

CHAPTER I

INTRODUCTION

A. Background

One of the most basic needs for all people on Earth is the need for food. Food is the most important need for survival. By 2050, the United Nations predicts that there will be an increase in world population by 34 percent or will reach more than 9 billion people. The majority of the increase was in developing countries. With this increase, various things will also increase, one of which is food needs. In a report published by FAO (Food and Agriculture Organization), that 70% of supplementary food is needed by 2050. As a result, agricultural production plays an important role in the world economy. The products of the agricultural sector provide food for the population and the availability of food can guarantee the sustainable availability of food. Sustainable food availability itself is a condition for food safety ([Mukhlis & Gürçam, 2022](#)). Food security occurs when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for active and healthy living ([FAO, 2002](#)).

Agriculture has become the main source that provides the main necessities of life through being the main source of food for the world's population, the main job for many people, and the main source of income for several countries. In the Qur'an there are several verses that explain agriculture as a source of food for human life, as stated in Surah Al A'raf verse 10:

وَلَقَدْ مَكَّنَّاكُمْ فِي الْأَرْضِ وَجَعَلْنَا لَكُمْ فِيهَا مَعِيشًا قَلِيلًا مَّا

تَشْكُرُونَ

Meaning: “We have indeed established you on earth and provided you with a means of livelihood. ‘Yet’ you seldom give any thanks”. (Q.S. Al-A’raf [7]:10)

In the above verse God bestows grace upon man by placing him on earth as owner and manager, and providing sources of livelihood such as shelter, food, drink, and other means of life. God affirms that the earth is provided for man to live and work, with outlined limits, and provided with life. God also perfected the earth with various equipment such as plants and animals so that people could live happily and peacefully on earth.

And also in surah al-an'am verse 99:

وَهُوَ الَّذِي أَنْزَلَ مِنَ السَّمَاءِ مَاءً فَأَخْرَجْنَا بِهِ نَبَاتَ كُلِّ شَيْءٍ
فَأَخْرَجْنَا مِنْهُ خَضِرًا نُخْرَجُ مِنْهُ حَبًّا مَّتْرَاكِبًا وَمِنَ النَّخْلِ مِنْ طَلْعِهَا
قِنْوَانٌ دَانِيَةٌ وَجَنَّاتٍ مِنْ أَعْنَابٍ وَالزَّيْتُونَ وَالرُّمَّانَ مُشْتَبِهًا وَغَيْرَ
مُتَشَبِهٍ ۗ أَنْظُرُوا إِلَى ثَمَرِهِ إِذَا أَثْمَرَ وَيَنْعِهِ ۗ إِنَّ فِي ذَٰلِكُمْ لَآيَاتٍ لِّقَوْمٍ

يُؤْمِنُونَ

Meaning: “And He is the One Who sends down rain from the sky—causing all kinds of plants to grow—producing green stalks from which We bring forth clustered grain. And from palm trees come clusters of dates hanging within reach. ‘There are’ also gardens of grapevines, olives, and pomegranates, similar ‘in

shape` but dissimilar `in taste`. Look at their fruit as it yields and ripens! Indeed, in these are signs for people who believe". (Q.S. Al-An'am [6]:99)

The above verse explains the occurrence of things that are people's daily needs, so that they can easily understand God's power, wisdom, and knowledge. Allah explained that it was Allah who sent rain from heaven which caused the growth of various types of plants consisting of various shapes, types and flavors. Plants play an important role in making the world livable. Allah ordained that humans and animals receive their food from what is produced by plants in their "green factories".

The agricultural sector is often associated with a country's economic development efforts. Agriculture plays a central role in development plans, as it has the potential to boost economic growth, reduce poverty, ensure food security, and achieve environmental goals ([World Bank, 2008](#)). Economic growth is an inseparable aspect in economic development efforts, where economic development aims to encourage and facilitate the process of economic growth. Economic growth is the main driver in achieving progress in economic development, while economic development serves as an effort that smoothens and encourages the process of economic growth ([Riyadi & Andri, 2015](#)). The contribution of agricultural growth to economic development varies greatly from country to country and from one time period to another within the same economy. Development in general can be interpreted as an effort to further increase the productivity of potential resources owned by a country in the form of natural resources, human resources, and financial resources ([Hasibuan, Rahmanta, & Ayu, 2022](#)). One of the goals of economic

development is to realize justice and prosperity that can be felt by all communities in accordance with the economic capacity and ability of a region in producing goods and services needed for the needs of life of the community ([Syofya & Rahayu, 2018](#)). Therefore, economic development is a very important issue to improve the quality of life of people in a country. One of the improvements in the quality of life of the community can be realized through the role of the agricultural sector. The importance of the role of the agricultural sector is one of the components of national development towards food self-sufficiency in order to alleviate economic problems such as poverty, unemployment, and so on. There are several countries where the agricultural sector has a large contribution, including Indonesia and Türkiye. Indonesia and Türkiye are among the top of the list of the world's largest agricultural producing countries.

Indonesia has abundant natural resources and the agricultural sector is one of the sectors that utilizes these natural resources. As a country with a tropical climate and soil structure suitable for agriculture, the agricultural sector in Indonesia has a crucial role in the national economy ([Zaeroni & Rustariyuni, 2016](#)). Based on World Bank data, information was obtained that the total area of agricultural land in Indonesia in 2020 was 33.18% of the total land area in Indonesia. Indonesia has also long been known as an agricultural country where the majority of people work in the agricultural sector. ([Zuhdi, 2021](#)). The World Bank says about 43% of Indonesia's population lives in rural areas and about 29% of Indonesia's workforce works in the agricultural sector. As a developing country, the agricultural sector plays an important and strategic role in supporting national

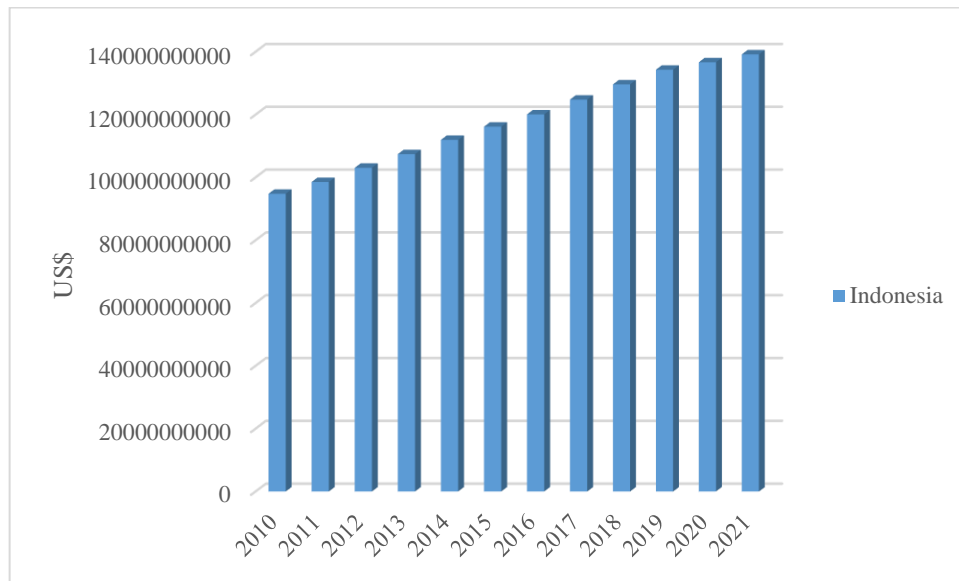
economic growth and development. Not only as a provider of food and basic necessities, but also as a provider of industrial raw materials, absorbing labor, a source of livelihood and a source of state foreign exchange ([Sari & Bangun, 2019](#)). The history of crises in Indonesia, such as the 1997-1998 monetary crisis, also left a record of the relative survival of the agricultural sector and even re-accommodated workers who lost their jobs in urban areas.

The agricultural sector in Indonesia has experienced different developments from time to time. During the colonial period, Indonesia's agricultural sector developed rapidly, especially in the cash crop sector. After independence, the agricultural sector became the focus of national economic development by increasing rice production. During the New Order era, the industrial sector became the focus of development and the growth of the agricultural sector slowed down. However, during the reform period, the government returned to pay attention to the agricultural sector and strengthened agricultural development policies with agricultural diversification programs and agricultural infrastructure development.

The agricultural sector in Indonesia has several subsectors which include subsectors of food crops, horticulture, plantations, animal husbandry, fisheries, and forestry ([Suharjon, Marwanti & Irianto, 2017](#)). Indonesia has a lot of potential in the agricultural sector, which consists of various types of food crops and plantation commodities that are superior in the world. Food crop subsectors include rice, corn, cassava, potatoes, soybeans, and peanuts. This food crop is the basic need of the Indonesian people and is also exported to various countries in the world. In the plantation subsector, Indonesia is renowned as one of the largest producers of

rubber and palm oil in the world, as well as producing other products such as coffee, cocoa, tea, tobacco, and spices. This can be a great potential that can be utilized not only to meet the consumption needs of the community, but also to encourage the economy through international trade ([Rai & Faisal, 2022](#)). Therefore, it is important to carry out good and sustainable management so that the wealth of natural resources can be utilized optimally and provide great benefits for Indonesia. The potential of natural resources owned by Indonesia in the agricultural sector also has a considerable contribution to the country's economic growth, especially to the Gross Domestic Product (GDP).

In the midst of Indonesia's unfavorable economic conditions in 2020, the agricultural sector has consistently contributed significantly to GDP. During 2020, the agricultural sector consistently contributed above 10% to Indonesia's GDP with an average contribution of 13.7% in that year. Not only during the Covid-19 pandemic in 2020, the agricultural sector has also proven to have a fairly high resistance to economic shocks in other sectors in the 1997/1998 crisis year ([Yasrizal & Hasan, 2016](#)). The agricultural sector during the Covid-19 pandemic has succeeded in becoming the main buffer for national economic growth. In addition, agriculture experienced positive growth at a time when many other sectors contracted.



Data source: [World Bank \(2023\)](#)

FIGURE 1.1.

Agricultural GDP in Indonesia 2010-2021 (Constant 2015)

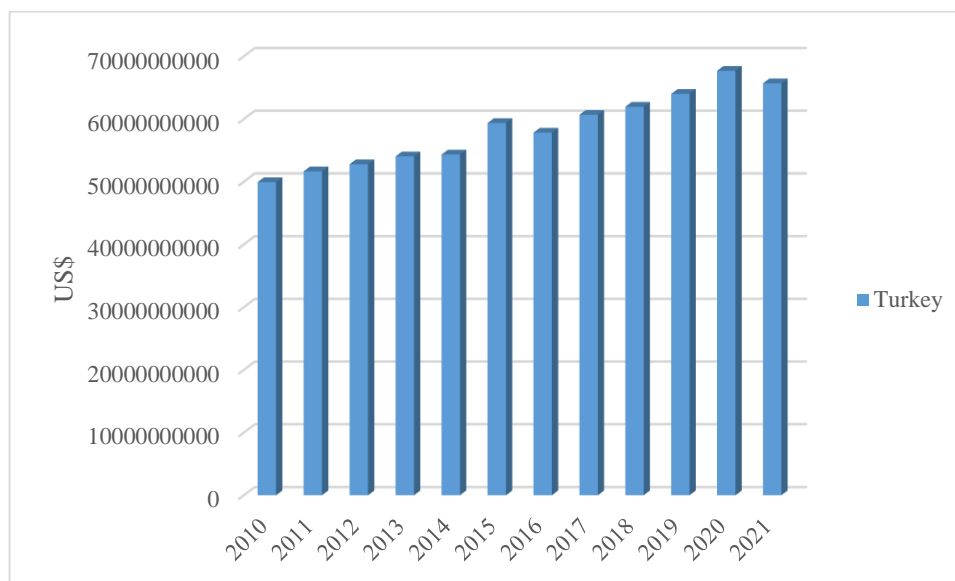
It can be seen in figure 1.1 that the GDP of the agricultural sector in Indonesia continues to increase from year to year. In the graph above, can be seen how agricultural GDP has changed from year to year from 2010 to 2021. The agricultural sector experiences positive growth every year. In 2010 the value of agricultural GDP was US\$94.8 billion and continued to grow to reach \$139 billion in 2021. Data in the last 12 years shows that Indonesia's agricultural sector is still growing positively. Although in 2020 the economy contracted due to the COVID-19 pandemic, the agricultural sector was still able to grow positively. The sub-sector of food crops, horticulture and plantations has an important role in achieving positive economic growth in the agricultural sector. Thus, the agricultural sector continues to show its resilience as a buffer for national economic growth ([Suryana, Rusastra, Sudaryanto & Pasaribu, 2020](#)).

Besides Indonesia, Türkiye is one of the largest agricultural commodity producing countries. Türkiye is considered one of the leading countries in agriculture and food with favorable geographical and climatic conditions, abundant water supplies, and vast arable land. Türkiye's agricultural economy is among the top ten in the world, with half of the country made up of farmland and much of its population working in agriculture. Based on data from the World Bank, the total area of agricultural land in Türkiye in 2020 was 49.07% of the total land area in Türkiye. The agricultural sector is very important for Türkiye due to several reasons such as the high level of rural population in the total population as well as the large proportion of employment in the agricultural sector, and also the contribution of the agricultural sector to the formation of national income ([Şimşir, 2012](#)). Data from the World Bank showing that around 17.12% of the total labor force in Türkiye worked in the agricultural sector in 2021 indicates that the agricultural sector still has a significant contribution to the economy and employment in the country. Although Türkiye has experienced rapid economic development and there has been a shift in labor to other sectors such as industry and services, the agricultural sector still plays an important role in providing employment for a portion of the population. The involvement of a large number of workers in the agricultural sector shows the importance of this sector in providing livelihoods, especially in rural areas.

The agricultural sector was an important sector in the development of the Türkiye economy over time. In the Ottoman era, the agricultural sector was still not very advanced, but in the Republican era, the agricultural sector began to be given

more serious attention by the government. In the era of Development, the agricultural sector experienced significant progress, but in the era of Liberalization, the agricultural sector underwent a structural change with the emergence of large companies that replaced many small farmers. In the era of Globalization, the agricultural sector is still an important sector in the Türkiye economy, and the government seeks to increase the productivity and sustainability of the agricultural sector through various programs to develop and support more modern agricultural technology.

The agricultural sector has great potential in Türkiye and contributes greatly to the national economy. These contributions include meeting the food needs of the population, providing raw materials for the agro-industrial sector, creating demand for industrial products, and contributing to Türkiye's national income and export earnings ([Tosun, Savran, Niyaz, Keskin & Demirbaş, 2014](#)). Türkiye is a major producer of wheat, sugar beets, milk, poultry, cotton, tomatoes, and other vegetables and fruits. Türkiye is also the world's leading producer of apricots and hazelnuts.



Source: [World Bank \(2023\)](#)

FIGURE 1.2.

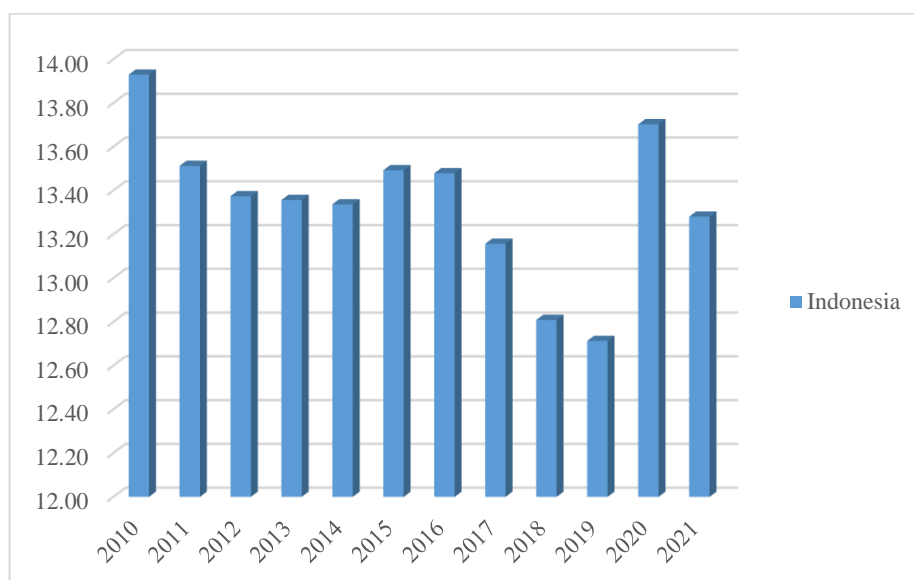
Agricultural GDP in Türkiye 2010-2021 (Constant 2015)

Figure 1.2 shows data on the GDP of the agricultural sector of Türkiye from 2010-2021. It can be seen that the GDP growth of Türkiye's agricultural sector fluctuates from year to year. From 2010-2015 the GDP value of the agricultural sector continued to increase although in 2016 it had decreased but in 2017 it increased again to reach its highest peak in 2020 which was around US \$ 67.7 billion which is the highest figure of Türkiye's agricultural GDP, and in 2021 the GDP of the Türkiye agricultural sector decreased again to US \$ 65.7 billion. Despite years of declining GDP, overall there was positive growth in the agricultural sector.

In this context, an in-depth analysis of the agricultural sector in Türkiye becomes very important and urgent. Understanding the role of this sector in Türkiye's economic development, its relation to food security and population needs, and its contribution to the country's export earnings, employment and overall economic growth will provide valuable insights. By strengthening the agricultural

sector, the state can increase the welfare of farmers, achieve food self-sufficiency and support sustainable economic growth in Türkiye . Therefore, an in-depth analysis of the agricultural sector in Turkey will make an important contribution in formulating policies and strategic steps to advance this sector and improve the welfare of the Turkish people as a whole.

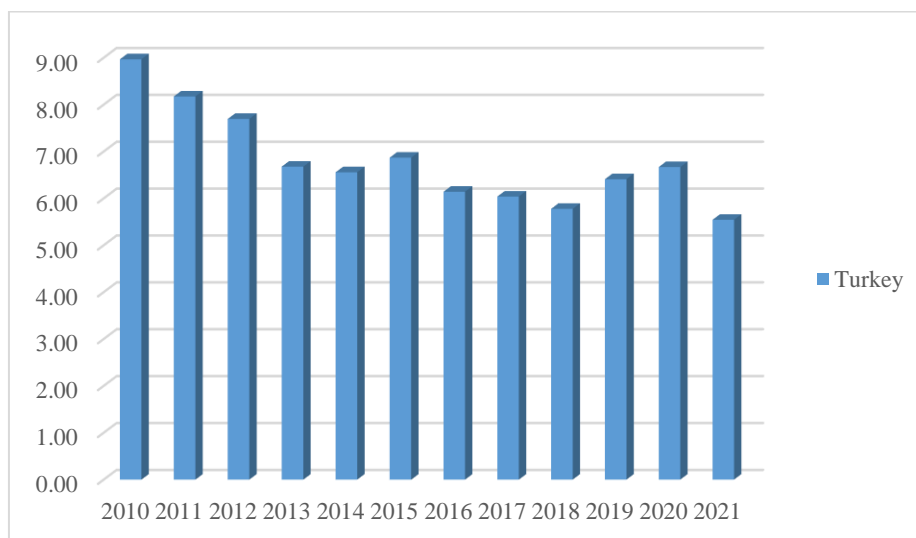
Overall, Indonesia and Türkiye agriculture have a very important role in sustaining the economies of both countries. Both have different geographical conditions, but both have great potential in the agricultural sector. Indonesia and Türkiye agricultural sector have great potential to continue to be developed. Agricultural sector research in Turkey and its joint research with Indonesia is important for exploring agricultural potential, realizing agricultural sustainability, gaining comparative perspectives, and encouraging collaboration and knowledge exchange.



Source: [World Bank \(2023\)](#)

FIGURE 1.3.

Contribution of Agriculture Sector to GDP in Indonesia (2010-2021)



Source: [World Bank \(2023\)](#)

FIGURE 1.4.

Contribution of Agricultural Sector to GDP in Türkiye (2010-2021)

Figures 1.3 and 1.4 show the contribution of the agricultural sector to GDP in each country Indonesia and Türkiye, both Indonesia and Türkiye experience fluctuating trends every year and tend to decrease. In 2010, the contribution of Indonesia's agricultural sector to Indonesia's GDP was around 13.93% and continued to decline to 13.34% in 2014. Then in 2015, it increased again to 13.49% but again decreased until 2019 where it reached the lowest point compared to previous years which was around 12.71%. However, in 2020 the contribution of the agricultural sector increased again by 13.70% and in 2021 it decreased by 0.42% to 13.28%. When compared to the position in 2010, the contribution of the agricultural sector shrank by 0.65 percentage points. Then for the contribution of the Türkiye agricultural sector to Türkiye's GDP, in 2010 it was around 8.97% and continued to decline until 2014 where the contribution was around 6.56%. Then in 2015 it increased again to 6.87% and decreased until 2018 to 5.78%, and in 2019 to 2020

it increased to 6.41% and 6.67%, but in 2021 it decreased to 5.54%. It can be said that the contribution of agriculture to Türkiye's GDP fluctuates and tends to get smaller or lower.

The agricultural sector is part of the supporting factors for economic growth in Indonesia and Türkiye. Every year, the agricultural sector is one of the sectors that always contributes significantly to the GDP of Indonesia and Türkiye, although when viewed from the data previously described from the growth rate both Indonesia and Türkiye experience an upward and downward trend (fluctuating) and its contribution to GDP is getting smaller or decreasing with the comparison of the contribution of the Indonesian agricultural sector to Indonesia's GDP is still greater than the contribution of Türkiye's agricultural sector to Türkiye's GDP. According to [Fitriana, Darwanto & Hartono \(2017\)](#) explained that the increase and decrease in the contribution of a sector is influenced by the state of the country and the size of contributions from other sectors. Since 1990 until now, government attention began to be directed to the industrial and service sectors along with the economic transformation from an agricultural country to an industrial country. Conditions like this make the role of the agricultural sector begin to decline in the structure of the economy ([Yasrizal & Hasan, 2016](#)). According to Rostow's Growth Theory, agriculture plays an important role in the first stages of Rostow's economic growth, but as it progresses to the next stage, agriculture's position and role diminish. This is due to the emergence of new community thoughts that occur such as assessments based on specialization that is not only in agriculture, transformation from the

agricultural sector to other sectors, the emergence of entrepreneurial spirit that is engaged not only in agriculture and so on.

Nevertheless, the agricultural sector still has an important role in the country's economy, especially in developing countries. According to the [World Bank \(2023\)](#), agricultural development remains one of the most effective tools for ending extreme poverty, increasing shared prosperity, and feeding approximately 9 billion people projected by 2050. Therefore, although its contribution tends to fluctuate, the agricultural sector must still be considered and supported in efforts to develop a sustainable and stable economy. The role of the government is certainly needed to increase economic growth in the agricultural sector in order to contribute to improving public welfare and the national economy. Thus, efforts are needed to advance the economic growth of the agricultural sector by looking at the factors that influence it considering the large role of the agricultural sector in the economies of the two countries.

Based on previous research, [Bakari & Tiba \(2020\)](#) in their research obtained results that in the long run, agricultural exports have a significant positive influence in encouraging economic growth, while agricultural imports have a significant negative influence. Meanwhile, in the short term, both agricultural exports and agricultural imports have a significant positive influence on economic growth in China. Research from [\(Hasibuan et al., 2022\)](#) shows the results that agricultural imports have a positive and intangible effect on the growth of the agricultural sector and agricultural exports have a positive and real effect on the growth of the agricultural sector. The results of research from [Faiziah & Sofyan \(2014\)](#) show the

results that agricultural exports and agricultural bank credit have a positive and very significant effect on the agricultural GDP of Aceh province. Research from [Amanda & Lutfi \(2022\)](#) shows that partially, labor, Islamic bank financing and exports do not have a significant effect on economic growth in the agricultural sector, while inflation has a positive and significant effect on economic growth in the agricultural sector. Meanwhile, simultaneously Islamic bank financing, exports and inflation have a significant effect on the economic growth of the agricultural sector in Indonesia. The results of research from [Sayifullah & Emmalian \(2018\)](#) show that government spending in the agricultural sector and agricultural sector labor have a positive and significant effect on the GDP of the agricultural sector.

Based on the description previously described about agriculture in Indonesia and Türkiye, the following is a comparison table that highlights the similarities and differences in the agricultural sector in Indonesia and Türkiye. Through table 1.1, a deeper understanding of the differences in the agricultural context of the two countries can be obtained, as well as the factors that may affect the economic growth of the agricultural sector in Indonesia and Türkiye.

TABLE 1.1.

Comparison of Indonesian Agriculture and Türkiye Agriculture

Aspects	Similarities	Differences
Contribution to GDP	Both have significant agricultural sector contributions to national GDP. Both countries recognize the importance of the agricultural sector in the national economy.	The proportion of contribution to GDP is different. The percentage of agricultural sector contribution to GDP in Türkiye is 5.54%, while in Indonesia it is 13.28%. Indonesia has a greater contribution than Türkiye

Agricultural Export	Both countries have agricultural sectors that are sources of exports	Different types of agricultural export products. Indonesia is known as one of the biggest exporters of palm oil, rubber, coffee, spices etc. Turkey exports many agricultural products such as cereals, pulses, fresh and dry fruits, vegetables, olive oil etc.
Agricultural Import	Both countries import agricultural products	Different types of imported products. Indonesia imports products such as wheat, soybeans, corn etc. Türkiye also imports products including wheat, sunflower oil, barley etc.
Employment	Both countries have agricultural sectors that are important as labor absorbers	About 17.12% of Türkiye's workforce works in agriculture and about 29% of Indonesia's workforce works in agriculture.
Geographical Conditions	Both countries have diverse geographical conditions	Türkiye is located on both continents (Asia and Europe) with a Mediterranean climate and geographical variations, while Indonesia is an archipelagic country with a tropical climate and geographical diversity
Agricultural Land Area	Both countries have significant areas of agricultural land	The total area of agricultural land in Indonesia is 33.18% of the total land area in Indonesia. Meanwhile, the total area of agricultural land in Türkiye is 49.07% of the total land area in Türkiye

Source: Author (2023)

Although there are some similarities between the agricultural sectors of Türkiye and Indonesia, there are also significant differences in terms of contribution to GDP, agricultural exports, agricultural imports, employment, geographical

conditions, and agricultural land area. Some of these differences may be the focus of further research for analysis.

Based on the description above, the researcher is interested in conducting research with the title "Analysis of Factors Affecting Economic Growth in the Agricultural Sector: Case Studies of Indonesia and Türkiye"

B. Limitation of the Research

Limiting the problem needs to be done so that the scope of this research becomes clearer and more detailed. The limitations of the problem in this study are as follows:

1. Case studies conducted in Indonesia and Türkiye.
2. The research data period is 1991-2021.
3. The dependent variable in this study is the GDP of the agricultural sector (Y) and the independent variables are Agricultural Export (X1), Agricultural Import (X2), and Agricultural Labor (X3).

C. Research Questions

Based on the background described above, the problem formulation of this study is as follows:

1. How agricultural exports affect the GDP of the agricultural sector in Indonesia and Türkiye?
2. How agricultural imports affect the GDP of the agricultural sector in Indonesia and Türkiye?
3. How agricultural labor affect the GDP of the agricultural sector in Indonesia and Türkiye?

D. Research Objectives

Based on the formulation of the existing problem, the objectives of this study are as follows:

1. To analyze the effect of agricultural exports on the GDP of the agricultural sector in Indonesia and Türkiye
2. To analyze the effect of agricultural imports on the GDP of the agricultural sector in Indonesia and Türkiye
3. To analyze the effect of agricultural labor on the GDP of the agricultural sector in Indonesia and Türkiye

E. Research Benefits

The benefits that can be taken from this research are as follows:

1. Theoretical Benefits
 - a. This research is expected to provide information on the factors affecting the GDP of the agricultural sector in Indonesia and Türkiye
 - b. This research can be used as reference material and information for further research
2. Practitioner Benefits
 - a. For Researcher

To fulfill the final project, namely the thesis as a requirement to obtain a Bachelor's degree in the International Program for Islamic Economics and Finance (IPIEF) study program, Universitas Muhammadiyah Yogyakarta (UMY). And this research is expected to measure the ability and knowledge

of researchers in applying the knowledge that has been obtained during lectures.

b. For Universitas Muhammadiyah Yogyakarta

The results of this research are expected to add reading references and information so that in the future it can be used as a means of adding broader insights and references

c. For Government

The results of the research are expected to be information and evaluation material for the government as a policy maker in making policies to increase economic growth in the agricultural sector