

Development of the Agricultural Sector and Its Contribution to the Growth of the Ethiopian Economy

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To cite this article:

Daniel Hailu. (2024). Development of the Agricultural Sector and Its Contribution to the Growth of the Ethiopian Economy. *International Journal of Agricultural Economics*, 9(1), 36-40. <https://doi.org/10.11648/ijae.20240901.15>

Received: December 29, 2023; **Accepted:** January 16, 2024; **Published:** February 1, 2024

Abstract: The study analyzed the development of the agricultural sector and its contribution to the growth of the Ethiopian economy. This study used annual time series data covering the period from 2006/07 to 2020/21. Secondary data were acquired from National Bank of Ethiopia, Planning and Development Commission, Ministry of Finance, Central Statistical agency and the Ethiopian Customs Commission. Agricultural gross domestic product, capital investment, export values, government agricultural expenditure data were analyzed using descriptive statistics. Results revealed that Ethiopian budgetary support to agriculture is not meeting the target of 10% set by Comprehensive Africa Agriculture Development Program (CAADP) by investing only 3.2% of the national budgets per year which aimed at raising agricultural productivity by at least 6 percent per year. Beside this, in terms of investment capital, the share of the sector has decreased to 0.3% in 2020/21 compared to 13% in 2014/2015. Ethiopian agricultural gross domestic product (AGDP) increased by 1323 percent compared to 2006/07. However, the contribution of the sector to the gross domestic product (GDP) decreased from 45.7 percent in 2006/07 to 32.1 percent in 2020/2021. Despite the decreasing importance of agriculture in the country's GDP, Ethiopia has shown an annual growth of 205.2 percent from 2006/2007, with annual sales of approximately 3.6 million dollars. Agricultural products are still Ethiopia's main export industry, generating USD 2.5 million, accounting for 70 percent of total sales in 2020/21. Furthermore, In 2020/21, Ethiopia's economy recorded a growth of 6.3 percent, which is slightly higher than the previous year's 6.1 percent expansion. Agriculture, industry and services contributed 32.1 percent, 28.9 percent and 39 percent to the gross domestic product respectively in the 2020/21 fiscal year. In addition, between 2006/07 and 2020/21, the industry and manufacturing sector grew by 0.8 real GDP, but the agriculture and service sectors decreased by 2.6 and 0.8 real GDP respectively, resulting in a 5.8 real GDP decline in the overall Ethiopian economy. Generally, this result shows that the decrease in the contribution of the agricultural sector is not only that many natural and man-made problems do not need to be solved, but also that the government is giving less attention to the sector. Therefore, agriculture-led economic growth that is linked to improved livelihoods can become a long-lasting solution to Ethiopia's chronic poverty and to support future needs.

Keywords: Ethiopia, Agricultural GDP, Investment, Production, Export Values

1. Introduction

Ethiopia is one of the least developed and poorest countries in the world. Ethiopian agriculture is largely characterized by smallholder rainfed farming, which generates approximately 94% of agricultural GDP and 90% of the agricultural production, and the remaining comes from a relatively small number of state-owned or private commercial farms [7, 9].

The two dominant agricultural systems in Ethiopia are the

mixed agriculture of the highlands, where both crops and livestock production are integrated, and pastoralism in the lowlands.

Major staple crops include cereals, pulses, oilseeds, roots and tubers, vegetables and coffee. According to the 2020/21 Ethiopian Central Statistical Agency report [17], grain crops (cereals, pulses and oil crops) are cultivated on 13 million hectares with annual production of 34.2 million metric tonnes. Ethiopia has the largest livestock population in Africa, with 65 million cattle, 40 million sheep, 51 million goats, 8

million camels and 49 million chickens in 2020/21 [16].

Ethiopian agriculture has been stagnant due to poor performance as a result of factors such as low resource utilization, low-tech farming techniques, over-reliance on fertilizers and underutilized techniques for soil and water conservation, in appropriate agrarian policy, in appropriate land tenure policy, ecological degradation of potential arable lands, and increases in the unemployment rate due to increases in the population [2, 12, 15].

As a result, the overall food prices in Ethiopia were inflated from 7.4 to 23.2% between the years of 2014–2021 [8]. Such food price inflation creates political instability, disorder, chaos, unemployment, malnutrition, hunger, poverty, imbalance, and inefficient resource distributions among the nations and further exacerbating the global security crisis in the horn of Africa [3, 4]. Furthermore, in the year 2016, a poverty rate of 26.7% was recorded [13] and in the 2020 Global Hunger Index, ranked 92nd out of 107 countries [5].

Agriculture is a global industry where a country's domestic activities have global impacts. According to the World Bank [14] report, when GDP grows in the agricultural sector, the positive impact on poverty reduction is three times greater than growth in other sectors.

The main concern of developing countries is to sustain and accelerate economic growth by shifting to different sectors [10]. In developing countries, the agricultural sector plays an important role in generating foreign income, job opportunities and in reducing poverty in rural areas of developing countries [1, 6, 11].

The urban livelihood is also highly dependent on the rural economy and as such small farm constitutes the life support mechanism of the country. Therefore, understanding poverty in the country necessitates knowledge about farm economy in the country.

2. Objectives

The purpose of this study is to assess and analyze the development of the agricultural sector and its contribution to the growth of the Ethiopian economy.

Specifically,

1. To analyze public investment trend in Ethiopian agriculture
2. To examine the development and contribution of the agricultural sector in Ethiopian economy over time
3. To investigate the causal relationships between growth in agriculture and nonagricultural sectors

3. Method of Data Analysis

Secondary data is used as a source of data in this study. Annual time series data covering the period 2006/07 to 2020/21 were collected from National Bank of Ethiopia, Planning and Development Commission, Ministry of Finance, Central Statistical agency and the Ethiopian Customs Commission.

Data on agricultural gross domestic product (AGDP), public budget, capital investment, export and import prices, and grain production were used.

The data was analyzed by descriptive statistics using percentages, averages and ranges supported by figures and graphs to assess the development of the agricultural sector and its contribution to the growth of the Ethiopian economy.

4. Result and Discussion

4.1. Public Investment Trends in Ethiopian Agriculture

4.1.1. Budget Investment Trend

Comprehensive Africa Agriculture Development Program (CAADP's) aim was to improve food security, enhance nutrition, and increase rural incomes in Africa by increasing public investment in agriculture to 10 percent of national budgets per year and raising agricultural productivity by at least 6 percent per year. In 2020/21, Ethiopia allocated 3.2 percent of the national budget to agriculture (Figure 1). Unfortunately, recent expenditure shows that budget support for agriculture in Ethiopia has not met the CAADP target.

The results are consistent with most of the recent studies in Ethiopia that have shown negative success with the target [19]. However, other studies have reported the positive success of the investment on agriculture before 2008/09 [22-24].

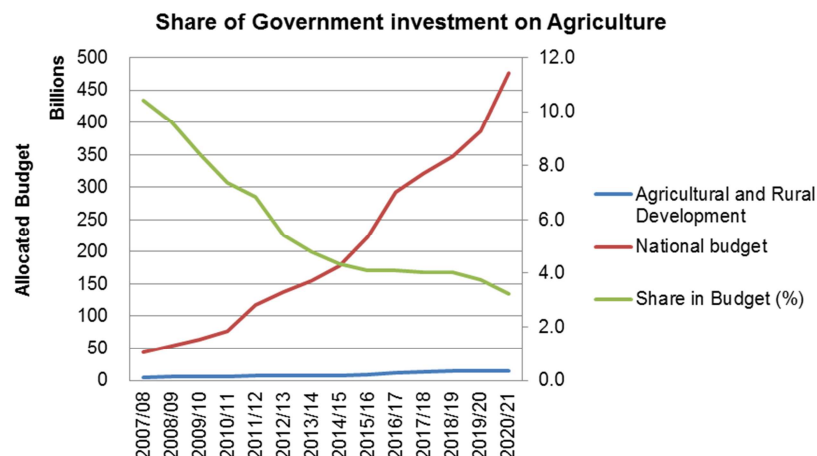


Figure 1. Agriculture budget investment.

4.1.2. Investment Capital Trend

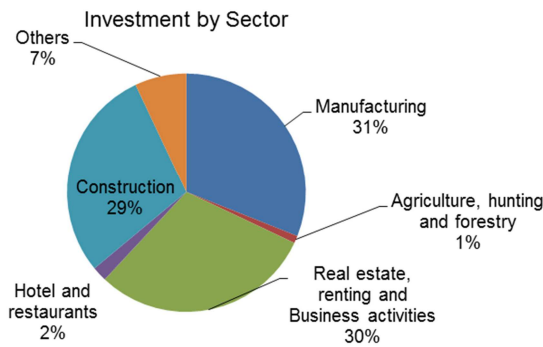


Figure 2. Agricultural investment capital.

Of the total investment projects in 2020/21, 6 projects (one per cent) were in agriculture, hunting and forestry (Figure 2). In terms of investment capital, the share of the sector has decreased to 0.3% compared to 13% in 2014/2015.

Studies, such as [20] reported similar result that the number and percentage of implemented projects declined from time to time for seventeen years.

4.2. The Development and Contribution of the Agricultural Sector in Ethiopian Economy Over Time

4.2.1. Development and Contribution of Agriculture to Gross Domestic Product (GDP)

In the year 2020/21, Ethiopian agricultural gross domestic product (AGDP) increased by 1323 percent compared to 2006/07 (Figure 3). However, the contribution of the sector to the gross domestic product decreased from 45.7 percent in 2006/07 to 32.1 percent in 2020/2021. This finding is similar to studies that have shown that the share of agriculture in Ethiopia's GDP is decreasing [18, 21]. Crop production contributes 65.1% of the total agricultural production, livestock 26% and other areas contribute 8.9%.

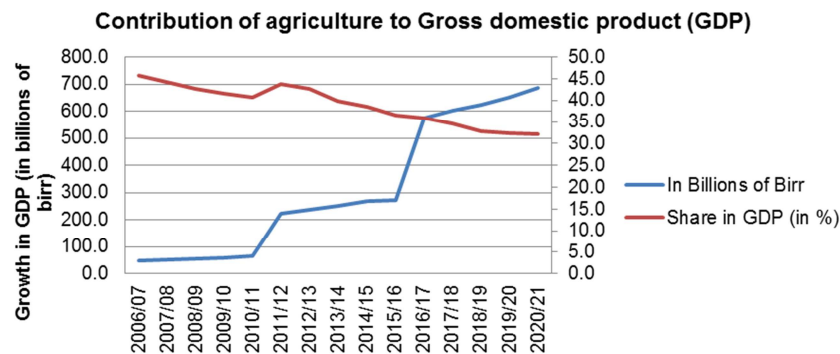


Figure 3. Contribution of Agriculture to Ethiopian Gross Domestic Product (GDP).

4.2.2. Development and Contribution of Agriculture to Foreign Currency Earnings

Despite the decreasing importance of agriculture in the country's GDP, Ethiopia has shown an annual growth of 205.2 percent from 2006/2007, with annual sales of approximately 3.6 million dollars.

Agricultural products are still Ethiopia's main export industry, generating USD 2.5 million, accounting for 70

percent of total sales in 2020/21 (Figure 4).

This finding has also confirmed the assertion that primary agricultural products accounted to about 80-90% of the merchandise export earnings of Ethiopia [25].

Among Ethiopia's main exports, coffee, cut flowers, chat, oilseeds and beans are the most important (36% of agricultural sales), which help reduce the trade deficit.

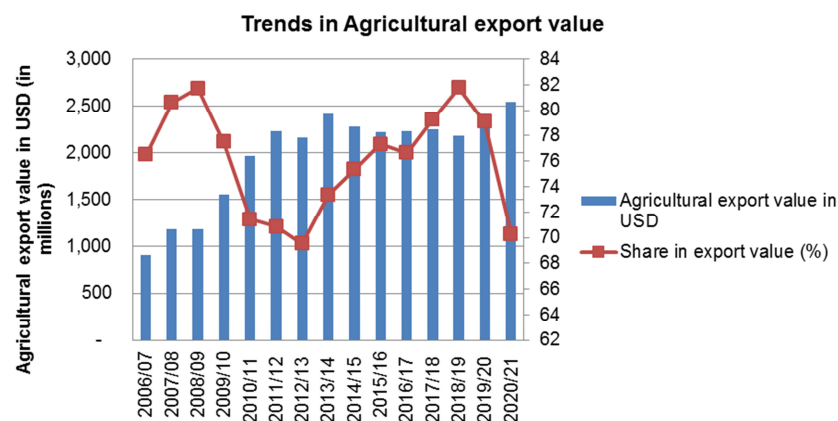


Figure 4. Trends in Agricultural export value.

4.3. The Causal Relationships Between Agricultural and Non-Agricultural Sectors Growth

In 2020/21, Ethiopia's economy recorded a real GDP growth of 6.3 percent, which is slightly higher than the

previous year's 6.1 percent expansion. As stated in figure 5 below, agriculture, industry and services contributed 32.1 percent, 28.9 percent and 39 percent to the gross domestic product respectively in the 2020/21 fiscal year.

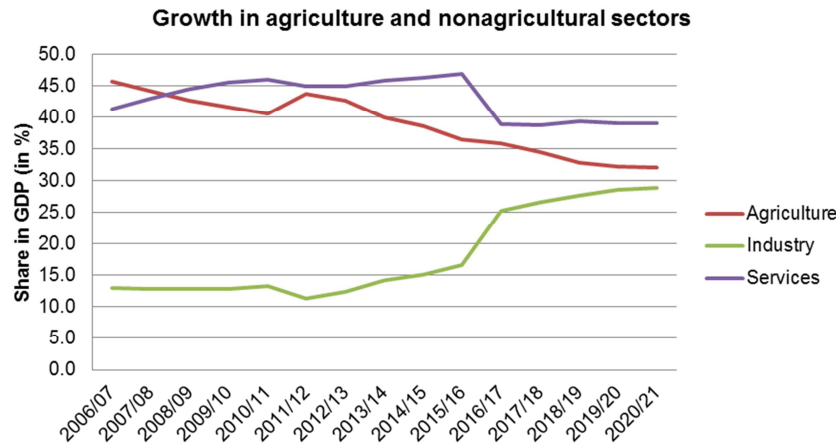


Figure 5. Growth in agriculture and nonagricultural sectors.

Furthermore, between 2006/2007 and 2020/21, the Ethiopian economy was decreased by 5.8 real GDP. The agriculture and service sector real GDP also decreased by 2.6 and 4.0 respectively while the industrial and manufacturing sectors has grown steadily, increasing by 0.8 (figure 6).

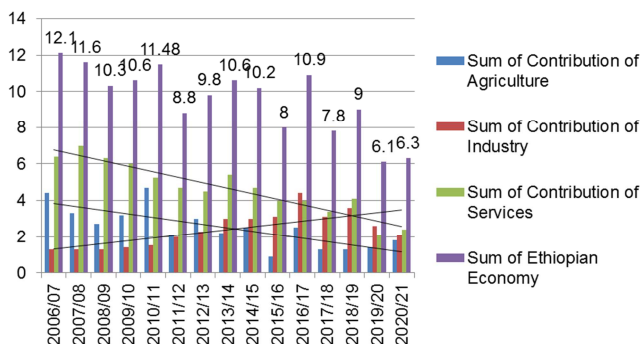


Figure 6. Trend in Ethiopian Economy (GDP).

5. Conclusion and Recommendation

This study examined the causal relationship between agricultural and non-agricultural sectors and measured the contribution of agricultural growth to the growth of other sectors of the Ethiopian economy over time.

The results showed that the contribution of agriculture to the gross domestic product is decreasing. Considering that production is mostly at the farm level, there are very few efforts to make the product market oriented, which is the only way the rest of the economy can benefit from agricultural growth.

Policy measures should improve agricultural investment so that agriculture contributes more to the growth of other sectors of the economy.

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Conflict of Interest

The author declares no conflicts of interest.

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