discussion

4.1. Research Results

4.1.1. Analysis of Agricultural Sector Growth in Donggala Regency for the Period 2014-2023

The agricultural sector is a strategic factor that has played a role in the economy through the formation of GRDP and is the basis of the rural economy, controlling the lives of most of the population, absorbing more than half of the total workforce, and even becoming a safety valve during Indonesia's economic crisis. The agricultural sector has a significant multiplier effect through the interconnection of inputs, outputs, and outcomes between industry, consumption, and investment.

The growth of the agricultural sector in Donggala Regency from 2014 to 2023 has been declining. Although GRDP figures continue to increase, growth rates have been declining. In 2014, the agricultural sector was worth Rp.2,993,410.14, increasing to Rp.3,041,177 in 2015, or growing by 3.67 per cent in 2015 after previously growing by 4.84 per cent. This decline continued until 2020, when the growth rate reached 0.02 per cent.

Table 2. Growth of the Agricultural Sector in Donggala Regency from 2014 to 2023

Year	Agricultural Sector	Growth (%)
2014	2.993.410,14	4,84
2015	3.036.177,00	3,67
2016	3.041.854,90	2,25
2017	3.171.989,20	2,17
2018	3.208.939,10	1,16
2019	3.226.139,80	0,12
2020	3.232.736,99	-0,02
2021	3.418.142,58	5,74
2022	3.517.432,42	2,89
2023	3.612.784,59	2,71
Total	32.459.606,72	25,53
Mean	3.245.960,67	2,553

Source: Donggala Regency Statistics Agency 2024

Table 2 shows that over the past 10 years, growth in the agricultural sector has fluctuated. The average growth rate of the agricultural sector in Donggala Regency over the last 10 years of the study period was 2.553 per cent.

Economic growth in the Agriculture, Forestry, and Fisheries category during the 2019-2020 period experienced a decline. However, there was a significant increase of 5.74 percent in 2021, with growth returning to normal in 2022 and 2023.

The agriculture sector, although it makes a significant contribution, has relatively low annual growth compared to other sectors that also make significant contributions. The average growth of the agriculture sector over the last five years was 2.296%, with fluctuations each year. This indicates that the agriculture sector is experiencing slower growth compared to other economic sectors.

4.1.2. Analysis of the Contribution of the Agricultural Sector to the GRDP of Donggala Regency in 2014-2023

The findings from the research focused on determining the impact of the agricultural industry on the GRDP of Donggala Regency reveal that the agricultural sector makes a

significant contribution to the region's economy, ranging from 30% to 40.99%. Presented below is a table illustrating the extent of the agricultural sector's involvement in the overall GRDP of Donggala Regency.

Table 3. Contribution of the Agricultural Sector to Donggala Regency's GRDP

Year	Contribution	Criteria
2014	43,62	Good
2015	41,90	Good
2016	40,24	Good
2017	39,86	Enough
2018	39,19	Enough
2019	37,92	Enough
2020	39,59	Enough
2021	40,01	Good
2022	39,64	Enough
2023	38,89	Enough
Mean	40,08	Good

Source: Processed Data

Table 3 illustrates that the agricultural sector of Donggala Regency has made a significant average contribution. Nevertheless, from 2014 to 2016, the contribution of the agricultural sector fell within satisfactory levels. This was a result of the rise in agricultural production and an increase in sector demand, ultimately leading to achieving food self-sufficiency.

In 2023, the Agriculture, Forestry, and Fisheries sector made a significant contribution to the GRDP of Donggala Regency, accounting for 5.35 trillion rupiah or 35.53 percent of the total GRDP at current prices. Over the period from 2019 to 2022, the agricultural sector consistently saw an uptick in its contribution to the overall GRDP, suggesting a stronger economic growth rate in this area compared to other sectors.

4.2. Discussions

The agricultural sector in Donggala Regency has great and diverse potential. Leading commodities include cocoa, coconut, robusta coffee, cloves, pepper, cashew, and cloves. In addition, upland rice is also one of the commodities being developed, with a target planting area of 1,650 hectares, including around 500 hectares on BRMP Central Sulawesi plantation land. Donggala Regency also contributes most of the cocoa production in Central Sulawesi. The leading commodities of the Donggala Regency agricultural sector consist of :

- a) Cocoa: Donggala Regency has a significant area of cocoa plantations and is a major contributor to cocoa production in Central Sulawesi.
- b) Coconut: Is one of the important plantation commodities in this area.
- c) Robusta coffee: The potential for robusta coffee development is also quite large in Donggala Regency.
- d) Cloves: One of the plantation commodities that are widely cultivated.
- e) Pepper: Pepper is also a potential plantation commodity.
- f) Cashew: The potential of cashew is quite promising in Donggala Regency.
- g) Upland rice: The development of upland rice is one of the focuses of the government

The sector is divided into three sub-categories, namely Agriculture, Livestock, and Services. Within the Agriculture, Livestock, and Services sub-category, there are Food Crops, Horticultural Crops, Plantation Crops, Livestock, and Agricultural and Hunting Services; the

second is the Forestry and Logging sub-category; and the third is the Fisheries sub-category. This category is still the foundation and hope in labour absorption. When viewed from GRDP at constant prices, this category also always experiences an increase, indicating that there is an increase in production every year.

5. Conclusion

Donggala Regency is a regency in Central Sulawesi Province which has a significant economic contribution to Central Sulawesi Province since the last few years. The growth of GRDP of Donggala Regency which tends to increase every year has illustrated that Donggala Regency is a potential district to be used as a source of economic growth. One of the dominant sectors that is the flagship of Donggala Regency is the agricultural sector, where the sector is able to contribute the most to the economic growth of Donggala Regency.

Based on this reason, the government needs to be more serious and focused on developing the agricultural sector of Donggala Regency through improving infrastructure, agricultural facilities and infrastructure to agricultural distribution channels. The agricultural industry is highly productive and greatly impacts the economy of Donggala Regency. Therefore, it is crucial to implement policies that support farmers and other community members in their agricultural endeavors, ultimately transforming the sector into a driving force of the economy.

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