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AGRICULTURE

ANALYSIS OF THE IMPACT OF AGRICULTURE ON ECONOMIC GROWTH IN BRAZIL

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ABSTRACT

Purpose of the study: The study analyzed the impact of agriculture on economic growth in Brazil.

Research methodology: The study was literature-based. The conclusion and recommendations were based on the findings from the previous studies.

Findings: The study discovered that agriculture has a positive impact on economic growth in Brazil. Farming is the central pillar of the economy, primarily for developing nations. It is a key source of job creation, revenue and food. Brazil is the world's biggest coffee, beef, ethanol, and soybean producer. Brazilian agricultural value addition has grown within the last 20 years, with farming yield and livestock increasing. Brazil still has untapped potential in farming production and profession.

Conclusion: The study concluded that agricultural activities are critical in enhancing economic growth. Agricultural development is one of the most powerful tools to end extreme poverty, boost shared prosperity and feed people. Growth in the agriculture sector is two to four times more

effective in raising incomes among the poorest than in other sectors. Furthermore, the study concluded that the combined tasks of Brazilian farmers, government support, farming and macroeconomic policies had enhanced the crop advancement and positive modifications to factors underlying manufacturing and marketing prices.

Recommendations: The study recommended that agriculture policies in Brazil be put in place to encourage farmers to increase their production. Subsidized farm inputs such as fertilizers, pesticides and machinery should be supplied. Moreover, smart water management should be promoted. Water is an essential need for planting crops, and by the management of water can enhance the production. Moreover, farmers need to be sensitized on the best crops to be planted that will yield more output. Further, there is the need of promotion of the production of quality products that will compete in the global market.

Keywords: *Agriculture, economic growth, Brazil*

INTRODUCTION

Brazil is historically among the most effective agricultural nations by which its economy is anchored. It is estimated that about 41% of the overall area is agriculturally inhabited (Lahsen, Bustamante & Dalla-Nora, 2019). Brazilian began agriculture more than 12 000 years back, with many plants consisting of sweet potatoes, maize, peanuts, tobacco, and a lot more. Nonetheless, the country is well known for mass farming sugarcane. The country is among the top leaders since it produces 750 million tonnes annually. It is the second biggest manufacturer of soybeans on the planet; hence, the beans are made used in large amounts worldwide. Moreover, Brazil is one of the world's biggest coffee, beef, ethanol, and soybean producer. About 10% of the land in Brazil is used for cultivation that involves soybeans; one-third of the world's oranges come from Brazil. Brazil is currently an essential farming competitor of the USA in global markets for numerous farming commodities (Rathmann, Szklo & Schaeffer, 2018). With ample cropland and pasture, it is ranked as the globe's 9th biggest economy and the biggest recipient of foreign direct financial investment flows in Latin America in addition to a population of 212.6 million, expanding 1.1% yearly, Brazil will continue to play a crucial role in worldwide agricultural trade.

Brazilian agricultural value addition has grown by 4.2% yearly within the last 20 years, increasing farming outcomes and increasing livestock manufacturing threefold (Alston & Pardey, 2020). Concurrently, Brazil became an essential exporter to global grain, oilseed, and meat export markets

and a rival of the USA. Brazil's farming exports, involving refined items, expanded 12% annually from 2000 and made up 37% of the nation's overall exports. Several issues driving Brazil's change consist of farming study, which raised returns, expansion of the cultivatable area base, huge financial investments in manufacturing innovations to create new plant and forage varieties, and more international need for food and animal feed especially within the past few years. Valdes, Hjort, and Seeley (2020) argued that export-targeted macroeconomic plans, crop-specific agricultural plan motivations, and expanding national and international investment in the nation likewise added to the making of boosted farming output.

Brazilian farming is crucial to evaluate potential customers in United States farming exports, considering the dimension and development of the Brazilian agricultural industry, its portion of global markets, and its impact on worldwide supply chains. 8% of the farmers creating 85% of the output using modern technology are attached to external markets and do a lot of profession and funding with multinational agribusiness inputs and processing firms. China, for example, is going into the inputs markets and may magnify input/output trade with Brazil, a major distributor of commodities and consumer of agrochemicals. China's framework investments in Brazil move in the same direction. The Brazilian economy recuperated and experienced reasonably high financial development rates between 2000-2010 (de Freitas & Dweck, 2021). The Latin American nations, involving Brazil, began financial restructuring anchored on fiscal and monetary policies, economic visibility, privatization and deregulation, mainly executed by 1995. Nevertheless, reasonably more rates of development in actual GDP surpassing 3.0% yearly in the very early 1990s decreased near the last of this year and returned to rates of development balancing concerning 3.7% per year for the time within 2000-10. Research by Sauer (2018) showed that Brazil has noted an export increment beginning in 2003. From 2003 to 2010, the worldwide products cost raised 185%, and this motion is extremely associated with the Brazilian export increment, with favorable impacts on Brazilian GDP development. Global products rates' effect on Brazilian exports is specifically essential; at the same time, the effective exchange rate ended up being misestimated, and the recognition of the real exchange rate, such as Dutch disease, might offer to disrupt the development of Brazilian agriculture exports, while the high degree of the worldwide prices has compensated this adverse shock on exports.

Thus, strong performance development in farming on general output development is important. Although farming makes up just around 6.4% of GDP, the contribution increases to 23.55% of

GDP when agribusiness is involved. Agricultural exports make up 40% of Brazilian exports (Escobar, Tizado, Zu Ermgassen, Löfgren, Börner & Godar, 2020). The advancement and resources of the strong agricultural performance development have occurred in Brazil in current years, determining strengths and threats for future market growth. The objective is to check for opportunities to boost farming performance development, have a raised effect on sector development, tasks, environmental sustainability, and poverty decrease, and possibly shed light on lessons that can add to initiatives to enhance performance in various other areas in Brazil. In the framework of the Brazilian economy, the agriculture field consisting of farm inputs, ranch output, agro-industries and circulation comprises a huge share of GDP. According to (CEPEA) the sector stood for around 22% of the Brazilian GDP in 2010.

Subsequently, agricultural sector shocks tend to generate appropriate impacts on the country's financial growth. Duval and de la Maisonneuve (2021) specified that the growth of the Brazilian farming GDP; typical development rate the duration 2001-to 2010 was 3%, roughly and similar to the economic growth, despite the years of 2005 2009. As Brazil goes through an economic recession, farming stands apart as the only segment expanding amidst the falling down of manufacturing and processing factories. Factors to the counter-cyclical efficiency of the agricultural market and other industries of the economy consist of; the absence of a relationship between climate patterns essential for establishing farming manufacturing, efficiency and complete economic (GDP) development; advantages of actual exchange rate devaluation and anxiety of earnings that causes much more positive problems to agro exports and competitiveness. The recent figures reveal that even though total GDP decreased by 3.8% in 2015, the farming industry expanded by 1.8% (Arias, Vieira, Contini, Farinelli & Morris, 2017).

Increasing international investment in crop production, fertilizer manufacturing, and modern innovation improved returns. These growths led to more productivity increases and better agricultural results, which raised the market's capability to realize export possibilities provided by the increasing need for feedstuffs in China and, to a lower extent, various other international markets (Deininger & Byerlee, 2018). Improving the performance of Brazilian farming, paired with a decrease in the BRL compared to various other currencies, also led to Brazil's agricultural exports. This bringing together of circumstances aided in bringing back equilibrium to the economy and allowed the agricultural area to stand up too many of the recession's unfavorable results. Thus, the study analyzed the impact of agriculture on economic growth in Brazil.

LITERATURE REVIEW

Brazil is among the most competitive agricultural producers and merchants on the planet. Farming is the central pillar of the globe's economy, primarily for growing nations (Hawkes & Plahe, 2019). It is the key source of job creation, revenue, and food, and these standard requirements are fulfilled by agriculture around the globe. As per the Food and Agriculture Organization, the share of the farming population is 71% of the total population. It recorded 40% of the GDP because 45% of all exports include agricultural products. Most developing nations rely upon farming imports and food certainty, and many developing nations will not increase without a considerable rise in community production. For the last few years, the role of farming in world economic advancement has undergone essential progression. About 20% of the world's land is inhabited by agriculture and concerning 30% is utilized for grazing animals.

The development of Brazilian agriculture is based on the "Green Revolution" development approach adopted in the 1960s, highlighting the utilization of innovations and farm management methods best fit exotic latitudes (Khush, 2018). The massive modifications in Brazilian agriculture took place in action to a solid need, prompted by the Government led industrialization process in Brazil. This automation period was connected to increasing the population with more income and a quick urbanization process. The enhanced opportunity cost of work for farmers and comprehensive movement from local to metropolitan areas, in addition, brought about a positive environment for farming development and modernization (Byerlee, De Janvry & Sadoulet, 2019). The enthusiastic industrialization policy focused on decreasing imports was based on exchange controls, several exchange rate systems to favor the import of funding items, and subsidized interest rates for loans for the funding products sector. In addition to the connected architectural change in the key production market, the sector and service markets directly connected to agriculture, given their high backward and forward linkages, ended up being two of the globe's biggest and most competitive sectors.

In 2009 agricultural activities inhabited 350.1 million hectares, whereby 160.4 and 60 million hectares were set aside for pastures and crops. The portions of agricultural areas have increased with time, and reserves designated for pastures have lowered. There is still space for development in the livestock market by raising the number of livestock in one hectare. An extra 81 million hectares presently preserved for animal feeds might be used for crop production. Moreover, it is

approximated that Brazil has about 85 million hectares of cultivatable land still unused (Séronie & Jacquemot, 2020). Mechanization in agriculture has improved, as seen by a considerable decrease in crop location per tractor. Few types of machinery were utilized, but their power has risen. Automation does not necessarily mean a decrease in the variety of country employees.

The Government led industrialization; farming plans were subordinate to the significant objective of industrialization. The quick industrialization process that happened in Brazil led to an essential change in the nation that enforced pressures on the agricultural industry (Pereira, Martha, Santana & Alves, 2020). The benefits provided to industrialization that discriminated against agriculture called for, to name a few, whereby food rates were maintained synthetically low to prevent wage inflation through pressure on metropolitan salaries. Movement from upcountry to metropolitan places was catalyzed by good earnings in these areas, an effect of the expanding automation occurring in the nation. Political power likewise changed from the upcountry to metropolitan areas. Opportunities for agribusiness exports were determined as methods to produce money to fund imports of modern technology for the upcoming industrial sector.

Nonetheless, despite this pressure on the farming field, it became obvious that possibilities for agricultural development in conventional areas were restricted (Geertz, 2020). The situation called for a method to change traditional farming right into a contemporary, vigorous and vibrant sector based upon scientific advancements. It became clear that there was a requirement not only to improve efficiency in already opened up places but to change the unproductive land right into productive land to ensure there is raised agricultural production and to make sure food for the expanding metropolitan residents at effective prices.

Farming production in Brazil is anticipated to continue expanding (Pingali & Heisey, 2021). Solid TFP development will continue. Future expectations show a bigger improvement in crop and animal production. Grain production is anticipated to improve by 19% in 2015 and 2023, while farmland is projected to increase by just 10%. Estimates reveal that the overall crop area cultivated in 2015 will be enhanced by 8 million to be 81.5 million hectares in 2023. The development will be more focused on soybeans and sugar cane. Soybean and sugar cane-producing areas will expand by incorporating new areas and rotation with other crops. Corn-producing location is predicted to expand by about 715,550 hectares. Farmland committed to farming rice, cassava, wheat, and beans omitting soybeans is anticipated to reduce, with the remainder of the plants maintaining regarding

the same areas of farming (Pompeu, Nolasco, West, Smith, Gerage, & Ometto, 2021). Along with entire grains, Brazil has become a major producer and exporter of meat.

The most significant rises in sugar cane production will certainly take place in the State of Goiás, even though with reduced returns. Mato Grosso will certainly continue to lead the growth of soybean and corn farming, with an anticipated rise in production of over 31%. The area is known as Matopiba, Maranhão, Tocantins, Piauí and Bahia usually experiences an improvement in grain farming, with substantial improvement in the production area. The forecasts for the area show productivity of 25 million tons of grain in 2022, development of 30% and a grown location between 8 and 11 million hectares by the end of the duration. Lands in the area are especially ideal for contemporary farming. They are flat and very big, with possibly efficient soils, water, and a perfect environment with adequate sunlight (Trnka, Olesen, Kersebaum, Skjelvåg, Eitzinger, Seguin & Žalud, 2018). The major restriction is the inadequate problem of infrastructure transportation logistics, communication and financial services.

Even though we forecast a positive development in Brazilian exports in the future, the home market will remain an essential development aspect. In 2021/2022, 60% of the soybean farming, 79% of the maize farming, 70% of poultry farming, and 78% of beef and pork production will be preserved for the residential market. Relative to exports, in 2021/2022, soybean exports are anticipated to represent 39% of the globe's soybean exports, beef for 35% of the globe's beef exports and fowl for 54% of the world's chicken exports (Valdes, Hjort & Seeley, 2020). Therefore, there is a dual pressure to boost domestic production due to the growth of the internal market and exports. On top of that, it is anticipated that Brazil to keep its eyes on the global market of coffee and sugar. It will be among the major producers and merchants of food and might be the top in many products for global intake. There is no question that Brazil will be the main player in international agricultural production.

In Brazil, the development has been connected with a huge internet rise in farming employment (Hazell, 2020). It is noted that as nations develop the share of agriculture in the economy, the work reduces throughout the background. The adjustment follows the concept of structural adjustment. In nations with relatively low earnings, farming is usually the industry that provides employment for many residents and utilizes labor fairly unproductively. When cross-sector performance gaps diminish as labor shifts from agriculture and return to labor throughout industries assembled with

factor markets, this experience has varied dramatically from the usual trend. Farming production increased when the agriculture market was growing quickly; hence, the number of employees used in primary farming increased (Reardon, Berdegué & Escobar, 2021). When farming, employment is increased to cater to those involved in initial farming and those operating in activities connected to key agriculture via backward and forward linkages.

Education is vital in assisting medium-size farmers' relocation towards the farming productivity frontier. Warren (2019) argued that education boosts farmers' absorptive ability and assists them in embracing new techniques and innovations; therefore, inadequate education has been the main barrier slowing down the uptake of agricultural innovations. Education boosts human funding amongst farmers; farming TFP improved primarily because of education and infrastructural investments, whereby the impact is noted after a considerable period. Investing in new learning institutions is discovered to influence farmers' rate of fostering innovations, and reasonably low education investment levels in the North, Northeast, and Center-West have added to slow down TFP development in these areas.

Official employment in the country's agribusiness market has improved over the past ten years and currently composes 20% of overall formal work (Charmes, 2018). Brazil's agribusiness market officially uses an estimated 35.8 million individuals, which is 23% of the total residents of the nation. Although official jobs in key farming comprise an increasingly low share of overall official work, agriculture has the biggest multiplier impact of any industry, so when activities in key production have reduced, new work develops at a faster speed together with the farming value chain. In addition, agriculture is a field where work is usually casual, frequently using relative labor and casual labor arrangements not captured by formal employment statistics. Nonetheless, formal agroindustry and agriculture work have turned into major crucial sources of employment in numerous cities in Brazil (Defante, Vilpoux & Sauer, 2020). There is the growth of agriculture work in various states, which contributes to the raising of the country's GDP.

More than 5 million hectares of degraded pastures were recovered in 2019. At the very least, an additional 8 million were handled with various sources of financing or the manufacturers' resources, getting too near the objective of 20 million. The programme got up to 50 million to deal with livestock waste against the targeted 5.5 million regarding waste management. By 2018, nitrogen fixation got to 12 million hectares, contrasted to the targeted 6.4 million. Direct planting,

which was intended to get to 9 million hectares, reached about 15 million, going beyond the target. The fostering of crop-livestock-forestry combination got to 8 million hectares, going beyond the objective by 4 million. Relating to financial resources, there are indicators that BNDES well determined rigorous demands for financing lasting agriculture, while the Bank of Brazil was much more effective in funding sustainable farming (da Silva, Sant'Ana & Maia, 2018). Regarding development, the ABC Plan concentrated on some technologies associated with ecological upgradings, like degraded field recovery, crop-livestock-forestry integration and agroforestry systems, no-tillage systems, and biological nitrogen fixation.

Regardless of adverse environmental causes in the Brazilian agriculture field, which mostly entails logging and land deterioration, the industry has added to decrease the pressure on natural deposits in the past years (Steinfeld, Gerber, Wassenaar, Castel, Rosales, Rosales & de Haan, 2018). Over the past 30 years, production has expanded by about 80%, thanks to new technologies developments brought in and significantly considering ecological limitations, the unification of new land was just 28%. These trends must be accentuated by the diffusion of smart climate agriculture (CSA) modern innovations and methods. The Government has begun to present plans and programs developed to motivate the usage of enhanced climate-smart farming, like preservation husbandry, and boost the development of integrated crop-livestock systems with improved durability to climate shocks. The Government is also giving credit scores and funding to usage of low carbon agriculture (ABC) program with roughly US$ 4 billion offered for reduced interest credit report for farmers going to adopt CSA modern technologies.

Garrett, Niles, Gil, Dy, Reis, and Valentim's (2017) research examines the shift of Brazilian farming from low productivity and backwardness to its current status as a significant gamer in international markets. Long-term investment in regional agricultural innovation was an essential component of this transformation. Yet, the effect of farming policy along this course was very complicated, frequently triggering more distortions than development. We highlight the value of the underlying institutional setup on the effect of farming policy. The amazing transformation in Brazilian agriculture arose when inclusive and lasting institutions developed a fiscal, monetary and political environment in which those plans could succeed.

Much of the recent dynamism of the Brazilian farming sector occurred in tasks created in Brazil's South, Southeast and Midwest areas. Especially, the Southeast region was accountable in 2010 for

around 40% of farming production value, according to data from the 2010 Agricultural Census. The research aims to evaluate the current circumstance of agriculture in the Southeast based upon information from the 2010 Agricultural Census. Based on the diagnosis, the study intends to recognize restrictions to farming advancement in the area and go over measures that can add to the expansion of regional farming manufacturing with the generation of jobs and income for the population. Among these may be discussed some actions: enhancement in logistics infrastructure; social growth of rural areas via mechanisms of creating revenue for family farmers; the agricultural study in the area demands to offer options for further advancement of farming, promotion of productive associations, to name a few.

RESEARCH FINDINGS

The study discovered that agriculture has a positive impact on economic growth in Brazil. Farming is the central pillar of the economy, primarily for developing nations. It is a key source of job creation, revenue, and food. Brazilian began agriculture a long time ago, with many crops consisting of sweet potatoes, maize, peanuts, tobacco, and many more. Brazil is the world's biggest coffee, beef, ethanol, and soybean producer. Brazilian agricultural value addition has grown within the last 20 years, with farming yield and livestock increasing. Furthermore, it was discovered that Brazil nurtures massive opportunities to raise agrifood power and competition worldwide by investing in ample and far better-quality frameworks and enhancing the management and upkeep of existing ones. Moreover, reform in the existing lawful and regulatory framework is vital to bringing private organizations to invest in agro-logistic services. Agricultural production in Brazil has embarked on technological modifications that have improved performance and gains. Brazil still has untapped potential in farming production and profession. Brazilian farmers have been improving their usage of genetically modified and other high-yielding crops and animals. Agricultural development is one of the most powerful tools to end extreme poverty, boost shared prosperity, and feed 9.7 billion people by 2050. Growth in the agriculture sector is two to four times more effective in raising incomes among the poorest compared to other sectors

CONCLUSION

The study concluded that agricultural activities are critical in enhancing economic growth. Farming productivity growth will certainly depend on Brazil's capacity to widen its agro exports. Agricultural development is one of the most powerful tools to end extreme poverty, boost shared

prosperity, and feed 9.7 billion people by 2050. Growth in the agriculture sector is two to four times more effective in raising incomes among the poorest than in other sectors. It is concluded that when farming effectiveness growth is accompanied by substantial increases in the volume and worth of production, substantial new opportunities are developed in the agribusiness and agroindustry sectors. By improving quantities and value enhancement, opportunities have been created with backward and forward links in the markets that give inputs to the farming industry and in the markets that transport, shop, procedure, and distribute agricultural products. Opportunities in the agribusiness sectors have been increasing at a particularly durable speed, to the level that the industry is becoming a vital urban employer, specifically in secondary cities.

Furthermore, the study concluded that the combined tasks of Brazilian farmers, government support, farming and macroeconomic policies had enhanced the crop advancement and positive modifications to factors underlying manufacturing and marketing prices and improved Brazil's export competition. Improved financial obligation availability at subsidized rates and development in transport infrastructure brought about advancement in cropland and reduced the production and export costs. Moreover, it is concluded that large areas of uncultivated farming land remain idle. Agriculture plays a major role in economic growth and development. As the provider of food, it is a cornerstone of human existence. As a furnisher of industrial raw materials, it is an important contributor to economic activity in other sectors of the economy.

RECOMMENDATIONS

The study recommended that agriculture policies in Brazil be put in place to encourage farmers to increase their production. Subsidized farm inputs such as fertilizers, pesticides and machinery should be supplied. Moreover, smart water management should be promoted. Water is an essential need for planting crops, and by the management of water can enhance the production. Water management is the best way to improve production. Using the sprinkler irrigation system, output can be increased. Moreover, farmers need to be sensitized on the best crops to be planted that will yield more output. Further, there is the need of promotion of the production of quality products that will compete in the global market.

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