

# Agricultural and Agribusiness Policy: Reflections and Challenges for the development of the State of Goiás

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**Abstract**— *The growing grain market emerges the need for actions that stimulate rural economic development, from state support, through the Agricultural and Livestock Plan, from financing to commercialization of production. As the agricultural sector develops, the Agricultural Policy proves important in the provision of rural credit and insurance, and special sectoral promotion programs. The present work had as objective to demonstrate the importance of the Agricultural Policy for agribusiness, its reflexes and challenges, before the representativeness of this sector for the municipality of Rio Verde / GO, the State of Goiás and the country. The aim was to evaluate the instruments capable of promoting the agricultural / rural development offered by the State, and its function in relation to the system of storage, commercialization and distribution of production. The work was based on the inductive method, and quantitative and qualitative bibliographical research was carried out on materials published in official agencies of the agricultural sector, with the collection of indexes and accurate data. A study was carried out on grain marketing in Rio Verde / GO, the role of tradings, multinationals and cooperatives, and the grain storage system. Finally, discussions were held on the outflow of production, currently one of the major problems facing agribusiness. It has been seen that credit and tax incentives contribute significantly to the development of agricultural activity and the Agricultural Policy is responsible for implementing guidelines that assist the farmer in all stages of production.*

**Keywords**— *Agribusiness. Marketplace. Commercialization. Storage. Production Flow.*

## I. INTRODUCTION

The Agricultural Policy is more evident from the implementation of instruments and/or guidelines that are intended to qualify the farmer/man of the field, as a labor holder, who deserves measures from the State that ensure the ownership of his land, guaranteeing him full employment and stimulating agricultural activities in the face of the country's industrialization process.

Agricultural policy instruments are used to formulate and implement policies aimed at the agricultural sector, promote investments, create incentives and/or

disstimulus for agricultural activities and should signal the path of expansion of the sector. The changes in the parameters of these instruments are published annually by MAPA, through the Agricultural and Livestock Plan (PAP) and Resolutions issued by the National Monetary Council. (FAESP, 2015)

In a more comprehensive interpretation of Federal Law No. 8,171/91, we perceive the importance of State support for agricultural development, especially when there is concomitant action with the rural producer, through extension practices, capable of guiding him on the correct

modes of production, storage, among others. Thus, Article 45 of that law provides that the Government should support and encourage rural producers to organize themselves in their different forms of associations, cooperatives, unions and condominiums.

The social duty to produce is linked to the constitutional principle of the social function of property, which ensures that all property must fulfill its social function, through rational and adequate use, with the proper use of natural resources and preservation of the environment, respecting labor laws and through exploitation that favors the well-being of owners and workers, under penalty of expropriation, as provided by Articles 184 and 186 of THE CF/88.

A bibliographic research was carried out for theoretical formulations, using articles, books, doctrines, legislation and other research works, and materials made available by entities and agencies in the sector. The research used the inductive, quantitative and qualitative method, through comparisons at the national level, with the collection of indexes and precise data, showing the dynamics of these numbers with the present day, interpreting these phenomena and attributing meanings to them.

## II. METHODOLOGY APPLIED

The research embodies the great growth of agribusiness and its perspectives, generating the need to bring to society discussions about agribusiness, especially agricultural policy, showing its economic and social contribution to the municipality of Rio Verde and the Brazilian scenario, highlighting the reflexes and challenges for the development of the State of Goiás. We sought to evaluate the instruments capable of fostering the agricultural/rural development offered by the State, and its function in relation to the system of storage, commercialization and flow of production.

The southwest of the State of Goiás is considered by scholars of the sector as the center of Brazilian agribusiness. The instruments made available by the Agricultural Policy are of fundamental importance for the development of the region as well as the country. Thus, the answer was asked: What is the importance and social economic contribution of agribusiness to the state of Goiás and the municipality of Rio Verde/GO? Although grain storage is a price strategy, why does Brazil not have enough warehouses to stock production and farmers have a low rate of private warehouses? In view of record harvests, what is the most advantageous form of disposal for the

rural producer? How does agricultural policy work to improve transport conditions?

In short, agricultural policy uses the following instruments: rural credit, agricultural zoning, rural insurance, marketing and special sectoral promotion programmes. The latest measures are set out in the Agricultural and Livestock Plan 2018/2019.

### 2.1 GRAIN MARKET AND ITS EFFECTS ON AGRIBUSINESS DEVELOPMENT

Agribusiness not only transformed the socio-environmental relations of the municipality but also resulted in an increase in the number of inhabitants, the growth of the urban network, real estate speculation, the implementation of new industrial units, with the consequent increase in the number of job offers, among others, considering that the creation of EMBRAPA in 1972 was implemented through programs and investment projects in the productive area (XAVIER, 2013).

The main spring of this process is industrialization and, above all, grain production, especially soybean, corn and sorghum. In this promising agribusiness scenario, Goiás is the fourth largest grain producer at the national level, with an average production of 22.815 million tons, representing 9.5% of national production (SEGPLAN, 2018).

Productivity will continue to be the main factor driving the growth of Brazilian grain production in the coming years. Production is expected to increase mainly in soybean crop, concomitantly with the expansion of area in hectares. Research on genetic improvement has been carried out with a focus on increased productivity, through resistance to pests and diseases, and cultivars that are more stable and better adapted to different regions and cultivation conditions, with the consequent decrease in losses.

Despite the current economic, moral and political crisis, agribusiness stands out by breaking records in exports, according to mapa data. In February/2017, soybean exports increased 96.3% compared to February/2016, reaching US\$ 1.4 billion. In April/2017, soybeans led exports of Brazilian agribusiness, accounting for 52.2% of all sales of agricultural products, up 12.6% compared to April 2016, with US\$ 4.55 billion.

According to the Ministry of Industry, Foreign Trade and Services, in February 2018, Brazil exported 1.35 million tons of soybean meal, equivalent to 90.5% more than the one shipped in the same period last year. The country is expected to ship 16.20 million tons of soybean

meal produced in 2018, resulting in an increase of 13.3% more than the 14.30 million tons exported in 2017.

Brazil is expected to assume the position of the largest soybean producer in the 2018/2019 crop, the U.S. Department of Agriculture (Usda) estimated. According to the U.S. agency, the country is expected to produce 117 million tons of soybeans, slightly above the 116.5 million Americans. Brazil is already the world's largest exporter of soybeans and in the 2018/19 crop China is expected to import 103 million tons of soybeans, while the country will export 72 million tons. (FOLHA DE S. PAULO, 2018)

The International Grain Council (IGC) raised its world estimate for grain production in 2018/2019 (February/2019) to 2.12 billion tons, compared to a forecast of 2.08 billion tons in its previous projection (January/2019). In relation to the national grain production, it is estimated that it should reach 234.1 million tons, according to a survey conducted by CONAB. (MAP, 2019)

At an event held in Rio Verde/GO recently, Banco do Brasil (BB), together with the then President of the Republic, Michel Temer, the Minister of Agriculture, Livestock and Supply, Blairo Maggi and other political authorities, announced the launch of R\$ 12.5 billion for the hiring of anticipated costs, destined to the acquisition of inputs and agricultural services for the 2018/2019 harvest. (FAEG, 2018)

The anticipated costing allows rural producers differentiated conditions of negotiation with suppliers of inputs (seeds, herbicides, insecticides). The operations are intended to finance soybean, corn, rice, cotton and coffee crops, with interest rates of 7.5% to 8.5% per year, for a period of up to 14 months. The amount available is 16% higher than that applied last year and signals banco do Brasil's investment in the agricultural sector and in the good prospects for the 2018/19 harvest.

With great influence and prominence in agribusiness, are multinationals. Multinationals are economic organizations based on the great mechanization of production, the development of better storage techniques and the creation of faster means of transport. They play an important role in the transfer of technology, scientific policy and cultural influence.

Agribusiness, concomitantly with economic development, is also important in the social sphere, in the generation of employment and income, a fact that raises the Municipal Human Development Index (MHDI), including, with emphasis on some cities in the region. There are a significant number of jobs generated, directly and indirectly, either in the field or in the large industries/companies that settled in Rio Verde after the

advent of agribusiness, totaling about 18.05 million people in the first quarter of 2017. (FAEG, 2017).

The CPR, created by Law No. 8,929/94, is a credit security that provides for the early sale of production with the future delivery of products, in this case, soybeans, where the producer receives resources for the cost of the crop. The producer issues the title to market its grains that have not yet been produced and receives the amount negotiated in advance, for the financing of the harvest.

## 2.2 THE GRAIN STORAGE SYSTEM

The storage system is one of the members of the Agricultural and Livestock Policy, established by the Ministry of Agriculture, Livestock and Supply (MAPA), where its main purpose is to ensure the flow of continuous supply, providing greater price and market stability.

The storage of agricultural products, especially in the case of soybeans, which has a large export volume, is a strategy that aims to meet the demands of the market, whether national or international, in the off-season, besides providing the producer with a higher price. Consequently, during the off-season, the costs related to road freight are much more favorable than in the harvest period. And not to mention that in the period of the harvest the price of the grain suffers reduction.

Among the advantages of storage, is that if the grains are stored correctly, these last for years with a minimum rate of deterioration, where, higher the humidity, the greater the risk of deterioration. The storage operations aim to achieve quality standards such as high specific weight, low moisture content, low degradation of nutritive components, low percentage of damaged grains, low sensitivity to breakage, high viability of seeds and absence of pests, insects, fungi or bacteria. (VENTURA; SILVA, 2015)

According to IBGE, the useful capacity available in Brazil for storage, registered in the second half of 2015, was 166.1 million tons, 3.3% higher than in the previous semester, a total of 7,918 active establishments.

Due to the good production performance achieved in recent years, storage capacity is lower than demand. In order to avoid storage problems after harvest, and also aiming at profit, producers are investing in their own warehouses, in their properties. Thus, farmers can market their production at the time that suits them best, according to the *commodity* market.

The risk of loss of grain quality is lower, and represents a cost unless the producer will have to disburse. This trend has gained prominence by banks, which in turn finance the construction of these warehouses, with incentives such as lower interest rates. Since the 2013/2014 harvest, MAPA has

provided R\$ 12 billion to subsidize investments in warehouses. (MAP, 2017)

One of the factors associated with the low number of warehouses in rural properties is the cost of assembling and maintaining a warehouse. Despite the credit incentives of the Federal Government, the producer bears a high cost for the construction of the warehouse, which sometimes inhibits the farmer from such investment, which has long-term return.

At the time of delivery of the grains are issued two credit securities related to storage, the Certificate of Agricultural Deposit (CDA) and Agricultural Warrant (WA). The CDA is a title that represents a promise of delivery of an agricultural product deposited in a General Warehouse. WA, on the other hand, is a title conferring the right of attachment to that product deposited in the warehouse. (AGRO SECURITY, 2015)

The CDA and WA are issued simultaneously by the storer, at the request of the depositor (farmer) of the goods that have opted for the issue of these securities instead of issuing the deposit receipt, but may circulate separately by nominative endorsement.

### 2.3 PRODUCTION FLOW: ONE OF THE MAJOR PROBLEMS OF AGRIBUSINESS

Dependence on highways and lack of investment in railways and waterways result in higher costs for the farmer. When it comes to logistics and transport and storage infrastructure, we see one of the major problems faced by those who produce when it comes to draining the harvest, which raise production costs and prevent Brazilian agribusiness from being even more competitive.

A study conducted by the National Association of Cargo Transport Users (Anut) showed that the precariousness of transportation causes the producer to have a disadvantage of US\$ 74 per tonne, compared to the North American and Argentine competitors, in relation to freight to the port and port expenses. In Argentina road transport is favored by distance, and in the United States long distances are overdue with the use of railways and waterways. (ESTADÃO, 2011)

Despite the resurfacing and duplication of highway works in several municipalities in the Midwest region, truck displacement over long distances is expensive and inefficient, for example to the ports of Paranaguá and Santos. That is, the improvement of roads alone does not guarantee efficiency gain in the transport of grains. (ESTADÃO, 2011)

Rail transport is an important route of flow, as it allows the movement of large volumes over long distances at a lower cost. Predicting that the volume of cargo will

triple by 2023, DNIT prepared the National Transport Logistics Plan, with the aim of redistributing demand, resulting in a program of 11,800 kilometers of railways.

Among the main and most efficient railroads in the country, we mention the Central Atlantic Railway (FCA), which is 7,080 km long, in view of being the axis of connection between the Northeast, Southeast and Midwest regions of Brazil. The state of Goiás has 685 km of the FCA that serves the southeast of the state and the Federal District. This railway integrates large ports such as Vitória/ES, Santos/SP, Angra dos Reis/RJ, Salvador/BA and Porto Seco de Anápolis/GO. (IMB, 2018)

Another very important railway is north-south, between Anápolis/GO and Açailândia/MA, which is ready for operation and will integrate into the stretch of the Carajás Railway that leads to the port of Itaqui in Maranhão. In Goiás, the railroad has 991 km of tracks, which will cross the north, central and southwestern regions of the state. The expectation is that this railroad will change the economic profile of Brazil, allowing to reach the ports of the north of the country, consolidating the municipality of Anápolis as a logistical reference in the central region of Brazil. (IMB, 2018)

Similarly to what happens with railways, waterway transport is also indicated for the transport of bulky loads over long distances, since it consumes less fuel, as a set of barges consumes less than half of the fuel required by a railway train. This would imply a reduction in the freight price, and consequently in the increase in the producer's net revenue.

The main Brazilian waterways are: the Araguaia-Tocantins waterway, which during the floods the navigable stretch reaches 3,000 km; the San Francisco waterway, which connects the midwest and the northeast being fully navigable at 1,371 km; the Tietê-Paraná waterway, allowing the transport of grains and other goods from Mato Grosso do Sul, Paraná and São Paulo, with 1,250 km navigable; and the Taguari-Guaíba waterway: considered the main waterway in transported loads. (BRAZIL SCHOOL, 2018)

In contrast to the scenario of precariousness in the flow of grain production, it is perceived how important is the Brazilian agribusiness, with special emphasis on the State of Goiás, which has its economy based on agribusiness. Data presented by the Mauro Borges Institute of Statistics and Socioeconomic Studies of the Department of Management and Planning (IMB/Segplan), in line with IBGE, in 2015, the municipalities of the interior of Goiás accounted for 73.1% of the STATE's GDP.



Among the 10 largest Brazilian municipalities in rioverde agriculture is in 3rd place and Jataí in 8th position. The municipality of Rio Verde is the largest grain producer in the state and also the largest tax collector on agricultural products and a diffuser of new technologies.

Thus, the following question is: How to drain the production of the municipality of Rio Verde/GO? Unfortunately farmers have to use the highways as the main means of transport. In Goiás there are two ports for the flow of production: the Port of São Simão and the Dry Port of Anápolis (Interior Customs Station).

### III. RESULTS AND DISCUSSIONS

The Agricultural Policy is treated by Law No. 8,171/91, demonstrates the instrument capable of allowing the planning and implementation of agricultural policy, with the effective participation of the production sector, involving workers and rural producers, as well as the marketing, storage and transport sectors, as established in Article 187, caput, of the Federal Constitution of Brazil of 1988.

Rural credit is provided for in Law No. 8,171/91 as the main source of financing for rural activity. According to Article 48, "rural credit shall be provided by all financial agents without discrimination between them, through compulsory application, free own resources, appropriations of official credit operations, funds and any other resources". Therefore, rural credit can also be understood by the parallel between the social obligation to produce, assigned to the rural producer, and the subjective right to grant credit to the same producer.

MAPA announced through pap 2018/2019 the amount of R\$ 194.37 billion to finance and support the commercialization of Brazilian agricultural production. Of this total, R\$ 151.1 billion is allocated to the costing credit and R\$ 40 billion to investments. In the same way, R\$ 2.6 billion are being allocated to support the commercialization and R\$ 600 million for rural insurance subsidies.

Furthermore, the latter PAP increased to R\$ 2 million the income limit for the framing of rural producers in the National Program for Support to the Medium Rural Producer (PRONAMP) and revoked the condition that required to be at least 80% of the income for the framework of agricultural activities. (MAP, 2018)

In a survey released by Embrapa Soja, in the 2017/18 harvest, global soybean production was 336.699 million tons, of which 116.996 million tons were produced by

Brazil, in a planted area of 35.100 million hectares. On a global scale, Brazil ranks second in soybean production and exportation. (EMBRAPA SOJA, 2018).

The State of Goiás has the largest storage capacity in the Midwest region, both in relation to warehouses belonging to the public sector as well as those belonging to the private sector and cooperatives. According to the Faculdade Sumaré Logistics Group, in Brazil, the capacity corresponds to 80% of the harvest, while in the United States, it is 120%, that is, it can control the supply in the market by stocking the grains.

Unfortunately, there are few railways in operation, which face infrastructure problems, such as passing through cities, diversions, level crossings, etc., as a result of poor project development. There is no doubt that several of these government actions serve the particular interests of the administrators.

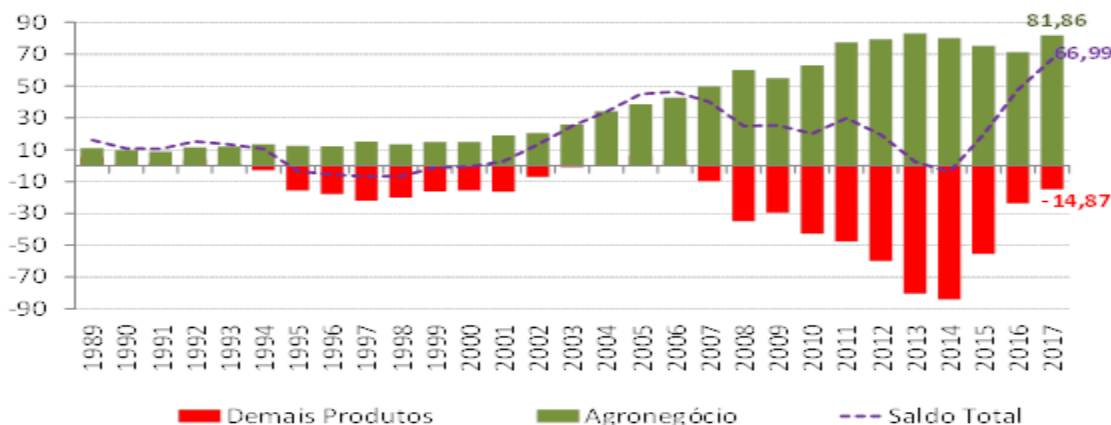
And yet, there is a great administrative difficulty in building new railroads, because in addition to the cost being high for public coffers, we have tenders and precarious contracts, not counting the environmental licenses that take years, expropriations that have seen lawsuits, among others.

Despite the large hydrographic basins existing in Brazil, more than 4,000 km of navigable coasts and thousands of kilometers of rivers, waterways are little used. Some parts of the Amazon and Paraguay basins, for example, require repairs for use. Another factor contributing to the low use of waterways is the costs charged per tonne on boarding and disembarking, which increases the value of transport by five times in relation to developed countries. (BRAZIL SCHOOL, 2018)

There are several criticisms of national ports, we cite, to exemplifying titles, the lack of yards for trucks, traffic jams, restrictions for the navigation of ships due to the low depth, bureaucracy, difficulty of access to the terminals, being responsible for the delay of delivery and thus the increase in the cost of the product, among others.

Nowadays agriculture has stood out for being one of the biggest generators of employment, which in a way worries about structural issues, the greater the production, the greater the difficulty in the flow of production. However, agribusiness stands out for its significant increase in the country's economy, according to the graph below we can note the importance within the economy in relation to agribusiness.

Chart : Balance of the Brazilian Trade Balance (in US\$ billion) - 1989 to 2017.



GDP studies the growth of agrarian activities increased about 4.3%, this in the first quarter of 2017, which shows a great importance in economic issues in the State of Goiás. According to Seplan-GO data, agricultural production has grown by about 50% in the last five years.

The ten richest municipalities in the State of Goiás account for 58.80% of the GDP of Goiás, representing R\$ 102.170 billion. These municipalities are: Goiânia, Anápolis, Aparecida de Goiânia, Rio Verde, Catalão, Itumbiara, Jataí, Luziânia, São Simão and Senador Canedo. It is noted that the municipality of Rio Verde is in 4th place in the state *ranking*. (ON DUTY, 2017).

It was noticed the excellent collaboration of the municipality of Rio Verde GO and the State of Goiás for the growth of the country, a growth that occurred in view of the increase of technologies and fertile soils, amidst good climatic conditions. In contrast, there was a great growth of the State of Goiás after the advent of agribusiness, marking the beginning of the economic and social development of the State.

#### IV. FINAL CONSIDERATIONS

The development of this research allowed an analysis of agricultural policy and its relationship with agribusiness, which proved to be of fundamental importance nowadays, and the role of the State for agricultural development. Agribusiness has grown at an accelerated pace, with levels above the national average.

It was found that the municipality of Rio Verde, State of Goiás became an industrial pole, being currently the largest grain producer in the state and also the largest tax collector on agricultural products and a diffuser center of new technologies. Agribusiness, directly and indirectly,

is responsible for much of the generation of employment and income, generating high expectations of production growth for the coming years.

The storage of the grains allows the farmer to market them at a later harvest, where, in the off-season, he can obtain a higher price due to market requirements. However, the storage capacity in Brazil is lower than the demand, which caused rural producers to invest in their own warehouses, using incentives offered by the Government, such as lower interest rates for financing.

The slowness/precariousness in the transport of production results in higher costs for the producer, directly influencing his income and the price of *commodities*. Most often the quality of the grains is affected, culminating in extreme disadvantage for the producer, when compared to other competitors. Despite rail and waterway transport being more advantageous, they are little used, since they lack infrastructure and /or investment for their proper functioning.

It was demonstrated the representativeness of the grain market for the State of Goiás, from an analysis of the development of agricultural activity in the region, demonstrating the tradings, multinationals and cooperatives that settled here, responsible for much of the wealth circulation of this agro-industrial pole.

It is concluded that the main objective of agricultural policy is to create formulas and implement policies aimed at the agricultural sector, promoting investments, creating incentives and/or disstimulus for agricultural activities, and should signal the path of expansion of the sector, through the Agricultural and Livestock Plan and resolutions issued by the National Monetary Council of Brazil.

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